

# Phase II Subsurface Investigation

For

1665 - 1673 Stillwell Avenue

Brooklyn, NY 11223

Block 6618; Lot 48

OER Project Number: 19TMP1558K

E-Designation: E-145

CEQR Number: 05DCP055K

Bensonhurst Rezoning

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American Environmental Project 19-0115-II

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## LIST OF ACRONYMS

<b>Acronym</b>	<b>Definition</b>
AST	Aboveground Storage Tank
CAMP	Community Air Monitoring Plan
C&D	Construction & Demolition
CEQR	City Environmental Quality Review
CFR	Code of Federal Regulations
CHASP	Construction Health and Safety Plan
CO	Certificate of Occupancy
CPC	City Planning Commission
DSNY	Department of Sanitation
"E"	E-Designation
EAS	Environmental Assessment Statement
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
EC/IC	Engineering Control and Institutional Control
ELAP	Environmental Laboratory Accreditation Program
FDNY	New York City Fire Department
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
IDW	Investigation Derived Waste
Notice - NNO	Notice of No Objection
Notice - NTP	Notice To Proceed
Notice - NOS	Notice Of Satisfaction
Notice - FNOS	Final Notice of Satisfaction
NYC BSA	New York City Board of Standards and Appeals
NYC DCP	New York City Department of City Planning
NYC DEP	New York City Department of Environmental Protection
NYC DOB	New York City Department of Buildings
NYC DOF	New York City Department of Finance
NYC HPD	New York City Housing Preservation and Development
NYCRR	New York Codes Rules and Regulations
NYC OER	New York City Office of Environmental Remediation
NYS DEC	New York State Department of Environmental Conservation
NYS DEC DER	New York State Department of Environmental Conservation Division of Environmental Remediation
NYS DEC PBS	New York State Department of Environmental Conservation Petroleum Bulk Storage
NYS DOH	New York State Department of Health
NYS DOT	New York State Department of Transportation

<b>Acronym</b>	<b>Definition</b>
OSHA	United States Occupational Health and Safety Administration
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PID	Photo Ionization Detector
PM	Particulate Matter
QEP	Qualified Environmental Professional
RA	Registered Architect
RAP	Remedial Action Plan
RCA	Recycled Concrete Aggregate
RCR	Remedial Closure Report
RD	Restrictive Declaration
RI	Remedial Investigation
SCOs	Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-Slab Depressurization System
SVOCs	Semi-Volatile Organic Compounds
USCS	Unified Soil Classification System
USGS	United States Geological Survey
UST	Underground Storage Tank
TAL	Target Analyte List
TCL	Target Compound List
TCO	Temporary Certificate of Occupancy
VB	Vapor Barrier
VOCs	Volatile Organic Compounds

## 1.0 EXECUTIVE SUMMARY

American Environmental Assessment and Solutions, Inc. (American Environmental) has performed Phase II Subsurface Investigation activities at the property located at 1665 - 1673 Stillwell Avenue in the Gravesend section of Brooklyn, NY (the "Site" or "Subject Property"). The purpose of the Phase II Subsurface Investigation was to characterize the subsurface soil and groundwater quality to comply with the E-Designation requirements set forth by New York City Department of City Planning (NYCDCP) for the Subject Property and for Site redevelopment. The Phase II Subsurface Investigation was performed in general accordance with the scope and limitations of the American Society for Testing and Materials (ASTM) Standards E 1903-97; the NYSDEC Remedial Program for Soil Cleanup, Subpart 375-6; the E-Designation Program protocol and the contract between American Environmental and the client.

The Subject Property consists of a rectangular-shaped lot containing a one story commercial building with no basement. The Subject Property is located on the eastern side of Stillwell Avenue between Kings Highway to the north and Quentin Road to the south. The Subject Property is enclosed by a one story building (Brooklyn Public Library) and a two story mixed-use building to the east, by a one story commercial building (garage) to the north, by a 2.5 story residential building to the south, and Stillwell Avenue to the west. The Subject Property is currently vacant pending demolition of the existing building for redevelopment of the Site. The previous occupant of the Site was identified as Ideal Cleaners. Access to the Subject Property was via Stillwell Avenue to the west.

The total area of the Subject Property is approximately 8,000 square feet. The footprint of the building is approximately 2,400 square feet in area. The Tax Map number for the Subject Property is Block 6618; Lot 48. The property is zoned as R6B; Residential District. The occupancy code with the New York City Department of Finance for the Subject

Property is listed as K1; Store Building. The Little “E” Restriction for the Subject Property is listed as “*Hazmat*”. The E-Designation for “Hazardous Materials” (E-145) were placed on the Site by New York City Department of City Planning (NYCDPC) as part of the 07/27/2005, Bensonhurst Rezoning (CEQR 05DCP055K).

### **1.1 Summary of Proposed Redevelopment Plan**

The proposed use of the Site will consists of the construction of a five story mixed-use building with a cellar. The building foundation will be at the depth of 10 feet, 4inches. The footprint of the building upon completion will be approximately 4,030 square feet. The cellar will contain the electric room, refuse room, bicycle parking, elevator, gas, and sprinkler room, common areas. The building will contain sixteen units for residential use and retail usage on the first floor. The eastern portion of the Subject Property will be a rear yard containing eight parking spaces. A driveway will be constructed on the southern part of the Site, providing access to the rear yard. A copy of Architectural drawings of the proposed Site development is presented in Appendix 1.

Redevelopment efforts of the Site included planning, and construction of a five story mixed-use building with a cellar and Site investigation in accordance with this work plan of selected areas of environmental concern. The current zoning designation is R6B; Residential District.

### **1.2 Summary of Past Usage and Areas of Concern**

Past usage of the Subject Property included a dairy, thrift shop and drycleaners. Information obtained from City Directory for the Phase I Environmental Site Assessment listed previous occupant as Grandview Dairy from around year 1970 and 1973; 2) Stillwell Dairy in year 1976; 3) Wonder Hostess Thrift Shop around year 1985 and 1997; and then converted to a drycleaner in 1999 (NYCDOB job number 300846155), and occupied by



Ideal Cleaners from around 2000 through 2014. Information obtained from the NYCDOB records for the Subject Property indicated usage of the Site was “ice cream dispensing stand” at 1671-1673 Stillwell Avenue in 1955 (Certificate of Occupancy # 142477, dated 01/19/1955), and “food store, with one loading/unloading berth and twelve accessory auto parking in open space” at 1665-1673 Stillwell Avenue, lots 48 and 50 (Certificate of Occupancy # 195912, dated 11/09/1966).

Information obtained from the Phase II Subsurface Investigation identified the metal Lead in the surface soil where SB-4 was installed, exceeding its respective Restricted Use SCOs Part 375-6.8(b) Residential. This was the only hotspot area that contained levels above its SCO Residential. Other metals were detected, with a few exceeding track 1 only. VOCs and SVOCs were identified in the groundwater. The chlorinated related VOCs Tetrachloroethene (PCE) (ranging from 231 $\mu\text{g}/\text{m}^3$  to 3,730 $\mu\text{g}/\text{m}^3$ ) and Trichloroethene (TCE) (ranging from 1.93 $\mu\text{g}/\text{m}^3$  to 73.6 $\mu\text{g}/\text{m}^3$ ) were identified in all of the soil vapor samples exceeding the NYSDOH Air Guideline Value (AGV) and the NYSDOH Decision Matrix.

### **Summary of Work Performed under the Phase II Subsurface Investigation**

Field activities consisted of a Ground penetrating Radar (GPR) survey and the installation and sampling of seven (7) soil borings, three (3) temporary monitoring wells and six (6) soil vapor probes.

All samples were transmitted to a New York State certified (Elap # 11301) laboratory and analyzed for Volatile Organic Compounds (VOCs) in accordance with United States Environmental Protection Agency (EPA) Method 8260, Semi-Volatile Organic Compounds (SVOCs) via EPA Method 8270, Pesticides and Poly Chlorinated Byphenyl (PCBs) via EPA Method 8081 and 8081, and Target Analyte List (TAL) metals. The soil vapor samples were analyzed for VOCs by USEPA Method TO-15.

All field activities were performed on June 19<sup>th</sup>, and 24<sup>th</sup>, 2019. The results of the investigation are contained in this report.

## **Field Investigation Findings:**

- Ground Penetrating Radar (GPR) Survey:

- No significant anomaly indicative of tanks, drums or buried objects were identified during the GPR survey at the Subject Property.

In addition all utilities including sewer and drain pipes were marked out in the vicinity of the work area. All proposed boring locations were cleared and marked prior to field activities.

- Soil Quality:

- No VOCs were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1, except for Acetone identified in soil boring SB-6, 0-2 feet at a level of 51 S exceeding Track 1; this is a laboratory solvent and may not be representative of contaminants at the subject Property. TetraChloroethene (detected at a max of 580 µg/kg) was identified in four of the borings, but well below Track 1 UUSCOs. Soil boring SB-1 through SB-7 were installed throughout the Subject Property.
- No SVOCs were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.

- No **Pesticides** were detected in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- No **Polychlorinated Biphenyls (PCBs)** were in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- **Target Analyte List (TAL) Metals** were identified in the soil samples, obtained from soil boring SB-1 through SB-7. Only one TAL Metal (Lead in SB-4) was identified exceeding its Restricted Use SCOs Part 375-6.8(b) Residential at a level of 547 mg/kg (0-2 feet).

TAL Metals were identified in the soil samples exceeding Track 1 including Chromium, Copper, Lead, Nickel, Mercury and Zinc. Several other TAL Metals were detected in the soil samples at levels well below their respective Restricted Use SCOs Part 375-6.8(b) Residential and/or Track 1.

- The compound 1,4-dioxane was not detected in the soil sample. Per- and Polyfluoroalkyl Substances (PFASs) were not detected in the soil sample.
- Groundwater Quality:
  - Four **VOCs** were identified in the groundwater samples obtained from monitoring well MW-1 and MW-3 exceeding their respective NYSDEC Ambient Groundwater Quality Standards (GQS). The VOCs identified above their respective GQS are 2-Isopropyltoluene identified in MW-1 at a maximum level of 9.5 µg/L and in MW-2 at a maximum level of 5.5µg/L; Isopropylbenzene identified in MW-1 and MW-2 at a maximum level of 12µg/L; n-Propylbenzene identified in MW-2 at a

- maximum level of 19µg/L; and sec-Butylbenzene identified in MW-1 at a maximum level of 21µg/L.
- Five **SVOCs** were identified in the groundwater samples obtained from MW-1 exceeding their respective NYSDEC Ambient Groundwater Quality Standards. The SVOCs identified in the groundwater sample from MW-1 exceeding their respective Groundwater Quality Standards are Benzo (a) Anthracene identified at a level of 0.07 µg/L; Benzo (b) Fluoranthene identified at a level of 0.07 µg/L; Benzo (k) Fluoranthene identified at a level of 0.06 µg/L; Chrysene identified at a level of 0.05 µg/L; and Indo (1,2,3-cd) Pyrene identified at a level of 0.03 µg/L.
  - No **Polychlorinated Biphenyls (PCBs)** were detected in the groundwater samples obtained from MW-1 through MW-3.
  - No **Pesticides** were detected in the groundwater samples obtained from MW-1 through MW-3.
  - No **TAL Metals** were identified in any of the groundwater samples obtained from MW-1 through MW-3 exceeding their respective Groundwater Quality Standard.
  - The compound 1,4-dioxane was not identified in the groundwater sample. Per- and Polyfluoroalkyl Substances (PFASs) were identified in the groundwater sample obtained from MW-1 from a level of below method detection limit, to 69 ng/L, below the current Preliminary Remediation Goals (PRG).
- Soil Vapor:
    - VOCs were identified in the soil vapor samples exceeding New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006, updated May 2017) Guidance Values and Decision Matrix. Petroleum related VOCs detected include Toluene at concentrations ranging from

9.34 $\mu\text{g}/\text{m}^3$  to 39.9 $\mu\text{g}/\text{m}^3$  in all six soil vapor locations; Benzene was identified at a concentration ranging from 6.77  $\mu\text{g}/\text{m}^3$  to 36.4  $\mu\text{g}/\text{m}^3$ ; Ethylbenzene at concentrations ranging from 9.37  $\mu\text{g}/\text{m}^3$  to 69.4  $\mu\text{g}/\text{m}^3$ ; and o-Xylene at concentrations ranging from 7.2  $\mu\text{g}/\text{m}^3$  to 72.5  $\mu\text{g}/\text{m}^3$ .

Chlorinated related VOCS identified include Tetrachloroethene (PCE) at concentrations ranging from 231 $\mu\text{g}/\text{m}^3$  to 3,730 $\mu\text{g}/\text{m}^3$ ; and Trichloroethene (TCE) at concentrations ranging from 1.93 $\mu\text{g}/\text{m}^3$  to 73.6 $\mu\text{g}/\text{m}^3$ .

### 1.3 ENVIRONMENTAL PROFESSIONAL DECLARATIONS

Ms. Antoinette Ollivierre, Senior Geologist, gathered and compiled information contained in this report. Ms. Ollivierre performed all fieldwork for the Phase II field Investigation.

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Antoinette Ollivierre, CEC, CEI  
Principal, Senior Geologist

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

I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

This summary does not contain all of the information presented in the full report. The report should be read in its entirety to obtain a more complete understanding of the information provided and to aid in any decisions made or actions taken based on this information.

No effort has been made to perform any investigation beyond what is included in this report. The observations included herein summarize the results of the environmental activities up to the date of the fieldwork and the date of this report.

The following sections provide the details and specific information pertaining to the various components of the Phase II Subsurface Investigation.

## 2.0 INTRODUCTION

American Environmental Assessment & Solutions, Inc. has performed a Phase II Subsurface Investigation at the property located at 1665 - 1673 Stillwell Avenue in the Gravesend section of Brooklyn, NY (the Site). This Work Plan describes the proposed investigation that will comply with the E-Designation assigned to the Site and address the environmental concerns identified in the Phase I Environmental Site Assessment (ESA) report prepared by American Environmental Assessment & Solutions, Inc. (American Environmental) dated 05/09/2019 for the Site. The Phase II Subsurface Investigation was to comply with the E-Designation requirements assigned to the Subject Property. The Subject Property was included in the Bensonhurst Rezoning (CEQR 05DCP055K) dated 07/27/2005, when an E-Designation for Hazardous Materials (E-145) was placed on the Site by the New York City Department of City Planning (DCP).

### 2.1 Site Location and Current Usage

<b>Summary</b>	
<b>Project Name</b>	Commercial Building
<b>Property Address</b>	1665 Stillwell Avenue
<b>Property Address (Alternate)</b>	1665 - 1673 Stillwell Avenue
<b>City, County, State, ZIP Code</b>	Brooklyn, (Kings County), NY 11223
<b>Site Area (acres)</b>	0.0184
<b>No. Buildings/Units/Stories</b>	1/1/1
<b>Area (sf)</b>	Approximately 2,400
<b>Occupied Subgrade Spaces?</b>	No
<b>Year(s), First Developed for Current Use</b>	Approximately 1966
<b>Year(s), Additional Phases</b>	
<b>Year Significant Renovations</b>	

The Subject Property consists of a rectangular-shaped lot containing a one story commercial building. The Subject Property is located on the eastern side of Stillwell Avenue between Kings Highway to the north and Quentin Road to the south. The Subject Property is enclosed by a one story building (Brooklyn Public Library) and a two story mixed-use building to the east, by a one story commercial building (garage) to the north, by a 2.5 story residential building to the south, and Stillwell Avenue to the west. The Subject Property is currently vacant, and pending demolition of the existing building for redevelopment of the Site. The previous occupant of the Site was identified as Ideal Cleaners. Access to the Subject Property was via Stillwell Avenue to the west.

The total area of the Subject Property is approximately 8,000 square feet. The footprint of the building is approximately 2,400 square feet in area. The Tax Map number for the Subject Property is Block 6618; Lot 48. The property is zoned as R6B; Residential District. The occupancy code with the New York City Department of Finance for the Subject Property is listed as K1; Store Building. The Little "E" Restriction for the Subject Property is listed as "*Hazmat*".

*Figure 1 provides a Site Location Map.*

## **2.2 Proposed Redevelopment Plan**

The proposed use of the Site will consist of the construction of a five story mixed-use building with a cellar. The building foundation will be at the depth of 10 feet, 4 inches. The footprint of the building upon completion will be approximately 4,030 square feet. The cellar will contain the electric room, refuse room, bicycle parking, elevator, gas, and sprinkler room, common areas. The building will contain sixteen units for residential use and retail usage on the first floor. The eastern portion of the Subject Property will be a rear yard containing eight parking spaces. A driveway will be constructed on the



southern part of the Site, providing access to the rear yard. A copy of Architectural drawings of the proposed Site development is presented in Appendix 1.

Redevelopment efforts of the Site included planning, and construction of a five story mixed-use building with a cellar and Site investigation in accordance with this work plan of selected areas of environmental concern. The current zoning designation is R6B; Residential District.

### 2.3 Description of Surrounding Property

The neighborhood surrounding the Site contains a variety of land uses including residential and commercial. Current use(s) of surrounding properties include the following:

Direction	Adjacent Properties	Surrounding Properties
North	1663 Stillwell Avenue / 126-136 Kings Hwy - 1 story commercial building (garage).	Mainly 2 to 3 story buildings with some mixed-use buildings along Stillwell Avenue and Kings Highway and residential buildings in the surrounding areas.
South	1677 Stillwell Avenue - 2.5 story residential building.	
East	1672-1674 West 13 <sup>th</sup> Street - 2 story mixed-use building. 1664-1670 West 13 <sup>th</sup> Street - 1 story public building (Brooklyn public library-Highlawn branch).	
West	2271 78 <sup>th</sup> Street - 2 story residential building. 2273-2279 78 <sup>th</sup> Street - 2 story residential building.	

### 2.4 Previous Investigation(s)

The following environmental reports were developed for the Site:

*Phase I Environmental Site Assessment, May 9th, 2019, prepared by American Environmental.*

A digital (PDF) copy of the above referenced environmental report is included as Appendix 2.

## 2.5 Phase I Summary

The Phase I ESA identified the following recognized environmental conditions (RECs) in connection with the Site:

1. The “E” restrictions (E-145) assigned to the Site constituting evidence of known or suspect environmental concern that may have impacted the Site.
2. Historical usage of the Subject Property for dry cleaning activities.
3. North Adjacent Property – 1663 Stillwell Avenue / 126-136 Kings Hwy:  
Usage of the northern adjacent property identified on Fire Insurance maps included auto repair and a gasoline station. Four gasoline tanks were identified on the maps dated 1930 through 1981. Certificate of Occupancy dated 04/07/1926, identified in the NYCDOB records for this adjacent property listed the usage of the property as gasoline station. The historical usage of the northern adjacent property as a gasoline station and for auto repair may have impacted upon the environmental quality of the Subject Property and should be considered a concern.

The northern adjacent property was identified in the database report listed in the NY AST, and the NY E-Designation databases. Information obtained from the NY AST database listed a 275-gallon waste oil tank registered to Boris Auto Repair under PBS number 2-610727. The status of the tank is listed as closed / removed on 05/01/2010. The NY E-Designation for Hazmat was assigned to the property. The property was

identified as a garage during the Site reconnaissance of the Subject Property. Historical and current usage of the adjacent property for auto repair may have impacted upon the environmental quality of the Subject Property and should be considered a concern.

### 3.0 PURPOSE AND SCOPE

The purpose of the investigation was to characterize the subsurface soil and groundwater quality to comply with the requirements set forth for the E-Designation of the Site and for Site redevelopment.

The general scope of the Phase II Subsurface investigation consisted of the following:

- Historical research;
- A geophysical survey to identify the presence or absence of underground storage tanks (USTs) or buried drums in the subsurface of the Site and to clear locations of proposed boring from buried utilities;
- Advancing of seven borings;
- Installation of three temporary monitoring wells;
- Collection of two samples from each boring for laboratory analysis;
- Groundwater sampling;
- Installation of six soil vapor probes and sampling;
- Preparation of a Phase II Subsurface Investigation Report documenting all work, assessment, conclusion of findings and recommendations.

The scope and methods used for the various field activities are documented below.

All related portions of the fieldwork were performed, at a minimum in accordance with acceptable industry standards. These acceptable industry standards include, but not

limited to, the ASTM Standard Guide for Phase II Environmental Site Assessments (E 1903-97), the New York State Department of Environmental Conservation Remedial Program for Soil; Subpart 375-6, the New York State Department of Environmental Conservation Bureau of Spill Prevention & Response Sampling Guidelines and Protocols, March 1991 and the Draft DER-10 Technical Guidance for Site Investigation and Remediation, December 2002.

## **4.0 PHASE II ENVIRONMENTAL SITE INVESTIGATION**

The purpose of this section is to document the details and protocols that were utilized to accomplish the project goals. Field investigation and sampling activities were conducted on June 19<sup>th</sup> and 24<sup>th</sup>, 2019, under the supervision of Ms. Antoinette Ollivierre, Senior Geologist for American Environmental. Prior to the field investigation, utilities were marked out by the respective utility companies where they entered or were located adjacent to the Site. Utility mark out confirmation number 191612258 was issued to the mark out.

The following environmental field activities were performed at the Site:

### Soil, Groundwater and Soil Vapor

- Seven (7) borings were completed at the site to address historic fill conditions, past usage, the E-Designation and evenly spaced across the entire site.
- Borings SB-1 / MW-1 was installed in the northwestern portion of the Site to investigate soil and groundwater quality.
- Boring SB-2 / MW-2 was installed in the southwestern portion of the Site to investigate soil and groundwater quality.
- Boring SB-3 was installed in the western portion of the Site to investigate site conditions.

- Boring SB-4 was installed in the southern portion of the Site to investigate soil quality.
- Boring SB-5 was installed in the central portion of the Site and western portion of the proposed building location to investigate soil quality.
- Boring SB-6 was installed in the northern portion of the proposed building location to investigate soil conditions.
- Boring SB-7 / MW-3 was installed in the southeastern portion of the proposed building location to investigate soil and groundwater conditions.
- SG-1/SG-2/SG-3/SG-4/SG-5/SG-6 were installed in evenly spaced locations across the site and in the footprint of the proposed building to detect potential soil vapor impacts.

#### **4.1 Geophysical Survey**

Prior to drilling activities a geophysical survey was performed at the Site on June 19<sup>th</sup>, 2019. The geophysical survey was performed to determine the presence or absence of tank(s) and any other buried containers such as drums and mark out all onsite utilities in the vicinity and surrounding the proposed drilling location.

The geophysical survey was performed across the entire site prior to investigative borings utilizing a Mala, model; easy locator. A series of GPR profiles will be completed along selected lines using a Control Unit. The survey was performed across the Site over a grid pattern. The GPR operator wheeled the antenna over the predetermined grid. The GPR equipment takes “scan” per set unit. The number of scans per unit is based upon the estimated size of targets. As each scan is performed, the antenna emits specific radar amplitude into the subsurface. The amplitude of the radar reflected back to the antenna is based upon the differences in the dielectric constants of the subsurface materials. The

difference in amplitude obtained during each scan is graphically displayed at the Control Unit, which will then interpreted by the GPR operator at the time of the survey.

The GPR survey did not identify any anomaly consistent with buried containers such as tanks or drums. All utility lines in the vicinity of the work area were mark-out. Proposed boring locations were cleared for drilling activities.

## 4.2 Soil Investigation

### Protocol and Sampling Locations

A soil sampling program was conducted according to the American Environmental Assessment & Solutions, Inc.'s WP dated May 24<sup>th</sup>, revised June 11<sup>th</sup>, 2019. Soil samples were collected to assess the soil quality in the subsurface of the Site.

A total of seven (7) soil borings by direct-push technology was performed at the Site utilizing a Geoprobe® to install all boring locations. The soil borings were designated SB-1 through SB-7. Soil samples were collected in all borings at 2-foot intervals utilizing a 5-foot Macro Core sampler fitted with dedicated acetate liners. The Macro sampler allows for the collection of both continuous and discrete soil samples. Each sampler was installed with 1 ½ -inch diameter drill rods. Two soil samples were obtained from each boring for analysis.

The following provides the locations of soil borings SB-1 through SB-7 and sample intervals:

Soil Borings Locations				
Soil Boring	Location(s) Installed	Total Depth (ft. bgs)	Sample Interval Depth (ft. bgs)	PID Readings (ppm)
SB-1	Northwestern portion of the Site	5	0 - 2	0
			3 - 5	0
SB-2	Southwestern portion of the Site	5	0 - 2	0

Soil Borings Locations				
Soil Boring	Location(s) Installed	Total Depth (ft. bgs)	Sample Interval Depth (ft. bgs)	PID Readings (ppm)
			3 - 5	0
SB-3	Western portion of the Site	5	0 - 2	0
			3 - 5	0
SB-4	Southern portion of the Site	5	0 - 2	0
			3 - 5	0
SB-5	Central portion of Site, and western portion of proposed building footprint	12	0 - 2	0
			10 - 12	0
SB-6	Northern portion of proposed building footprint	12	0 - 2	0
			10 - 12	0
SB-7	Southeastern portion of proposed building footprint	12	0-2	0
			10 - 12	0

Soil boring SB-1 through SB-7 were installed to a total depth of 5 and 15 feet below grade for sample collection. The borings were installed at the locations referenced in the table above and according to an approved sampling plan. The soil type identified in each boring consists mainly of brown, fine-grained silty to clayey soil, containing rocks. Groundwater was encountered at a depth of 16.89 to 17.25 feet below grade.

Upon completion of the investigation, borings were filled with soil cuttings and clean soil to ground surface.

*Appendix C provides copies of the Soil Boring Logs*

*Figure 3 provides a Sampling Location Map*

### 4.3 Field Characterization

American Environmental professional Antoinette Ollivierre, Senior Geologist was onsite to characterize each soil sample in the field. The soil characterization consisted of determining the soil classification utilizing the Unified Soil Classification System; screening for organic vapors utilizing a Photoionization Detector (PID); and evaluation

for visual and olfactory indications of environmental impacts. Headspace analyses were conducted on each sample by partially filling the zip lock bag and sealing it, thereby creating a void. This void is referred to as the sample headspace. To facilitate the detection of any hydrocarbons contained within the headspace, the container was agitated for a period of 30 seconds. Each sample was then screened for organic vapors utilizing a Photoionization Detector (PID)

A PID makes use of the principle of photoionization for the detection and qualitative measurement of organic vapors. A PID does not respond to all compounds similarly, rather, each compound has its own response factor relative to its calibration. For this investigation, the PID was calibrated to the compound isobutylene, which is published by the manufacturer. The PID has a minimum detection limit of 0.1 parts per million (ppm). This meter measures the hydrocarbon concentrations in isolated portions of the secured samples.

Olfactory evidence of petroleum contamination was not identified during the field screening of the samples from the soil borings. Additional information for each sample field screened is provided as appendix C; boring logs.

Based upon the requirements set forth in the scope of work, two select soil samples from each boring were placed into 8-ounce laboratory provided jars and appropriately labeled. The samples were then placed in a cooler filled with ice maintained at a maximum 4 degrees Celsius to be transmitted under proper chain of custody to a New York State certified (ELAP # 11301) laboratory.



## 4.4 Groundwater Investigation

Three of the soil borings installed were converted to temporary monitoring wells for groundwater collection. Soil boring SB-1, SB-2 and SB-7 were converted to temporary monitoring wells by inserting a 1-inch diameter PVC well screen and riser into the open borehole. The monitoring wells were then gauged to obtain groundwater depth measurements using an oil/water interface probe. The oil/water interface probe contains a sensor attached to a measuring tape that is lowered down into the well until water is encountered. A buzzer sounds when the probe reaches groundwater and the depth is recorded.

Low-flow sampling techniques were utilized to purge the wells and obtain the groundwater samples. One representative groundwater sample was collected from each well with a peristaltic pump and dedicated Teflon tubing and placed into laboratory supplied glassware. The Sampling was conducted in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, dated December 2002, and Sampling Guidelines and Protocols, dated March 1991. Following sample collection, the boreholes were backfilled with soil cuttings and clean soil.

The following provides a summary of the temporary monitoring wells and groundwater collection points.

Soil Boring	Location(s) Installed	Depth to Groundwater (feet)	Total Depth (feet)
SB-1/MW-1	Northwestern portion of the Site	17.22	30
SB-2/MW-2	Southwestern portion of the Site	17.25	30
SB-7 /MW-3	Southeastern portion of the Site	16.89	30

## 4.5 Soil Vapor Sampling

Six (6) soil vapor probes were installed at selected locations on the Subject Property and within the footprint of the proposed new construction in accordance with the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006. The soil vapor probes were installed by drilling a 2 ¼-inch hole to approximately 5 and 10 - 12 feet below grade using a Geoprobe drilling system. A vapor point comprised of a stainless steel screen was connected to ¼-inch stainless steel tubing advanced into the hole. The tubing was then connected with a sample fitting to allow for the collection of soil gas. The annular space around the stainless steel screen was packed with coarse sand to six-inches above the screen, creating a sampling zone. A bentonite seal was then be placed above the sampling zone to ground surface.

Six Samples were collected in pre-cleaned six liter Summa canisters which have been certified clean by the laboratory and analyzed by using USEPA Method TO-15. Flow rate of both purging and sampling did not exceed 0.2 L/min. Sampling occurred for duration of 2 hours. Prior to sample collection the soil vapor will be screened for the presence of VOCs using a PID. A sample log sheet was maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

As part of the vapor intrusion evaluation, a tracer gas was used in accordance with NYSDOH protocols to serve as a quality assurance/ quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. Helium was used as the tracer gas and a box served to keep it in contact with the probe during testing. A portable monitoring device was used to analyze a sample of soil vapor from the tracer prior to sampling. If

the tracer sample results showed a significant presence of the tracer, the probe seals were adjusted to prevent infiltration. At the conclusion of the sampling round, tracer monitoring was performed a second time to confirm the integrity of the probe seals. All samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006).

## 4.6 Decontamination

Each piece of sampling or other down hole equipment was decontaminated prior to each use in order to ensure that cross-contamination between sampling locations does not occur. The following procedure was utilized in the decontamination process:

- Wipe clean and wash with Alconox®
- Potable water rinse
- Methanol rinse
- Deionized water rinse
- Air dry

All decontamination procedures were performed in an area segregated from any sampling areas. Any rinsate from the decontamination areas is contained and removed from the Site.

## 4.7 Laboratory Analytical

All samples were properly handled and placed into appropriate labeled laboratory supplied containers. The samples were placed in a cooler filled with ice and maintained at a maximum 4 degrees Celsius. All samples were transmitted under proper chain of custody procedures to Phoenix Environmental Laboratory, a NY State-certified (ELAP

No. 11301) laboratory for confirmatory laboratory analyses. PFOA/PFOS - Water (SOP-465 PFAS) was analyzed by NY certified lab #10899.

- Volatile Organic Compounds by EPA Method 8260;
- Semi-volatile organic compounds by EPA Method 8270;
- Pesticides/PCBs by EPA Method 8081/8082; and
- Target Analyte List metals by EPA Method 6010;
- 1,4-dioxane by EPA Method 8270DSIM;
- PFAS by EPA Method 537;
  
- Soil vapor samples were analyzed for VOCs by using USEPA Method TO-15.

All holding times were met. The laboratory did not report any irregularities with respect to their internal Quality Assurance / Quality Control.

## 5.0 ANALYTICAL RESULTS

### 5.1 Results of Soil Samples

**Table 1 through 4** provides the analytical results for the Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Pesticides/PCBs and TAL Metals detected in soil samples SB-1 through SB-7. **Table 1 through 4** also provides a comparison of the analytical results to the Recommended Soil Cleanup Objectives (SCO) from the 6 NYCRR Part 375-6.8(b) Restricted Use Soil Cleanup Objectives, Commercial. The SCOs represent the concentration of a contaminant in soil which when achieved at the Site will require no use restrictions on the Site for the protection of public health, groundwater and ecological resources due to the presence of contaminants in soil.

- Soil Quality:
  - No **VOCs** were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1, except for Acetone identified in soil boring SB-6, 0-2 feet at a level of 51 S exceeding Track 1; this is a laboratory solvent and may not be representative of contaminants at the subject Property. TetraChloroethene (detected at a max of 580 µg/kg) was identified in four of the borings, but well below Track 1 UUSCOs. Soil boring SB-1 through SB-7 were installed throughout the Subject Property.
  - No **SVOCs** were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
  - No **Pesticides** were detected in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.

- No **Polychlorinated Biphenyls (PCBs)** were in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- **Target Analyte List (TAL) Metals** were identified in the soil samples, obtained from soil boring SB-1 through SB-7. Only one TAL Metal (Lead in SB-4) was identified exceeding its Restricted Use SCOs Part 375-6.8(b) Residential at a level of 547 mg/kg (0-2 feet).

TAL Metals were identified in the soil samples exceeding Track 1 including Chromium, Copper, Lead, Nickel, Mercury and Zinc. Several other TAL Metals were detected in the soil samples at levels well below their respective Restricted Use SCOs Part 375-6.8(b) Residential and/or Track 1.

The following summary table provides the TAL Metals identified in the soil samples exceeding their respective Restricted Use SCOs Residential and/or Track 1 Standard.

Sample Identification	SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential
Sample Matrix	Soil		Soil			Soil		Soil		Soil		Soil			
Units	mg/kg		mg/kg			mg/kg		mg/kg		mg/kg	mg/kg				
Sample Depth	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	10' - 12'	0' - 2'	10' - 12'			
<b>TAL Metals (mg/kg)</b>															
Chromium	<b>30.2</b>	21.7	19.0	25.0	18.8	26.1	22.9	16.1	16.3	17.1	26.5	<b>30.5</b>	30	36	
Copper	23.7	26.3	<b>52.3</b>	34.9	17.6	40.5	11.8	12.7	27.8	12.4	<b>74.1</b>	<b>54.9</b>	50	270	
Lead	35.3	58.9	<b>286</b>	<b>92.8</b>	38.9	<b>547</b>	6.24	6.29	3.88	5.45	<b>163</b>	9.19	63	400	
Nickel	<b>65.3</b>	24.9	26	27.5	<b>32.7</b>	29.4	<b>45.2</b>	<b>41.4</b>	<b>74.7</b>	<b>99.9</b>	<b>47.4</b>	<b>111</b>	30	140	
Zinc	53	48.5	<b>279</b>	131	82.7	<b>219</b>	23	24.2	26.3	24.4	<b>433</b>	74.9	109	2,200	
Mercury	0.13	<b>0.26</b>	<b>0.29</b>	0.15	0.14	0.16	<0.03	<0.03	<0.03	<0.03	0.16	<0.03	0.18	0.81	

- The compound 1,4-dioxane was not detected in the soil sample. Per- and Polyfluoroalkyl Substances (PFASs) were not detected in the soil sample.

Table 1 through 4 are attached to this report

## 5.2 Results of Groundwater Samples

Table 5 through 8 provides the analytical results for the Volatile Organic Compounds (VOCs); Semi-Volatile Organic Compounds (SVOCs); Pesticides/PCBs and TAL Metals detected in groundwater samples MW-1 through MW-3. Table 5 through 8 also provides a comparison of the analytical results to the NYSDEC TOGS Ambient Groundwater Quality Standards.

- Groundwater Quality:

Three temporary monitoring wells were installed at the Site for groundwater collection.

- Four VOCs were identified in the groundwater samples obtained from monitoring well MW-1 and MW-3 exceeding their respective NYSDEC Ambient Groundwater Quality Standards (GQS). The VOCs identified above their respective GQS are 2-Isopropyltoluene identified in MW-1 at a maximum level of 9.5 µg/L and in MW-2 at a maximum level of 5.5µg/L; Isopropylbenzene identified in MW-1 and MW-2 at a maximum level of 12µg/L; n-Propylbenzene identified in MW-2 at a maximum level of 19µg/L; and sec-Butylbenzene identified in MW-1 at a maximum level of 21µg/L. The following summary table provides the VOCs identified in the groundwater samples above GQS.

Sample Identification	MW-1	MW-2	MW-3	MW-3 Dup	NYSDEC Ambient Groundwater Quality Standards (µg/L)
Boring Number	SB-1	SB-3	SB-3	SB-5	
Depth to Groundwater	23.6'	23.76'	23.76'	23.29'	
Units	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds (µg/L)					
2-Isopropyltoluene	<b>9.5</b>	<b>5.5</b>	ND	ND	5
Benzene	0.87	0.83	ND	ND	1
Isopropylbenzene	<b>12</b>	<b>12</b>	ND	ND	5
Methyl-Tert-Butyl-Ether (MTBE)	1.8	4.2	ND	ND	10
n-Propylbenzene	2.9	<b>19</b>	ND	ND	5
sec-Butylbenzene	<b>21</b>	4.6	ND	ND	5

- Five **SVOCs** were identified in the groundwater samples obtained from MW-1 exceeding their respective GQS. The SVOCs identified in the groundwater sample from MW-1 exceeding their respective GQS are Benzo (a) Anthracene identified at a level of 0.07 µg/L; Benzo (b) Fluoranthene identified at a level of 0.07 µg/L; Benzo (k) Fluoranthene identified at a level of 0.06 µg/L; Chrysene identified at a level of 0.05 µg/L; and Indo (1,2,3-cd) Pyrene identified at a level of 0.03 µg/L. The following summary table provides the SVOCs identified in the groundwater samples above GQS.

Sample Identification	MW-1	MW-2	MW-2 Dup	MW-3	NYSDEC Ambient Groundwater Quality Standards (µg/L)
Boring Number	SB-1	SB-3	SB-3	SB-5	
Depth to Groundwater	23.6'	23.76'	23.76'	23.29'	
Sample Matrix	GW	GW	GW	GW	
Units	µg/L	µg/L	µg/L	µg/L	
Semi-Volatile Organic Compounds (µg/L)					
Acenaphthene	ND	0.55	ND	ND	20
Fluoranthene	0.6	ND	ND	ND	50
Naphthalene	0.56	ND	ND	ND	10
Acenaphthene	0.87	ND	ND	ND	20
Benzo (a) Anthracene	<b>0.07</b>	ND	ND	ND	0.002
Benzo (b) Fluoranthene	<b>0.07</b>	ND	ND	ND	0.002
Benzo (k) Fluoranthene	<b>0.06</b>	ND	ND	ND	0.002
Bis (2-ethylhexyl) Phthalate	1.2	ND	ND	ND	5
Chrysene	<b>0.05</b>	ND	ND	ND	0.002
Indeno (1,2,3-cd) Pyrene	<b>0.03</b>	ND	ND	ND	0.002

- No **Polychlorinated Biphenyls (PCBs)** were detected in the groundwater samples obtained from MW-1 through MW-3.
- No **Pesticides** were detected in the groundwater samples obtained from MW-1 through MW-3.
- No **TAL Metals** were identified in any of the groundwater samples obtained from MW-1 through MW-3 exceeding their respective Groundwater Quality Standard.



- The compound 1,4-dioxane was not identified in the groundwater sample. Per- and Polyfluoroalkyl Substances (PFASs) were identified in the groundwater sample obtained from MW-1 from a level of below method detection limit, to 69 ng/L, below the current Preliminary Remediation Goals (PRG).

*Table 5 through 8 are attached to this report*

*Appendix B provides a copy of the soil and groundwater samples laboratory results*

### 5.3 Results of Soil Vapor Samples

The soil vapor samples collected indicated concentrations of VOCs were identified in the soil vapor samples. VOCs were identified in the soil vapor samples exceeding New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006, updated May 2017) Guidance Values and Decision Matrix.

Petroleum related VOCs detected include Toluene at concentrations ranging from 9.34µg/m<sup>3</sup> to 39.9µg/m<sup>3</sup> in all six soil vapor locations; Benzene was identified at a concentration ranging from 6.77 µg/m<sup>3</sup> to 36.4 µg/m<sup>3</sup>; Ethylbenzene at concentrations ranging from 9.37 µg/m<sup>3</sup> to 69.4 µg/m<sup>3</sup>; and o-Xylene at concentrations ranging from 7.2 µg/m<sup>3</sup> to 72.5 µg/m<sup>3</sup>.

**Petroleum related - Volatile Organic Compounds (µg/m3)**

Sample Identification	NYSDOH	NYSDOH Decision Matrix	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6
Boring Number	Air		1	2	3	4	5	6
Sample Matrix	Guideline		Air	Air	Air	Air	Air	Air
Units	Value (AGV)		µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
<b>Volatile Organic Compounds (µg/m3)</b>								
Benzene	--		9.5	8.97	8.21	11.3	36.4	6.77
Ethylbenzene	--		52.1	61.2	50.3	69.4	9.37	21
o-Xylene	--		53.8	64.2	63.8	72.5	7.2	24.9
Toluene	--		25.9	39.9	21.7	29	31.7	9.34

Chlorinated related VOCS identified include Tetrachloroethene (PCE) at concentrations ranging from 231µg/m<sup>3</sup> to 3,730µg/m<sup>3</sup>; and Trichloroethene (TCE) at concentrations ranging from 1.93µg/m<sup>3</sup> to 73.6µg/m<sup>3</sup>.

**Chlorinated related - Volatile Organic Compounds (µg/m3)**

Sample Identification	NYSDOH Air Guideline Value (AGV)	NYSDOH Decision Matrix	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6
Boring Number			1	2	3	4	5	6
Sample Matrix			Air	Air	Air	Air	Air	Air
Units			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
<b>Volatile Organic Compounds (µg/m3)</b>								
Tetrachloroethene (PCE)	30	2	582	550	983	746	3,730	231
Trichloroethene (TCE)	2	1	3.57	23	42.5	1.93	73.6	3.67

## 5.4 Quality Assurance/Quality Control Procedures

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

## 6.0 CONCLUSIONS

American Environmental Assessment & Solutions, Inc. (American Environmental) has performed a Phase II Subsurface Investigation at the property located at 1665 - 1673 Stillwell Avenue in the Gravesend section of Brooklyn, NY. Based upon the findings of the Phase II Subsurface Investigation, the following conclusions are provided.

- The field portion of American Environmental investigation consisted of a geophysical survey to determine the presence or absence of any buried containers and to locate and mark out onsite utilities, the installation and sampling of seven (7) soil borings; the installation of three (3) temporary monitoring wells; and the installation of six (6) soil vapor probes. All fieldwork was performed in accordance with all applicable federal, state and local regulations. Select soil was collected based upon protocols set forth in the May 24<sup>th</sup>, revised June 11<sup>th</sup>, 2019 WP, infield screening and analyzed at a state-certified laboratory for VOCs via EPA Method 8260, SVOCs via EPA Method 8270, Pesticides and PCBs via EPA Method 8081 and 8081, TAL metals, 1,4-dioxane by EPA Method 8270DSIM, and PFAS by EPA Method 537. Soil vapor samples will be analyzed for VOCs by using USEPA Method TO-15.
- Ground Penetrating Radar (GPR) Survey:
  - No significant anomaly indicative of tanks, drums or buried objects were identified during the GPR survey at the Subject Property.

In addition all utilities including sewer and drain pipes were marked out in the vicinity of the work area. All proposed boring locations were cleared and marked prior to field activities.

- **Soil Quality:**

- No *VOCs* were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1, except for Acetone identified in soil boring SB-6, 0-2 feet at a level of 51 S exceeding Track 1; this is a laboratory solvent and may not be representative of contaminants at the subject Property. TetraChloroethene (detected at a max of 580 µg/kg) was identified in four of the borings, but well below Track 1 UUSCOs. Soil boring SB-1 through SB-7 were installed throughout the Subject Property.
- No *SVOCs* were identified in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- No **Pesticides** were detected in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- No **Polychlorinated Biphenyls (PCBs)** were in any of the soil samples obtained from soil boring SB-1 through SB-7 exceeding their respective Restricted Use SCOs Part 375-6.8(b) Residential and /or Track 1.
- **Target Analyte List (TAL) Metals** were identified in the soil samples, obtained from soil boring SB-1 through SB-7. Only one TAL Metal (Lead in SB-4) was identified exceeding its Restricted Use SCOs Part 375-6.8(b) Residential at a level of 547 mg/kg (0-2 feet).

TAL Metals were identified in the soil samples exceeding Track 1 including Chromium, Copper, Lead, Nickel, Mercury and Zinc. Several other TAL Metals

were detected in the soil samples at levels well below their respective Restricted Use SCOs Part 375-6.8(b) Residential and/or Track 1.

- The compound 1,4-dioxane was not detected in the soil sample. Per- and Polyfluoroalkyl Substances (PFASs) were not detected in the soil sample.
- Groundwater Quality:
  - Four **VOCs** were identified in the groundwater samples obtained from monitoring well MW-1 and MW-3 exceeding their respective NYSDEC Ambient Groundwater Quality Standards (GQS). The VOCs identified above their respective GQS are 2-Isopropyltoluene identified in MW-1 at a maximum level of 9.5 µg/L and in MW-2 at a maximum level of 5.5µg/L; Isopropylbenzene identified in MW-1 and MW-2 at a maximum level of 12µg/L; n-Propylbenzene identified in MW-2 at a maximum level of 19µg/L; and sec-Butylbenzene identified in MW-1 at a maximum level of 21µg/L.
  - Five **SVOCs** were identified in the groundwater samples obtained from MW-1 exceeding their respective NYSDEC Ambient Groundwater Quality Standards. The SVOCs identified in the groundwater sample from MW-1 exceeding their respective Groundwater Quality Standards are Benzo (a) Anthracene identified at a level of 0.07 µg/L; Benzo (b) Fluoranthene identified at a level of 0.07 µg/L; Benzo (k) Fluoranthene identified at a level of 0.06 µg/L; Chrysene identified at a level of 0.05 µg/L; and Indo (1,2,3-cd) Pyrene identified at a level of 0.03 µg/L.
  - No **Polychlorinated Biphenyls (PCBs)** were detected in the groundwater samples obtained from MW-1 through MW-3.
  - No **Pesticides** were detected in the groundwater samples obtained from MW-1 through MW-3.

- No **TAL Metals** were identified in any of the groundwater samples obtained from MW-1 through MW-3 exceeding their respective Groundwater Quality Standard.
- The compound 1,4-dioxane was not identified in the groundwater sample. Per- and Polyfluoroalkyl Substances (PFASs) were identified in the groundwater sample obtained from MW-1 from a level of below method detection limit, to 69 ng/L, below the current Preliminary Remediation Goals (PRG).
- Soil Vapor:
  - VOCs were identified in the soil vapor samples exceeding New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion (October 2006, updated May 2017) Guidance Values and Decision Matrix. Petroleum related VOCs detected include Toluene at concentrations ranging from 9.34 $\mu\text{g}/\text{m}^3$  to 39.9 $\mu\text{g}/\text{m}^3$  in all six soil vapor locations; Benzene was identified at a concentration ranging from 6.77  $\mu\text{g}/\text{m}^3$  to 36.4  $\mu\text{g}/\text{m}^3$ ; Ethylbenzene at concentrations ranging from 9.37  $\mu\text{g}/\text{m}^3$  to 69.4  $\mu\text{g}/\text{m}^3$ ; and o-Xylene at concentrations ranging from 7.2  $\mu\text{g}/\text{m}^3$  to 72.5  $\mu\text{g}/\text{m}^3$ .

Chlorinated related VOCS identified include Tetrachloroethene (PCE) at concentrations ranging from 231 $\mu\text{g}/\text{m}^3$  to 3,730 $\mu\text{g}/\text{m}^3$ ; and Trichloroethene (TCE) at concentrations ranging from 1.93 $\mu\text{g}/\text{m}^3$  to 73.6 $\mu\text{g}/\text{m}^3$ .

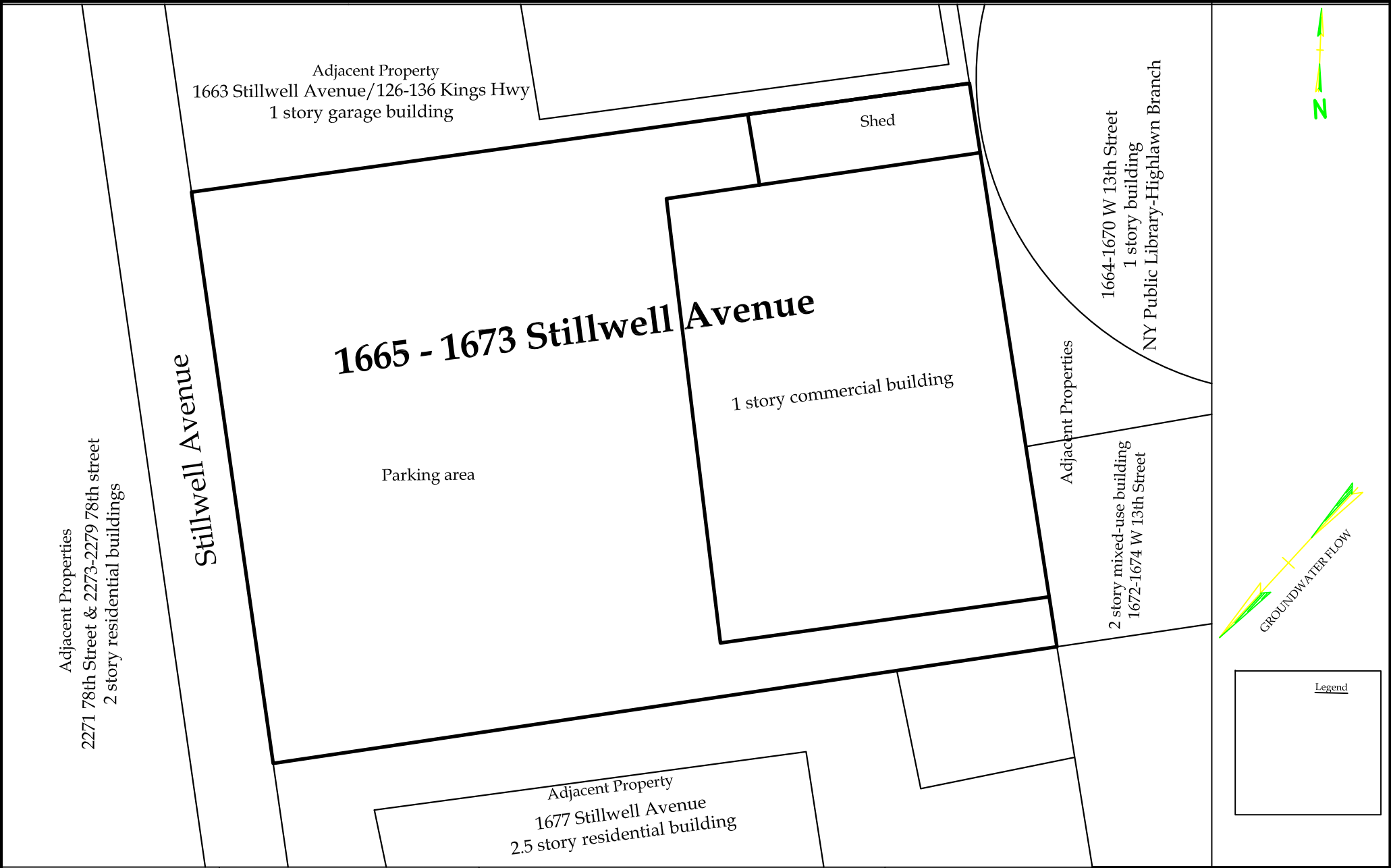
## 7.0 RECOMMENDATIONS

Based upon the findings of the Phase II Subsurface Investigation presented above, American Environmental provides the following recommendations:

- A Remedial Action Plan (RAP) and a Construction Health and Safety Plan (CHASP) to address hotspot areas and soil vapor should be prepared. The RAP and CHASP should be submitted to the NYCOER for review, comment and approval.

## Figures





PO Box 6376  
North Babylon, NY 1170.3

679 Lafayette Avenue, 3rd Floor  
Brooklyn, New York 11216

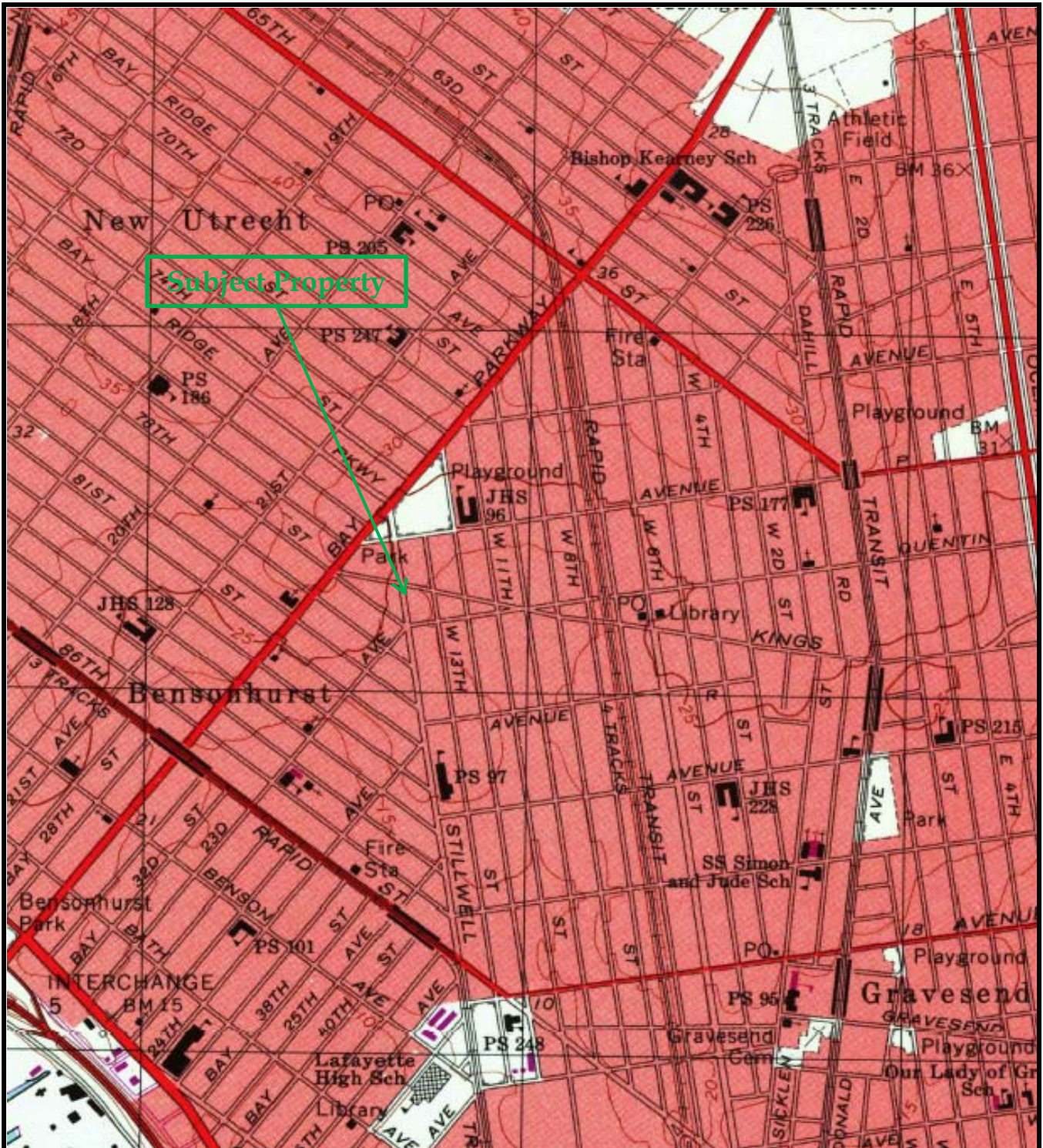
Phone: (718) 209-0653 Fax: (718) 906-4090  
www.AEASinc.com

**1665-1673 Stillwell Avenue  
Brooklyn, NY 11223**

Source:  
Field Notes

Sheet Title:  
**FIGURE 1  
Site Map**

DATE:	05/24/19
DRAWING #:	1
PROJ NO:	19-0115-I
DRAWN BY:	ACO
APP'D BY:	DBO
SCALE	NOT TO SCALE



## SITE LOCATION MAP

Site Name: STILLWELL AVENUE

Address: 1665 - 1673 Stillwell Avenue  
Brooklyn, NY 11223

Project No.: 19-0115-II

USGS Topographic Map  
7.5 Minute Series, Central Park, NY  
Quadrangle, dated 2013





Soil-VOCS (µg/kg)	
Acetone	51 S
Soil-Metals (mg/kg)	
Nickel (10 <sup>-12</sup> )	99.9

Soil-Metals (mg/kg)	
Chromium (10 <sup>-12</sup> )	30.5
Copper (0 <sup>-2</sup> )	78.4
Copper (10 <sup>-12</sup> )	54.9
Lead (0 <sup>-2</sup> )	163
Nickel (0 <sup>-2</sup> )	47.4
Nickel (10 <sup>-12</sup> )	111
Zinc (0 <sup>-2</sup> )	435

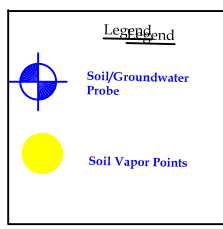
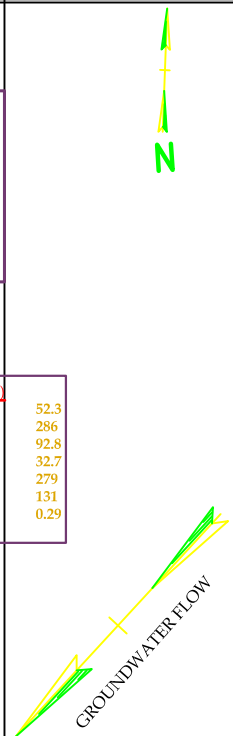
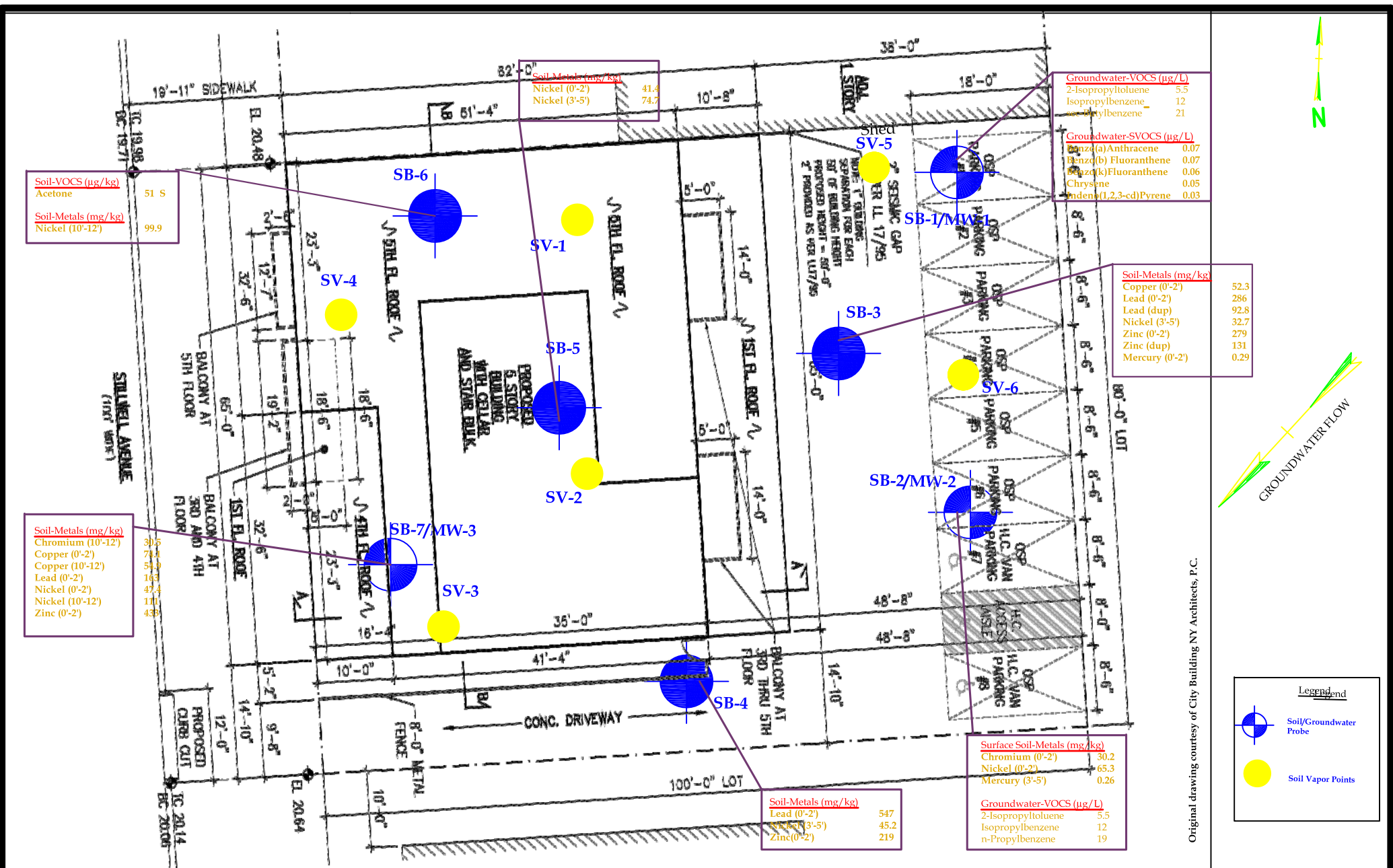
Soil-Metals (mg/kg)	
Nickel (0 <sup>-2</sup> )	41.4
Nickel (3 <sup>-5</sup> )	74.7

Groundwater-VOCS (µg/L)	
2-Isopropyltoluene	5.5
Isopropylbenzene	12
n-Propylbenzene	21
Groundwater-SVOCs (µg/L)	
Benzo(a)Anthracene	0.07
Benzo(b)Fluoranthene	0.07
Benzo(k)Fluoranthene	0.06
Chrysene	0.05
Inden(1,2,3-cd)Pyrene	0.03

Soil-Metals (mg/kg)	
Copper (0 <sup>-2</sup> )	52.3
Lead (0 <sup>-2</sup> )	286
Lead (dup)	92.8
Nickel (3 <sup>-5</sup> )	32.7
Zinc (0 <sup>-2</sup> )	279
Zinc (dup)	131
Mercury (0 <sup>-2</sup> )	0.29

Surface Soil-Metals (mg/kg)	
Chromium (0 <sup>-2</sup> )	30.2
Nickel (0 <sup>-2</sup> )	65.3
Mercury (3 <sup>-5</sup> )	0.26
Groundwater-VOCS (µg/L)	
2-Isopropyltoluene	5.5
Isopropylbenzene	12
n-Propylbenzene	19

Soil-Metals (mg/kg)	
Lead (0 <sup>-2</sup> )	547
Nickel (3 <sup>-5</sup> )	45.2
Zinc(0 <sup>-2</sup> )	219



Original drawing courtesy of City Building NY Architects, P.C.

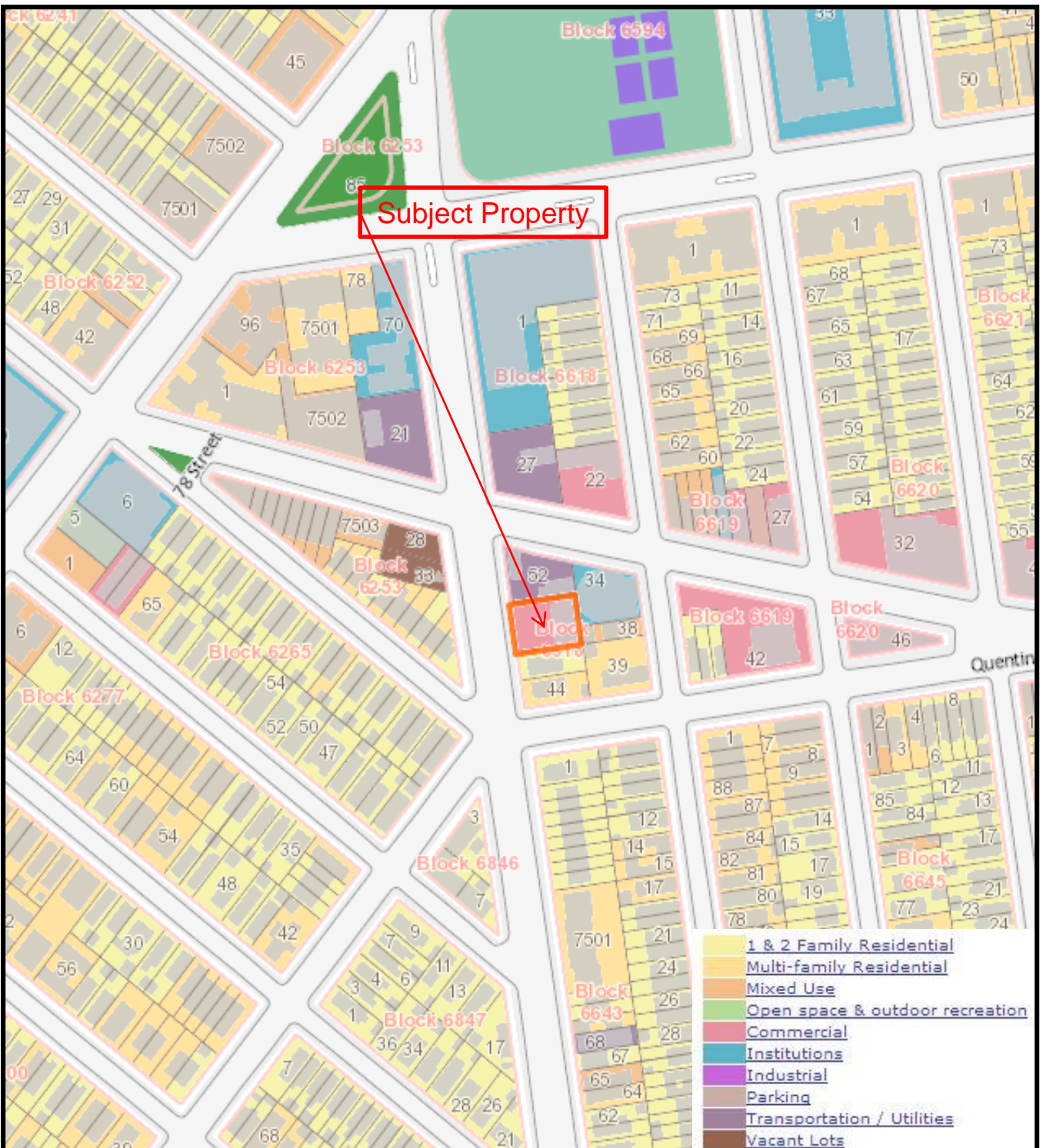


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## 1665-1673 Stillwell Avenue Brooklyn, NY 11223

Source: Field Notes  
  
Sheet Title: **FIGURE 3**  
Proposed Sampling Map

DATE:	05/24/19
DRAWING #:	1
PROJ NO:	19-0115-I
DRAWN BY:	ACO
APP'D BY:	DBO
SCALE:	NOT TO SCALE



**American**  
Environmental Assessment & Solutions, Inc.

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## SURROUNDING LAND USE

Site Name: STILLWELL AVENUE

Address: 1665 - 1673 Stillwell Avenue  
Brooklyn, NY 11223

Project No.: 19-0115-I

## Soil Analytical Results

**Table 1  
Soil Samples Analytical Results  
1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential
	Boring Number	1	2	3	4	5	6	7	Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019		
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	µg/kg		µg/kg		µg/kg			µg/kg		µg/kg		µg/kg		µg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>Volatile Organic Compounds (µg/kg)</b>																	
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	680	100,000
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270	26,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	100,000
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,600	52,000
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	100,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	3,100
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,400	52,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	4,900
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,800	13,000
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Acetone	ND	ND	ND	ND	ND	35 S	35 S	ND	ND	ND	ND	51 S	ND	ND	ND	50	100,000
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	60	4,800
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS

NS...No Standard

ND...Not Detected

**Table 1 Continued... ..**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential (µg/kg)
Boring Number	1		2		3			4		5		6		7			
Sample Date	6/24/2019		6/24/2019		6/24/2019			6/24/2019		6/24/2019		6/24/2019		6/24/2019			
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	µg/kg		µg/kg		µg/kg			µg/kg		µg/kg		µg/kg		µg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>Volatile Organic Compounds (µg/kg)</b>																	
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	760	2,400
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	100,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	49,000
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250	100,000
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	41,000
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
m + p-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	260	100,000
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120	100,000
Methyl-Tert-Butyl-Ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	930	100,000
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	100,000
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12,000	100,000
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12,000	100,000
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,900	100,000
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	260	100,000
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11,000	100,000
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,900	100,000
Tetrachloroethene	210	400	ND	200	ND	ND	ND	ND	ND	ND	ND	ND	6.0	580	ND	1,300	19,000
Tetrahydrofuran (THF)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	100,000
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	260	100,000
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190	100,000
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
trans-1,4-dichloro-2-butene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470	21,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Trichlorotrifluoroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	900
<b>Total VOCs</b>	210	400	0	200	0	35 S	35 S	0	0	0	0	51 S	6.0	580	0		

NS...No Standard

ND..Not Detected



**Table 2**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential (µg/kg)
	Boring Number	1	2	3	4	5	6	7	Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019		
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	µg/kg		µg/kg		µg/kg			µg/kg		µg/kg		µg/kg		µg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																	
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,100	100,000
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,800	130,000
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Methylphenol (o-cresol)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	100,000
2-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
3&4-Methylphenol (m&p-cresol)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	100,000
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Chloroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20,000	100,000
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100,000	100,000
Acetophenone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Aniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100,000	100,000
Benzo (a) Anthracene	ND	ND	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	600	ND	1,000	1,000
Benzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS

NS...No Standard

*Bold & Shaded values represent concentration exceeding the Restricted Use SCOs Residential*

ND..Not Detected

*Bold values represent concentration exceeding Track 1 SCOs*



**Table 2 Continued...**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential (µg/kg)
	Boring Number	1	2	3	4	5	6	7	Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019		
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	µg/kg		µg/kg		µg/kg			µg/kg		µg/kg		µg/kg		µg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>Semi-Volatile Organic Compounds (µg/kg)</b>																	
Benzo (a) Pyrene	ND	ND	ND	ND	440	ND	ND	ND	ND	ND	ND	ND	ND	540	ND	1,000	1,000
Benzo (b) Fluoranthene	ND	ND	ND	ND	360	ND	ND	ND	ND	ND	ND	ND	ND	500	ND	1,000	1,000
Benzo (g,h,i) Perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	ND	100,000	100,000
Benzo (k) Fluoranthene	ND	ND	ND	ND	380	ND	ND	ND	ND	ND	ND	ND	ND	450	ND	800	3,900
Benzoic acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Benzyl butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bis(2-chloroethyl)ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bis(2-chloroisopropyl)ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Chrysene	ND	ND	ND	ND	430	ND	ND	ND	ND	ND	ND	ND	ND	620	ND	1,000	3,900
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	330
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,000	350,000
Diethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Di-n-octylphthalate	ND	ND	260	ND	ND	ND	ND	ND	ND	ND	ND	280	ND	ND	ND	NS	NS
Fluoranthene	ND	ND	280	ND	870	ND	ND	ND	ND	ND	ND	ND	ND	1,100	ND	100,000	100,000
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30,000	100,000
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	6,000
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Indeno (1,2,3-cd) Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	ND	500	500
Isophorone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370	ND	ND	12,000	100,000
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
N-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Pentachloronitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	800	6,700
Phenanthrene	ND	ND	ND	ND	510	ND	ND	ND	ND	ND	ND	ND	ND	1,000	ND	100,000	100,000
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	100,000
Pyrene	ND	ND	280	ND	790	ND	ND	ND	ND	ND	ND	ND	ND	1,000	ND	100,000	100,000
Pyridine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
4-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Benzyl alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
<b>Total SVOCs</b>	<b>0</b>	<b>0</b>	<b>820</b>	<b>0</b>	<b>3,030</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>280</b>	<b>370</b>	<b>6,510</b>	<b>0</b>	<b>100,000</b>

NS...No Standard

Bold & Shaded values represent concentration exceeding the Restricted Use SCOs Residential

ND..Not Detected

Bold values represent concentration exceeding Track 1 SCOs

**Table 3**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential
Boring Number	1		2		3			4		5		6		7			
Sample Date	6/24/2019		6/24/2019		6/24/2019			6/24/2019		6/24/2019		6/24/2019		6/24/2019			
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	µg/kg		µg/kg		µg/kg			µg/kg		µg/kg		µg/kg		µg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>Pesticides (µg/kg)</b>																	
4,4' -DDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3	2,600
4,4' -DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3	1,800
4,4' -DDT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3	1,700
a-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	97
Alachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	19
b-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36	72
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	94	910
d-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40	100,000
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	39
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	4,800
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	4,800
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,400	4,800
Endrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	2,200
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
g-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	280
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	42	420
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS
<b>PCBs (µg/kg)</b>																	
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1262	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000
PCB-1268	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000

NS...No Standard

Bold values represent concentration exceeding Track 1 SCOs

ND..Not Detected

**Table 4**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-1		SB-2		SB-3			SB-4		SB-5		SB-6		SB-7		Track 1 Unrestricted Use Soil Cleanup Objectives Part 375-6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential
Boring Number	1		2		3			4		5		6		7			
Sample Date	6/24/2019		6/24/2019		6/24/2019			6/24/2019		6/24/2019		6/24/2019		6/24/2019			
Sample Matrix	Soil		Soil		Soil			Soil		Soil		Soil		Soil			
Units	mg/kg		mg/kg		mg/kg			mg/kg		mg/kg		mg/kg		mg/kg			
Sample Depth	0' - 2'	3' - 5'	0' - 2'	3' - 5'	0' - 2'	0' - 2' Dup	3' - 5'	0' - 2'	3' - 5'	0' - 2'	10' - 12'	0' - 2'	10' - 12'	0' - 2'	10' - 12'		
<b>TAL Metals (mg/kg)</b>																	
Aluminum	13,400	14,400	14,300	17,100	7,520	16,400	11,100	17,300	7,810	7,180	4,730	12,800	4,230	11,700	5,590	NS	NS
Antimony	<3.8	<3.9	<3.8	<3.6	<4.0	<4.3	<4.3	<4.1	<3.5	<3.6	<3.6	<3.4	<3.7	<3.6	<3.3	NS	NS
Arsenic	5.34	5.99	7.03	8.12	6.79	8.7	4.03	9.44	2.24	2.68	1.92	6.44	1.81	5.91	3.04	13	16
Barium	38.8	48.3	77.6	88	313	135	51	238	25.1	23.3	32.6	47.9	25.7	104	43.9	350	350
Beryllium	0.62	0.56	0.71	0.8	0.41	0.9	0.45	0.88	0.5	0.38	0.34	0.51	<0.29	0.75	0.51	7.20	14
Cadmium	<0.38	<0.39	<0.38	<0.36	1.34	0.71	0.6	0.58	<0.35	<0.36	<0.36	<0.34	<0.37	0.8	0.39	2.5	2.5
Calcium	1,030	1,110	3,090	2,070	38,400	4,180	1,240	2,930	658	803	1,020	2,750	1,140	13,600	2,290	NS	NS
Chromium	22.4	20.3	<b>30.2</b>	21.7	19.0	25.0	18.8	26.1	22.9	16.1	16.3	19.1	17.1	26.5	<b>30.5</b>	30	36
Cobalt	10.3	8.94	13.6	8.23	9.38	9.63	9.55	9.69	7.64	7.01	10.3	7.5	8.53	12.3	18.3	NS	NS
Copper	13.5	15.2	23.7	26.3	<b>52.3</b>	34.9	17.6	40.5	11.8	12.7	27.8	13.3	12.4	<b>74.1</b>	<b>54.9</b>	50	270
Iron	19,500	18,400	21,400	19,900	21,600	21,200	18,900	21,300	15,800	14,100	10,600	16,400	11,100	19,400	20,800	NS	NS
Lead	10.8	24	35.3	58.9	<b>286</b>	<b>92.8</b>	38.9	<b>547</b>	6.24	6.29	3.88	25.4	5.45	<b>163</b>	9.19	63	400
Magnesium	3,450	2,580	3,820	2,460	17,800	3,380	3,230	2,670	2,890	2,490	3,380	3,170	7,800	4,880	3,500	NS	NS
Manganese	358	295	429	446	359	398	321	511	359	230	310	303	450	291	536	1600	2,000
Nickel	28.3	23.1	<b>65.3</b>	24.9	26	27.5	<b>32.7</b>	29.4	<b>45.2</b>	<b>41.4</b>	<b>74.7</b>	23.1	<b>99.9</b>	<b>47.4</b>	<b>111</b>	30	140
Potassium	1,080	964	1,260	806	1,090	1,030	754	911	724	674	802	802	830	1,100	1,340	NS	NS
Selenium	<1.5	<1.5	<1.5	<1.5	<1.6	<1.7	<1.7	<1.6	<1.4	<1.5	<1.4	<1.4	<1.5	<1.4	<1.3	3.9	36
Silver	<0.38	<0.39	<0.38	<0.36	<0.40	<0.43	<0.43	<0.41	<0.35	<0.36	<0.36	<0.34	<0.37	<0.36	<0.33	2	36
Sodium	86.7	76.9	104	75.5	121	141	58.2	192	79.4	119	199	156.0	337	347	298	NS	NS
Thallium	<3.4	<3.5	<3.5	<3.3	<3.6	<3.9	<3.8	<3.7	<3.2	<3.3	<3.2	<3.0	<3.3	<3.2	<3.0	NS	NS
Vanadium	32.5	29.6	34.2	32	25.7	35.2	24.7	36.4	28.2	23.5	16.1	26.2	16	31.3	38.6	NS	NS
Zinc	30.4	36.5	53	48.5	<b>279</b>	131	82.7	<b>219</b>	23	24.2	26.3	36.2	24.4	<b>433</b>	74.9	109	2,200
Mercury	0.04	0.05	0.13	<b>0.26</b>	<b>0.29</b>	0.15	0.14	0.16	<0.03	<0.03	<0.03	0.11	<0.03	0.16	<0.03	0.18	0.81

NS...No Standard

*Bold & Shaded values represent concentration exceeding the Restricted Use SCOs Residential*

ND...Not Detected

*Bold values represent concentration exceeding Track 1 SCOs*

**Table 11**  
**Soil Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	SB-5	Reporting Limit	Track 1 Unrestricted Use Soil Cleanup Objectives Part 375- 6.8(a)	Restricted Use Soil Cleanup Objectives Part 375-6.8(b) Residential
Sample Depth	10' - 12'			
Sample Date	6/24/2019			
Sample Matrix	Soil			
<b>PFAS in Soil (µg/kg)</b>				
Perfluorobutanesulfonic acid (PFBS)	ND	0.91	NS	NS
Perfluorohexanoic acid (PFHxA)	ND	0.91	NS	NS
Perfluoroheptanoic acid (PFHpA)	ND	0.91	NS	NS
Perfluorobutanoic acid (PFBA)	ND	0.91	NS	NS
Perfluorodecanesulfonic acid (PFDS)	ND	0.91	NS	NS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.91	NS	NS
Perfluorooctanesulfonamide (FOSA)	ND	0.91	NS	NS
Perfluoropentanoic acid (PFPeA)	ND	0.91	NS	NS
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	0.91	NS	NS
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	0.91	NS	NS
Perfluorohexanesulfonic acid (PFHxS)	ND	0.91	NS	NS
Perfluorooctanoic acid (PFOA)	ND	0.91	NS	NS
Perfluorooctanesulfonic acid (PFOS)	ND	0.91	NS	NS
Perfluorononanoic acid (PFNA)	ND	0.91	NS	NS
Perfluorodecanoic acid (PFDA)	ND	0.91	NS	NS
N-MeFOSAA	ND	0.91	NS	NS
Perfluoroundecanoic acid (PFUnA)	ND	0.91	NS	NS
N-EtFOSAA	ND	0.91	NS	NS
Perfluorododecanoic acid (PFDoA)	ND	0.91	NS	NS
Perfluorotridecanoic acid (PFTrDA)	ND	0.91	NS	NS
Perfluorotetradecanoic acid (PFTA)	ND	0.91	NS	NS
<b>1,4-Dioxane (µg/kg)</b>				
1,4-Dioxane	ND	68	NS	NS

## Groundwater analytical Results

**Table 5**  
**Groundwater Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	MW-1	MW-2	MW-3	MW-3 Dup	NYSDEC Ambient Groundwater Quality Standards (µg/L)
Boring Number	SB-1	SB-3	SB-3	SB-5	
Depth to Groundwater	23.6'	23.76'	23.76'	23.29'	
Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	
Sample Matrix	GW	GW	GW	GW	
Units	µg/L	µg/L	µg/L	µg/L	
Volatile Organic Compounds (µg/L)					
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	5
1,1-Dichloroethene	ND	ND	ND	ND	5
1,1-Dichloropropene	ND	ND	ND	ND	5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	5
1,2,3-Trichloropropane	ND	ND	ND	ND	0.04
1,2,4-Trichlorobenzene	ND	ND	ND	ND	5
1,2,4-Trimethylbenzene	ND	ND	ND	ND	5
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	0.04
1,2-Dibromoethane	ND	ND	ND	ND	5
1,2-Dichlorobenzene	ND	ND	ND	ND	3
1,2-Dichloroethane	ND	ND	ND	ND	0.6
1,2-Dichloropropane	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	5
1,3-Dichlorobenzene	ND	ND	ND	ND	3
1,3-Dichloropropane	ND	ND	ND	ND	5
1,4-Dichlorobenzene	ND	ND	ND	ND	3
2,2-Dichloropropane	ND	ND	ND	ND	5
2-Chlorotoluene	ND	ND	ND	ND	5
2-Hexanone	ND	ND	ND	ND	50
2-Isopropyltoluene	<b>9.5</b>	<b>5.5</b>	ND	ND	5
4-Chlorotoluene	ND	ND	ND	ND	5
4-Methyl-2-pentanone	ND	ND	ND	ND	NS
Acetone	ND	ND	ND	ND	50
Acrylonitrile	ND	ND	ND	ND	5
Benzene	0.87	0.83	ND	ND	1
Bromobenzene	ND	ND	ND	ND	5
Bromochloromethane	ND	ND	ND	ND	5
Bromodichloromethane	ND	ND	ND	ND	50
Bromoform	ND	ND	ND	ND	50
Bromomethane	ND	ND	ND	ND	5
Carbon Disulfide	ND	ND	ND	ND	60
Carbon tetrachloride	ND	ND	ND	ND	5
Chlorobenzene	ND	ND	ND	ND	5
Chloroethane	ND	ND	ND	ND	5
Chloroform	ND	ND	ND	ND	7
Chloromethane	ND	ND	2	ND	60
cis-1,2-Dichloroethene	ND	ND	ND	ND	5
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.4
Dibromochloromethane	ND	ND	ND	ND	50
Dibromomethane	ND	ND	ND	ND	5
Dichlorodifluoromethane	ND	ND	ND	ND	5
Ethylbenzene	ND	ND	ND	ND	5
Hexachlorobutadiene	ND	ND	ND	ND	0.5
Isopropylbenzene	<b>12</b>	<b>12</b>	ND	ND	5
m + p-Xylene	ND	ND	ND	ND	5
Methyl Ethyl Ketone	ND	ND	ND	ND	50
Methyl-Tert-Butyl-Ether (MTBE)	1.8	4.2	ND	ND	10
Methylene chloride	ND	ND	ND	ND	5
Naphthalene	ND	ND	ND	ND	10
n-Butylbenzene	4.8	1.5	ND	ND	5
n-Propylbenzene	2.9	<b>19</b>	ND	ND	5
o-Xylene	ND	ND	ND	ND	5
p-Isopropyltoluene	ND	ND	ND	ND	5
sec-Butylbenzene	<b>21</b>	4.6	ND	ND	5
Styrene	ND	ND	ND	ND	5
tert-Butylbenzene	2.6	1.6	ND	ND	5
Tetrachloroethene	ND	ND	ND	ND	5
Tetrahydrofuran (THF)	ND	ND	ND	ND	50
Toluene	ND	ND	ND	ND	5
Total Xylenes	ND	ND	ND	ND	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	5
trans-1,3-Dichloropropene	ND	ND	ND	ND	5
trans-1,4-dichloro-2-butene	ND	ND	ND	ND	5
Trichloroethene	ND	ND	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	5
Trichlorotrifluoroethane	ND	ND	ND	ND	NS
Vinyl chloride	ND	ND	ND	ND	2

NS...No Standard

ND...Not Detected

Shaded & bold values represent concentration exceeding the NYSDEC Ambient Groundwater Quality Standards

**Table 6**  
**Groundwater Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	MW-1	MW-2	MW-2 Dup	MW-3	NYSDEC Ambient Groundwater Quality Standards (µg/L)
Boring Number	SB-1	SB-3	SB-3	SB-5	
Depth to Groundwater	23.6'	23.76'	23.76'	23.29'	
Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	
Sample Matrix	GW	GW	GW	GW	
Units	µg/L	µg/L	µg/L	µg/L	
Semi-Volatile Organic Compounds (µg/L)					
1,2,4-Trichlorobenzene	ND	ND	ND	ND	5
1,2-Dichlorobenzene	ND	ND	ND	ND	3
1,2-Diphenylhydrazine	ND	ND	ND	ND	0.05
1,3-Dichlorobenzene	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	3
2,4,5-Trichlorophenol	ND	ND	ND	ND	1
2,4,6-Trichlorophenol	ND	ND	ND	ND	1
2,4-Dichlorophenol	ND	ND	ND	ND	1
2,4-Dimethylphenol	ND	ND	ND	ND	1
2,4-Dinitrophenol	ND	ND	ND	ND	1
2,4-Dinitrotoluene	ND	ND	ND	ND	5
2,6-Dinitrotoluene	ND	ND	ND	ND	5
2-Chloronaphthalene	ND	ND	ND	ND	10
2-Chlorophenol	ND	ND	ND	ND	NS
2-Methylnaphthalene	ND	1.2	ND	ND	NS
2-Methylphenol (o-cresol)	ND	ND	ND	ND	NS
2-Nitroaniline	ND	ND	ND	ND	5
2-Nitrophenol	ND	ND	ND	ND	NS
3&4-Methylphenol (m&p-cresol)	ND	ND	ND	ND	NS
3,3'-Dichlorobenzidine	ND	ND	ND	ND	5
3-Nitroaniline	ND	ND	ND	ND	5
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	NS
4-Bromophenyl phenyl ether	ND	ND	ND	ND	NS
4-Chloro-3-methylphenol	ND	ND	ND	ND	NS
4-Chloroaniline	ND	ND	ND	ND	5
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	NS
4-Nitroaniline	ND	ND	ND	ND	5
4-Nitrophenol	ND	ND	ND	ND	NS
Acenaphthene	ND	0.55	ND	ND	20
Aniline	ND	ND	ND	ND	5
Anthracene	ND	ND	ND	ND	50
Benzoic acid	ND	ND	ND	ND	NS
Benzyl butyl phthalate	ND	ND	ND	ND	50
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	5
Bis(2-chloroethyl)ether	ND	ND	ND	ND	1
Bis(2-chloroisopropyl)ether	ND	ND	ND	ND	1
Carbazole	ND	ND	ND	ND	NS
Dibenzofuran	ND	ND	ND	ND	NS
Diethyl phthalate	ND	ND	ND	ND	50
Dimethylphthalate	ND	ND	ND	ND	50
Di-n-butylphthalate	ND	ND	ND	ND	50
Di-n-octylphthalate	ND	ND	ND	ND	50
Fluoranthene	0.6	ND	ND	ND	50
Fluorene	ND	ND	ND	ND	50
Hexachlorobutadiene	ND	ND	ND	ND	0.5
Hexachlorocyclopentadiene	ND	ND	ND	ND	5
Isophorone	ND	ND	ND	ND	50
Naphthalene	0.56	ND	ND	ND	10
Nitrobenzene	ND	ND	ND	ND	0.4
N-Nitrosodimethylamine	ND	ND	ND	ND	NS
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	NS
N-Nitrosodiphenylamine	ND	ND	ND	ND	50
Phenol	ND	ND	ND	ND	1
Pyrene	ND	ND	ND	ND	50
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	5
Acenaphthene	0.87	ND	ND	ND	20
Acenaphthylene	ND	ND	ND	ND	NS
Benzo (a) Anthracene	0.07	ND	ND	ND	0.002
Benzo (a) Pyrene	ND	ND	ND	ND	0.002
Benzo (b) Fluoranthene	0.07	ND	ND	ND	0.002
Benzo (g,h,i) Perylene	ND	ND	ND	ND	5
Benzo (k) Fluoranthene	0.06	ND	ND	ND	0.002
Bis (2-ethylhexyl) Phthalate	1.2	ND	ND	ND	5
Chrysene	0.05	ND	ND	ND	0.002
Dibenz(a,h) Anthracene	ND	ND	ND	ND	50
Hexachlorobenzene	ND	ND	ND	ND	0.04
Hexachloroethane	ND	ND	ND	ND	0.5
Indeno (1,2,3-cd) Pyrene	0.03	ND	ND	ND	0.002
Pentachloronitrobenzene	ND	ND	ND	ND	NS
Pentachlorophenol	ND	ND	ND	ND	1
Phenanthrene	ND	ND	ND	ND	50
Pyridine	ND	ND	ND	ND	50

NS...No Standard

Shaded & bold values represent concentration exceeding the NYSDEC Ambient Groundwater Quality Standards

ND...Not Detected

**Table 7**  
**Groundwater Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	MW-1	MW-2	MW-3	MW-3 Dup	NYSDEC Ambient Groundwater Quality Standards (µg/L)
Boring Number	SB-1	SB-2	SB-3	SB-5	
Sample Depth	23.6'	23.76'	23.76'	23.29'	
Sample Date	6/24/2019	6/24/2019	6/24/2019	6/24/2019	
Sample Matrix	GW	GW	GW	GW	
Units	µg/L	µg/L	µg/L	µg/L	
<b>Pesticides (µg/L)</b>					
4,4' -DDD	ND	ND	ND	ND	0.3
4,4' -DDE	ND	ND	ND	ND	0.2
4,4' -DDT	ND	ND	ND	ND	0.11
a-BHC	ND	ND	ND	ND	0.94
Alachlor	ND	ND	ND	ND	NS
Aldrin	ND	ND	ND	ND	19
b-BHC	ND	ND	ND	ND	0.04
Chlordane	ND	ND	ND	ND	0.5
d-BHC	ND	ND	ND	ND	0.05
Dieldrin	ND	ND	ND	ND	0.004
Endosulfan I	ND	ND	ND	ND	0.009
Endosulfan II	ND	ND	ND	ND	0.009
Endosulfan sulfate	ND	ND	ND	ND	NS
Endrin	ND	ND	ND	ND	0.2
Endrin aldehyde	ND	ND	ND	ND	5
Endrin ketone	ND	ND	ND	ND	NS
g-BHC	ND	ND	ND	ND	0.05
Heptachlor	ND	ND	ND	ND	0.04
Heptachlor epoxide	ND	ND	ND	ND	0.03
Methoxychlor	ND	ND	ND	ND	35
Toxaphene	ND	ND	ND	ND	NS
<b>PCBs (µg/L)</b>					
PCB-1016	ND	ND	ND	ND	0.09
PCB-1221	ND	ND	ND	ND	0.09
PCB-1232	ND	ND	ND	ND	0.09
PCB-1242	ND	ND	ND	ND	0.09
PCB-1248	ND	ND	ND	ND	0.09
PCB-1254	ND	ND	ND	ND	0.09
PCB-1260	ND	ND	ND	ND	0.09
PCB-1262	ND	ND	ND	ND	0.09
PCB-1268	ND	ND	ND	ND	0.09

NS...No Standard

ND...Not Detected



**Table 8**  
**Groundwater Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	MW-1		MW-2		MW-2 Dup		MW-3		NYSDEC Ambient Groundwater Quality Standards (mg/L)
Boring Number	SB-1		SB-2		SB-2		SB-7		
Sample Depth	23.6'		23.76'		23.76'		23.29'		
Sample Date	6/24/2019		6/24/2019		6/24/2019		6/24/2019		
Sample Matrix	GW	dissolved	GW	dissolved	GW	dissolved	GW	dissolved	
<b>TAL Metals (mg/L)</b>									
Aluminum	1.47	0.064	0.633	0.053	0.331	0.056	0.424	0.052	200
Antimony	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	3
Arsenic	<0.004	<0.004	<0.004	<0.004	0.01	0.005	0.01	<0.004	25
Barium	0.248	0.179	0.271	0.177	0.236	0.204	0.244	0.205	1000
Beryllium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	3
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	5
Calcium	87.7	84	74.5	74.4	49.4	50.1	50.7	50.7	NS
Chromium	0.008	<0.001	0.006	<0.001	0.002	<0.001	0.002	<0.001	50
Cobalt	0.004	0.002	0.003	0.001	<0.002	<0.001	<0.002	<0.001	NS
Copper	0.019	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	200
Iron	10.9	<0.011	29.9	0.292	10.1	<0.011	10.6	<0.011	300
Lead	0.018	0.008	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	25
Magnesium	60.4	57.7	26.3	25.4	23.3	22.6	23.9	22.6	35,000
Manganese	3.08	2.81	6.6	5.8	3.68	3.6	3.81	3.55	300
Nickel	0.048	0.025	0.018	0.007	0.011	0.006	0.013	0.006	100
Potassium	9.2	8.2	6.6	5.7	6.3	5.7	6.4	5.7	NS
Selenium	<0.010	<0.011	<0.011	<0.011	<0.010	<0.011	<0.010	<0.011	10
Silver	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	50
Sodium	133	140	121	112	211	217	224	213	20,000
Thallium	<0.0005	<0.002	<0.0005	<0.002	<0.0005	<0.002	<0.0005	<0.002	0.5
Vanadium	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	NS
Zinc	0.032	0.007	0.015	0.004	0.007	<0.002	0.008	0.003	2,000
Mercury	<0.0002	<0.0002	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.7

NS...No Standard

ND...Not Detected

**Table 10**  
**Groundwater Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	MW-1	Preliminary Remediation Goals (PRG)	Reporting Limit	NYSDEC Ambient Groundwater Quality Standards (ng/L)
Boring Number	SB-1			
Sample Depth	23.6'			
Sample Date	6/24/2019			
Sample Matrix	GW			
<b>PFAS in Water (ng/L)</b>				
Perfluorobutanesulfonic acid (PFBS)	11	70	2.0	NS
Perfluorohexanoic acid (PFHxA)	12	70	2.0	NS
Perfluoroheptanoic acid (PFHpA)	10	70	2.0	NS
Perfluorobutanoic acid (PFBA)	7.2	70	2.0	NS
Perfluorodecanesulfonic acid (PFDS)	<2.0	70	2.0	NS
Perfluoroheptanesulfonic acid (PFHpS)	<2.0	70	2.0	NS
Perfluorooctanesulfonamide (FOSA)	<2.0	70	2.0	NS
Perfluoropentanoic acid (PFPeA)	11	70	2.0	NS
6:2 Fluorotelomersulfonate (6:2 FTS)	8.3	70	2.0	NS
8:2 Fluorotelomersulfonate (8:2 FTS)	<2.0	70	2.0	NS
Perfluorohexanesulfonic acid (PFHxS)	18	70	2.0	NS
Perfluorooctanoic acid (PFOA)	69	70	2.0	NS
Perfluorooctanesulfonic acid (PFOS)	8.6	70	2.0	NS
Perfluorononanoic acid (PFNA)	<2.0	70	2.0	NS
Perfluorodecanoic acid (PFDA)	<2.0	70	2.0	NS
N-MeFOSAA	<2.0	70	2.0	NS
Perfluoroundecanoic acid (PFUnA)	<2.0	70	2.0	NS
N-EtFOSAA	<2.0	70	2.0	NS
Perfluorododecanoic acid (PFDoA)	<2.0	70	2.0	NS
Perfluorotridecanoic acid (PFTrDA)	<2.0	70	2.0	NS
Perfluorotetradecanoic acid (PFTA)	<2.0	70	2.0	NS
<b>1,4-Dioxane (µg/L)</b>				
1,4-Dioxane	ND	70	0.20	NS

## Soil Vapor Analytical Results

**Table 9**  
**Soil Vapor Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	NYSDOH Air Guideline Value (AGV)	NYSDOH Decision Matrix	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	ASTM E 2600 Concentration In Existing Residences <sup>(1)</sup>	NYSDOH Fuel Oil 2003 Upper Fence Limit <sup>(2)</sup> (Indoor)	USEPA Base Data 90th % Value <sup>(2)</sup> (Indoor)
Boring Number			1	2	3	4	5	6			
Sample Date			6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019			
Sample Matrix			Air	Air	Air	Air	Air	Air			
Units			µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3			
<b>Volatile Organic Compounds (ug/m3)</b>											
1,1,1,2-Tetrachloroethane	--	2	ND	ND	ND	ND	ND	ND	--	2.5	--
1,1,1-Trichloroethane (TCA)	100		ND	ND	ND	ND	ND	ND	6.9	2.5	20.6
1,1,2,2-Tetrachloroethane	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<0.25
1,1,2-Trichloroethane	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<1.5
1,1-Dichloroethane	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<0.7
1,1-Dichloroethene	--		ND	ND	ND	ND	ND	ND	0.7	0.4	<1.4
1,2,4-Trichlorobenzene	--		ND	ND	ND	ND	ND	ND	6.3	0.5	<8.2
1,2,4-Trimethylbenzene	--		14.6	18.4	17.3	17.4	9.6	10.3	18.0	9.8	9.5
1,2-Dibromoethane (EDB)	--		ND	ND	ND	ND	ND	ND	--	0.4	<1.5
1,2-Dichlorobenzene	--		ND	ND	ND	ND	ND	ND	1.0	0.5	0.7
1,2-Dichloroethane	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<0.9
1,2-dichloropropane	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<1.6
1,2-Dichlorotetrafluoroethane	--		ND	ND	ND	ND	ND	ND	1.2	0.4	0.5
1,3,5-Trimethylbenzene	--		ND	ND	11	ND	ND	1.7	6.5	3.9	3.6
1,3-Butadiene	--		ND	12.7	11.2	17.9	15.6	4.44	--	--	--
1,3-Dichlorobenzene	--		ND	ND	ND	ND	ND	ND	0.9	0.5	0.6
1,4-Dichlorobenzene	--		ND	ND	ND	ND	ND	ND	2.6	1.2	1.3
1,4-Dioxane	--		ND	ND	ND	ND	ND	ND	--	--	--
2-Hexanone (MBK)	--		ND	409	160	426	ND	37.7	--	--	--
4-Ethyltoluene	--		11.4	14.3	15.3	14.3	7.91	7.91	--	--	3.6
4-Isopropyltoluene	--		ND	ND	ND	ND	ND	1.78	--	--	--
4-Methyl-2-pentanone (MIBK)	--		ND	ND	ND	ND	ND	4.18	--	--	--
Acetone	--		420	997	316	1,080	285	74.3	140.0	115.0	98.9
Acrylonitrile	--		ND	ND	ND	ND	ND	ND	--	--	--
Benzene	--		9.5	8.97	8.21	11.3	36.4	6.77	13	13.0	9.4
Benzyl chloride	--		ND	ND	ND	ND	ND	ND	--	--	<6.8
Bromodichloromethane	--		ND	ND	ND	ND	ND	8.24	--	--	--
Bromoform	--		ND	ND	ND	ND	ND	ND	--	--	--
Bromomethane	--		ND	ND	ND	ND	ND	ND	1	0.5	<6.8
Carbon Disulfide	--		9.24	ND	ND	ND	50.7	20.9	--	--	4.2
Carbon Tetrachloride	5	1	ND	ND	ND	ND	ND	0.53	1	1.3	<1.3
Chlorobenzene	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<0.9
Chloroethane	--		ND	ND	ND	ND	ND	ND	0.6	0.4	<1.1
Chloroform	--		ND	6.78	ND	ND	14.5	117	4.6	1.2	1.4
Chloromethane	--		ND	ND	ND	ND	ND	2.08	5.2	4.2	3.3

ND...Not Detected

AGV....Air Guideline Value

-- = Not Available

∩ - From ASTM E 2600-08 :Standard Practice for Assessment of Vapor Intrusion into Structures on Property involved in Real Estate Transactions"

∩ - Per Appendix C of the Final NYSDOH Guidance

above upper fence residential background concentration indoor (NYSDOH, 2006)

**Table 9 Continued... ..**  
**Soil Vapor Samples Analytical Results**  
**1665 Stillwell Avenue, Brooklyn, NY**

Sample Identification	NYSDOH Air Guideline Value (AGV)	NYSDOH Decision Matrix	SV-1	SV-2	SV-3	SV-4	SV-5	SV-6	ASTM E 2600 Concentration In Existing Residences <sup>(1)</sup>	NYSDOH Fuel Oil 2003 Upper Fence Limit <sup>(2)</sup> (Indoor)	USEPA Base Data 90th % Value <sup>(2)</sup> (Indoor)
Boring Number			1	2	3	4	5	6			
Sample Date			6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019	6/24/2019			
Sample Matrix			Air	Air	Air	Air	Air	Air			
Units			µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3			
<b>Volatile Organic Compounds (ug/m3)</b>											
Cis-1,2-Dichloroethene	--	2	ND	ND	ND	ND	24.8	ND	1.2	0.4	<1.9
cis-1,3-Dichloropropene	--		ND	ND	ND	ND	ND	ND	<0.25	0.4	<0.25
Cyclohexane	--		8.7	10.6	10.2	11.5	10	10.4	1.9	6.3	8
Dibromochloromethane	--		ND	ND	ND	ND	ND	ND	--	--	--
Dichlorodifluoromethane	--		ND	ND	ND	ND	27.4	2	2.6	10.0	15.0
Ethanol	--		61.6	154	68.2	130	29.2	15.1	--	--	210.0
Ethyl acetate	--		ND	ND	ND	ND	ND	ND	--	--	5.4
Ethylbenzene	--		52.1	61.2	50.3	69.4	9.37	21	13.0	6.4	5.7
Heptane	--		15.4	39.4	18.8	22	56.5	9.7	--	--	--
Hexachlorobutadiene	--		ND	ND	ND	ND	ND	ND	14.0	0.5	6.5
Hexane	--		ND	ND	ND	16.6	30.8	8.38	--	--	--
Isopropylalcohol	--		5.67	5.43	6.07	13.1	ND	2.63	--	--	--
Isopropylbenzene	--		128	144	116	174	160	50.1	1.3	0.8	0.9
m,p-Xylene	--		108	134.0	105.0	144.0	20.25	45.6	22	11.0	12.0
Methyl Ethyl Ketone	--		1,540	2,810	955	2,920	88.4	84.90	--	16.0	16.0
Methyl tert-butyl ether(MTBE)	--		ND	ND	ND	ND	ND	ND	--	14	11.5
Methylene Chloride	60		ND	ND	ND	ND	ND	ND	--	16	10.0
n-Butylbenzene	--		ND	ND	ND	ND	ND	ND	2	1.1	1.2
o-Xylene	--		53.8	64.2	63.8	72.5	7.2	24.9	6.9	7.1	7.6
Propylene	--		186	232	118	246	177	30.4	--	--	--
sec-Butylbenzene	--		ND	ND	9.22	ND	ND	ND	1.7	1.2	1.2
Styrene	--		167	167	135	197	12.77	58.7	2.3	1.4	1.3
Tetrachloroethene (PCE)	30	2	582	550	983	746	3,730	231	4.1	2.5	15.9
Tetrahydrofuran	--		ND	ND	ND	ND	923	ND	9.4	0.8	3.3
Toluene	--		25.9	39.9	21.7	29	31.7	9.34	29-49	57	43
Trans-1,2-Dichloroethene	--		ND	ND	ND	ND	ND	ND	--	<0.25	<0.25
trans-1,3-Dichloropropene	--		ND	ND	ND	ND	ND	ND	--	NC	<1.3
Trichloroethene (TCE)	2	1	3.57	23	42.5	1.93	73.6	3.67	0.8	0.5	0.5
Trichlorofluoromethane	--		ND	ND	ND	ND	ND	ND	30	12.0	17.0
Trichlorotrifluoroethane	--		ND	ND	ND	ND	ND	ND	--	--	4
Vinyl Chloride	--	1	ND	ND	ND	ND	ND	1.19	<0.25	0.4	<0.25

ND...Not Detected

AGV....Air Guideline Value

-- = Not Available

<sup>(1)</sup> - From ASTM E 2600-08 :Standard Practice for Assessment of Vapor Intrusion into Structures on Property involved in Real Estate Transactions"

<sup>(2)</sup> - Per Appendix C of the Final NYSDOH Guidance

above upper fence residential background concentration indoor (NYSDOH, 2006)

## Photographs





Subject Property (1665 - 1673 Stillwell Avenue)



Western Area of Site



Installing SB-2 / MW-2



Soil Boring SB-2



Soil Boring SB-6





Installing SB-7



Soil Boring SB-7



Soil Vapor SV-2



Soil Vapor SV-5



Soil Boring SB-3



Soil Vapor SV-4





GPR Survey - Northwestern Area of Site



Installing Soil Boring SB-3

# Laboratory Analytical Report



Friday, July 05, 2019

Attn: Ms. Antoinette Ollivierre  
American Env. Assessment & Solutions Inc  
679 Lafayette Ave.  
3rd Floor  
Brooklyn, NY 11216

Project ID: 1665 STILLWELL AVENUE  
SDG ID: GCD42045  
Sample ID#s: CD42045 - CD42050

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Sample Id Cross Reference

July 05, 2019

SDG I.D.: GCD42045

Project ID: 1665 STILLWELL AVENUE

---

Client Id	Lab Id	Matrix
SV-1	CD42045	AIR
SV-2	CD42046	AIR
SV-3	CD42047	AIR
SV-4	CD42048	AIR
SV-5	CD42049	AIR
SV-6	CD42050	AIR



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 28580

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date Time  
 06/24/19 12:45  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42045

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<b>Volatiles (TO15)</b>							
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,1-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,2-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,1-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	06/28/19	KCA	5
1,2,4-Trimethylbenzene	2.98	1.02	14.6	5.01	06/28/19	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	06/28/19	KCA	5
1,2-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,2-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,2-dichloropropane	ND	1.08	ND	4.99	06/28/19	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	06/28/19	KCA	5
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	06/28/19	KCA	5
1,3-Butadiene	ND	2.26	ND	5.00	06/28/19	KCA	5
1,3-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dioxane	ND	1.39	ND	5.01	06/28/19	KCA	5
2-Hexanone(MBK)	ND	1.22	ND	4.99	06/28/19	KCA	5
4-Ethyltoluene	2.32	1.02	11.4	5.01	06/28/19	KCA	5
4-Isopropyltoluene	ND	0.911	ND	5.00	06/28/19	KCA	5
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	06/28/19	KCA	5
Acetone	177	2.11	420	5.01	06/28/19	KCA	5
Acrylonitrile	ND	2.31	ND	5.01	06/28/19	KCA	5
Benzene	2.99	1.57	9.5	5.01	06/28/19	KCA	5
Benzyl chloride	ND	0.966	ND	5.00	06/28/19	KCA	5

Client ID: SV-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	ND	5.00	06/28/19	KCA	5
Bromoform	ND	0.484	ND	5.00	06/28/19	KCA	5
Bromomethane	ND	1.29	ND	5.01	06/28/19	KCA	5
Carbon Disulfide	2.97	1.61	9.24	5.01	06/28/19	KCA	5
Carbon Tetrachloride	ND	0.159	ND	1.00	06/28/19	KCA	5
Chlorobenzene	ND	1.09	ND	5.01	06/28/19	KCA	5
Chloroethane	ND	1.90	ND	5.01	06/28/19	KCA	5
Chloroform	ND	1.02	ND	4.98	06/28/19	KCA	5
Chloromethane	ND	2.42	ND	4.99	06/28/19	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Cyclohexane	2.53	1.45	8.70	4.99	06/28/19	KCA	5
Dibromochloromethane	ND	0.587	ND	5.00	06/28/19	KCA	5
Dichlorodifluoromethane	ND	1.01	ND	4.99	06/28/19	KCA	5
Ethanol	32.7	2.66	61.6	5.01	06/28/19	KCA	5
Ethyl acetate	ND	1.39	ND	5.01	06/28/19	KCA	5
Ethylbenzene	12.0	1.15	52.1	4.99	06/28/19	KCA	5
Heptane	3.76	1.22	15.4	5.00	06/28/19	KCA	5
Hexachlorobutadiene	ND	0.469	ND	5.00	06/28/19	KCA	5
Hexane	ND	1.42	ND	5.00	06/28/19	KCA	5
Isopropylalcohol	2.31	2.04	5.67	5.01	06/28/19	KCA	5
Isopropylbenzene	26.1	1.02	128	5.01	06/28/19	KCA	5
m,p-Xylene	25.0	1.15	108	4.99	06/28/19	KCA	5
Methyl Ethyl Ketone	521	10.2	1540	30.1	07/01/19	KCA	30
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	06/28/19	KCA	5
Methylene Chloride	ND	4.32	ND	15.0	06/28/19	KCA	5
n-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
o-Xylene	12.4	1.15	53.8	4.99	06/28/19	KCA	5
Propylene	108	2.91	186	5.01	06/28/19	KCA	5
sec-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
Styrene	39.3	1.17	167	4.98	06/28/19	KCA	5
Tetrachloroethene	85.9	0.184	582	1.25	06/28/19	KCA	5
Tetrahydrofuran	ND	1.70	ND	5.01	06/28/19	KCA	5
Toluene	6.88	1.33	25.9	5.01	06/28/19	KCA	5
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	06/28/19	KCA	5
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Trichloroethene	0.665	0.186	3.57	1.00	06/28/19	KCA	5
Trichlorofluoromethane	ND	0.891	ND	5.00	06/28/19	KCA	5
Trichlorotrifluoroethane	ND	0.653	ND	5.00	06/28/19	KCA	5
Vinyl Chloride	ND	0.391	ND	1.00	06/28/19	KCA	5
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene (5x)	97	%	97	%	06/28/19	KCA	5
% IS-1,4-Difluorobenzene (5x)	86	%	86	%	06/28/19	KCA	5
% IS-Bromochloromethane (5x)	88	%	88	%	06/28/19	KCA	5
% IS-Chlorobenzene-d5 (5x)	78	%	78	%	06/28/19	KCA	5
% Bromofluorobenzene (30x)	99	%	99	%	07/01/19	KCA	30
% IS-1,4-Difluorobenzene (30x)	101	%	101	%	07/01/19	KCA	30
% IS-Bromochloromethane (30x)	102	%	102	%	07/01/19	KCA	30
% IS-Chlorobenzene-d5 (30x)	93	%	93	%	07/01/19	KCA	30

Client ID: SV-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low

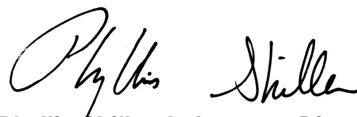
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 23342

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date Time  
 06/24/19 12:48  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42046

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
<b>Volatiles (TO15)</b>								
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5	1
1,1,1-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5	
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5	
1,1,2-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5	
1,1-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5	
1,1-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5	
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	06/28/19	KCA	5	
1,2,4-Trimethylbenzene	3.75	1.02	18.4	5.01	06/28/19	KCA	5	
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	06/28/19	KCA	5	
1,2-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,2-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5	
1,2-dichloropropane	ND	1.08	ND	4.99	06/28/19	KCA	5	
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	06/28/19	KCA	5	
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	06/28/19	KCA	5	
1,3-Butadiene	5.76	2.26	12.7	5.00	06/28/19	KCA	5	
1,3-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,4-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,4-Dioxane	ND	1.39	ND	5.01	06/28/19	KCA	5	
2-Hexanone(MBK)	99.9	1.22	409	4.99	06/28/19	KCA	5	1
4-Ethyltoluene	2.92	1.02	14.3	5.01	06/28/19	KCA	5	1
4-Isopropyltoluene	ND	0.911	ND	5.00	06/28/19	KCA	5	1
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	06/28/19	KCA	5	
Acetone	420	12.6	997	29.9	07/03/19	KCA	30	
Acrylonitrile	ND	2.31	ND	5.01	06/28/19	KCA	5	
Benzene	2.81	1.57	8.97	5.01	06/28/19	KCA	5	
Benzyl chloride	ND	0.966	ND	5.00	06/28/19	KCA	5	



Client ID: SV-2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	ND	5.00	06/28/19	KCA	5
Bromoform	ND	0.484	ND	5.00	06/28/19	KCA	5
Bromomethane	ND	1.29	ND	5.01	06/28/19	KCA	5
Carbon Disulfide	ND	1.61	ND	5.01	06/28/19	KCA	5
Carbon Tetrachloride	ND	0.159	ND	1.00	06/28/19	KCA	5
Chlorobenzene	ND	1.09	ND	5.01	06/28/19	KCA	5
Chloroethane	ND	1.90	ND	5.01	06/28/19	KCA	5
Chloroform	1.39	1.02	6.78	4.98	06/28/19	KCA	5
Chloromethane	ND	2.42	ND	4.99	06/28/19	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Cyclohexane	3.07	1.45	10.6	4.99	06/28/19	KCA	5
Dibromochloromethane	ND	0.587	ND	5.00	06/28/19	KCA	5
Dichlorodifluoromethane	ND	1.01	ND	4.99	06/28/19	KCA	5
Ethanol	82.0	2.66	154	5.01	06/28/19	KCA	5
Ethyl acetate	ND	1.39	ND	5.01	06/28/19	KCA	5
Ethylbenzene	14.1	1.15	61.2	4.99	06/28/19	KCA	5
Heptane	9.61	1.22	39.4	5.00	06/28/19	KCA	5
Hexachlorobutadiene	ND	0.469	ND	5.00	06/28/19	KCA	5
Hexane	ND	1.42	ND	5.00	06/28/19	KCA	5
Isopropylalcohol	2.21	2.04	5.43	5.01	06/28/19	KCA	5
Isopropylbenzene	29.3	1.02	144	5.01	06/28/19	KCA	5
m,p-Xylene	30.8	1.15	134	4.99	06/28/19	KCA	5
Methyl Ethyl Ketone	954	10.2	2810	30.1	07/03/19	KCA	30
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	06/28/19	KCA	5
Methylene Chloride	ND	4.32	ND	15.0	06/28/19	KCA	5
n-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
o-Xylene	14.8	1.15	64.2	4.99	06/28/19	KCA	5
Propylene	135	2.91	232	5.01	06/28/19	KCA	5
sec-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
Styrene	39.3	1.17	167	4.98	06/28/19	KCA	5
Tetrachloroethene	81.2	0.184	550	1.25	06/28/19	KCA	5
Tetrahydrofuran	ND	1.70	ND	5.01	06/28/19	KCA	5
Toluene	10.6	1.33	39.9	5.01	06/28/19	KCA	5
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	06/28/19	KCA	5
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Trichloroethene	4.29	0.186	23.0	1.00	06/28/19	KCA	5
Trichlorofluoromethane	ND	0.891	ND	5.00	06/28/19	KCA	5
Trichlorotrifluoroethane	ND	0.653	ND	5.00	06/28/19	KCA	5
Vinyl Chloride	ND	0.391	ND	1.00	06/28/19	KCA	5
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene (5x)	97	%	97	%	06/28/19	KCA	5
% IS-1,4-Difluorobenzene (5x)	88	%	88	%	06/28/19	KCA	5
% IS-Bromochloromethane (5x)	90	%	90	%	06/28/19	KCA	5
% IS-Chlorobenzene-d5 (5x)	78	%	78	%	06/28/19	KCA	5
% Bromofluorobenzene (30x)	100	%	100	%	07/03/19	KCA	30
% IS-1,4-Difluorobenzene (30x)	100	%	100	%	07/03/19	KCA	30
% IS-Bromochloromethane (30x)	100	%	100	%	07/03/19	KCA	30
% IS-Chlorobenzene-d5 (30x)	94	%	94	%	07/03/19	KCA	30

Client ID: SV-2

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 28575

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date Time  
 06/24/19 12:47  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42047

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<b>Volatiles (TO15)</b>							
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,1-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,2-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,1-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	06/28/19	KCA	5
1,2,4-Trimethylbenzene	3.52	1.02	17.3	5.01	06/28/19	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	06/28/19	KCA	5
1,2-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,2-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,2-dichloropropane	ND	1.08	ND	4.99	06/28/19	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	06/28/19	KCA	5
1,3,5-Trimethylbenzene	2.23	1.02	11.0	5.01	06/28/19	KCA	5
1,3-Butadiene	5.06	2.26	11.2	5.00	06/28/19	KCA	5
1,3-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dioxane	ND	1.39	ND	5.01	06/28/19	KCA	5
2-Hexanone(MBK)	39.2	1.22	160	4.99	06/28/19	KCA	5
4-Ethyltoluene	3.12	1.02	15.3	5.01	06/28/19	KCA	5
4-Isopropyltoluene	ND	0.911	ND	5.00	06/28/19	KCA	5
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	06/28/19	KCA	5
Acetone	133	2.11	316	5.01	06/28/19	KCA	5
Acrylonitrile	ND	2.31	ND	5.01	06/28/19	KCA	5
Benzene	2.57	1.57	8.21	5.01	06/28/19	KCA	5
Benzyl chloride	ND	0.966	ND	5.00	06/28/19	KCA	5

Client ID: SV-3

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	ND	5.00	06/28/19	KCA	5
Bromoform	ND	0.484	ND	5.00	06/28/19	KCA	5
Bromomethane	ND	1.29	ND	5.01	06/28/19	KCA	5
Carbon Disulfide	ND	1.61	ND	5.01	06/28/19	KCA	5
Carbon Tetrachloride	ND	0.159	ND	1.00	06/28/19	KCA	5
Chlorobenzene	ND	1.09	ND	5.01	06/28/19	KCA	5
Chloroethane	ND	1.90	ND	5.01	06/28/19	KCA	5
Chloroform	ND	1.02	ND	4.98	06/28/19	KCA	5
Chloromethane	ND	2.42	ND	4.99	06/28/19	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Cyclohexane	2.97	1.45	10.2	4.99	06/28/19	KCA	5
Dibromochloromethane	ND	0.587	ND	5.00	06/28/19	KCA	5
Dichlorodifluoromethane	ND	1.01	ND	4.99	06/28/19	KCA	5
Ethanol	36.2	2.66	68.2	5.01	06/28/19	KCA	5
Ethyl acetate	ND	1.39	ND	5.01	06/28/19	KCA	5
Ethylbenzene	11.6	1.15	50.3	4.99	06/28/19	KCA	5
Heptane	4.59	1.22	18.8	5.00	06/28/19	KCA	5
Hexachlorobutadiene	ND	0.469	ND	5.00	06/28/19	KCA	5
Hexane	ND	1.42	ND	5.00	06/28/19	KCA	5
Isopropylalcohol	2.47	2.04	6.07	5.01	06/28/19	KCA	5
Isopropylbenzene	23.7	1.02	116	5.01	06/28/19	KCA	5
m,p-Xylene	24.1	1.15	105	4.99	06/28/19	KCA	5
Methyl Ethyl Ketone	324	5.09	955	15.0	07/03/19	KCA	15
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	06/28/19	KCA	5
Methylene Chloride	ND	4.32	ND	15.0	06/28/19	KCA	5
n-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
o-Xylene	14.7	1.15	63.8	4.99	06/28/19	KCA	5
Propylene	68.8	2.91	118	5.01	06/28/19	KCA	5
sec-Butylbenzene	1.68	0.911	9.22	5.00	06/28/19	KCA	5
Styrene	31.8	1.17	135	4.98	06/28/19	KCA	5
Tetrachloroethene	145	0.184	983	1.25	06/28/19	KCA	5
Tetrahydrofuran	ND	1.70	ND	5.01	06/28/19	KCA	5
Toluene	5.77	1.33	21.7	5.01	06/28/19	KCA	5
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	06/28/19	KCA	5
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Trichloroethene	7.92	0.186	42.5	1.00	06/28/19	KCA	5
Trichlorofluoromethane	ND	0.891	ND	5.00	06/28/19	KCA	5
Trichlorotrifluoroethane	ND	0.653	ND	5.00	06/28/19	KCA	5
Vinyl Chloride	ND	0.391	ND	1.00	06/28/19	KCA	5
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene (5x)	98	%	98	%	06/28/19	KCA	5
% IS-1,4-Difluorobenzene (5x)	93	%	93	%	06/28/19	KCA	5
% IS-Bromochloromethane (5x)	98	%	98	%	06/28/19	KCA	5
% IS-Chlorobenzene-d5 (5x)	80	%	80	%	06/28/19	KCA	5
% Bromofluorobenzene (15x)	100	%	100	%	07/03/19	KCA	15
% IS-1,4-Difluorobenzene (15x)	101	%	101	%	07/03/19	KCA	15
% IS-Bromochloromethane (15x)	104	%	104	%	07/03/19	KCA	15
% IS-Chlorobenzene-d5 (15x)	92	%	92	%	07/03/19	KCA	15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 23346

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date Time  
 06/24/19 12:52  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42048

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
<b>Volatiles (TO15)</b>								
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5	1
1,1,1-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5	
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5	
1,1,2-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5	
1,1-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5	
1,1-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5	
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	06/28/19	KCA	5	
1,2,4-Trimethylbenzene	3.55	1.02	17.4	5.01	06/28/19	KCA	5	
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	06/28/19	KCA	5	
1,2-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,2-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5	
1,2-dichloropropane	ND	1.08	ND	4.99	06/28/19	KCA	5	
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	06/28/19	KCA	5	
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	06/28/19	KCA	5	
1,3-Butadiene	8.08	2.26	17.9	5.00	06/28/19	KCA	5	
1,3-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,4-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5	
1,4-Dioxane	ND	1.39	ND	5.01	06/28/19	KCA	5	
2-Hexanone(MBK)	104	1.22	426	4.99	06/28/19	KCA	5	1
4-Ethyltoluene	2.91	1.02	14.3	5.01	06/28/19	KCA	5	1
4-Isopropyltoluene	ND	0.911	ND	5.00	06/28/19	KCA	5	1
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	06/28/19	KCA	5	
Acetone	455	12.6	1080	29.9	07/03/19	KCA	30	
Acrylonitrile	ND	2.31	ND	5.01	06/28/19	KCA	5	
Benzene	3.55	1.57	11.3	5.01	06/28/19	KCA	5	
Benzyl chloride	ND	0.966	ND	5.00	06/28/19	KCA	5	

Client ID: SV-4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	ND	5.00	06/28/19	KCA	5
Bromoform	ND	0.484	ND	5.00	06/28/19	KCA	5
Bromomethane	ND	1.29	ND	5.01	06/28/19	KCA	5
Carbon Disulfide	ND	1.61	ND	5.01	06/28/19	KCA	5
Carbon Tetrachloride	ND	0.159	ND	1.00	06/28/19	KCA	5
Chlorobenzene	ND	1.09	ND	5.01	06/28/19	KCA	5
Chloroethane	ND	1.90	ND	5.01	06/28/19	KCA	5
Chloroform	ND	1.02	ND	4.98	06/28/19	KCA	5
Chloromethane	ND	2.42	ND	4.99	06/28/19	KCA	5
Cis-1,2-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Cyclohexane	3.33	1.45	11.5	4.99	06/28/19	KCA	5
Dibromochloromethane	ND	0.587	ND	5.00	06/28/19	KCA	5
Dichlorodifluoromethane	ND	1.01	ND	4.99	06/28/19	KCA	5
Ethanol	69.0	2.66	130	5.01	06/28/19	KCA	5
Ethyl acetate	ND	1.39	ND	5.01	06/28/19	KCA	5
Ethylbenzene	16.0	1.15	69.4	4.99	06/28/19	KCA	5
Heptane	5.37	1.22	22.0	5.00	06/28/19	KCA	5
Hexachlorobutadiene	ND	0.469	ND	5.00	06/28/19	KCA	5
Hexane	4.70	1.42	16.6	5.00	06/28/19	KCA	5
Isopropylalcohol	5.35	2.04	13.1	5.01	06/28/19	KCA	5
Isopropylbenzene	35.4	1.02	174	5.01	06/28/19	KCA	5
m,p-Xylene	33.2	1.15	144	4.99	06/28/19	KCA	5
Methyl Ethyl Ketone	992	10.2	2920	30.1	07/03/19	KCA	30
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	06/28/19	KCA	5
Methylene Chloride	ND	4.32	ND	15.0	06/28/19	KCA	5
n-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
o-Xylene	16.7	1.15	72.5	4.99	06/28/19	KCA	5
Propylene	143	2.91	246	5.01	06/28/19	KCA	5
sec-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
Styrene	46.2	1.17	197	4.98	06/28/19	KCA	5
Tetrachloroethene	110	0.184	746	1.25	06/28/19	KCA	5
Tetrahydrofuran	ND	1.70	ND	5.01	06/28/19	KCA	5
Toluene	7.71	1.33	29.0	5.01	06/28/19	KCA	5
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	06/28/19	KCA	5
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Trichloroethene	0.360	0.186	1.93	1.00	06/28/19	KCA	5
Trichlorofluoromethane	ND	0.891	ND	5.00	06/28/19	KCA	5
Trichlorotrifluoroethane	ND	0.653	ND	5.00	06/28/19	KCA	5
Vinyl Chloride	ND	0.391	ND	1.00	06/28/19	KCA	5
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene (5x)	97	%	97	%	06/28/19	KCA	5
% IS-1,4-Difluorobenzene (5x)	94	%	94	%	06/28/19	KCA	5
% IS-Bromochloromethane (5x)	95	%	95	%	06/28/19	KCA	5
% IS-Chlorobenzene-d5 (5x)	80	%	80	%	06/28/19	KCA	5
% Bromofluorobenzene (30x)	104	%	104	%	07/03/19	KCA	30
% IS-1,4-Difluorobenzene (30x)	108	%	108	%	07/03/19	KCA	30
% IS-Bromochloromethane (30x)	109	%	109	%	07/03/19	KCA	30
% IS-Chlorobenzene-d5 (30x)	98	%	98	%	07/03/19	KCA	30



Client ID: SV-4

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low

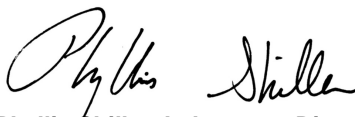
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 218

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date Time  
 06/24/19 12:58  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42049

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-5

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<b>Volatiles (TO15)</b>							
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,1-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	06/28/19	KCA	5
1,1,2-Trichloroethane	ND	0.917	ND	5.00	06/28/19	KCA	5
1,1-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,1-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	06/28/19	KCA	5
1,2,4-Trimethylbenzene	1.96	1.02	9.6	5.01	06/28/19	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	06/28/19	KCA	5
1,2-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,2-Dichloroethane	ND	1.24	ND	5.02	06/28/19	KCA	5
1,2-dichloropropane	ND	1.08	ND	4.99	06/28/19	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	06/28/19	KCA	5
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	06/28/19	KCA	5
1,3-Butadiene	7.05	2.26	15.6	5.00	06/28/19	KCA	5
1,3-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dichlorobenzene	ND	0.832	ND	5.00	06/28/19	KCA	5
1,4-Dioxane	ND	1.39	ND	5.01	06/28/19	KCA	5
2-Hexanone(MBK)	ND	1.22	ND	4.99	06/28/19	KCA	5
4-Ethyltoluene	1.61	1.02	7.91	5.01	06/28/19	KCA	5
4-Isopropyltoluene	ND	0.911	ND	5.00	06/28/19	KCA	5
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	06/28/19	KCA	5
Acetone	120	6.32	285	15.0	07/03/19	KCA	15
Acrylonitrile	ND	2.31	ND	5.01	06/28/19	KCA	5
Benzene	11.4	1.57	36.4	5.01	06/28/19	KCA	5
Benzyl chloride	ND	0.966	ND	5.00	06/28/19	KCA	5

Client ID: SV-5

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.747	ND	5.00	06/28/19	KCA	5
Bromoform	ND	0.484	ND	5.00	06/28/19	KCA	5
Bromomethane	ND	1.29	ND	5.01	06/28/19	KCA	5
Carbon Disulfide	16.3	1.61	50.7	5.01	06/28/19	KCA	5
Carbon Tetrachloride	ND	0.159	ND	1.00	06/28/19	KCA	5
Chlorobenzene	ND	1.09	ND	5.01	06/28/19	KCA	5
Chloroethane	ND	1.90	ND	5.01	06/28/19	KCA	5
Chloroform	2.97	1.02	14.5	4.98	06/28/19	KCA	5
Chloromethane	ND	2.42	ND	4.99	06/28/19	KCA	5
Cis-1,2-Dichloroethene	6.26	0.252	24.8	1.00	06/28/19	KCA	5
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Cyclohexane	2.90	1.45	10.0	4.99	06/28/19	KCA	5
Dibromochloromethane	ND	0.587	ND	5.00	06/28/19	KCA	5
Dichlorodifluoromethane	5.55	1.01	27.4	4.99	06/28/19	KCA	5
Ethanol	15.5	2.66	29.2	5.01	06/28/19	KCA	5
Ethyl acetate	ND	1.39	ND	5.01	06/28/19	KCA	5
Ethylbenzene	2.16	1.15	9.37	4.99	06/28/19	KCA	5
Heptane	13.8	1.22	56.5	5.00	06/28/19	KCA	5
Hexachlorobutadiene	ND	0.469	ND	5.00	06/28/19	KCA	5
Hexane	8.75	1.42	30.8	5.00	06/28/19	KCA	5
Isopropylalcohol	ND	2.04	ND	5.01	06/28/19	KCA	5
Isopropylbenzene	32.6	1.02	160	5.01	06/28/19	KCA	5
m,p-Xylene	4.66	1.15	20.2	4.99	06/28/19	KCA	5
Methyl Ethyl Ketone	30.0	1.70	88.4	5.01	06/28/19	KCA	5
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	06/28/19	KCA	5
Methylene Chloride	ND	4.32	ND	15.0	06/28/19	KCA	5
n-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
o-Xylene	1.66	1.15	7.20	4.99	06/28/19	KCA	5
Propylene	103	2.91	177	5.01	06/28/19	KCA	5
sec-Butylbenzene	ND	0.911	ND	5.00	06/28/19	KCA	5
Styrene	2.98	1.17	12.7	4.98	06/28/19	KCA	5
Tetrachloroethene	550	0.553	3730	3.75	07/03/19	KCA	15
Tetrahydrofuran	313	5.09	923	15.0	07/03/19	KCA	15
Toluene	8.43	1.33	31.7	5.01	06/28/19	KCA	5
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	06/28/19	KCA	5
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	06/28/19	KCA	5
Trichloroethene	13.7	0.186	73.6	1.00	06/28/19	KCA	5
Trichlorofluoromethane	ND	0.891	ND	5.00	06/28/19	KCA	5
Trichlorotrifluoroethane	ND	0.653	ND	5.00	06/28/19	KCA	5
Vinyl Chloride	0.650	0.391	1.66	1.00	06/28/19	KCA	5
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene (5x)	97	%	97	%	06/28/19	KCA	5
% IS-1,4-Difluorobenzene (5x)	94	%	94	%	06/28/19	KCA	5
% IS-Bromochloromethane (5x)	97	%	97	%	06/28/19	KCA	5
% IS-Chlorobenzene-d5 (5x)	82	%	82	%	06/28/19	KCA	5
% Bromofluorobenzene (15x)	102	%	102	%	07/03/19	KCA	15
% IS-1,4-Difluorobenzene (15x)	108	%	108	%	07/03/19	KCA	15
% IS-Bromochloromethane (15x)	111	%	111	%	07/03/19	KCA	15
% IS-Chlorobenzene-d5 (15x)	97	%	97	%	07/03/19	KCA	15

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
 BRL=Below Reporting Level L=Biased Low

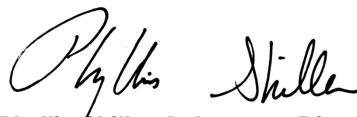
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

The canister was received under no vacuum, therefore sample results may not be representative.

An elevated reporting level was reported for TO15 due to a matrix interference of non target compounds.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Analysis Report

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

## Sample Information

Matrix: AIR  
 Location Code: AEAS-INC  
 Rush Request: 72 Hour  
 P.O.#:  
 Canister Id: 21356

## Custody Information

Collected by: AO  
 Received by: B  
 Analyzed by: see "By" below

Date: 06/24/19 13:00  
 06/25/19 17:26

## Laboratory Data

SDG ID: GCD42045  
 Phoenix ID: CD42050

Project ID: 1665 STILLWELL AVENUE  
 Client ID: SV-6

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<b>Volatiles (TO15)</b>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	06/28/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	06/28/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	06/28/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	ND	1.00	06/28/19	KCA	1
1,1-Dichloroethane	ND	0.247	ND	1.00	06/28/19	KCA	1
1,1-Dichloroethene	ND	0.051	ND	0.20	06/28/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	06/28/19	KCA	1
1,2,4-Trimethylbenzene	2.09	0.204	10.3	1.00	06/28/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	06/28/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	ND	1.00	06/28/19	KCA	1
1,2-Dichloroethane	ND	0.247	ND	1.00	06/28/19	KCA	1
1,2-dichloropropane	ND	0.217	ND	1.00	06/28/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	06/28/19	KCA	1
1,3,5-Trimethylbenzene	0.346	0.204	1.70	1.00	06/28/19	KCA	1
1,3-Butadiene	2.01	0.452	4.44	1.00	06/28/19	KCA	1
1,3-Dichlorobenzene	ND	0.166	ND	1.00	06/28/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	ND	1.00	06/28/19	KCA	1
1,4-Dioxane	ND	0.278	ND	1.00	06/28/19	KCA	1
2-Hexanone(MBK)	9.20	0.244	37.7	1.00	06/28/19	KCA	1
4-Ethyltoluene	1.61	0.204	7.91	1.00	06/28/19	KCA	1
4-Isopropyltoluene	0.325	0.182	1.78	1.00	06/28/19	KCA	1
4-Methyl-2-pentanone(MIBK)	1.02	0.244	4.18	1.00	06/28/19	KCA	1
Acetone	31.3	0.421	74.3	1.00	06/28/19	KCA	1
Acrylonitrile	ND	0.461	ND	1.00	06/28/19	KCA	1
Benzene	2.12	0.313	6.77	1.00	06/28/19	KCA	1
Benzyl chloride	ND	0.193	ND	1.00	06/28/19	KCA	1

Client ID: SV-6

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	1.23	0.149	8.24	1.00	06/28/19	KCA	1
Bromoform	ND	0.097	ND	1.00	06/28/19	KCA	1
Bromomethane	ND	0.258	ND	1.00	06/28/19	KCA	1
Carbon Disulfide	6.73	0.321	20.9	1.00	06/28/19	KCA	1
Carbon Tetrachloride	0.085	0.032	0.53	0.20	06/28/19	KCA	1
Chlorobenzene	ND	0.217	ND	1.00	06/28/19	KCA	1
Chloroethane	ND	0.379	ND	1.00	06/28/19	KCA	1
Chloroform	23.9	0.205	117	1.00	06/28/19	KCA	1
Chloromethane	1.01	0.485	2.08	1.00	06/28/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	ND	0.20	06/28/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	ND	1.00	06/28/19	KCA	1
Cyclohexane	3.02	0.291	10.4	1.00	06/28/19	KCA	1
Dibromochloromethane	ND	0.118	ND	1.00	06/28/19	KCA	1
Dichlorodifluoromethane	0.404	0.202	2.00	1.00	06/28/19	KCA	1
Ethanol	8.02	0.531	15.1	1.00	06/28/19	KCA	1
Ethyl acetate	ND	0.278	ND	1.00	06/28/19	KCA	1
Ethylbenzene	4.83	0.230	21.0	1.00	06/28/19	KCA	1
Heptane	2.36	0.244	9.7	1.00	06/28/19	KCA	1
Hexachlorobutadiene	ND	0.094	ND	1.00	06/28/19	KCA	1
Hexane	2.38	0.284	8.38	1.00	06/28/19	KCA	1
Isopropylalcohol	1.07	0.407	2.63	1.00	06/28/19	KCA	1
Isopropylbenzene	10.2	0.204	50.1	1.00	06/28/19	KCA	1
m,p-Xylene	10.5	0.230	45.6	1.00	06/28/19	KCA	1
Methyl Ethyl Ketone	28.8	0.339	84.9	1.00	06/28/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	06/28/19	KCA	1
Methylene Chloride	ND	0.864	ND	3.00	06/28/19	KCA	1
n-Butylbenzene	ND	0.182	ND	1.00	06/28/19	KCA	1
o-Xylene	5.74	0.230	24.9	1.00	06/28/19	KCA	1
Propylene	17.7	0.581	30.4	1.00	06/28/19	KCA	1
sec-Butylbenzene	ND	0.182	ND	1.00	06/28/19	KCA	1
Styrene	13.8	0.235	58.7	1.00	06/28/19	KCA	1
Tetrachloroethene	34.1	0.037	231	0.25	06/28/19	KCA	1
Tetrahydrofuran	ND	0.339	ND	1.00	06/28/19	KCA	1
Toluene	2.48	0.266	9.34	1.00	06/28/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	06/28/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	ND	1.00	06/28/19	KCA	1
Trichloroethene	0.683	0.037	3.67	0.20	06/28/19	KCA	1
Trichlorofluoromethane	ND	0.178	ND	1.00	06/28/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	ND	1.00	06/28/19	KCA	1
Vinyl Chloride	0.467	0.078	1.19	0.20	06/28/19	KCA	1
<b><u>QA/QC Surrogates/Internals</u></b>							
% Bromofluorobenzene	96	%	96	%	06/28/19	KCA	1
% IS-1,4-Difluorobenzene	94	%	94	%	06/28/19	KCA	1
% IS-Bromochloromethane	93	%	93	%	06/28/19	KCA	1
% IS-Chlorobenzene-d5	79	%	79	%	06/28/19	KCA	1

Client ID: SV-6

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

The canister was received under no vacuum, therefore sample results may not be representative.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**July 05, 2019**

**Reviewed and Released by: Greg Lawrence, Assistant Lab Director**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823



# Canister Sampling Information

July 05, 2019

FOR: Attn: Ms. Antoinette Ollivierre  
 American Env. Assessment & Solutions Inc  
 679 Lafayette Ave.  
 3rd Floor  
 Brooklyn, NY 11216

Location Code: AEAS-INC

SDG I.D.: GCD42045

Project ID: 1665 STILLWELL AVENUE

Client Id	Lab Id	Canister		Reg. Id	Chk Out Date	Laboratory					Field			
		Id	Type			Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
SV-1	CD42045	28580	6.0L	7043	06/18/19	-30	0	43	42	2.4	-28	0	06/24/19 10:08	06/24/19 12:45
SV-2	CD42046	23342	6.0L	2938	06/18/19	-30	-2	43	42	2.4	-29	-1	06/24/19 10:21	06/24/19 12:48
SV-3	CD42047	28575	6.0L	2966	06/18/19	-30	-1	43	43	0.0	-30	-1	06/24/19 10:01	06/24/19 12:47
SV-4	CD42048	23346	6.0L	3220	06/18/19	-30	0	43	43	0.0	-30	-2	06/24/19 10:21	06/24/19 12:52
SV-5	CD42049	218	6.0L	4959	06/18/19	-30	0	43	44	2.3	-29	0	06/24/19 10:25	06/24/19 12:58
SV-6	CD42050	21356	6.0L	5403	06/18/19	-30	0	43	42	2.4	-30	-1	06/24/19 10:30	06/24/19 1:00



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# QA/QC Report

July 05, 2019

## QA/QC Data

SDG I.D.: GCD42045

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 485833 (ppbv), QC Sample No: CD42050 (CD42045 (5X) , CD42046 (5X) , CD42047 (5X) , CD42048 (5X) , CD42049 (5X) , CD42050)												
<u>Volatiles</u>												
1,1,1,2-Tetrachloroethane	ND	0.150	ND	1.03	97	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.180	ND	0.98	97	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.150	ND	1.03	94	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.180	ND	0.98	95	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.250	ND	1.01	103	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.050	ND	0.20	95	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.130	ND	0.96	108	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.200	ND	0.98	96	10.3	10.2	2.09	2.07	1.0	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.170	ND	1.02	100	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.250	ND	1.01	101	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.220	ND	1.02	106	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.140	ND	0.98	101	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.200	ND	0.98	93	1.70	1.70	0.346	0.346	NC	70 - 130	25
1,3-Butadiene	ND	0.450	ND	0.99	90	4.44	4.16	2.01	1.88	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.170	ND	1.02	94	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.170	ND	1.02	98	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.280	ND	1.01	105	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.240	ND	0.98	102	37.7	37.3	9.20	9.12	0.9	70 - 130	25
4-Ethyltoluene	ND	0.200	ND	0.98	89	7.91	7.66	1.61	1.56	3.2	70 - 130	25
4-Isopropyltoluene	ND	0.180	ND	0.99	93	1.78	1.70	0.325	0.309	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.240	ND	0.98	93	4.18	3.98	1.02	0.971	NC	70 - 130	25
Acetone	ND	0.420	ND	1.00	93	74.3	71.5	31.3	30.1	3.9	70 - 130	25
Acrylonitrile	ND	0.460	ND	1.00	92	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.310	ND	0.99	96	6.77	6.80	2.12	2.13	0.5	70 - 130	25
Benzyl chloride	ND	0.190	ND	0.98	106	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.150	ND	1.00	109	8.24	7.23	1.23	1.08	13.0	70 - 130	25
Bromoform	ND	0.097	ND	1.00	113	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.260	ND	1.01	91	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.320	ND	1.00	91	20.9	20.0	6.73	6.43	4.6	70 - 130	25
Carbon Tetrachloride	ND	0.032	ND	0.20	107	0.53	0.54	0.085	0.086	NC	70 - 130	25
Chlorobenzene	ND	0.220	ND	1.01	101	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.380	ND	1.00	93	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	104	117	113	23.9	23.1	3.4	70 - 130	25
Chloromethane	ND	0.480	ND	0.99	93	2.08	2.05	1.01	0.992	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	106	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.290	ND	1.00	99	10.4	10.1	3.02	2.94	2.7	70 - 130	25
Dibromochloromethane	ND	0.120	ND	1.02	108	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	99	2.00	1.89	0.404	0.383	NC	70 - 130	25

## QA/QC Data

SDG I.D.: GCD42045

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethanol	ND	0.530	ND	1.00	97	15.1	14.0	8.02	7.44	7.5	70 - 130	25
Ethyl acetate	ND	0.280	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.230	ND	1.00	93	21.0	20.7	4.83	4.77	1.3	70 - 130	25
Heptane	ND	0.240	ND	0.98	93	9.7	9.6	2.36	2.35	0.4	70 - 130	25
Hexachlorobutadiene	ND	0.094	ND	1.00	94	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.280	ND	0.99	114	8.38	8.21	2.38	2.33	2.1	70 - 130	25
Isopropylalcohol	ND	0.410	ND	1.01	84	2.63	2.51	1.07	1.02	NC	70 - 130	25
Isopropylbenzene	ND	0.200	ND	0.98	95	50.1	49.1	10.2	9.99	2.1	70 - 130	25
m,p-Xylene	ND	0.230	ND	1.00	96	45.6	44.3	10.5	10.2	2.9	70 - 130	25
Methyl Ethyl Ketone	ND	0.340	ND	1.00	97	84.9	82.5	28.8	28.0	2.8	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.280	ND	1.01	94	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.860	ND	2.99	104	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.180	ND	0.99	96	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.230	ND	1.00	99	24.9	24.5	5.74	5.64	1.8	70 - 130	25
Propylene	ND	0.580	ND	1.00	108	30.4	29.9	17.7	17.4	1.7	70 - 130	25
sec-Butylbenzene	ND	0.180	ND	0.99	94	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.230	ND	0.98	94	58.7	58.7	13.8	13.8	0.0	70 - 130	25
Tetrachloroethene	ND	0.037	ND	0.25	99	231	232	34.1	34.3	0.6	70 - 130	25
Tetrahydrofuran	ND	0.340	ND	1.00	94	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.270	ND	1.02	97	9.34	9.38	2.48	2.49	0.4	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.250	ND	0.99	96	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	95	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.037	ND	0.20	100	3.67	3.53	0.683	0.658	3.7	70 - 130	25
Trichlorofluoromethane	ND	0.180	ND	1.01	94	ND	ND	ND	ND	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.130	ND	1.00	92	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.078	ND	0.20	92	1.19	1.00	0.467	0.390	18.0	70 - 130	25
% Bromofluorobenzene	92	%	92	%	101	96	95	96	95	NC	70 - 130	25
% IS-1,4-Difluorobenzene	109	%	109	%	83	94	96	94	96	NC	60 - 140	25
% IS-Bromochloromethane	114	%	114	%	77	93	97	93	97	NC	60 - 140	25
% IS-Chlorobenzene-d5	106	%	106	%	83	79	82	79	82	NC	60 - 140	25

QA/QC Batch 485901 (ppbv), QC Sample No: CD45250 (CD42045 (30X) )

Volatiles

Methyl Ethyl Ketone	ND	0.500	ND	1.47	101	34.2	32.7	11.6	11.1	4.4	70 - 130	25
% Bromofluorobenzene	93	%	93	%	100	102	103	102	103	NC	70 - 130	25
% IS-1,4-Difluorobenzene	111	%	111	%	84	90	96	90	96	NC	60 - 140	25
% IS-Bromochloromethane	112	%	112	%	76	90	97	90	97	NC	60 - 140	25
% IS-Chlorobenzene-d5	109	%	109	%	86	91	95	91	95	NC	60 - 140	25

QA/QC Batch 486440 (ppbv), QC Sample No: CD49566 (CD42046 (30X) , CD42047 (15X) , CD42048 (30X) , CD42049 (15X) )

Volatiles

Acetone	ND	0.420	ND	1.00	85	131	119	55.0	50.0	9.5	70 - 130	25
Methyl Ethyl Ketone	ND	0.340	ND	1.00	79	21.2	17.1	7.20	5.79	21.7	70 - 130	25
Tetrachloroethene	ND	0.037	ND	0.25	106	5.87	5.50	0.866	0.811	6.6	70 - 130	25
Tetrahydrofuran	ND	0.340	ND	1.00	93	4.95	4.60	1.68	1.56	NC	70 - 130	25
% Bromofluorobenzene	93	%	93	%	102	91	90	91	90	NC	70 - 130	25
% IS-1,4-Difluorobenzene	122	%	122	%	92	100	107	100	107	NC	60 - 140	25
% IS-Bromochloromethane	126	%	126	%	83	98	107	98	107	NC	60 - 140	25
% IS-Chlorobenzene-d5	118	%	118	%	92	80	83	80	83	NC	60 - 140	25

## QA/QC Data


SDG I.D.: GCD42045

Parameter	Bik ppbv	Bik RL ppbv	Bik ug/m3	Bik RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference  
LCS - Laboratory Control Sample  
LCSD - Laboratory Control Sample Duplicate  
MS - Matrix Spike  
MS Dup - Matrix Spike Duplicate  
NC - No Criteria  
Intf - Interference

  
Phyllis Shiller, Laboratory Director  
July 05, 2019

Friday, July 05, 2019

Criteria: None

State: NY

## Sample Criteria Exceedances Report

GCD42045 - AEAS-INC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

July 05, 2019

SDG I.D.: GCD42045

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.



387 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Telephone: 860.645.1102 • Fax: 860.645.0823

**CHAIN OF CUSTODY RECORD**  
**AIR ANALYSES**

800-827-5426

email: greg@phoenixlabs.com

P.O. #

Page 1 of 1

Data Delivery:

Fax #: 718-906-4090

Email: info@peelab.com

Phone #: 718-909-0653

Report to: Antoinette  
 Customer: American Env. Assessment  
 Address: 679 Lafayette Avenue  
 Brooklyn, NY 11216

Invoice to: American Environmental  
 PO Box 6376  
 North Babylon, NY 11703  
 Sampled by: Antoinette

Project Name: 1665 Stillwell Avenue  
 Requested Deliverable: RCP  ASP CAT B   
 MCP  NJ Deliverables   
 State where samples collected: NY

Phoenix ID #	Client Sample ID	Canister ID #	THIS SECTION FOR LAB USE ONLY										Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-14	TO-15
			Canister Size (L)	Outgoing Canister Pressure ("Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start ("Hg)	Canister Pressure at End ("Hg)					
42045	SV-1	28580	6.0	30	0	7043	43	10:08	12:45	6/24/19	28	0	/				
42046	SV-2	28342			-2	2928		10:21	12:48	6/24/19	29	-1	/				
42047	SV-3	28515			-1	2966		10:01	12:47	6/24/19	30	-1	/				
42048	SV-4	28346			0	3220		10:21	12:52	6/24/19	30	-2	/				
42049	SV-5	218			0	11959		10:25	12:50	6/24/19	29	0	/				
42050	SV-6	21856			0	5403		10:30	1:00	6/24/19	30	-1	/				↓

Relinquished by: *Antoinette* Date: 6/25/19 Time: 12:11  
 Accepted by: *Greg* Date: 6/25/19 Time: 17:06  
 Turnaround Time: 17:06  
 Requested Criteria: (6)(6)(8)(AHP)  
 24 Hour  48 Hour  72 Hour  Standard  
 I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Quote Number: \_\_\_\_\_

## Soil boring Logs





Mailing: PO Box 6376  
 North Babylon, NY 11703  
 Telephone: (718) 209-0653 ♦ Fax: (718) 906-4090  
 Email: info@AEASinc.com  
 www.AEASinc.com

Business: 679 Lafayette Avenue, 3rd Floor  
 Brooklyn, NY 11216

**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 1 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-1 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft.): 5 DEPTH TO WATER (ft.): 17.22

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 4 inches concret. Brown fine grained silty soil.
-4	0.0	SM	Brown fine grained silty soil, moist.
-6			End of boring
-8			
-10			
-12			
-14			
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 2 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-2 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft): 5 DEPTH TO WATER (ft.): 17.25

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 4 inches concret. Brown fine grained silty soil, with rocks.
-4	0.0	SM	Brown fine grained silty soil, with rocks.
-6			End of boring
-8			
-10			
-12			
-14			
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 3 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-3 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft): 5 DEPTH TO WATER (ft.): NA

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 2 inches asphalt. Brown fine grained silty soil.
-4	0.0	SM	Brown fine grained silty soil.
-6			End of boring
-8			
-10			
-12			
-14			
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 4 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-4 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft): 5 DEPTH TO WATER (ft.): NA

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 2 inches asphalt. Brown fine grained silty soil.
-4	0.0	SM	Brown fine grained silty soil.
-6			End of boring
-8			
-10			
-12			
-14			
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 5 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-5 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft): 12 DEPTH TO WATER (ft.): NA

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 2 inches asphalt. Brown fine grained silty soil with rocks.
-4			
-6	0.0	SM	Brown fine grained silty soil with rocks.
-8			
-10	0.0	SM	Brown fine grained silty soil with rocks.
-12			
-14			End of boring
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL  
BORING  
LOG**

JOB #:	19-0115-II	PAGE:	6 of 7
LOCATION:	1665 Stillwell Avenue Brooklyn, NY	DATE:	6/24/2019
BORING #:	SB-6	SAMPLING INTERVAL:	5 Feet
DRILLING METHOD:	Geoprobe	SAMPLING METHOD:	Split Spoon
TOTAL DEPTH (ft):	12	DRILLER:	AARCO
		DEPTH TO WATER (ft):	NA

**USCS SYMBOLS**

GW - Well Graded Gravel	SW - Well Graded Sand	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	PT - Peat / High Organics
GC - Clayey Gravel	SC - Clayey Sand	

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 2 inches asphalt. Brown fine grained silty soil with rocks.
-4			
-6	0.0	SM	Brown fine grained silty soil with rocks.
-8			
-10	1.7	SM	Brown fine grained silty soil with rocks.
-12			
-14			End of boring
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			
-36			



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**SOIL BORING LOG**

JOB #: 19-0115-II PAGE: 7 of 7  
 LOCATION: 1665 Stillwell Avenue DATE: 6/24/2019  
 Brooklyn, NY SAMPLING INTERVAL: 5 Feet  
 BORING #: SB-7 SAMPLING METHOD: Split Spoon  
 DRILLING METHOD: Geoprobe DRILLER: AARCO  
 TOTAL DEPTH (ft): 12 DEPTH TO WATER (ft): 16.89

**USCS SYMBOLS**

GW - Well Graded Gravel SW - Well Graded Sand CH - Inorganic Clay, High Plastic  
 GP - Poorly Graded Gravel SP - Poorly Graded Sand OH - Organic Silt / Clay  
 GM - Silty Gravel SM - Silty Sand PT - Peat / High Organics  
 GC - Clayey Gravel SC - Clayey Sand

DEPTH BELOW GRADE AND LITHOLOGY	PID READING (ppm)	USCS	SOIL DESCRIPTION
0			
-2	0.0	SM	Approximately 2 inches asphalt. Brown fine grained silty soil with rocks.
-4			
-6	0.0	SM	Brown fine grained silty soil with rocks.
-8			
-10	1.7	SM	Brown fine grained silty soil with rocks.
-12			
-14			End of boring
-16			
-18			
-20			
-22			
-24			
-26			
-28			
-30			
-32			
-34			