LANGAN

Technical Memorandum

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444

To: Javier Martinez – 2335 12 Avenue LLC

From: Jason Hayes, P.E., Emily Snead, P.G.

Date: January 22, 2019

Re: Due Diligence Support Environmental Engineering Services
2335 12th Avenue
Manhattan, New York 10031
Manhattan Tax Block 2001, Lot 110
Langan Project No.: 170560401

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C. (Langan) prepared this memorandum in support of your potential acquisition of 2335 12th Avenue in Manhattan, New York; herein referred to as the site. This memorandum includes: 1) a description of the site, proposed development, and previous environmental reports; 2) a description of the limited subsurface investigation performed by Langan on November 30, 2018, and 3) a preliminary environmental site evaluation.

SITE DESCRIPTION

The approximately 7,603-square-foot site is located at 2335 12th Avenue in the Harlem neighborhood of Manhattan, New York. The site is situated on the southwest portion of the city block bounded by West 134th Street to the north, the Riverside Park Community development followed by Broadway to the east, West 133rd Street to the south, and the elevated Riverside Drive and underlying 12th Avenue to the west. The site is identified as Borough of Manhattan Tax Block 2001, Lot 110. An above-grade Amtrak train line is located about 160 feet west of the site along the Henry Hudson Parkway. A site location plan is provided as Figure 1.

The site is currently occupied by Cleantex, a carpet, drapery, flame-proofing and upholstery cleaning facility that has been in operation at the site for about 80 years. Review of available Sanborn fire insurance maps and aerial photographs identify that the site was undeveloped prior to 1924, and was developed with a two-story industrial building operated by Cleantex by 1939. By 1969, the existing three-story warehouse operated by Cleantex was depicted. The surrounding area is an urban setting characterized by multiple-story industrial, transportation, commercial, public school facilities, mixed-use (residential and commercial) and apartment buildings. Historical use of adjoining and surrounding properties included a garage, gasoline station, a 200-foot tall gas holder tank (historic manufactured gas plant [MGP] site), a railroad station, an industrial rubber company, and auto repair facilities.

Based on findings from a Phase I Environmental Site Assessment (ESA) conducted by Galli Engineering, P.C. (Galli) in June 2018, the site includes bulk storage of petroleum (1,500-gallon

underground storage tank [UST]) and mineral spirits (stored in a 500-gallon aboveground storage tank [AST] and 300-gallon AST). In addition, three potential USTs were identified in the first floor loading dock alongside the 1,500-gallon fuel oil UST during a geophysical survey conducted in October 2018.

The site was also subject to a historic spill of No. 2 fuel oil, which was reported to the New York State Department of Environmental Conservation (NYSDEC) in 1996 (Spill No. 9512453, closed January 5, 1996).

PROPOSED DEVELOPMENT

The proposed initial development plan includes renovation of the existing warehouse building and conversion to commercial office space. The development assumes minimal excavation below the existing foundation slabs for installation of new utilities, foundation components and/or elevator pits. Based on a review of groundwater depth at surrounding properties, dewatering is not anticipated to be required during initial development. Future development scenarios will contemplate demolition of the existing three-story warehouse and construction of a mixed-use development with at least one cellar level. There is the potential for localized dewatering during this development scenario.

PREVIOUS ENVIRONMENTAL REPORTS

To support the environmental evaluation, Langan reviewed the following previous reports prepared for the site:

1. June 14, 2018 Phase I ESA for 2337 12th Avenue, prepared by Galli
2. November 9, 2018 Phase II ESA for 2335 12th Avenue, prepared by Galli

Copies of the previous reports are included in Attachment 1. Relevant environmental findings from available reports are summarized below:

<u>June 2018 Phase I ESA</u>

Galli conducted a Phase I ESA in general accordance with ASTM International (ASTM) Standard E1527-13 and the United States Environmental Protection (USEPA) All Appropriate Inquiries (AAI) Rule. The following recognized environmental conditions (REC) were identified:

- The site was developed with an industrial and commercial upholstery cleaning facility as early as the 1930's, and historically designated as a Historic Cleaner in the regulatory database due to the use of mineral solvents/ spirits for cleaning operations.
- No secondary containment was observed around the 500-gallon mineral solvent AST located in the loading dock. The surrounding concrete surface was observed in poor condition and was cracked and discontinuous. Staining indicative of a potential release was observed on the concrete surface in the vicinity of the AST.

- Evaporation of liquids containing mineral solvents during carpet cleaning operations is in violation of state and federal rules and regulations. Treatment by evaporation must be performed under a valid permit with New York State and the USEPA. Mineral solvent waste is considered hazardous due to its flammable characteristics.

November 2018 Phase II ESA

Galli conducted a subsurface investigation at the site on October 11, 2018 to determine if subsurface soil and groundwater conditions were impacted as a result of historical and current site use (Cleantex) and petroleum and mineral spirit bulk storage on site. The investigation included a geophysical survey, advancement of eight soil borings, installation of two temporary monitoring wells, and collection of soil and groundwater samples for laboratory analysis. Environmental observations and results are summarized below:

- *Geophysical Investigation* - A geophysical survey was conducted within the loading dock of the site. The survey identified up to four potential USTs, one of which may be encased in concrete. The 1,500-gallon fuel oil UST is currently in use for heating purposes. None of the tanks are registered in the New York State Bulk Petroleum Storage (PBS) database.
- *Soil* – Evidence of a petroleum release, including odors and/or elevated photoionization detector (PID) readings, was observed in five out of eight soil borings (maximum of 550 parts per million [ppm] volatile organic compounds [VOC]). VOCs including 1,2,4-trimethylbenzene and total xylenes were detected at concentrations exceeding NYSDEC Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO) in soil samples collected from boring SB-1.
- *Groundwater* – Two soil borings, SB-3 and SB-7, were converted into temporary monitoring wells GW-1 and GW-2, respectively, and installed to a depth of 20 feet below grade surface (bgs). During well development, free product was observed in the purged groundwater collected from each temporary monitoring well. VOCs including 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, 1,2,4,5-tetramethylbenzene, isopropylbenzene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, and tert-butylbenzene were detected at concentrations above NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values for Class GA water in both temporary monitoring wells GW-1 and GW-2. Four additional VOCs including 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 4-isopropyltoluene, and naphthalene were detected in groundwater samples collected from GW-2 above TOGS AWQS. Temporary monitoring well GW-2 was installed in the vicinity of fill ports observed within the loading dock.

LIMITED SUBSURFACE INVESTIGATION

Langan performed a limited subsurface investigation to supplement the October 2018 Phase II performed by Galli and to investigate the nature and extent of potential environmental subsurface contamination at the site.

The limited subsurface investigation was implemented on November 30, 2018 and included:

- A geophysical survey to locate potential UST and other subsurface structures
- Advancement of five environmental soil borings to depths of 4 to 20 feet bgs and collection of 5 soil samples (one per soil boring)
- Completion of a chemical inventory, installation of three sub-slab soil vapor samples and collection of three soil vapor samples

Investigation Methodology

A summary of the investigation is provided below:

Geophysical Survey

NOVA Geophysical Services (NOVA) conducted a geophysical survey under the supervision of a Langan field engineer to identify USTs and subsurface structures and/or utilities located beneath the site. The survey included the use of ground penetrating radar (GPR).

Soil Investigation

AARCO Environmental Services Corp. (AARCO) advanced five soil borings (SB-01, SB-02, SB-03, SB-04, and SB-05) in the loading dock area. The soil borings were advanced to about 20 feet bgs with the exception of boring SB-01, which hit refusal at 4 feet bgs, using a Geoprobe® 7822DT direct-push drill rig. Soil samples were collected into 4-foot-long, 2-inch-inside-diameter Macro-Core® samplers equipped with dedicated acetate liners. Macro-Core® samplers were decontaminated between boring locations.

Langan field personnel documented drilling activities and collected soil samples. Soil samples were inspected for visual and olfactory evidence of contamination and screened for organic vapors with a PID. Soil boring locations are shown on Figure 2. Soil boring logs are provided as Attachment 2.

One grab soil sample was collected from each soil boring (see Figure 2). Samples were collected from the interval of greatest observable impacts or from the shallow historic fill below the site cover. Samples were collected into laboratory-supplied containers and delivered via courier under standard chain-of-custody protocol to Alpha Analytical, Inc. (Alpha). Alpha is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory. Soil samples (with the exception of SB-01) were analyzed for VOCs and semivolatile organic compounds (SVOC). The soil sample collected from shallow historic fill (SB-01) was analyzed for VOCs, SVOCs, metals, pesticides, herbicides, and polychlorinated biphenyls (PCB). A sample collection summary is provided in Table 1.

Soil Vapor Investigation

Langan field personnel documented installation of three sub-slab soil vapor probes (SSV-01, SSV-02 and SSV-03). Sub-slab soil vapor probes were installed by AARCCO to about 3-inches below the floor slab of the loading dock and first floor building areas using a portable electric drill.

Sub-slab soil vapor probes consisted of 3/16-inch diameter Teflon-lined polyethylene tubing and were installed in accordance with the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (last revised May 2017). The annulus of each sub-slab soil vapor point was filled with No. 2 sand followed by hydrated bentonite seal to surface grade. Soil vapor construction and sampling logs are included in Attachment 3.

As a quality assurance/quality control (QA/QC) measure, an inert tracer gas (helium) was introduced into an above-grade sampling chamber to verify that the sub-slab vapor probes were properly sealed above the target sampling depth, thereby preventing subsurface infiltration of ambient air. Helium concentrations of less than 10 percent in the sample train confirmed the integrity of the seal. The tracer gas test was performed on the same day as the sampling at each probe.

Each soil vapor probe was purged using a MultiRAE meter at a rate of 0.2 liters per minute (L/min) to evacuate a minimum of three sampling tube volumes prior to sample collection. The purged soil vapor was also monitored for VOCs and the value was recorded. After purging was complete, sub-slab soil vapor samples were collected into laboratory-supplied, batch-certified, 6-Liter Summa canisters that were calibrated for a sample rate of about 0.05 L/min over about 120 minutes of sampling. Following sample collection, the labeled canisters were picked up and delivered via courier service to York Analytical Laboratories, Inc. of Stratford, CT, under standard chain-of-custody protocol. Sub-slab soil vapor samples were analyzed for VOCs by USEPA method TO-15.

Observations and Results

Geophysical Survey

The geophysical survey identified subsurface anomalies indicative of utilities, possible USTs and associated fill lines in the loading dock area. Borings were relocated as necessary to avoid the identified anomalies.

Soil Observations

Below the concrete surface, the subsurface strata consists of historic fill characterized by brown to black, medium to fine sand with varying amounts of brick, concrete, and gravel. The historic fill layer ranges from about 2 to 4 feet bgs. The fill was underlain by red to brown fine and medium sand with varying amounts of gravel and silt. The sands extended to 20 feet bgs (terminus of boring). Petroleum-like odors and/or elevated PID readings (ranging from 18.9 to 662.7 ppm VOCs) were apparent in four of five soil borings with impact depths varying from about 10 to 20 feet bgs. The highest PID readings were observed at or above the water table,

which was identified between about 17.8 to 18.5 feet bgs based on observations of saturated soil. Soil boring logs are provided as Attachment 2.

Soil Analytical Results

Soil analytical results were compared to the NYSDEC Title 6 NYCRR Part 375 UU, Restricted Use Restricted-Residential (RURR) SCOs, and Restricted Use Commercial (CU) SCOs. A summary of soil analytical results with comparisons to the applicable regulatory criteria is provided in Table 2. The laboratory analytical reports are provided as Attachment 4.

Several VOCs were detected at concentrations exceeding UU, RURR, and/or CU SCOs in soil samples collected from the loading dock area (SB-01_0-1, SB-02_18-19, SB-04_18-19, and SB-05_13-14).

- One VOC, 1,2,4-trimethylbenzene (maximum concentration of 260 milligrams per kilogram [mg/kg]), was detected at concentrations above the RURR and CU SCOs in soil boring SB-05.
- One or more VOCs including n-butylbenzene, n-propylbenzene, sec-butylbenzene, tert-butylbenzene and total xylenes exceeded UU SCOs in soil samples SB-01_0-1, SB-02_18-19, SB-04_18-19, and SB-05_13-14.
- Total VOCs detected in soil samples ranged from 1.58 mg/kg (SB-01) to 428.39 mg/kg (SB-05).

Total PCBs exceeded the UU SCOs in the shallow fill sample collected from boring SB-01. SVOCs, metals, pesticides and herbicides were not detected above UU SCOs.

Soil Vapor Analytical Results

Three sub-slab soil vapor samples were collected from locations SSV-01, 02 and 03, and submitted for laboratory analysis via USEPA TO-15 VOCs. No standard currently exists for soil vapor samples in New York State. For reference, the samples were compared to the NYSDOH Air Guidance Values (AGV). Total VOC concentrations for each sample location are as follows:

- SSV-01: 241.41 micrograms per cubic meter ($\mu g/m^3$)
- SSV-02: 556.8 $\mu g/m^3$
- SSV-03: 195.24 $\mu g/m^3$

The maximum detected concentrations above the AGVs for trichloroethene (TCE) and tetrachloroethene (PCE) in soil vapor were 5.5 µg/m^3 and 37 µg/m^3, respectively, at sub-slab soil vapor sample location SSV-02. Carbon tetrachloride (34 µg/m^3) and 1,1,1-trichloroethane (340 µg/m^3) were detected in sample location SSV-02. Petroleum-related VOCs (e.g., benzene, toluene, ethylbenzene, and total xylenes [BTEX]) were detected in sub-slab soil vapor samples at concentrations ranging between 17.81 µg/m^3 (SSV-03) and 42.6 µg/m^3 (SSV-01). Sub-slab soil vapor analytical results are presented in Table 3.

PRELIMINARY ENVIRONMENTAL SITE EVALUATION

Provided below is a preliminary environmental site evaluation based on the limited subsurface investigation findings and data in the referenced previous reports.

- Below the concrete surface, the subsurface strata consists of historic fill characterized by brown to black, medium to fine sand with varying amounts of brick, concrete, and gravel. The historic fill layer ranges from about 2 to 4 feet bgs. The fill was underlain by red to brown fine and medium sand with varying amounts of gravel and silt. Groundwater is estimated to be about 17.8 to 18.5 feet bgs based on observations of saturated soil.
- Tanks – An active 1,500-gallon UST containing fuel oil for heating purposes is located in the loading dock area in the west portion of the site. Based on findings from the geophysical survey, up to three additional USTs may be located in the vicinity of the 1,500-gallon UST. In addition, two active 500-gallon and 300-gallon ASTs containing mineral spirits were observed in the loading dock and first floor of the site building, respectively. None of the tanks are registered in the New York State PBS database.
- Petroleum Impacts - Soil, groundwater, and soil vapor at the site are primarily impacted by petroleum and VOCs, which is likely related to historical and current site use.
    - Staining and odor was observed in the west portion of the site at depths ranging 10 to 20 feet bgs.
    - Non-aqueous phase liquid (i.e., free product) was observed in groundwater well purge water in the west portion of the site (Wells GW-1 and GW-2).
    - Petroleum-related VOCs were detected at concentrations exceeding UU, RURR, and/or CU SCOs in soil samples collected from the loading dock area.
    - Petroleum-related VOCs in groundwater samples collected within the loading dock exceeded NYSDEC TOGS AWQS.
    - Soil vapor samples indicated elevated BTEX concentrations throughout the southern and central portions of the site.
- Other Impacts - Total PCBs exceeded the UU SCOs in the shallow fill sample collected from boring SB-01. Chlorinated VOCs including TCE and PCE were detected above their respective NYSDOH AGVs in the central portion of the site.

Figures:

Figure 1 – Site Location Map
Figure 2 – Sample Location Plan

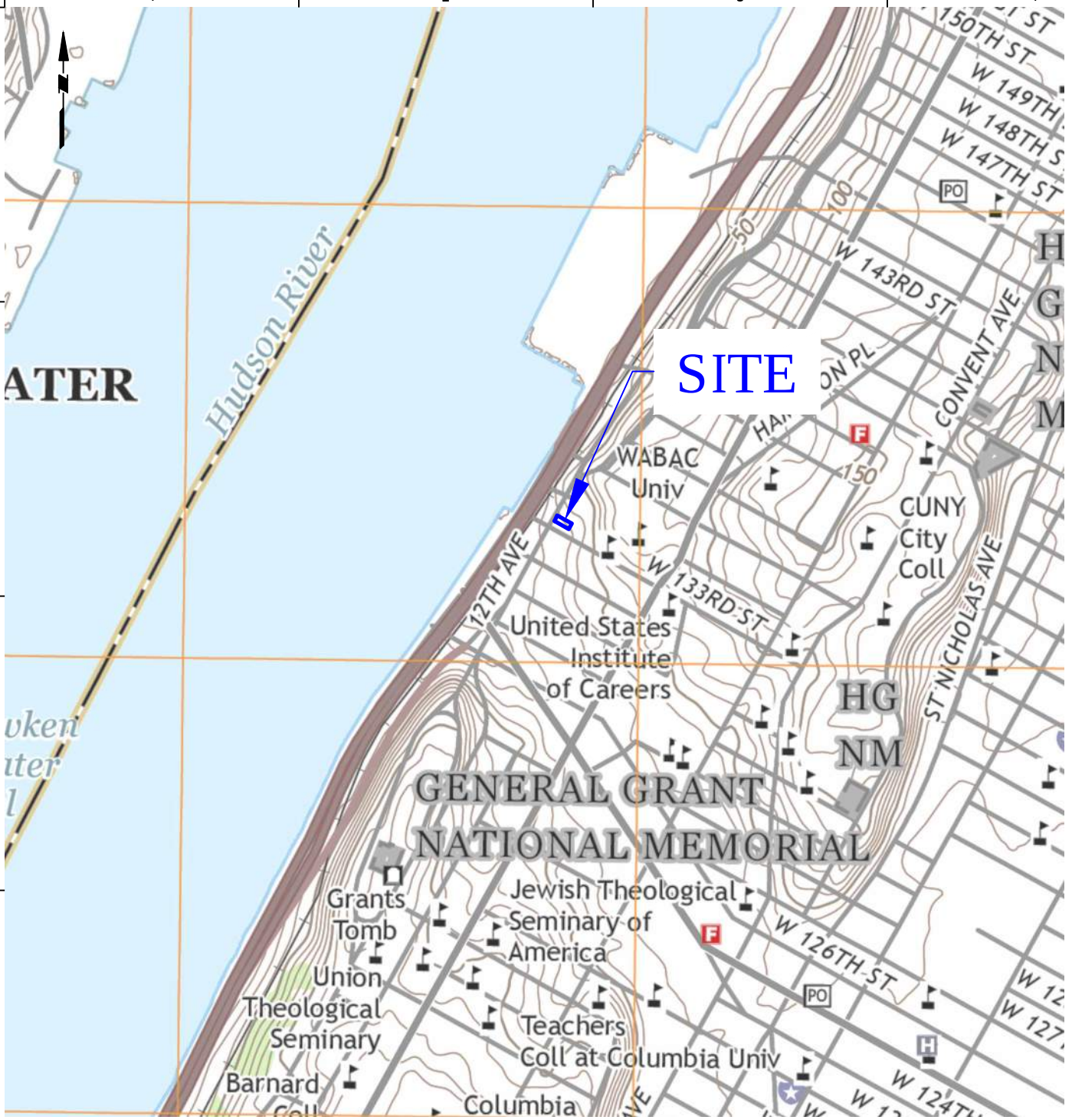
Tables:

Table 1 – Limited Subsurface Investigation Sample Summary
Table 2 – Soil Sample Analytical Results
Table 3 – Sub-Slab Soil Vapor Analytical Results

Attachments:

Attachment 1 – Previous Reports
Attachment 2 – Soil Boring Logs
Attachment 3 – Soil Vapor Logs and Chemical Inventory
Attachment 4 – Laboratory Analytical Reports

FIGURES



NOTES:

1. BASE MAP IS REFERENCED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, CENTRAL PARK QUADRANGLE, DATED 2016.

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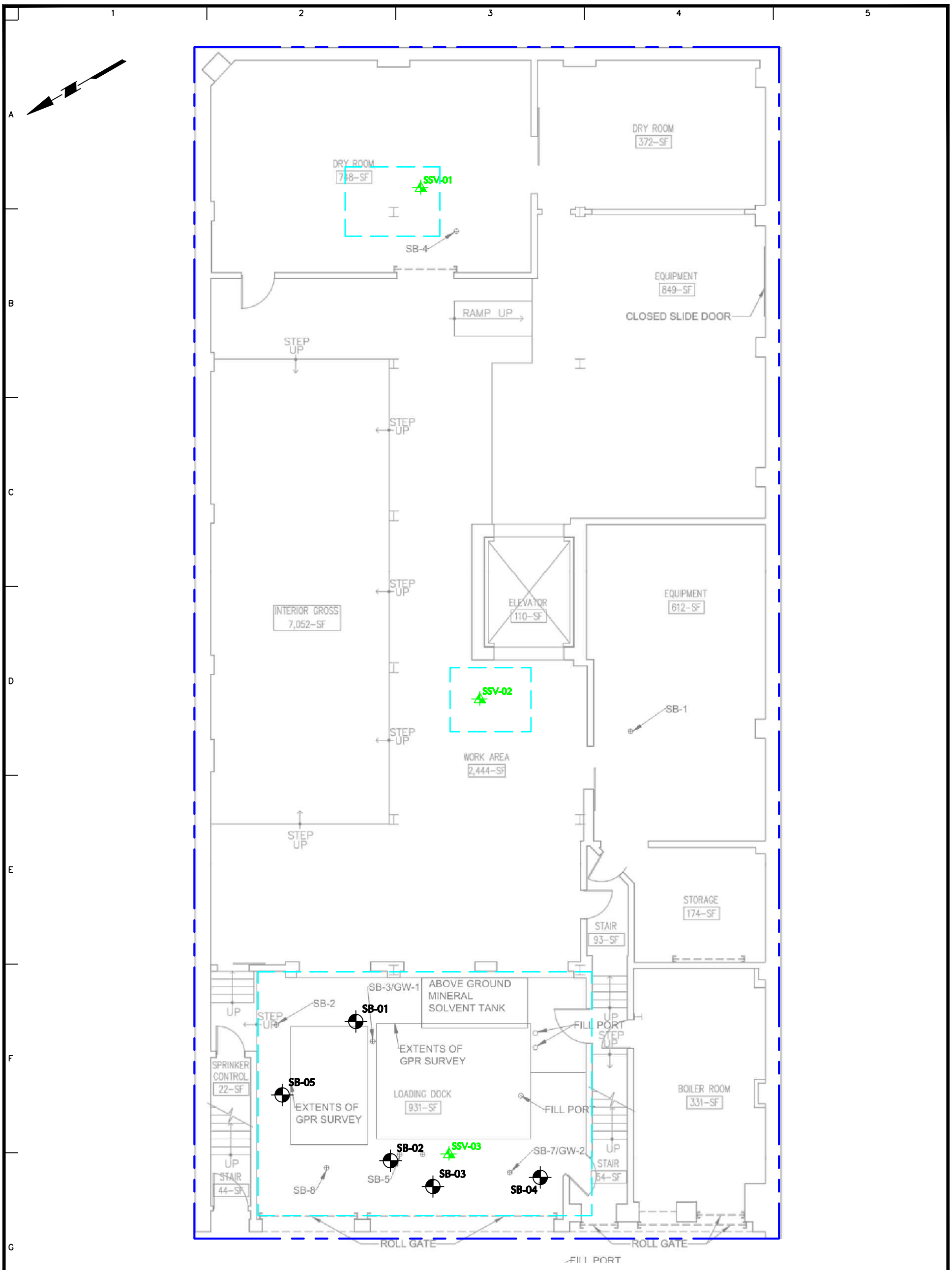
SCALE IN FEET

LANGAN
21 Penn Plaza, 360 West 31st Street, 8th Floor
New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project	2335 12th AVENUE BLOCK No. 2001, LOT No. 110 MANHATTAN NEW YORK COUNTY NEW YORK
Figure Title	SITE LOCATION MAP
Project No.	170560401
Date	11/29/2018
Scale	1" = 1000'
Drawn By / Checked By	KG / ES
Submission Date	
Figure No.	1
Sheet	1 of 1

Filename: \\langan.com\data\NY\data4\170560401\Project Data\CAD\01\SheetFiles\Limited Subsurface Investigation\Figure 1 - Site Location Map\Figure 1 - Site Location Map.dwg Date: 12/4/2018 Time: 11:58 User: kgarrett Style Table: Langan.stb Layout: Site Location Map



12TH AVENUE

LEGEND:

- SB-01 — APPROXIMATE SOIL BORING LOCATION
- SSV-01 — APPROXIMATE SUB-SLAB SOIL VAPOR LOCATION
- APPROXIMATE SITE BOUNDARY
- APPROXIMATE NOVA GEOPHYSICAL SURVEY AREA

NOTES:

1. BASE MAP IS REFERENCED FROM SAMPLE LOCATIONS DRAWING, PREPARED BY GALLI ENGINEERING, P.C., DATED NOVEMBER 1, 2018.
2. SAMPLE LOCATIONS ARE APPROXIMATE.

10 0 2 4 10
SCALE IN FEET

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New York, NY 10001
T: 212.479.5400 F: 212.479.5444 www.langan.com

Project
2335 12TH AVENUE
BLOCK No. 2001, LOT No. 110
NEW YORK NEW YORK

Drawing Title
SAMPLE LOCATION PLAN

Project No. 170560401
Date 11/29/2018
Drawn By NEK
Checked By ELS

Drawing No. 2
Sheet 2 of 2

Filename: \\langan.com\data\NY\data4\170560401\Project Data\CAD\01\SheetFiles\Limited Subsurface Investigation\Figure 2 - Sample Location Plan_12.11.18.dwg Date: 12/11/2018 Time: 13:48 User: nkung Style Table: Langan.stb Layout: ANSIB-BP

TABLES

Table 1
Limited Subsurface Investigation
Sample Summary

2335 12th Avenue
New York, New York
Langan Project No. 170560401

SOIL							
Sample ID	**Parent Boring Location**	**Date Collected**	**Sample Time**	**Target Sampling Depth**	**Sampling Depth (feet below site grade)**	**Sample Type**	**Analyses**
SB-01_0-1	SB-01	11/30/2018	13:15	Shallow Fill	0-1	Grab	Full NYSDEC Part 375 VOCs, SVOCs, PCBs, pesticides, herbicides, total metals, total cyanide and hexavalent/ trivalent chromium
SB-02_18-19	SB-02	11/30/2018	12:37	Impacts / Fill or Groundwater Interface	18-19	Grab	Full NYSDEC Part 375 VOCs and SVOCs
SB-03_15-16	SB-03	11/30/2018	12:03	Impacts / Fill or Groundwater Interface	15-16	Grab	Full NYSDEC Part 375 VOCs and SVOCs
SB-04_18-19	SB-04	11/30/2018	11:25	Impacts / Fill or Groundwater Interface	18-19	Grab	Full NYSDEC Part 375 VOCs and SVOCs
SB-05_13-14	SB-05	11/30/2018	13:50	Impacts / Fill or Groundwater Interface	13-14	Grab	Full NYSDEC Part 375 VOCs and SVOCs
SUB-SLAB SOIL VAPOR							
Sample ID	**Sampling Period**	**Date Collected**	**Sample Time**	**Target Sampling Depth**	**Sampling Depth (feet below site grade)**	**Sample Type**	**Analyses**
SSV01_113018	2-HR	11/30/2018	11:32	Directly Beneath the Slab	Sub-Slab	Grab	TO-15 VOCs
SSV02_113018	2-HR	11/30/2018	11:51	Directly Beneath the Slab	Sub-Slab	Grab	TO-15 VOCs
SSV03_113018	2-HR	11/30/2018	12:04	Directly Beneath the Slab	Sub-Slab	Grab	TO-15 VOCs

Notes:
1. NYSDEC = New York State Department of Environmental Conservation
2. VOCs = Volatile Organic Compounds
3. SVOC = Semivolatile Organic Compounds
4. PCB = Polychlorinated Biphenyls

Table 2
Soil Summary Report
Soil Sample Analytical Results

2335 12th Avenue
New York, New York
Langan Project No. 170560401

Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted - Residential SCOs	NYSDEC Part 375 Restricted Use - Commercial SCOs	SB-01 SB-01_0-1 L1849030-01 11/30/2018 0-1		SB-02 SB-02_18-19 L1849030-02 11/30/2018 18-19		SB-03 SB-03_15-16 L1849030-03 11/30/2018 15-16		SB-04 SB-04_18-19 L1849030-04 11/30/2018 18-19		SB-05 SB-05_13-14 L1849030-05 11/30/2018 13-14	
Analyte				Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organic Compounds (mg/kg)													
1,1,1-Trichloroethane	0.68	100	500	0.012	J	0.29	U	0.27	U	0.29	U	*0.78*	U
1,1-Dichloroethane	0.27	26	240	0.02	J	*0.58*	U	*0.54*	U	*0.58*	U	*1.6*	U
1,2,4,5-Tetramethylbenzene	~	~	~	0.03	J	16		28		16		48	
1,2,4-Trimethylbenzene	3.6	52	190	0.19		1.2	U	2.5		1.2	U	**260**	
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	190	0.075	J	1.2	U	0.22	J	1.2	U	3.1	U
1,4-Diethyl Benzene	~	~	~	0.15		6.5		8.1		6.3		20	
4-Ethyltoluene	~	~	~	0.21		1.2	U	1.1	U	1.2	U	1.8	J
Chloroform	0.37	49	350	0.033	J	*0.87*	U	*0.82*	U	*0.86*	U	*2.3*	U
Cymene	~	~	~	0.012	J	0.19	J	2.2		0.21	J	30	
Ethylbenzene	1	41	390	0.037	J	0.58	U	0.54	U	0.58	U	0.99	J
Isopropylbenzene (Cumene)	~	~	~	0.0078	J	3.2		0.62		3		5.2	
M,P-Xylene	~	~	~	0.23		1.2	U	1.1	U	1.2	U	3.1	U
Naphthalene	12	100	500	0.06	J	2.3	U	2.2	U	2.3	U	7.6	
n-Butylbenzene	12	100	500	0.023	J	5.7		1.4		5.6		**18**	
n-Propylbenzene	3.9	100	500	0.042	J	**9.5**		1.3		**10**		**12**	
o-Xylene (1,2-Dimethylbenzene)	~	~	~	0.075		0.58	U	0.54	U	0.58	U	1.6	U
Sec-Butylbenzene	11	100	500	0.017	J	8		1.8		7.3		**18**	
T-Butylbenzene	5.9	100	500	0.14	U	2.1		3.2		1.9		**6.8**	
Toluene	0.7	100	500	0.053	J	0.58	U	0.54	U	0.58	U	*1.6*	U
Total Xylenes	0.26	100	500	**0.31**		*0.58*	U	*0.54*	U	*0.58*	U	*1.6*	U
Semivolatile Organic Compounds (mg/kg)													
2-Methylnaphthalene	~	~	~	1.1	U	5		12		2.2		5.3	
Acenaphthene	20	100	500	0.72	U	0.2	J	0.52	J	0.71	U	0.16	J
Anthracene	100	100	500	0.54	U	0.56	U	0.26	J	0.53	U	0.55	U
Benzyl Butyl Phthalate	~	~	~	0.9	U	0.37	J	0.72	J	0.89	U	0.38	J
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.9	U	2.2		2.1		1.4		2.2	
Dibenzofuran	7	59	350	0.9	U	0.2	J	0.54	J	0.092	J	0.15	J
Fluorene	30	100	500	0.9	U	0.46	J	1.4		0.21	J	0.42	J
Naphthalene	12	100	500	0.9	U	0.42	J	0.79	J	0.89	U	2.1	
Phenanthrene	100	100	500	0.54	U	0.72		1.9		0.3	J	0.61	
Pyrene	100	100	500	0.54	U	0.14	J	0.43	J	0.53	U	0.13	J
Pesticides (mg/kg)													
Gamma Bhc (Lindane)	0.1	1.3	9.2	0.0606		NA		NA		NA		NA	
Gamma Chlordane	~	~	~	0.0496	IP	NA		NA		NA		NA	
Herbicides (mg/kg)				ND		NA		NA		NA		NA	
Polychlorinated Biphenyls (mg/kg)													
PCB-1254 (Aroclor 1254)	~	~	~	0.123	I	NA		NA		NA		NA	
PCB-1260 (Aroclor 1260)	~	~	~	0.0548		NA		NA		NA		NA	
Total PCBs	0.1	1	1	**0.178**		NA		NA		NA		NA	

Notes provided on page 3.

Table 2
Soil Summary Report
Soil Sample Analytical Results

2335 12th Avenue
New York, New York
Langan Project No. 170560401

Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted - Residential SCOs	NYSDEC Part 375 Restricted Use - Commercial SCOs	SB-01 SB-01_0-1 L1849030-01 11/30/2018 0-1		SB-02 SB-02_18-19 L1849030-02 11/30/2018 18-19		SB-03 SB-03_15-16 L1849030-03 11/30/2018 15-16		SB-04 SB-04_18-19 L1849030-04 11/30/2018 18-19		SB-05 SB-05_13-14 L1849030-05 11/30/2018 13-14	
Analyte				Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Inorganics (mg/kg)													
Aluminum	~	~	~	6220		NA		NA		NA		NA	
Arsenic	13	16	16	4.02		NA		NA		NA		NA	
Barium	350	400	400	58.6		NA		NA		NA		NA	
Beryllium	7.2	72	590	0.144	J	NA		NA		NA		NA	
Cadmium	2.5	4.3	9.3	0.17	J	NA		NA		NA		NA	
Calcium	~	~	~	79300		NA		NA		NA		NA	
Chromium, Total	~	~	~	11.7		NA		NA		NA		NA	
Chromium, Trivalent	30	180	1500	12		NA		NA		NA		NA	
Cobalt	~	~	~	3.13		NA		NA		NA		NA	
Copper	50	270	270	10.7		NA		NA		NA		NA	
Iron	~	~	~	7560		NA		NA		NA		NA	
Lead	63	400	1000	32		NA		NA		NA		NA	
Magnesium	~	~	~	18700		NA		NA		NA		NA	
Manganese	1600	2000	10000	215		NA		NA		NA		NA	
Mercury	0.18	0.81	2.8	0.037	J	NA		NA		NA		NA	
Nickel	30	310	310	6.64		NA		NA		NA		NA	
Potassium	~	~	~	873		NA		NA		NA		NA	
Selenium	3.9	180	1500	0.72	J	NA		NA		NA		NA	
Sodium	~	~	~	614		NA		NA		NA		NA	
Vanadium	~	~	~	15.2		NA		NA		NA		NA	
Zinc	109	10000	10000	30.3		NA		NA		NA		NA	
General Chemistry (%)													
Total Solids	~	~	~	90.9		87.6		94.6		92		90.9	

Notes provided on page 3.

Table 2
Soil Summary Report
Soil Sample Analytical Results

2335 12th Avenue
New York, New York
Langan Project No. 170560401

Notes:
1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use, Restricted Use Restricted - Residential and Restricted Use - Commercial Soil Cleanup Objectives (SCO).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above Unrestricted Use SCOs are bolded.
4. Analytes detected with concentrations above Restricted Use Restricted-Residential SCOs are bolded and shaded.
5. Analytes detected with concentrations above Restricted Use Commercial SCOs are bolded, shaded and outlined.
6. Analytical results with reporting limits (RL) above Unrestricted Use SCOs are italicized.
7. ~ = Regulatory limit for this analyte does not exist
8. bgs = below grade surface
9. mg/kg = milligrams per kilogram
10. % = percent
11. NA = Not analyzed
12. ND = Not detected

Qualifiers:
I = The lower value for the two columns has been reported due to obvious interference.
J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

Table 3
Soil Vapor Summary Report
Soil Vapor Sample Analytical Results

2335 12th Avenue
New York, New York
Langan Project No. 170560401

Location **Sample ID** **Laboratory ID** **Sample Date** **Sample Type**	**NYSDOH AGVs**	**SSV-01** **SSV-01_113018** **18K1163-01** **11/30/2018** **SSV**		**SSV-02** **SSV-02_113018** **18K1163-02** **11/30/2018** **SSV**		**SSV-03** **SSV-03_113018** **18K1163-03** **11/30/2018** **SSV**	
Analyte		Result	Q	Result	Q	Result	Q
Volatile Organic Compounds (µg/m³)							
1,1,1-Trichloroethane	~	74	D	340	D	78	D
1,1-Dichloroethane	~	4.4	D	30	D	0.62	U
1,1-Dichloroethene	~	0.98	D	0.14	U	0.15	U
1,2,4-Trimethylbenzene	~	7.3	D	8.3	D	5.5	D
1,3,5-Trimethylbenzene (Mesitylene)	~	2.1	D	3.4	D	1.9	D
1,3-Butadiene	~	2.3	D	1.4	D	1	U
4-Ethyltoluene	~	4.9	D	5.2	D	3.9	D
Acetone	~	22	D	10	D	21	D
Benzene	~	1.1	D	1.7	D	0.64	D
Carbon Disulfide	~	32	D	6.8	D	9.6	D
Carbon Tetrachloride	~	4.4	D	34	D	1.2	D
Chloroform	~	8.7	D	15	D	1.8	D
Cyclohexane	~	0.53	U	0.5	U	9.7	D
Dichlorodifluoromethane	~	3.1	D	2.3	D	2.3	D
Ethylbenzene	~	3.8	D	2.4	D	0.67	U
M,P-Xylene	~	23	D	17	D	8.9	D
Methyl Ethyl Ketone (2-Butanone)	~	2	D	3.4	D	2.2	D
Methyl Methacrylate	~	1.4	D	0.6	U	0.63	U
Methylene Chloride	60	4.6	D	1.3	D	2	D
n-Heptane	~	2.5	D	3.9	D	2.5	D
n-Hexane	~	0.54	U	0.52	U	1.5	D
o-Xylene (1,2-Dimethylbenzene)	~	11	D	9.5	D	4.5	D
Propylene	~	16	D	7.2	D	35	D
Tetrachloroethene (PCE)	30	3.8	D	**37**	D	0.26	U
Toluene	~	3.7	D	7.1	D	3.1	D
Trichloroethene (TCE)	2	0.33	D	**5.5**	D	0.21	U
Trichlorofluoromethane	~	2	D	4.4	D	0.86	U
Total VOCs (µg/m³)	~	241.41		556.8		195.24	

Notes provided on 2.

Table 3
Soil Vapor Summary Report
Soil Vapor Sample Analytical Results

2335 12th Avenue
New York, New York
Langan Project No. 170560401

Notes:

1. Sub-slab soil vapor (SSV) sample analytical results are compared to the New York State Department of Health Air Guideline Values (AGVs) as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013,
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above the minimum concentrations are bolded and shaded.
4. Analytical results with reporting limits (RL) above the minimum concentrations are italicized.
5. ~ = Regulatory limit for this analyte does not exist
6. µg/m³ = micrograms per cubic meter
7. SSV = sub-slab vapor

Qualifiers:

D = The concentration reported is a result of a diluted sample.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

ATTACHMENT 1

PREVIOUS REPORTS

ATTACHMENT 2

SOIL BORING LOGS

LANGAN

Log of Boring **SB-01** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 4 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 1 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First N/A — Completion N/A — 24 HR. N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1 (0-17") loose, red, fine SAND, some fine gravel, trace medium sand, brick, concrete (dry) [FILL]	0	R1	MACROCORE	17/48		40.5 35.7 18.9	1315 collect sample SB-01_0-1
		4						Refusal at 4 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch. Step-off 6 inches to SB-01A.
		5						
		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						

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Log of Boring **SB-01A** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 4 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 1 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ N/A — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1a (0-4") CONCRETE R1b (4-24") medium-dense, brown, fine SAND, some fine gravel, trace silt, brick, concrete (dry) [FILL]	0 1 2 3 4	R1	MACROCORE	24/48		40.5 84.3 20.7 4.5	Refusal at 4 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch.
		5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20						

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Log of Boring **SB-02** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 17.8 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1a (0-5") CONCRETE	0					8.6	
	R1b (5-10") loose, black, fine SAND, some fine gravel (dry) [FILL]	1					5.9	
	R1c (10-25") medium dense, brown, fine SAND, some fine gravel, trace silt (dry) [FILL]	2	R1	MACROCORE	24/48		27.2	
		3						
		4						
	R2a (0-10") loose, brown, fine SAND, some fine gravel, trace silt (dry)	5					5.9	
	R2b (10-30") loose, red, medium SAND, trace fine gravel (dry)	6	R2	MACROCORE	30/48		27.0	
		7					34.5	
		8					59.0	
		9					27.8	
	R3 (0-22") loose, red, medium SAND, some fine gravel (dry)	10	R3	MACROCORE	22/48		77.0	Petroleum-like odor 10-20 ft bgs
		11					124.6	
		12					216.1	
	R4a (0-4") loose, red, medium SAND, trace fine sand (dry)	13						
	R4b (4-10") medium dense, red, fine SAND, trace silt (dry)	14	R4	MACROCORE	28/48		147.5	
	R4c (10-23") loose, red, medium SAND, trace fine sand (dry)	15					219.4	
	R4d (23-28") medium dense, red, fine SAND, trace silt (dry)	16					238.2	
		17					368.2	
	R5 (0-27") loose, red, medium SAND, trace fine sand (dry)	18 ▽	R5	MACROCORE	27/48		395.2	1237 Collect sample SB-02_18-19
		19					202.4	
		20					132.9	End of boring 20 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch.
							120.8	

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Log of Boring **SB-03** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1a (0-6") CONCRETE	0					0.0	
	R1b (6-15") loose, black, fine SAND, trace fine gravel (dry) [FILL]	1					0.0	
			R1	MACROCORE	27/48		0.0	
	R1c (15-27") medium dense, brown, fine SAND, trace fine gravel, trace silt (dry) [FILL]	2					0.0	
		3						
		4						
		5						
	R2a (0-10") loose, red, fine SAND (dry)	6	R2	MACROCORE	24/48		0.0	
	R2b (10-15") loose, red, medium SAND, trace fine gravel (dry)	7					0.0	
	R2c (15-24") loose, grey, coarse GRAVEL (dry)	8					0.0	
	R3a (0-17") loose, grey, medium SAND, some fine gravel (dry)	9						
	R3b (17-29") dense, red, fine SAND, some silt (dry)	10	R3	MACROCORE	29/48		30.2	
		11					122.8	
		12					60.4	
		13					48.7	
		14					19.5	
	R4 (0-19") medium dense, red, medium SAND, some fine sand (dry)	15	R4	MACROCORE	19/48		224.9	Petroleum-like odor 12-20 ft bgs
		16					57.8	1203 Collect sample SB-03_15-16
		17					11.0	
	R5 (0-32") medium dense, red, medium SAND, some fine sand (wet) ▽	18	R5	MACROCORE	23/48		103.9	
		19					86.8	
		20					69.9	End of boring 20 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch.
							24.6	

LANGAN

Log of Boring **SB-04** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18.5 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1a (0-10") loose, black, fine SAND, trace fine gravel, concrete (dry) [FILL]	0					0.0	
	R1b (10-20") medium dense, brown, fine SAND, trace fine gravel, trace coarse gravel, trace silt (dry) [FILL]	1					0.0	
	R1c (20-24") loose, reddish brown, medium SAND, some fine sand (dry)	2	R1	MACROCORE	24/48		0.0	
		3					0.0	
		4						
	R2a (0-13") medium-dense, reddish brown, medium SAND, some fine sand (dry)	5						
		6	R2	MACROCORE	26/48		0.0	
	R2b (13-26") dense, olive, fine SAND, some silt, trace fine gravel (dry)	7					0.0	
		8					0.0	
		9						
	R3a (0-9") dense, red, fine SAND, some silt, some fine gravel (dry)	10	R3	MACROCORE	27/48		100.7	Petroleum-like odor 10-20 ft bgs
	R3b (9-27") loose, red, medium SAND, some fine sand, trace fine gravel (dry)	11					107.5	
		12					109.0	
		13					100.5	
		14	R4	MACROCORE	23/48		130.4	
	R4a (0-11") loose, grey, coarse GRAVEL, some fine sand, trace medium sand (dry)	15					225.3	
	R4b (11-17") medium dense, red, fine SAND, some fine gravel, trace silt (dry)	16					87.3	
	R4c (17-23") loose red, medium SAND, some fine sand (dry)	17					107.1	
		18 ▽	R5	MACROCORE	16/48			1125 Collect sample SB-04_18-19
	R5a (0-12") dense, red, medium SAND, trace fine sand (wet)	19					537.0	
	R5b (12-16") loose, red, fine SAND, some silt (wet)	20					223.6	End of boring 20 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch.
							5.4	

LANGAN

Log of Boring **SB-05** Sheet 1 of 1

Project: 2335 12th Avenue	Project No.: 170560401
Location: Manhattan, New York	Elevation and Datum: N/A
Drilling Company: AARCO Environmental Services Corp	Date Started: 11/30/18 — Date Finished: 11/30/18
Drilling Equipment: Geoprobe 7822 DT	Completion Depth: 20 ft — Rock Depth: N/A
Size and Type of Bit: 2-inch Macrocore cutting shoe	Number of Samples: Disturbed 5 — Undisturbed N/A — Core N/A
Casing Diameter (in): N/A — Casing Depth (ft): N/A	Water Level (ft.): First ▽ 18 — Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	Drilling Foreman: Adam Hutchinson
Sampler: 2-inch diameter 4-foot steel Macrocore	Field Engineer: Kevin Garrett
Sampler Hammer: N/A — Weight (lbs): N/A — Drop (in): N/A	

Material Symbol	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	R1a (0-24") loose, dark brown, fine SAND, trace fine gravel, concrete (dry)	0					39.2	
		1	R1	HA	48/48		20.5	Hand auger to 4 ft bgs
	R1b (24-48") loose, brown, fine SAND, some fine gravel (dry)	2					10.5	
		3					9.7	
		4					10.5	
	R2a (0-20") loose, tan, fine SAND, some medium sand (dry)	5					10.7	
	R2b (20-44") medium dense, tan, fine SAND, trace silt (dry)	6	R2	MACROCORE	44/48		9.8	
		7					15.3	
		8					17.9	
		9					9.3	
	R3a (0-15") medium dense, brown, fine SAND, trace silt (dry)	10					10.4	
	R3b (15-44") loose, reddish brown, fine SAND, some medium sand (dry)	11	R3	MACROCORE	44/48		7.0	
		12					4.3	
		13					4.2	
		14					3.9	
		15						Petroleum-like odor 8-20 ft bgs
		16					180.1	
		17					199.3	
	R4a (0-24") medium dense, brown, fine SAND, some silt (dry)	18					168.9	
	R4b (24-44") loose, reddish tan, medium SAND, trace fine sand (dry)	19	R4	MACROCORE	37/48		260.9	
		20					299.3	
							238.4	
							312.0	1350 Collect sample SB-05_13-14
							378.9	
							662.7	
							400.9	
							632.4	
							387.9	
	R5a (0-13") medium dense, brown, fine SAND, some silt (dry to moist)						289.8	
	R5b (13-36") medium dense, reddish brown, medium SAND, trace fine sand (wet)		R5	MACROCORE	36/48		274.8	
							552.1	
							392.1	
							380.4	End of boring 20 ft bgs. Soil cuttings backfilled. Borehole finished with concrete patch.

ATTACHMENT 3

SOIL VAPOR LOGS AND CHEMICAL INVENTORY

SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV-01

PROJECT: 2335 12th Avenue	**PROJECT NO.:** 170560401
LOCATION: Manhattan	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION FOREMAN: Adam Hutchinson	**SAMPLE DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION EQUIPMENT: Portable Electric Rig	**TYPE OF SAMPLING DEVICE:** 6-Liter Summa Canister
INSPECTOR: Kevin Garrett	**SAMPLER:** Kevin Garrett
POTENTIAL SAMPLE INTERFERENCES: None	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 40's; Wind: Indoors; Precipitation: Indoors; Pressure: 30.15 in

METHOD OF INSTALLATION AND PURGING:

AARCO advanced subslab vapor point to about 3-inches below the top of the slab with a Bosch hammer drill. A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. No. 2 sand was backfilled around the tubing to 1 inch bgs, and the remainder of the borehole was sealed with bentonite.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** Bentonite
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: None	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 1 in	**FILTER PACK MATERIAL (Sand or Glass Beads):** None (Prefered)

PURGE VOLUME (L):	0.20
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0
HELIUM TESTS	Pre-sampling / Post-sampling
HELIUM TEST IN BUCKET(%):	15.7% / 14.3%
HELIUM TEST IN TUBE (PPM):	0.0% / 0.0%
SAMPLE START TIME:	9:32
SAMPLE STOP TIME:	11:32
TOTAL SAMPLE TIME (MIN):	120
REGULATOR FLOW RATE (L/MIN):	0.05
VOLUME OF SAMPLE (LITERS):	6
PID AFTER SAMPLE (PPM):	0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	15525
REGULATOR SERIAL NUMBER:	Y23
CAN START VACUUM PRESS. (" HG):	-29.12
CAN STOP VACUUM PRESS. (" HG):	-4.98

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	1 in	
Tube Depth	3 in	

SAMPLE LOCATION SKETCH

See Sample Location Plan

NOTES

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV-02

PROJECT: 2335 12th Avenue	**PROJECT NO.:** 170560401
LOCATION: Manhattan	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION FOREMAN: Adam Hutchinson	**SAMPLE DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION EQUIPMENT: Portable Electric Rig	**TYPE OF SAMPLING DEVICE:** 2.7-Liter Summa Canister
INSPECTOR: Kevin Garrett	**SAMPLER:** Kevin Garrett
POTENTIAL SAMPLE INTERFERENCES: None	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 40's Wind: Indoors Precipitation: Indoors Pressure: 30.15 in

METHOD OF INSTALLATION AND PURGING:

AARCO advanced subslab vapor point to about 3-inches below the top of the slab with a Bosch hammer drill. A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. No. 2 sand was backfilled around the tubing to 1 inch bgs, and the remainder of the borehole was sealed with bentonite.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** Bentonite
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: None	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 1 in	**FILTER PACK MATERIAL (Sand or Glass Beads):** None (Prefered)

PURGE VOLUME (L):	0.20
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0
HELIUM TESTS	Pre-sampling / Post-sampling
HELIUM TEST IN BUCKET(%):	17.5% / 13.2%
HELIUM TEST IN TUBE (PPM):	0.0% / 0.0%
SAMPLE START TIME:	9:51
SAMPLE STOP TIME:	11:51
TOTAL SAMPLE TIME (MIN):	120
REGULATOR FLOW RATE (L/MIN):	0.05
VOLUME OF SAMPLE (LITERS):	6
PID AFTER SAMPLE (PPM):	0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	28801
REGULATOR SERIAL NUMBER:	Y47
CAN START VACUUM PRESS. (" HG):	-29.58
CAN STOP VACUUM PRESS. (" HG):	-3.76

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	1 in	
Tube Depth	3 in	

SAMPLE LOCATION SKETCH

See Sample Location Plan

NOTES

SUB-SLAB SOIL VAPOR SAMPLING LOG SHEET

Sample Number: SSV-03

PROJECT: 2335 12th Avenue	**PROJECT NO.:** 170560401
LOCATION: Manhattan	**SURFACE ELEVATION AND DATUM:** N/A
DRILLING FIRM OR LANGAN INSTALLER: AARCO Environmental Services, Corp.	**INSTALLATION DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION FOREMAN: Adam Hutchinson	**SAMPLE DATE STARTED:** 11/30/2018 **DATE FINISHED:** 11/30/2018
INSTALLATION EQUIPMENT: Portable Electric Rig	**TYPE OF SAMPLING DEVICE:** 2.7-Liter Summa Canister
INSPECTOR: Kevin Garrett	**SAMPLER:** Kevin Garrett
POTENTIAL SAMPLE INTERFERENCES: None	**WEATHER CONDITIONS (PRECIP., TEMP., PRESS., WIND SPEED AND DIR.):** Temp: 40's; Wind: Indoors; Precipitation: Indoors; Pressure: 30.15 in

METHOD OF INSTALLATION AND PURGING:

AARCO advanced subslab vapor point to about 3-inches below the top of the slab with a Bosch hammer drill. A small amount of No. 2 sand was backfilled into the borehole to set the vapor tubing. No. 2 sand was backfilled around the tubing to 1 inch bgs, and the remainder of the borehole was sealed with bentonite.

TUBING TYPE/DIAMETER: 3/16-inch ID, 1/4-inch OD Teflon-Lined Polyethylene Tubing	**TYPE OF MATERIAL ABOVE SEAL:** Bentonite
IMPLANT SCREEN TYPE/LENGTH/DIAMETER: None	**SEAL MATERIAL (Bentonite, Beeswax, Modeling Clay, etc.):** Bentonite
BOREHOLE DIAMETER: 1 in	**FILTER PACK MATERIAL (Sand or Glass Beads):** None (Prefered)

PURGE VOLUME (L):	0.20
PURGE FLOW RATE (ML/MIN):	200
PID AFTER PURGE (PPM):	0
HELIUM TESTS	Pre-sampling / Post-sampling
HELIUM TEST IN BUCKET(%):	15.9% / 12.2%
HELIUM TEST IN TUBE (PPM):	0.0% / 0.0%
SAMPLE START TIME:	10:04
SAMPLE STOP TIME:	12:04
TOTAL SAMPLE TIME (MIN):	120
REGULATOR FLOW RATE (L/MIN):	0.05
VOLUME OF SAMPLE (LITERS):	6
PID AFTER SAMPLE (PPM):	0
SAMPLE MOISTURE CONTENT:	N/A
CAN SERIAL NUMBER:	23796
REGULATOR SERIAL NUMBER:	Y41
CAN START VACUUM PRESS. (" HG):	-29.68
CAN STOP VACUUM PRESS. (" HG):	-5.95

IMPLANT/PROBE DETAILS (SEAL, FILTER, ETC.)	DEPTH (FEET FROM SURFACE)	NOTES
SURFACE / SURFACE		
Top of Seal	0	
Top of Pack	1 in	
Tube Depth	3 in	

SAMPLE LOCATION SKETCH

See Sample Location Plan

NOTES

Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001-2727

Indoor Air Quality Pre-Inspection Inventory
Site Name: 2335 12th Avenue, Manhattan, New York
Langan Project No.: 170560401

Location	Quantity	Product Description	Size (Units)	Condition	Chemical Ingredients	Field Instrument Reading	Photo
Loading dock	1	Mineral solvent AST	1500 gal	Used	mineral solvents	0	Yes
Loading dock	1	"Un-Flame" flame retardant	55 gal	Used	unknown	0	Yes
South of dry room	3	"Special Grade A" Oil	1 gal	Used	unknown	0	Yes
South of dry room	1	"Bac-out" stain/odor remover	5 gal	Used	enzymes	0	Yes
South of dry room	1	Flame retardant	20 gal	Used	unknown	0	Yes
East "Equipment" room	3	"Grand Slam SC" dirt remover	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Matrix "All Fiber Rinse"	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Gojo Orange pumice cleaner	1.25 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Natural Fiber Cleaner	100 oz	Used	label photographed	0	Yes
East "Equipment" room	1	"Chemtreat" Wool Fiber Cleaner	8 lbs	Used	label photographed	0	Yes
East "Equipment" room	1	Clorox bleach	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Matrix "Knockdown" defoamer	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Envirorite Carpet Cleaner	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Chemspec All fabric Stainshield	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Fabpro chlorofast upholstery cleaner	1 gal	Used	label photographed	0	Yes
East "Equipment" room	2	Metro-natural starch plus	1 gal	Used	label photographed	0	Yes
East "Equipment" room	1	Novel Laundry Rust Remover	1 gal	Used	hydrofluoric acid	0	Yes
West "Equipment" Room	1	300-gallon petroleum AST	300 gal	Used	petroleum	0	Yes
West "Equipment" Room	2	Dry-cleaning machines	12 oz	Used	dry-cleaning materials	0	Yes
West "Equipment" Room	2	large blue tubs with dry-cleaning fluid	N/A	Used	dry-cleaning materials	0	Yes

ATTACHMENT 4

LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Lab Number:	L1849030
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Emily Snead
Phone:	(212) 479-5432
Project Name:	2335 12TH AVENUE
Project Number:	170560401
Report Date:	12/07/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1849030-01	SB-01_0-1	SOIL	MANHATTAN	11/30/18 13:15	11/30/18
L1849030-02	SB-02_18-19	SOIL	MANHATTAN	11/30/18 12:37	11/30/18
L1849030-03	SB-03_15-16	SOIL	MANHATTAN	11/30/18 12:03	11/30/18
L1849030-04	SB-04_18-19	SOIL	MANHATTAN	11/30/18 11:25	11/30/18
L1849030-05	SB-05_13-14	SOIL	MANHATTAN	11/30/18 13:50	11/30/18

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	2335 12TH AVENUE	**Lab Number:**	L1849030
Project Number:	170560401	**Report Date:**	12/07/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The project name and analyses performed were specified by the client.

Volatile Organics

L1849030-01: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

L1849030-02, -03 and -04: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1849030-02: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (171%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

L1849030-03: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (240%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

L1849030-04: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (166%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

L1849030-05: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (173%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

Semivolatile Organics

L1849030-01 through -05: The sample has elevated detection limits due to the dilution required by the sample matrix.

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Case Narrative (continued)

Pesticides

L1849030-01: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1849030-01: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1849030-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1186029-1 Method Blank, associated with L1849030-01, has a concentration above the reporting limit for manganese. Since the associated sample concentration is greater than 10x the blank concentration for this analyte, no corrective action is required.

Cyanide, Total

The WG1184795-3 LCSD recovery (67%), associated with L1849030-01, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Amita Naik

Title: Technical Director/Representative Date: 12/07/18

ORGANICS

VOLATILES

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 Date Collected: 11/30/18 13:15
Client ID: SB-01_0-1 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/18 21:36
Analyst: MV
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	360	160	1
1,1-Dichloroethane	20	J	ug/kg	72	10.	1
Chloroform	33	J	ug/kg	110	10.	1
Carbon tetrachloride	ND		ug/kg	72	16.	1
1,2-Dichloropropane	ND		ug/kg	72	9.0	1
Dibromochloromethane	ND		ug/kg	72	10.	1
1,1,2-Trichloroethane	ND		ug/kg	72	19.	1
Tetrachloroethene	ND		ug/kg	36	14.	1
Chlorobenzene	ND		ug/kg	36	9.1	1
Trichlorofluoromethane	ND		ug/kg	290	50.	1
1,2-Dichloroethane	ND		ug/kg	72	18.	1
1,1,1-Trichloroethane	12	J	ug/kg	36	12.	1
Bromodichloromethane	ND		ug/kg	36	7.8	1
trans-1,3-Dichloropropene	ND		ug/kg	72	20.	1
cis-1,3-Dichloropropene	ND		ug/kg	36	11.	1
1,3-Dichloropropene, Total	ND		ug/kg	36	11.	1
1,1-Dichloropropene	ND		ug/kg	36	11.	1
Bromoform	ND		ug/kg	290	18.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	36	12.	1
Benzene	ND		ug/kg	36	12.	1
Toluene	53	J	ug/kg	72	39.	1
Ethylbenzene	37	J	ug/kg	72	10.	1
Chloromethane	ND		ug/kg	290	67.	1
Bromomethane	ND		ug/kg	140	42.	1
Vinyl chloride	ND		ug/kg	72	24.	1
Chloroethane	ND		ug/kg	140	32.	1
1,1-Dichloroethene	ND		ug/kg	72	17.	1
trans-1,2-Dichloroethene	ND		ug/kg	110	9.8	1

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 Date Collected: 11/30/18 13:15

Client ID: SB-01_0-1 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	ND		ug/kg	36	9.8	1
1,2-Dichlorobenzene	ND		ug/kg	140	10.	1
1,3-Dichlorobenzene	ND		ug/kg	140	11.	1
1,4-Dichlorobenzene	ND		ug/kg	140	12.	1
Methyl tert butyl ether	ND		ug/kg	140	14.	1
p/m-Xylene	230		ug/kg	140	40.	1
o-Xylene	75		ug/kg	72	21.	1
Xylenes, Total	310		ug/kg	72	21.	1
cis-1,2-Dichloroethene	ND		ug/kg	72	12.	1
1,2-Dichloroethene, Total	ND		ug/kg	72	9.8	1
Dibromomethane	ND		ug/kg	140	17.	1
Styrene	ND		ug/kg	72	14.	1
Dichlorodifluoromethane	ND		ug/kg	720	66.	1
Acetone	ND		ug/kg	720	340	1
Carbon disulfide	ND		ug/kg	720	330	1
2-Butanone	ND		ug/kg	720	160	1
Vinyl acetate	ND		ug/kg	720	150	1
4-Methyl-2-pentanone	ND		ug/kg	720	92.	1
1,2,3-Trichloropropane	ND		ug/kg	140	9.1	1
2-Hexanone	ND		ug/kg	720	85.	1
Bromochloromethane	ND		ug/kg	140	15.	1
2,2-Dichloropropane	ND		ug/kg	140	14.	1
1,2-Dibromoethane	ND		ug/kg	72	20.	1
1,3-Dichloropropane	ND		ug/kg	140	12.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	36	9.5	1
Bromobenzene	ND		ug/kg	140	10.	1
n-Butylbenzene	23	J	ug/kg	72	12.	1
sec-Butylbenzene	17	J	ug/kg	72	10.	1
tert-Butylbenzene	ND		ug/kg	140	8.5	1
o-Chlorotoluene	ND		ug/kg	140	14.	1
p-Chlorotoluene	ND		ug/kg	140	7.8	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	220	72.	1
Hexachlorobutadiene	ND		ug/kg	290	12.	1
Isopropylbenzene	7.8	J	ug/kg	72	7.8	1
p-Isopropyltoluene	12	J	ug/kg	72	7.8	1
Naphthalene	60	J	ug/kg	290	47.	1
Acrylonitrile	ND		ug/kg	290	82.	1

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 Date Collected: 11/30/18 13:15

Client ID: SB-01_0-1 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
n-Propylbenzene	42	J	ug/kg	72	12.	1
1,2,3-Trichlorobenzene	ND		ug/kg	140	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	140	20.	1
1,3,5-Trimethylbenzene	75	J	ug/kg	140	14.	1
1,2,4-Trimethylbenzene	190		ug/kg	140	24.	1
1,4-Dioxane	ND		ug/kg	7200	2500	1
p-Diethylbenzene	150		ug/kg	140	13.	1
p-Ethyltoluene	210		ug/kg	140	28.	1
1,2,4,5-Tetramethylbenzene	30	J	ug/kg	140	14.	1
Ethyl ether	ND		ug/kg	140	24.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	360	100	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D
Client ID: SB-02_18-19
Sample Location: MANHATTAN

Date Collected: 11/30/18 12:37
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/18 22:02
Analyst: MV
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	2900	1300	10
1,1-Dichloroethane	ND		ug/kg	580	84.	10
Chloroform	ND		ug/kg	870	81.	10
Carbon tetrachloride	ND		ug/kg	580	130	10
1,2-Dichloropropane	ND		ug/kg	580	73.	10
Dibromochloromethane	ND		ug/kg	580	81.	10
1,1,2-Trichloroethane	ND		ug/kg	580	160	10
Tetrachloroethene	ND		ug/kg	290	110	10
Chlorobenzene	ND		ug/kg	290	74.	10
Trichlorofluoromethane	ND		ug/kg	2300	400	10
1,2-Dichloroethane	ND		ug/kg	580	150	10
1,1,1-Trichloroethane	ND		ug/kg	290	97.	10
Bromodichloromethane	ND		ug/kg	290	63.	10
trans-1,3-Dichloropropene	ND		ug/kg	580	160	10
cis-1,3-Dichloropropene	ND		ug/kg	290	92.	10
1,3-Dichloropropene, Total	ND		ug/kg	290	92.	10
1,1-Dichloropropene	ND		ug/kg	290	92.	10
Bromoform	ND		ug/kg	2300	140	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	290	96.	10
Benzene	ND		ug/kg	290	96.	10
Toluene	ND		ug/kg	580	320	10
Ethylbenzene	ND		ug/kg	580	82.	10
Chloromethane	ND		ug/kg	2300	540	10
Bromomethane	ND		ug/kg	1200	340	10
Vinyl chloride	ND		ug/kg	580	190	10
Chloroethane	ND		ug/kg	1200	260	10
1,1-Dichloroethene	ND		ug/kg	580	140	10
trans-1,2-Dichloroethene	ND		ug/kg	870	80.	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D Date Collected: 11/30/18 12:37
Client ID: SB-02_18-19 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	ND		ug/kg	290	80.	10
1,2-Dichlorobenzene	ND		ug/kg	1200	84.	10
1,3-Dichlorobenzene	ND		ug/kg	1200	86.	10
1,4-Dichlorobenzene	ND		ug/kg	1200	99.	10
Methyl tert butyl ether	ND		ug/kg	1200	120	10
p/m-Xylene	ND		ug/kg	1200	320	10
o-Xylene	ND		ug/kg	580	170	10
Xylenes, Total	ND		ug/kg	580	170	10
cis-1,2-Dichloroethene	ND		ug/kg	580	100	10
1,2-Dichloroethene, Total	ND		ug/kg	580	80.	10
Dibromomethane	ND		ug/kg	1200	140	10
Styrene	ND		ug/kg	580	110	10
Dichlorodifluoromethane	ND		ug/kg	5800	530	10
Acetone	ND		ug/kg	5800	2800	10
Carbon disulfide	ND		ug/kg	5800	2600	10
2-Butanone	ND		ug/kg	5800	1300	10
Vinyl acetate	ND		ug/kg	5800	1200	10
4-Methyl-2-pentanone	ND		ug/kg	5800	740	10
1,2,3-Trichloropropane	ND		ug/kg	1200	74.	10
2-Hexanone	ND		ug/kg	5800	680	10
Bromochloromethane	ND		ug/kg	1200	120	10
2,2-Dichloropropane	ND		ug/kg	1200	120	10
1,2-Dibromoethane	ND		ug/kg	580	160	10
1,3-Dichloropropane	ND		ug/kg	1200	97.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	290	77.	10
Bromobenzene	ND		ug/kg	1200	84.	10
n-Butylbenzene	5700		ug/kg	580	97.	10
sec-Butylbenzene	8000		ug/kg	580	85.	10
tert-Butylbenzene	2100		ug/kg	1200	68.	10
o-Chlorotoluene	ND		ug/kg	1200	110	10
p-Chlorotoluene	ND		ug/kg	1200	63.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1700	580	10
Hexachlorobutadiene	ND		ug/kg	2300	98.	10
Isopropylbenzene	3200		ug/kg	580	63.	10
p-Isopropyltoluene	190	J	ug/kg	580	63.	10
Naphthalene	ND		ug/kg	2300	380	10
Acrylonitrile	ND		ug/kg	2300	670	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D Date Collected: 11/30/18 12:37

Client ID: SB-02_18-19 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
n-Propylbenzene	9500		ug/kg	580	99.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1200	190	10
1,2,4-Trichlorobenzene	ND		ug/kg	1200	160	10
1,3,5-Trimethylbenzene	ND		ug/kg	1200	110	10
1,2,4-Trimethylbenzene	ND		ug/kg	1200	190	10
1,4-Dioxane	ND		ug/kg	58000	20000	10
p-Diethylbenzene	6500		ug/kg	1200	100	10
p-Ethyltoluene	ND		ug/kg	1200	220	10
1,2,4,5-Tetramethylbenzene	16000		ug/kg	1200	110	10
Ethyl ether	ND		ug/kg	1200	200	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2900	820	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	**171**	Q	70-130
Dibromofluoromethane	100		70-130

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D
Client ID: SB-03_15-16
Sample Location: MANHATTAN

Date Collected: 11/30/18 12:03
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/18 22:28
Analyst: MV
Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	2700	1200	10
1,1-Dichloroethane	ND		ug/kg	540	79.	10
Chloroform	ND		ug/kg	820	76.	10
Carbon tetrachloride	ND		ug/kg	540	120	10
1,2-Dichloropropane	ND		ug/kg	540	68.	10
Dibromochloromethane	ND		ug/kg	540	76.	10
1,1,2-Trichloroethane	ND		ug/kg	540	140	10
Tetrachloroethene	ND		ug/kg	270	110	10
Chlorobenzene	ND		ug/kg	270	69.	10
Trichlorofluoromethane	ND		ug/kg	2200	380	10
1,2-Dichloroethane	ND		ug/kg	540	140	10
1,1,1-Trichloroethane	ND		ug/kg	270	91.	10
Bromodichloromethane	ND		ug/kg	270	59.	10
trans-1,3-Dichloropropene	ND		ug/kg	540	150	10
cis-1,3-Dichloropropene	ND		ug/kg	270	86.	10
1,3-Dichloropropene, Total	ND		ug/kg	270	86.	10
1,1-Dichloropropene	ND		ug/kg	270	87.	10
Bromoform	ND		ug/kg	2200	130	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	270	90.	10
Benzene	ND		ug/kg	270	90.	10
Toluene	ND		ug/kg	540	300	10
Ethylbenzene	ND		ug/kg	540	77.	10
Chloromethane	ND		ug/kg	2200	510	10
Bromomethane	ND		ug/kg	1100	320	10
Vinyl chloride	ND		ug/kg	540	180	10
Chloroethane	ND		ug/kg	1100	250	10
1,1-Dichloroethene	ND		ug/kg	540	130	10
trans-1,2-Dichloroethene	ND		ug/kg	820	75.	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D Date Collected: 11/30/18 12:03

Client ID: SB-03_15-16 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	ND		ug/kg	270	75.	10
1,2-Dichlorobenzene	ND		ug/kg	1100	78.	10
1,3-Dichlorobenzene	ND		ug/kg	1100	81.	10
1,4-Dichlorobenzene	ND		ug/kg	1100	93.	10
Methyl tert butyl ether	ND		ug/kg	1100	110	10
p/m-Xylene	ND		ug/kg	1100	300	10
o-Xylene	ND		ug/kg	540	160	10
Xylenes, Total	ND		ug/kg	540	160	10
cis-1,2-Dichloroethene	ND		ug/kg	540	95.	10
1,2-Dichloroethene, Total	ND		ug/kg	540	75.	10
Dibromomethane	ND		ug/kg	1100	130	10
Styrene	ND		ug/kg	540	110	10
Dichlorodifluoromethane	ND		ug/kg	5400	500	10
Acetone	ND		ug/kg	5400	2600	10
Carbon disulfide	ND		ug/kg	5400	2500	10
2-Butanone	ND		ug/kg	5400	1200	10
Vinyl acetate	ND		ug/kg	5400	1200	10
4-Methyl-2-pentanone	ND		ug/kg	5400	700	10
1,2,3-Trichloropropane	ND		ug/kg	1100	69.	10
2-Hexanone	ND		ug/kg	5400	640	10
Bromochloromethane	ND		ug/kg	1100	110	10
2,2-Dichloropropane	ND		ug/kg	1100	110	10
1,2-Dibromoethane	ND		ug/kg	540	150	10
1,3-Dichloropropane	ND		ug/kg	1100	91.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	270	72.	10
Bromobenzene	ND		ug/kg	1100	79.	10
n-Butylbenzene	1400		ug/kg	540	91.	10
sec-Butylbenzene	1800		ug/kg	540	80.	10
tert-Butylbenzene	3200		ug/kg	1100	64.	10
o-Chlorotoluene	ND		ug/kg	1100	100	10
p-Chlorotoluene	ND		ug/kg	1100	59.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1600	540	10
Hexachlorobutadiene	ND		ug/kg	2200	92.	10
Isopropylbenzene	620		ug/kg	540	59.	10
p-Isopropyltoluene	2200		ug/kg	540	59.	10
Naphthalene	ND		ug/kg	2200	350	10
Acrylonitrile	ND		ug/kg	2200	630	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D Date Collected: 11/30/18 12:03

Client ID: SB-03_15-16 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
n-Propylbenzene	1300		ug/kg	540	93.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1100	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1100	150	10
1,3,5-Trimethylbenzene	220	J	ug/kg	1100	100	10
1,2,4-Trimethylbenzene	2500		ug/kg	1100	180	10
1,4-Dioxane	ND		ug/kg	54000	19000	10
p-Diethylbenzene	8100		ug/kg	1100	96.	10
p-Ethyltoluene	ND		ug/kg	1100	210	10
1,2,4,5-Tetramethylbenzene	28000		ug/kg	1100	100	10
Ethyl ether	ND		ug/kg	1100	190	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2700	770	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	**240**	Q	70-130
Dibromofluoromethane	99		70-130

Project Name: 2335 12TH AVENUE
Lab Number: L1849030
Project Number: 170560401
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D
Client ID: SB-04_18-19
Sample Location: MANHATTAN
Date Collected: 11/30/18 11:25
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/18 22:54
Analyst: MV
Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	2900	1300	10
1,1-Dichloroethane	ND		ug/kg	580	83.	10
Chloroform	ND		ug/kg	860	80.	10
Carbon tetrachloride	ND		ug/kg	580	130	10
1,2-Dichloropropane	ND		ug/kg	580	72.	10
Dibromochloromethane	ND		ug/kg	580	80.	10
1,1,2-Trichloroethane	ND		ug/kg	580	150	10
Tetrachloroethene	ND		ug/kg	290	110	10
Chlorobenzene	ND		ug/kg	290	73.	10
Trichlorofluoromethane	ND		ug/kg	2300	400	10
1,2-Dichloroethane	ND		ug/kg	580	150	10
1,1,1-Trichloroethane	ND		ug/kg	290	96.	10
Bromodichloromethane	ND		ug/kg	290	63.	10
trans-1,3-Dichloropropene	ND		ug/kg	580	160	10
cis-1,3-Dichloropropene	ND		ug/kg	290	91.	10
1,3-Dichloropropene, Total	ND		ug/kg	290	91.	10
1,1-Dichloropropene	ND		ug/kg	290	91.	10
Bromoform	ND		ug/kg	2300	140	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	290	95.	10
Benzene	ND		ug/kg	290	95.	10
Toluene	ND		ug/kg	580	310	10
Ethylbenzene	ND		ug/kg	580	81.	10
Chloromethane	ND		ug/kg	2300	540	10
Bromomethane	ND		ug/kg	1200	330	10
Vinyl chloride	ND		ug/kg	580	190	10
Chloroethane	ND		ug/kg	1200	260	10
1,1-Dichloroethene	ND		ug/kg	580	140	10
trans-1,2-Dichloroethene	ND		ug/kg	860	79.	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D Date Collected: 11/30/18 11:25

Client ID: SB-04_18-19 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	ND		ug/kg	290	79.	10
1,2-Dichlorobenzene	ND		ug/kg	1200	83.	10
1,3-Dichlorobenzene	ND		ug/kg	1200	85.	10
1,4-Dichlorobenzene	ND		ug/kg	1200	98.	10
Methyl tert butyl ether	ND		ug/kg	1200	120	10
p/m-Xylene	ND		ug/kg	1200	320	10
o-Xylene	ND		ug/kg	580	170	10
Xylenes, Total	ND		ug/kg	580	170	10
cis-1,2-Dichloroethene	ND		ug/kg	580	100	10
1,2-Dichloroethene, Total	ND		ug/kg	580	79.	10
Dibromomethane	ND		ug/kg	1200	140	10
Styrene	ND		ug/kg	580	110	10
Dichlorodifluoromethane	ND		ug/kg	5800	530	10
Acetone	ND		ug/kg	5800	2800	10
Carbon disulfide	ND		ug/kg	5800	2600	10
2-Butanone	ND		ug/kg	5800	1300	10
Vinyl acetate	ND		ug/kg	5800	1200	10
4-Methyl-2-pentanone	ND		ug/kg	5800	740	10
1,2,3-Trichloropropane	ND		ug/kg	1200	73.	10
2-Hexanone	ND		ug/kg	5800	680	10
Bromochloromethane	ND		ug/kg	1200	120	10
2,2-Dichloropropane	ND		ug/kg	1200	120	10
1,2-Dibromoethane	ND		ug/kg	580	160	10
1,3-Dichloropropane	ND		ug/kg	1200	96.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	290	76.	10
Bromobenzene	ND		ug/kg	1200	83.	10
n-Butylbenzene	5600		ug/kg	580	96.	10
sec-Butylbenzene	7300		ug/kg	580	84.	10
tert-Butylbenzene	1900		ug/kg	1200	68.	10
o-Chlorotoluene	ND		ug/kg	1200	110	10
p-Chlorotoluene	ND		ug/kg	1200	62.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1700	570	10
Hexachlorobutadiene	ND		ug/kg	2300	97.	10
Isopropylbenzene	3000		ug/kg	580	63.	10
p-Isopropyltoluene	210	J	ug/kg	580	63.	10
Naphthalene	ND		ug/kg	2300	370	10
Acrylonitrile	ND		ug/kg	2300	660	10

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D Date Collected: 11/30/18 11:25

Client ID: SB-04_18-19 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
n-Propylbenzene	10000		ug/kg	580	98.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1200	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1200	160	10
1,3,5-Trimethylbenzene	ND		ug/kg	1200	110	10
1,2,4-Trimethylbenzene	ND		ug/kg	1200	190	10
1,4-Dioxane	ND		ug/kg	58000	20000	10
p-Diethylbenzene	6300		ug/kg	1200	100	10
p-Ethyltoluene	ND		ug/kg	1200	220	10
1,2,4,5-Tetramethylbenzene	16000		ug/kg	1200	110	10
Ethyl ether	ND		ug/kg	1200	200	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2900	820	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	**166**	Q	70-130
Dibromofluoromethane	98		70-130

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D
Client ID: SB-05_13-14
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:50
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 12/05/18 23:20
Analyst: MV
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	7800	3600	25
1,1-Dichloroethane	ND		ug/kg	1600	220	25
Chloroform	ND		ug/kg	2300	220	25
Carbon tetrachloride	ND		ug/kg	1600	360	25
1,2-Dichloropropane	ND		ug/kg	1600	190	25
Dibromochloromethane	ND		ug/kg	1600	220	25
1,1,2-Trichloroethane	ND		ug/kg	1600	410	25
Tetrachloroethene	ND		ug/kg	780	300	25
Chlorobenzene	ND		ug/kg	780	200	25
Trichlorofluoromethane	ND		ug/kg	6200	1100	25
1,2-Dichloroethane	ND		ug/kg	1600	400	25
1,1,1-Trichloroethane	ND		ug/kg	780	260	25
Bromodichloromethane	ND		ug/kg	780	170	25
trans-1,3-Dichloropropene	ND		ug/kg	1600	420	25
cis-1,3-Dichloropropene	ND		ug/kg	780	240	25
1,3-Dichloropropene, Total	ND		ug/kg	780	240	25
1,1-Dichloropropene	ND		ug/kg	780	250	25
Bromoform	ND		ug/kg	6200	380	25
1,1,2,2-Tetrachloroethane	ND		ug/kg	780	260	25
Benzene	ND		ug/kg	780	260	25
Toluene	ND		ug/kg	1600	840	25
Ethylbenzene	990	J	ug/kg	1600	220	25
Chloromethane	ND		ug/kg	6200	1400	25
Bromomethane	ND		ug/kg	3100	900	25
Vinyl chloride	ND		ug/kg	1600	520	25
Chloroethane	ND		ug/kg	3100	700	25
1,1-Dichloroethene	ND		ug/kg	1600	370	25
trans-1,2-Dichloroethene	ND		ug/kg	2300	210	25

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D Date Collected: 11/30/18 13:50
Client ID: SB-05_13-14 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	ND		ug/kg	780	210	25
1,2-Dichlorobenzene	ND		ug/kg	3100	220	25
1,3-Dichlorobenzene	ND		ug/kg	3100	230	25
1,4-Dichlorobenzene	ND		ug/kg	3100	260	25
Methyl tert butyl ether	ND		ug/kg	3100	310	25
p/m-Xylene	ND		ug/kg	3100	870	25
o-Xylene	ND		ug/kg	1600	450	25
Xylenes, Total	ND		ug/kg	1600	450	25
cis-1,2-Dichloroethene	ND		ug/kg	1600	270	25
1,2-Dichloroethene, Total	ND		ug/kg	1600	210	25
Dibromomethane	ND		ug/kg	3100	370	25
Styrene	ND		ug/kg	1600	300	25
Dichlorodifluoromethane	ND		ug/kg	16000	1400	25
Acetone	ND		ug/kg	16000	7500	25
Carbon disulfide	ND		ug/kg	16000	7000	25
2-Butanone	ND		ug/kg	16000	3400	25
Vinyl acetate	ND		ug/kg	16000	3300	25
4-Methyl-2-pentanone	ND		ug/kg	16000	2000	25
1,2,3-Trichloropropane	ND		ug/kg	3100	200	25
2-Hexanone	ND		ug/kg	16000	1800	25
Bromochloromethane	ND		ug/kg	3100	320	25
2,2-Dichloropropane	ND		ug/kg	3100	310	25
1,2-Dibromoethane	ND		ug/kg	1600	430	25
1,3-Dichloropropane	ND		ug/kg	3100	260	25
1,1,1,2-Tetrachloroethane	ND		ug/kg	780	200	25
Bromobenzene	ND		ug/kg	3100	220	25
n-Butylbenzene	18000		ug/kg	1600	260	25
sec-Butylbenzene	18000		ug/kg	1600	230	25
tert-Butylbenzene	6800		ug/kg	3100	180	25
o-Chlorotoluene	ND		ug/kg	3100	300	25
p-Chlorotoluene	ND		ug/kg	3100	170	25
1,2-Dibromo-3-chloropropane	ND		ug/kg	4600	1500	25
Hexachlorobutadiene	ND		ug/kg	6200	260	25
Isopropylbenzene	5200		ug/kg	1600	170	25
p-Isopropyltoluene	30000		ug/kg	1600	170	25
Naphthalene	7600		ug/kg	6200	1000	25
Acrylonitrile	ND		ug/kg	6200	1800	25

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D Date Collected: 11/30/18 13:50

Client ID: SB-05_13-14 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by 8260/5035 - Westborough Lab						
n-Propylbenzene	12000		ug/kg	1600	260	25
1,2,3-Trichlorobenzene	ND		ug/kg	3100	500	25
1,2,4-Trichlorobenzene	ND		ug/kg	3100	420	25
1,3,5-Trimethylbenzene	ND		ug/kg	3100	300	25
1,2,4-Trimethylbenzene	260000		ug/kg	3100	520	25
1,4-Dioxane	ND		ug/kg	160000	54000	25
p-Diethylbenzene	20000		ug/kg	3100	270	25
p-Ethyltoluene	1800	J	ug/kg	3100	600	25
1,2,4,5-Tetramethylbenzene	48000		ug/kg	3100	300	25
Ethyl ether	ND		ug/kg	3100	530	25
trans-1,4-Dichloro-2-butene	ND		ug/kg	7800	2200	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	**173**	Q	70-130
Dibromofluoromethane	99		70-130

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/18 19:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG1186183-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/18 19:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG1186183-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/05/18 19:52
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG1186183-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	18	J	ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG1186183-3 WG1186183-4								
Methylene chloride	92		95		70-130	3		30
1,1-Dichloroethane	95		96		70-130	1		30
Chloroform	100		100		70-130	0		30
Carbon tetrachloride	105		109		70-130	4		30
1,2-Dichloropropane	93		95		70-130	2		30
Dibromochloromethane	92		92		70-130	0		30
1,1,2-Trichloroethane	90		92		70-130	2		30
Tetrachloroethene	109		111		70-130	2		30
Chlorobenzene	94		95		70-130	1		30
Trichlorofluoromethane	111		112		70-139	1		30
1,2-Dichloroethane	90		92		70-130	2		30
1,1,1-Trichloroethane	105		106		70-130	1		30
Bromodichloromethane	95		96		70-130	1		30
trans-1,3-Dichloropropene	90		90		70-130	0		30
cis-1,3-Dichloropropene	95		97		70-130	2		30
1,1-Dichloropropene	104		106		70-130	2		30
Bromoform	89		91		70-130	2		30
1,1,2,2-Tetrachloroethane	85		85		70-130	0		30
Benzene	97		99		70-130	2		30
Toluene	95		96		70-130	1		30
Ethylbenzene	93		94		70-130	1		30
Chloromethane	90		90		52-130	0		30
Bromomethane	113		108		57-147	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG1186183-3 WG1186183-4								
Vinyl chloride	99		100		67-130	1		30
Chloroethane	101		102		50-151	1		30
1,1-Dichloroethene	105		106		65-135	1		30
trans-1,2-Dichloroethene	104		105		70-130	1		30
Trichloroethene	102		102		70-130	0		30
1,2-Dichlorobenzene	92		95		70-130	3		30
1,3-Dichlorobenzene	96		96		70-130	0		30
1,4-Dichlorobenzene	94		96		70-130	2		30
Methyl tert butyl ether	95		97		66-130	2		30
p/m-Xylene	97		98		70-130	1		30
o-Xylene	95		95		70-130	0		30
cis-1,2-Dichloroethene	101		104		70-130	3		30
Dibromomethane	98		101		70-130	3		30
Styrene	91		92		70-130	1		30
Dichlorodifluoromethane	108		110		30-146	2		30
Acetone	82		80		54-140	2		30
Carbon disulfide	95		95		59-130	0		30
2-Butanone	73		**68**	Q	70-130	7		30
Vinyl acetate	82		82		70-130	0		30
4-Methyl-2-pentanone	81		83		70-130	2		30
1,2,3-Trichloropropane	82		83		68-130	1		30
2-Hexanone	74		72		70-130	3		30
Bromochloromethane	105		107		70-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG1186183-3 WG1186183-4								
2,2-Dichloropropane	98		99		70-130	1		30
1,2-Dibromoethane	95		98		70-130	3		30
1,3-Dichloropropane	90		91		69-130	1		30
1,1,1,2-Tetrachloroethane	94		96		70-130	2		30
Bromobenzene	97		97		70-130	0		30
n-Butylbenzene	94		95		70-130	1		30
sec-Butylbenzene	97		97		70-130	0		30
tert-Butylbenzene	98		97		70-130	1		30
o-Chlorotoluene	98		98		70-130	0		30
p-Chlorotoluene	89		89		70-130	0		30
1,2-Dibromo-3-chloropropane	89		88		68-130	1		30
Hexachlorobutadiene	106		108		67-130	2		30
Isopropylbenzene	96		97		70-130	1		30
p-Isopropyltoluene	97		97		70-130	0		30
Naphthalene	90		90		70-130	0		30
Acrylonitrile	88		86		70-130	2		30
n-Propylbenzene	96		94		70-130	2		30
1,2,3-Trichlorobenzene	99		101		70-130	2		30
1,2,4-Trichlorobenzene	102		102		70-130	0		30
1,3,5-Trimethylbenzene	95		95		70-130	0		30
1,2,4-Trimethylbenzene	92		93		70-130	1		30
1,4-Dioxane	108		110		65-136	2		30
p-Diethylbenzene	96		97		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG1186183-3 WG1186183-4								
p-Ethyltoluene	96		96		70-130	0		30
1,2,4,5-Tetramethylbenzene	92		93		70-130	1		30
Ethyl ether	97		97		67-130	0		30
trans-1,4-Dichloro-2-butene	78		77		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		92		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	93		93		70-130
Dibromofluoromethane	104		104		70-130

SEMIVOLATILES

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 D
Client ID: SB-01_0-1
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/06/18 18:39
Analyst: JG
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	720	93.	5
1,2,4-Trichlorobenzene	ND		ug/kg	900	100	5
Hexachlorobenzene	ND		ug/kg	540	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	810	120	5
2-Chloronaphthalene	ND		ug/kg	900	89.	5
1,2-Dichlorobenzene	ND		ug/kg	900	160	5
1,3-Dichlorobenzene	ND		ug/kg	900	150	5
1,4-Dichlorobenzene	ND		ug/kg	900	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	900	240	5
2,4-Dinitrotoluene	ND		ug/kg	900	180	5
2,6-Dinitrotoluene	ND		ug/kg	900	150	5
Fluoranthene	ND		ug/kg	540	100	5
4-Chlorophenyl phenyl ether	ND		ug/kg	900	96.	5
4-Bromophenyl phenyl ether	ND		ug/kg	900	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	150	5
Bis(2-chloroethoxy)methane	ND		ug/kg	970	90.	5
Hexachlorobutadiene	ND		ug/kg	900	130	5
Hexachlorocyclopentadiene	ND		ug/kg	2600	820	5
Hexachloroethane	ND		ug/kg	720	140	5
Isophorone	ND		ug/kg	810	120	5
Naphthalene	ND		ug/kg	900	110	5
Nitrobenzene	ND		ug/kg	810	130	5
NDPA/DPA	ND		ug/kg	720	100	5
n-Nitrosodi-n-propylamine	ND		ug/kg	900	140	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	900	310	5
Butyl benzyl phthalate	ND		ug/kg	900	230	5
Di-n-butylphthalate	ND		ug/kg	900	170	5
Di-n-octylphthalate	ND		ug/kg	900	310	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 D Date Collected: 11/30/18 13:15
Client ID: SB-01_0-1 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	900	83.	5
Dimethyl phthalate	ND		ug/kg	900	190	5
Benzo(a)anthracene	ND		ug/kg	540	100	5
Benzo(a)pyrene	ND		ug/kg	720	220	5
Benzo(b)fluoranthene	ND		ug/kg	540	150	5
Benzo(k)fluoranthene	ND		ug/kg	540	140	5
Chrysene	ND		ug/kg	540	94.	5
Acenaphthylene	ND		ug/kg	720	140	5
Anthracene	ND		ug/kg	540	180	5
Benzo(ghi)perylene	ND		ug/kg	720	100	5
Fluorene	ND		ug/kg	900	88.	5
Phenanthrene	ND		ug/kg	540	110	5
Dibenzo(a,h)anthracene	ND		ug/kg	540	100	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	720	120	5
Pyrene	ND		ug/kg	540	90.	5
Biphenyl	ND		ug/kg	2000	210	5
4-Chloroaniline	ND		ug/kg	900	160	5
2-Nitroaniline	ND		ug/kg	900	170	5
3-Nitroaniline	ND		ug/kg	900	170	5
4-Nitroaniline	ND		ug/kg	900	370	5
Dibenzofuran	ND		ug/kg	900	85.	5
2-Methylnaphthalene	ND		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	900	94.	5
Acetophenone	ND		ug/kg	900	110	5
2,4,6-Trichlorophenol	ND		ug/kg	540	170	5
p-Chloro-m-cresol	ND		ug/kg	900	130	5
2-Chlorophenol	ND		ug/kg	900	110	5
2,4-Dichlorophenol	ND		ug/kg	810	140	5
2,4-Dimethylphenol	ND		ug/kg	900	300	5
2-Nitrophenol	ND		ug/kg	1900	340	5
4-Nitrophenol	ND		ug/kg	1300	370	5
2,4-Dinitrophenol	ND		ug/kg	4300	420	5
4,6-Dinitro-o-cresol	ND		ug/kg	2300	430	5
Pentachlorophenol	ND		ug/kg	720	200	5
Phenol	ND		ug/kg	900	140	5
2-Methylphenol	ND		ug/kg	900	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1300	140	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 D Date Collected: 11/30/18 13:15

Client ID: SB-01_0-1 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	900	170	5
Benzoic Acid	ND		ug/kg	2900	910	5
Benzyl Alcohol	ND		ug/kg	900	280	5
Carbazole	ND		ug/kg	900	88.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	**128**	Q	23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	24		10-136
4-Terphenyl-d14	43		18-120

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D
Client ID: SB-02_18-19
Sample Location: MANHATTAN

Date Collected: 11/30/18 12:37
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/06/18 20:20
Analyst: RC
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	200	J	ug/kg	750	97.	5
1,2,4-Trichlorobenzene	ND		ug/kg	940	110	5
Hexachlorobenzene	ND		ug/kg	560	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	840	130	5
2-Chloronaphthalene	ND		ug/kg	940	93.	5
1,2-Dichlorobenzene	ND		ug/kg	940	170	5
1,3-Dichlorobenzene	ND		ug/kg	940	160	5
1,4-Dichlorobenzene	ND		ug/kg	940	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	940	250	5
2,4-Dinitrotoluene	ND		ug/kg	940	190	5
2,6-Dinitrotoluene	ND		ug/kg	940	160	5
Fluoranthene	ND		ug/kg	560	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	940	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	940	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1000	94.	5
Hexachlorobutadiene	ND		ug/kg	940	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2700	850	5
Hexachloroethane	ND		ug/kg	750	150	5
Isophorone	ND		ug/kg	840	120	5
Naphthalene	420	J	ug/kg	940	110	5
Nitrobenzene	ND		ug/kg	840	140	5
NDPA/DPA	ND		ug/kg	750	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	940	140	5
Bis(2-ethylhexyl)phthalate	2200		ug/kg	940	320	5
Butyl benzyl phthalate	370	J	ug/kg	940	240	5
Di-n-butylphthalate	ND		ug/kg	940	180	5
Di-n-octylphthalate	ND		ug/kg	940	320	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D Date Collected: 11/30/18 12:37
Client ID: SB-02_18-19 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	940	87.	5
Dimethyl phthalate	ND		ug/kg	940	200	5
Benzo(a)anthracene	ND		ug/kg	560	100	5
Benzo(a)pyrene	ND		ug/kg	750	230	5
Benzo(b)fluoranthene	ND		ug/kg	560	160	5
Benzo(k)fluoranthene	ND		ug/kg	560	150	5
Chrysene	ND		ug/kg	560	97.	5
Acenaphthylene	ND		ug/kg	750	140	5
Anthracene	ND		ug/kg	560	180	5
Benzo(ghi)perylene	ND		ug/kg	750	110	5
Fluorene	460	J	ug/kg	940	91.	5
Phenanthrene	720		ug/kg	560	110	5
Dibenzo(a,h)anthracene	ND		ug/kg	560	110	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	750	130	5
Pyrene	140	J	ug/kg	560	93.	5
Biphenyl	ND		ug/kg	2100	220	5
4-Chloroaniline	ND		ug/kg	940	170	5
2-Nitroaniline	ND		ug/kg	940	180	5
3-Nitroaniline	ND		ug/kg	940	180	5
4-Nitroaniline	ND		ug/kg	940	390	5
Dibenzofuran	200	J	ug/kg	940	88.	5
2-Methylnaphthalene	5000		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	940	98.	5
Acetophenone	ND		ug/kg	940	120	5
2,4,6-Trichlorophenol	ND		ug/kg	560	180	5
p-Chloro-m-cresol	ND		ug/kg	940	140	5
2-Chlorophenol	ND		ug/kg	940	110	5
2,4-Dichlorophenol	ND		ug/kg	840	150	5
2,4-Dimethylphenol	ND		ug/kg	940	310	5
2-Nitrophenol	ND		ug/kg	2000	350	5
4-Nitrophenol	ND		ug/kg	1300	380	5
2,4-Dinitrophenol	ND		ug/kg	4500	440	5
4,6-Dinitro-o-cresol	ND		ug/kg	2400	450	5
Pentachlorophenol	ND		ug/kg	750	200	5
Phenol	ND		ug/kg	940	140	5
2-Methylphenol	ND		ug/kg	940	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1300	150	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02 D Date Collected: 11/30/18 12:37

Client ID: SB-02_18-19 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	940	180	5
Benzoic Acid	ND		ug/kg	3000	950	5
Benzyl Alcohol	ND		ug/kg	940	290	5
Carbazole	ND		ug/kg	940	91.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	**149**	Q	10-120
Nitrobenzene-d5	**197**	Q	23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	80		10-136
4-Terphenyl-d14	62		18-120

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D
Client ID: SB-03_15-16
Sample Location: MANHATTAN

Date Collected: 11/30/18 12:03
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/06/18 21:11
Analyst: RC
Percent Solids: 95%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	520	J	ug/kg	690	89.	5
1,2,4-Trichlorobenzene	ND		ug/kg	860	98.	5
Hexachlorobenzene	ND		ug/kg	520	96.	5
Bis(2-chloroethyl)ether	ND		ug/kg	770	120	5
2-Chloronaphthalene	ND		ug/kg	860	85.	5
1,2-Dichlorobenzene	ND		ug/kg	860	150	5
1,3-Dichlorobenzene	ND		ug/kg	860	150	5
1,4-Dichlorobenzene	ND		ug/kg	860	150	5
3,3'-Dichlorobenzidine	ND		ug/kg	860	230	5
2,4-Dinitrotoluene	ND		ug/kg	860	170	5
2,6-Dinitrotoluene	ND		ug/kg	860	150	5
Fluoranthene	ND		ug/kg	520	99.	5
4-Chlorophenyl phenyl ether	ND		ug/kg	860	92.	5
4-Bromophenyl phenyl ether	ND		ug/kg	860	130	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1000	150	5
Bis(2-chloroethoxy)methane	ND		ug/kg	930	86.	5
Hexachlorobutadiene	ND		ug/kg	860	120	5
Hexachlorocyclopentadiene	ND		ug/kg	2500	780	5
Hexachloroethane	ND		ug/kg	690	140	5
Isophorone	ND		ug/kg	770	110	5
Naphthalene	790	J	ug/kg	860	100	5
Nitrobenzene	ND		ug/kg	770	130	5
NDPA/DPA	ND		ug/kg	690	98.	5
n-Nitrosodi-n-propylamine	ND		ug/kg	860	130	5
Bis(2-ethylhexyl)phthalate	2100		ug/kg	860	300	5
Butyl benzyl phthalate	720	J	ug/kg	860	220	5
Di-n-butylphthalate	ND		ug/kg	860	160	5
Di-n-octylphthalate	ND		ug/kg	860	290	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D Date Collected: 11/30/18 12:03
Client ID: SB-03_15-16 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	860	80.	5
Dimethyl phthalate	ND		ug/kg	860	180	5
Benzo(a)anthracene	ND		ug/kg	520	97.	5
Benzo(a)pyrene	ND		ug/kg	690	210	5
Benzo(b)fluoranthene	ND		ug/kg	520	140	5
Benzo(k)fluoranthene	ND		ug/kg	520	140	5
Chrysene	ND		ug/kg	520	89.	5
Acenaphthylene	ND		ug/kg	690	130	5
Anthracene	260	J	ug/kg	520	170	5
Benzo(ghi)perylene	ND		ug/kg	690	100	5
Fluorene	1400		ug/kg	860	84.	5
Phenanthrene	1900		ug/kg	520	100	5
Dibenzo(a,h)anthracene	ND		ug/kg	520	99.	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	690	120	5
Pyrene	430	J	ug/kg	520	86.	5
Biphenyl	ND		ug/kg	2000	200	5
4-Chloroaniline	ND		ug/kg	860	160	5
2-Nitroaniline	ND		ug/kg	860	160	5
3-Nitroaniline	ND		ug/kg	860	160	5
4-Nitroaniline	ND		ug/kg	860	360	5
Dibenzofuran	540	J	ug/kg	860	81.	5
2-Methylnaphthalene	12000		ug/kg	1000	100	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	860	90.	5
Acetophenone	ND		ug/kg	860	110	5
2,4,6-Trichlorophenol	ND		ug/kg	520	160	5
p-Chloro-m-cresol	ND		ug/kg	860	130	5
2-Chlorophenol	ND		ug/kg	860	100	5
2,4-Dichlorophenol	ND		ug/kg	770	140	5
2,4-Dimethylphenol	ND		ug/kg	860	280	5
2-Nitrophenol	ND		ug/kg	1800	320	5
4-Nitrophenol	ND		ug/kg	1200	350	5
2,4-Dinitrophenol	ND		ug/kg	4100	400	5
4,6-Dinitro-o-cresol	ND		ug/kg	2200	410	5
Pentachlorophenol	ND		ug/kg	690	190	5
Phenol	ND		ug/kg	860	130	5
2-Methylphenol	ND		ug/kg	860	130	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1200	130	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03 D Date Collected: 11/30/18 12:03

Client ID: SB-03_15-16 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	860	160	5
Benzoic Acid	ND		ug/kg	2800	870	5
Benzyl Alcohol	ND		ug/kg	860	260	5
Carbazole	ND		ug/kg	860	84.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	**138**	Q	10-120
Nitrobenzene-d5	**217**	Q	23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	57		18-120

Project Name: 2335 12TH AVENUE
Lab Number: L1849030
Project Number: 170560401
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D
Client ID: SB-04_18-19
Sample Location: MANHATTAN

Date Collected: 11/30/18 11:25
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/06/18 19:30
Analyst: JG
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	710	92.	5
1,2,4-Trichlorobenzene	ND		ug/kg	890	100	5
Hexachlorobenzene	ND		ug/kg	530	99.	5
Bis(2-chloroethyl)ether	ND		ug/kg	800	120	5
2-Chloronaphthalene	ND		ug/kg	890	88.	5
1,2-Dichlorobenzene	ND		ug/kg	890	160	5
1,3-Dichlorobenzene	ND		ug/kg	890	150	5
1,4-Dichlorobenzene	ND		ug/kg	890	150	5
3,3'-Dichlorobenzidine	ND		ug/kg	890	240	5
2,4-Dinitrotoluene	ND		ug/kg	890	180	5
2,6-Dinitrotoluene	ND		ug/kg	890	150	5
Fluoranthene	ND		ug/kg	530	100	5
4-Chlorophenyl phenyl ether	ND		ug/kg	890	95.	5
4-Bromophenyl phenyl ether	ND		ug/kg	890	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	150	5
Bis(2-chloroethoxy)methane	ND		ug/kg	960	89.	5
Hexachlorobutadiene	ND		ug/kg	890	130	5
Hexachlorocyclopentadiene	ND		ug/kg	2500	800	5
Hexachloroethane	ND		ug/kg	710	140	5
Isophorone	ND		ug/kg	800	120	5
Naphthalene	ND		ug/kg	890	110	5
Nitrobenzene	ND		ug/kg	800	130	5
NDPA/DPA	ND		ug/kg	710	100	5
n-Nitrosodi-n-propylamine	ND		ug/kg	890	140	5
Bis(2-ethylhexyl)phthalate	1400		ug/kg	890	310	5
Butyl benzyl phthalate	ND		ug/kg	890	220	5
Di-n-butylphthalate	ND		ug/kg	890	170	5
Di-n-octylphthalate	ND		ug/kg	890	300	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D Date Collected: 11/30/18 11:25
Client ID: SB-04_18-19 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	890	82.	5
Dimethyl phthalate	ND		ug/kg	890	190	5
Benzo(a)anthracene	ND		ug/kg	530	100	5
Benzo(a)pyrene	ND		ug/kg	710	220	5
Benzo(b)fluoranthene	ND		ug/kg	530	150	5
Benzo(k)fluoranthene	ND		ug/kg	530	140	5
Chrysene	ND		ug/kg	530	92.	5
Acenaphthylene	ND		ug/kg	710	140	5
Anthracene	ND		ug/kg	530	170	5
Benzo(ghi)perylene	ND		ug/kg	710	100	5
Fluorene	210	J	ug/kg	890	86.	5
Phenanthrene	300	J	ug/kg	530	110	5
Dibenzo(a,h)anthracene	ND		ug/kg	530	100	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	710	120	5
Pyrene	ND		ug/kg	530	88.	5
Biphenyl	ND		ug/kg	2000	200	5
4-Chloroaniline	ND		ug/kg	890	160	5
2-Nitroaniline	ND		ug/kg	890	170	5
3-Nitroaniline	ND		ug/kg	890	170	5
4-Nitroaniline	ND		ug/kg	890	370	5
Dibenzofuran	92	J	ug/kg	890	84.	5
2-Methylnaphthalene	2200		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	890	92.	5
Acetophenone	ND		ug/kg	890	110	5
2,4,6-Trichlorophenol	ND		ug/kg	530	170	5
p-Chloro-m-cresol	ND		ug/kg	890	130	5
2-Chlorophenol	ND		ug/kg	890	100	5
2,4-Dichlorophenol	ND		ug/kg	800	140	5
2,4-Dimethylphenol	ND		ug/kg	890	290	5
2-Nitrophenol	ND		ug/kg	1900	330	5
4-Nitrophenol	ND		ug/kg	1200	360	5
2,4-Dinitrophenol	ND		ug/kg	4200	410	5
4,6-Dinitro-o-cresol	ND		ug/kg	2300	420	5
Pentachlorophenol	ND		ug/kg	710	190	5
Phenol	ND		ug/kg	890	130	5
2-Methylphenol	ND		ug/kg	890	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1300	140	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04 D Date Collected: 11/30/18 11:25

Client ID: SB-04_18-19 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	890	170	5
Benzoic Acid	ND		ug/kg	2900	900	5
Benzyl Alcohol	ND		ug/kg	890	270	5
Carbazole	ND		ug/kg	890	86.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	107		10-120
Nitrobenzene-d5	**308**	Q	23-120
2-Fluorobiphenyl	86		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	64		18-120

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D
Client ID: SB-05_13-14
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:50
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/06/18 19:55
Analyst: JG
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	160	J	ug/kg	730	94.	5
1,2,4-Trichlorobenzene	ND		ug/kg	910	100	5
Hexachlorobenzene	ND		ug/kg	550	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	820	120	5
2-Chloronaphthalene	ND		ug/kg	910	90.	5
1,2-Dichlorobenzene	ND		ug/kg	910	160	5
1,3-Dichlorobenzene	ND		ug/kg	910	160	5
1,4-Dichlorobenzene	ND		ug/kg	910	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	910	240	5
2,4-Dinitrotoluene	ND		ug/kg	910	180	5
2,6-Dinitrotoluene	ND		ug/kg	910	160	5
Fluoranthene	ND		ug/kg	550	100	5
4-Chlorophenyl phenyl ether	ND		ug/kg	910	98.	5
4-Bromophenyl phenyl ether	ND		ug/kg	910	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	980	91.	5
Hexachlorobutadiene	ND		ug/kg	910	130	5
Hexachlorocyclopentadiene	ND		ug/kg	2600	830	5
Hexachloroethane	ND		ug/kg	730	150	5
Isophorone	ND		ug/kg	820	120	5
Naphthalene	2100		ug/kg	910	110	5
Nitrobenzene	ND		ug/kg	820	140	5
NDPA/DPA	ND		ug/kg	730	100	5
n-Nitrosodi-n-propylamine	ND		ug/kg	910	140	5
Bis(2-ethylhexyl)phthalate	2200		ug/kg	910	320	5
Butyl benzyl phthalate	380	J	ug/kg	910	230	5
Di-n-butylphthalate	ND		ug/kg	910	170	5
Di-n-octylphthalate	ND		ug/kg	910	310	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D Date Collected: 11/30/18 13:50
Client ID: SB-05_13-14 Date Received: 11/30/18
Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	910	84.	5
Dimethyl phthalate	ND		ug/kg	910	190	5
Benzo(a)anthracene	ND		ug/kg	550	100	5
Benzo(a)pyrene	ND		ug/kg	730	220	5
Benzo(b)fluoranthene	ND		ug/kg	550	150	5
Benzo(k)fluoranthene	ND		ug/kg	550	140	5
Chrysene	ND		ug/kg	550	95.	5
Acenaphthylene	ND		ug/kg	730	140	5
Anthracene	ND		ug/kg	550	180	5
Benzo(ghi)perylene	ND		ug/kg	730	110	5
Fluorene	420	J	ug/kg	910	89.	5
Phenanthrene	610		ug/kg	550	110	5
Dibenzo(a,h)anthracene	ND		ug/kg	550	100	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	730	130	5
Pyrene	130	J	ug/kg	550	91.	5
Biphenyl	ND		ug/kg	2100	210	5
4-Chloroaniline	ND		ug/kg	910	170	5
2-Nitroaniline	ND		ug/kg	910	180	5
3-Nitroaniline	ND		ug/kg	910	170	5
4-Nitroaniline	ND		ug/kg	910	380	5
Dibenzofuran	150	J	ug/kg	910	86.	5
2-Methylnaphthalene	5300		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	910	95.	5
Acetophenone	ND		ug/kg	910	110	5
2,4,6-Trichlorophenol	ND		ug/kg	550	170	5
p-Chloro-m-cresol	ND		ug/kg	910	140	5
2-Chlorophenol	ND		ug/kg	910	110	5
2,4-Dichlorophenol	ND		ug/kg	820	150	5
2,4-Dimethylphenol	ND		ug/kg	910	300	5
2-Nitrophenol	ND		ug/kg	2000	340	5
4-Nitrophenol	ND		ug/kg	1300	370	5
2,4-Dinitrophenol	ND		ug/kg	4400	420	5
4,6-Dinitro-o-cresol	ND		ug/kg	2400	440	5
Pentachlorophenol	ND		ug/kg	730	200	5
Phenol	ND		ug/kg	910	140	5
2-Methylphenol	ND		ug/kg	910	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1300	140	5

Project Name: 2335 12TH AVENUE **Lab Number:** L1849030

Project Number: 170560401 **Report Date:** 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05 D Date Collected: 11/30/18 13:50

Client ID: SB-05_13-14 Date Received: 11/30/18

Sample Location: MANHATTAN Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	910	170	5
Benzoic Acid	ND		ug/kg	3000	920	5
Benzyl Alcohol	ND		ug/kg	910	280	5
Carbazole	ND		ug/kg	910	89.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	**138**	Q	10-120
Nitrobenzene-d5	**226**	Q	23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	72		10-136
4-Terphenyl-d14	64		18-120

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/05/18 16:59
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1184852-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	18.
Hexachlorobenzene	ND		ug/kg	97	18.
Bis(2-chloroethyl)ether	ND		ug/kg	140	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	97	18.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	170	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	140	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	140	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/05/18 16:59
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1184852-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	29.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	30.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	190	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	97	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	140	26.
2,4-Dimethylphenol	ND		ug/kg	160	53.
2-Nitrophenol	ND		ug/kg	350	61.

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/05/18 16:59
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/03/18 00:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1184852-1					
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	75.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	520	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	74		10-136
4-Terphenyl-d14	75		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1184852-2 WG1184852-3								
Acenaphthene	74		68		31-137	8		50
1,2,4-Trichlorobenzene	69		67		38-107	3		50
Hexachlorobenzene	69		65		40-140	6		50
Bis(2-chloroethyl)ether	66		61		40-140	8		50
2-Chloronaphthalene	74		71		40-140	4		50
1,2-Dichlorobenzene	65		62		40-140	5		50
1,3-Dichlorobenzene	65		62		40-140	5		50
1,4-Dichlorobenzene	64		62		28-104	3		50
3,3'-Dichlorobenzidine	57		55		40-140	4		50
2,4-Dinitrotoluene	88		80		40-132	10		50
2,6-Dinitrotoluene	85		81		40-140	5		50
Fluoranthene	79		72		40-140	9		50
4-Chlorophenyl phenyl ether	77		71		40-140	8		50
4-Bromophenyl phenyl ether	76		70		40-140	8		50
Bis(2-chloroisopropyl)ether	89		84		40-140	6		50
Bis(2-chloroethoxy)methane	72		68		40-117	6		50
Hexachlorobutadiene	62		59		40-140	5		50
Hexachlorocyclopentadiene	68		64		40-140	6		50
Hexachloroethane	63		60		40-140	5		50
Isophorone	71		67		40-140	6		50
Naphthalene	71		68		40-140	4		50
Nitrobenzene	70		66		40-140	6		50
NDPA/DPA	81		75		36-157	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1184852-2 WG1184852-3								
n-Nitrosodi-n-propylamine	72		69		32-121	4		50
Bis(2-ethylhexyl)phthalate	92		84		40-140	9		50
Butyl benzyl phthalate	92		83		40-140	10		50
Di-n-butylphthalate	83		76		40-140	9		50
Di-n-octylphthalate	98		89		40-140	10		50
Diethyl phthalate	81		75		40-140	8		50
Dimethyl phthalate	80		76		40-140	5		50
Benzo(a)anthracene	76		70		40-140	8		50
Benzo(a)pyrene	85		76		40-140	11		50
Benzo(b)fluoranthene	88		77		40-140	13		50
Benzo(k)fluoranthene	77		71		40-140	8		50
Chrysene	77		70		40-140	10		50
Acenaphthylene	78		74		40-140	5		50
Anthracene	76		70		40-140	8		50
Benzo(ghi)perylene	76		70		40-140	8		50
Fluorene	78		72		40-140	8		50
Phenanthrene	73		67		40-140	9		50
Dibenzo(a,h)anthracene	79		72		40-140	9		50
Indeno(1,2,3-cd)pyrene	82		74		40-140	10		50
Pyrene	78		72		35-142	8		50
Biphenyl	78		74		54-104	5		50
4-Chloroaniline	53		52		40-140	2		50
2-Nitroaniline	90		84		47-134	7		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1184852-2 WG1184852-3								
3-Nitroaniline	70		67		26-129	4		50
4-Nitroaniline	86		81		41-125	6		50
Dibenzofuran	75		69		40-140	8		50
2-Methylnaphthalene	75		71		40-140	5		50
1,2,4,5-Tetrachlorobenzene	73		70		40-117	4		50
Acetophenone	77		74		14-144	4		50
2,4,6-Trichlorophenol	84		80		30-130	5		50
p-Chloro-m-cresol	84		79		26-103	6		50
2-Chlorophenol	77		75		25-102	3		50
2,4-Dichlorophenol	80		77		30-130	4		50
2,4-Dimethylphenol	86		82		30-130	5		50
2-Nitrophenol	88		84		30-130	5		50
4-Nitrophenol	84		76		11-114	10		50
2,4-Dinitrophenol	60		55		4-130	9		50
4,6-Dinitro-o-cresol	86		79		10-130	8		50
Pentachlorophenol	64		57		17-109	12		50
Phenol	79		73		26-90	8		50
2-Methylphenol	78		72		30-130.	8		50
3-Methylphenol/4-Methylphenol	80		74		30-130	8		50
2,4,5-Trichlorophenol	84		79		30-130	6		50
Benzoic Acid	21		21		10-110	0		50
Benzyl Alcohol	74		69		40-140	7		50
Carbazole	78		71		54-128	9		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1184852-2 WG1184852-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	77		73		25-120
Phenol-d6	77		73		10-120
Nitrobenzene-d5	71		69		23-120
2-Fluorobiphenyl	73		72		30-120
2,4,6-Tribromophenol	73		69		10-136
4-Terphenyl-d14	69		65		18-120

PCBS

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01
Client ID: SB-01_0-1
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/05/18 04:18
Analyst: AWS
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 13:56
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/04/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.0	3.20	1	A
Aroclor 1221	ND		ug/kg	36.0	3.61	1	A
Aroclor 1232	ND		ug/kg	36.0	7.64	1	A
Aroclor 1242	ND		ug/kg	36.0	4.86	1	A
Aroclor 1248	ND		ug/kg	36.0	5.41	1	A
Aroclor 1254	123	I	ug/kg	36.0	3.94	1	B
Aroclor 1260	54.8		ug/kg	36.0	6.66	1	B
Aroclor 1262	ND		ug/kg	36.0	4.58	1	A
Aroclor 1268	ND		ug/kg	36.0	3.73	1	A
PCBs, Total	178		ug/kg	36.0	3.20	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	72		30-150	B

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 12/05/18 03:41
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 12/03/18 13:56
Cleanup Method: EPA 3665A
Cleanup Date: 12/03/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/04/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1185030-1						
Aroclor 1016	ND		ug/kg	32.1	2.85	A
Aroclor 1221	ND		ug/kg	32.1	3.22	A
Aroclor 1232	ND		ug/kg	32.1	6.80	A
Aroclor 1242	ND		ug/kg	32.1	4.33	A
Aroclor 1248	ND		ug/kg	32.1	4.81	A
Aroclor 1254	ND		ug/kg	32.1	3.51	A
Aroclor 1260	ND		ug/kg	32.1	5.93	A
Aroclor 1262	ND		ug/kg	32.1	4.08	A
Aroclor 1268	ND		ug/kg	32.1	3.32	A
PCBs, Total	ND		ug/kg	32.1	2.85	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	61		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1185030-2 WG1185030-3									
Aroclor 1016	77		82		40-140	6		50	A
Aroclor 1260	71		78		40-140	9		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		81		30-150	A
Decachlorobiphenyl	66		71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		79		30-150	B
Decachlorobiphenyl	71		75		30-150	B

PESTICIDES

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01
Client ID: SB-01_0-1
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 12/06/18 15:43
Analyst: AMC
Percent Solids: 91%
Methylation Date: 12/05/18 19:26

Extraction Method: EPA 8151A
Extraction Date: 12/04/18 13:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	178	11.2	1	A
2,4,5-T	ND		ug/kg	178	5.53	1	A
2,4,5-TP (Silvex)	ND		ug/kg	178	4.75	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	114		30-150	A
DCAA	106		30-150	B

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 D
Client ID: SB-01_0-1
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 12/06/18 01:23
Analyst: SL
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 12/03/18 12:41
Cleanup Method: EPA 3620B
Cleanup Date: 12/04/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	33.4	6.54	20	A
Lindane	60.6		ug/kg	13.9	6.22	20	A
Alpha-BHC	ND		ug/kg	13.9	3.95	20	A
Beta-BHC	ND		ug/kg	33.4	12.7	20	A
Heptachlor	ND		ug/kg	16.7	7.49	20	A
Aldrin	ND		ug/kg	33.4	11.8	20	A
Heptachlor epoxide	ND		ug/kg	62.7	18.8	20	A
Endrin	ND		ug/kg	13.9	5.71	20	A
Endrin aldehyde	ND		ug/kg	41.8	14.6	20	A
Endrin ketone	ND		ug/kg	33.4	8.60	20	A
Dieldrin	ND		ug/kg	20.9	10.4	20	A
4,4'-DDE	ND		ug/kg	33.4	7.73	20	A
4,4'-DDD	ND		ug/kg	33.4	11.9	20	A
4,4'-DDT	ND		ug/kg	62.7	26.9	20	A
Endosulfan I	ND		ug/kg	33.4	7.90	20	A
Endosulfan II	ND		ug/kg	33.4	11.2	20	A
Endosulfan sulfate	ND		ug/kg	13.9	6.63	20	A
Methoxychlor	ND		ug/kg	62.7	19.5	20	A
Toxaphene	ND		ug/kg	627	175.	20	A
cis-Chlordane	ND		ug/kg	41.8	11.6	20	A
trans-Chlordane	49.6	IP	ug/kg	41.8	11.0	20	A
Chlordane	ND		ug/kg	272	111.	20	A

Project Name: 2335 12TH AVENUE
Lab Number: L1849030
Project Number: 170560401
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01 D
Client ID: SB-01_0-1
Sample Location: MANHATTAN
Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	B
Decachlorobiphenyl	**0**	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	**0**	Q	30-150	A
Decachlorobiphenyl	**0**	Q	30-150	A

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/05/18 12:58
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 12/03/18 12:38
Cleanup Method: EPA 3620B
Cleanup Date: 12/04/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1185006-1						
Delta-BHC	ND		ug/kg	1.52	0.298	A
Lindane	ND		ug/kg	0.634	0.283	A
Alpha-BHC	ND		ug/kg	0.634	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.577	A
Heptachlor	ND		ug/kg	0.760	0.341	A
Aldrin	ND		ug/kg	1.52	0.535	A
Heptachlor epoxide	ND		ug/kg	2.85	0.856	A
Endrin	ND		ug/kg	0.634	0.260	A
Endrin aldehyde	ND		ug/kg	1.90	0.665	A
Endrin ketone	ND		ug/kg	1.52	0.392	A
Dieldrin	ND		ug/kg	0.950	0.475	A
4,4'-DDE	ND		ug/kg	1.52	0.352	A
4,4'-DDD	ND		ug/kg	1.52	0.542	A
4,4'-DDT	ND		ug/kg	2.85	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.359	A
Endosulfan II	ND		ug/kg	1.52	0.508	A
Endosulfan sulfate	ND		ug/kg	0.634	0.302	A
Methoxychlor	ND		ug/kg	2.85	0.887	A
Toxaphene	ND		ug/kg	28.5	7.98	A
cis-Chlordane	ND		ug/kg	1.90	0.530	A
trans-Chlordane	ND		ug/kg	1.90	0.502	A
Chlordane	ND		ug/kg	12.4	5.04	A

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/05/18 12:58
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 12/03/18 12:38
Cleanup Method: EPA 3620B
Cleanup Date: 12/04/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1185006-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	73		30-150	B
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	74		30-150	A

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 12/05/18 09:18
Analyst: DGM

Extraction Method: EPA 8151A
Extraction Date: 12/04/18 01:01

Methylation Date: 12/04/18 19:19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1185219-1						
2,4-D	ND		ug/kg	162	10.2	B
2,4,5-T	ND		ug/kg	162	5.04	B
2,4,5-TP (Silvex)	ND		ug/kg	162	4.32	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	87		30-150	A
DCAA	82		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1185006-2 WG1185006-3									
Delta-BHC	94		80		30-150	16		30	A
Lindane	89		76		30-150	16		30	A
Alpha-BHC	92		77		30-150	18		30	A
Beta-BHC	104		88		30-150	17		30	A
Heptachlor	103		93		30-150	10		30	A
Aldrin	88		76		30-150	15		30	A
Heptachlor epoxide	84		70		30-150	18		30	A
Endrin	96		84		30-150	13		30	A
Endrin aldehyde	76		66		30-150	14		30	A
Endrin ketone	99		86		30-150	14		30	A
Dieldrin	98		88		30-150	11		30	A
4,4'-DDE	84		69		30-150	20		30	A
4,4'-DDD	92		81		30-150	13		30	A
4,4'-DDT	94		83		30-150	12		30	A
Endosulfan I	87		76		30-150	13		30	A
Endosulfan II	96		84		30-150	13		30	A
Endosulfan sulfate	92		78		30-150	16		30	A
Methoxychlor	93		82		30-150	13		30	A
cis-Chlordane	74		64		30-150	14		30	A
trans-Chlordane	86		76		30-150	12		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1185006-2 WG1185006-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		79		30-150	B
Decachlorobiphenyl	81		71		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		77		30-150	A
Decachlorobiphenyl	72		61		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1185219-2 WG1185219-3									
2,4-D	93		90		30-150	3		30	B
2,4,5-T	94		90		30-150	4		30	B
2,4,5-TP (Silvex)	86		81		30-150	6		30	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	87		88		30-150	A
DCAA	90		93		30-150	B

METALS

Project Name: 2335 12TH AVENUE
Lab Number: L1849030
Project Number: 170560401
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01
Client ID: SB-01_0-1
Sample Location: MANHATTAN
Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6220		mg/kg	8.48	2.29	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.24	0.322	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Arsenic, Total	4.02		mg/kg	0.848	0.176	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Barium, Total	58.6		mg/kg	0.848	0.147	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Beryllium, Total	0.144	J	mg/kg	0.424	0.028	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Cadmium, Total	0.170	J	mg/kg	0.848	0.083	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Calcium, Total	79300		mg/kg	8.48	2.97	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Chromium, Total	11.7		mg/kg	0.848	0.081	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Cobalt, Total	3.13		mg/kg	1.70	0.141	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Copper, Total	10.7		mg/kg	0.848	0.219	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Iron, Total	7560		mg/kg	4.24	0.765	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Lead, Total	32.0		mg/kg	4.24	0.227	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Magnesium, Total	18700		mg/kg	8.48	1.30	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Manganese, Total	215		mg/kg	0.848	0.135	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Mercury, Total	0.037	J	mg/kg	0.069	0.015	1	12/06/18 08:00	12/06/18 21:49	EPA 7471B	1,7471B	MG
Nickel, Total	6.64		mg/kg	2.12	0.205	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Potassium, Total	873		mg/kg	212	12.2	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Selenium, Total	0.720	J	mg/kg	1.70	0.219	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.848	0.240	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Sodium, Total	614		mg/kg	170	2.67	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.70	0.267	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Vanadium, Total	15.2		mg/kg	0.848	0.172	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
Zinc, Total	30.3		mg/kg	4.24	0.248	2	12/05/18 20:43	12/06/18 19:00	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.88	0.88	1		12/06/18 19:00	NA	107,-	

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1186029-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Antimony, Total	ND		mg/kg	2.00	0.152	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Calcium, Total	ND		mg/kg	4.00	1.40	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Chromium, Total	0.100	J	mg/kg	0.400	0.038	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Copper, Total	ND		mg/kg	0.400	0.103	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Iron, Total	0.828	J	mg/kg	2.00	0.361	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Magnesium, Total	ND		mg/kg	4.00	0.616	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Manganese, Total	1.11		mg/kg	0.400	0.064	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Potassium, Total	ND		mg/kg	100	5.76	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Sodium, Total	ND		mg/kg	80.0	1.26	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Thallium, Total	0.140	J	mg/kg	0.800	0.126	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	12/05/18 20:43	12/06/18 16:04	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1186191-1										
Mercury, Total	ND		mg/kg	0.083	0.018	1	12/06/18 08:00	12/06/18 20:35	1,7471B	MG

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1186029-2 SRM Lot Number: D102-540								
Aluminum, Total	76		-		49-150	-		
Antimony, Total	176		-		1-199	-		
Arsenic, Total	113		-		83-117	-		
Barium, Total	108		-		83-118	-		
Beryllium, Total	106		-		83-116	-		
Cadmium, Total	109		-		83-118	-		
Calcium, Total	102		-		82-118	-		
Chromium, Total	111		-		83-117	-		
Cobalt, Total	108		-		84-116	-		
Copper, Total	106		-		84-116	-		
Iron, Total	112		-		61-139	-		
Lead, Total	111		-		82-118	-		
Magnesium, Total	88		-		76-124	-		
Manganese, Total	103		-		82-118	-		
Nickel, Total	108		-		83-117	-		
Potassium, Total	87		-		70-130	-		
Selenium, Total	113		-		79-121	-		
Silver, Total	113		-		80-120	-		
Sodium, Total	98		-		74-126	-		
Thallium, Total	105		-		81-119	-		
Vanadium, Total	106		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1186029-2 SRM Lot Number: D102-540					
Zinc, Total	109	-	81-118	-	
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1186191-2 SRM Lot Number: D102-540					
Mercury, Total	85	-	72-128	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1186029-3 QC Sample: L1848959-02 Client ID: MS Sample												
Aluminum, Total	7990	176	7790	**0**	Q	-	-		75-125	-		20
Antimony, Total	ND	44.1	33.3	75		-	-		75-125	-		20
Arsenic, Total	3.65	10.6	12.0	79		-	-		75-125	-		20
Barium, Total	62.6	176	186	**70**	Q	-	-		75-125	-		20
Beryllium, Total	0.161J	4.41	3.48	79		-	-		75-125	-		20
Cadmium, Total	0.545J	4.5	4.30	96		-	-		75-125	-		20
Calcium, Total	21500	882	25300	**431**	Q	-	-		75-125	-		20
Chromium, Total	12.9	17.6	21.2	**47**	Q	-	-		75-125	-		20
Cobalt, Total	6.63	44.1	45.4	88		-	-		75-125	-		20
Copper, Total	38.8	22	130	**413**	Q	-	-		75-125	-		20
Iron, Total	15200	88.2	22600	**8390**	Q	-	-		75-125	-		20
Lead, Total	175	45	115	**0**	Q	-	-		75-125	-		20
Magnesium, Total	11600	882	8830	**0**	Q	-	-		75-125	-		20
Manganese, Total	334	44.1	263	**0**	Q	-	-		75-125	-		20
Nickel, Total	10.6	44.1	42.8	**73**	Q	-	-		75-125	-		20
Potassium, Total	984	882	1640	**74**	Q	-	-		75-125	-		20
Selenium, Total	0.375J	10.6	8.28	78		-	-		75-125	-		20
Silver, Total	ND	26.5	25.6	97		-	-		75-125	-		20
Sodium, Total	689	882	1820	**128**	Q	-	-		75-125	-		20
Thallium, Total	ND	10.6	7.09	**67**	Q	-	-		75-125	-		20
Vanadium, Total	20.9	44.1	78.6	**131**	Q	-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1186029-3 QC Sample: L1848959-02 Client ID: MS Sample											
Zinc, Total	149	44.1	129	**0**	Q	-	-		75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1186191-3 WG1186191-4 QC Sample: L1849060-03 Client ID: MS Sample											
Mercury, Total	2.40	0.252	2.23	**0**	Q	2.57	**67**	Q	80-120	14	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1186029-4 QC Sample: L1848959-02 Client ID: DUP Sample						
Aluminum, Total	7990	7430	mg/kg	7		20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	3.65	3.35	mg/kg	9		20
Barium, Total	62.6	55.9	mg/kg	11		20
Beryllium, Total	0.161J	0.097J	mg/kg	NC		20
Cadmium, Total	0.545J	0.461J	mg/kg	NC		20
Calcium, Total	21500	45400	mg/kg	**71**	Q	20
Chromium, Total	12.9	11.6	mg/kg	11		20
Cobalt, Total	6.63	6.62	mg/kg	0		20
Copper, Total	38.8	47.0	mg/kg	19		20
Iron, Total	15200	16400	mg/kg	8		20
Lead, Total	175	104	mg/kg	**51**	Q	20
Magnesium, Total	11600	24000	mg/kg	**70**	Q	20
Manganese, Total	334	267	mg/kg	**22**	Q	20
Nickel, Total	10.6	9.69	mg/kg	9		20
Potassium, Total	984	1090	mg/kg	10		20
Selenium, Total	0.375J	0.292J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	689	673	mg/kg	2		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1186029-4 QC Sample: L1848959-02 Client ID: DUP Sample					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	20.9	24.6	mg/kg	16	20
Zinc, Total	149	134	mg/kg	11	20

INORGANICS
&
MISCELLANEOUS

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-01
Client ID: SB-01_0-1
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:15
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.9		%	0.100	NA	1	-	12/01/18 14:53	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	12/02/18 15:20	12/03/18 09:29	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.880	0.176	1	12/03/18 18:10	12/04/18 13:04	1,7196A	NH

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-02
Client ID: SB-02_18-19
Sample Location: MANHATTAN
Sample Depth:
Matrix: Soil

Date Collected: 11/30/18 12:37
Date Received: 11/30/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	12/01/18 14:53	121,2540G	RI

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-03
Client ID: SB-03_15-16
Sample Location: MANHATTAN

Date Collected: 11/30/18 12:03
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.6		%	0.100	NA	1	-	12/01/18 14:53	121,2540G	RI

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-04
Client ID: SB-04_18-19
Sample Location: MANHATTAN

Date Collected: 11/30/18 11:25
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.0		%	0.100	NA	1	-	12/01/18 14:53	121,2540G	RI

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

SAMPLE RESULTS

Lab ID: L1849030-05
Client ID: SB-05_13-14
Sample Location: MANHATTAN

Date Collected: 11/30/18 13:50
Date Received: 11/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.9		%	0.100	NA	1	-	12/01/18 14:53	121,2540G	RI

Project Name: 2335 12TH AVENUE
Project Number: 170560401
Lab Number: L1849030
Report Date: 12/07/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1184795-1										
Cyanide, Total	ND		mg/kg	0.91	0.19	1	12/02/18 15:20	12/03/18 09:01	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1185164-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/03/18 18:10	12/04/18 13:04	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1184795-2 WG1184795-3								
Cyanide, Total	85		**67**	Q	80-120	31		35
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1185164-2								
Chromium, Hexavalent	84		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1184795-4 WG1184795-5 QC Sample: L1849049-01 Client ID: MS Sample												
Cyanide, Total	ND	13	12	91		12	92		75-125	0		35
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1185164-4 QC Sample: L1849030-01 Client ID: SB-01_0-1												
Chromium, Hexavalent	ND	900	884	98		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2335 12TH AVENUE

Project Number: 170560401

Lab Number: L1849030

Report Date: 12/07/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1184691-1 QC Sample: L1849030-01 Client ID: SB-01_0-1						
Solids, Total	90.9	91.0	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1185164-6 QC Sample: L1849030-01 Client ID: SB-01_0-1						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1849030-01A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1849030-01B	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-01C	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-01D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1849030-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1849030-01F	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HEXCR-7196(30)
L1849030-01G	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		HERB-APA(14),NYTCL-8082(14)
L1849030-01H	Glass 250ml/8oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1849030-02A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1849030-02B	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-02C	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-02D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1849030-02E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14)
L1849030-03A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1849030-03B	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-03C	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-03D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1849030-03E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14)
L1849030-04A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1849030-04B	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)

*Values in parentheses indicate holding time in days

Project Name: 2335 12TH AVENUE
Project Number: 170560401

Lab Number: L1849030
Report Date: 12/07/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1849030-04C	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-04D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1849030-04E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14)
L1849030-05A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1849030-05B	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-05C	Vial water preserved	A	NA		3.2	Y	Absent	01-DEC-18 13:21	NYTCL-8260HLW(14)
L1849030-05D	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1849030-05E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14)

*Values in parentheses indicate holding time in days

Project Name:	2335 12TH AVENUE	**Lab Number:**	L1849030
Project Number:	170560401	**Report Date:**	12/07/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2335 12TH AVENUE	**Lab Number:**	L1849030
Project Number:	170560401	**Report Date:**	12/07/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	2335 12TH AVENUE	**Lab Number:**	L1849030
Project Number:	170560401	**Report Date:**	12/07/18

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/30/18

ALPHA Job #: L1849030

Client Information
Client: Langan
Address: 360 W 31st St 8th Fl
NY NY 10001
Phone: 212 479-5400
Fax:
Email: esread@langan.com

Project Information
Project Name: 3225 12th Ave
Project Location: Manhattan
Project #: 170560401
(Use Project name as Project #)
Project Manager: Emily Snead
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☑ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Pt 375 VOCs, +4 SVOCs	Pesticides / Herbicides	TAL/TCL metals	Total CN, Hex/Trivalent Chrom	Sample Specific Comments	Total Bottle
49030-01	SB-01_0-1	11/30/18	13:15	S	KG	✓	✓	✓	✓		
02	SB-02_18-19	11/30/18	12:37	S	KG	✓					
03	SB-03_15-16	11/30/18	12:03	S	KG	✓					
04	SB-04_18-19	11/30/18	11:25	S	KG	✓					
05	SB-05_13-14	11/30/18	13:50	S	KG	✓					

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	11/30/18 14:40		
[signature] 11-30-18	1545	[signature] 11-30-18	1440
D. Santos AAL	11/30/18 2250		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

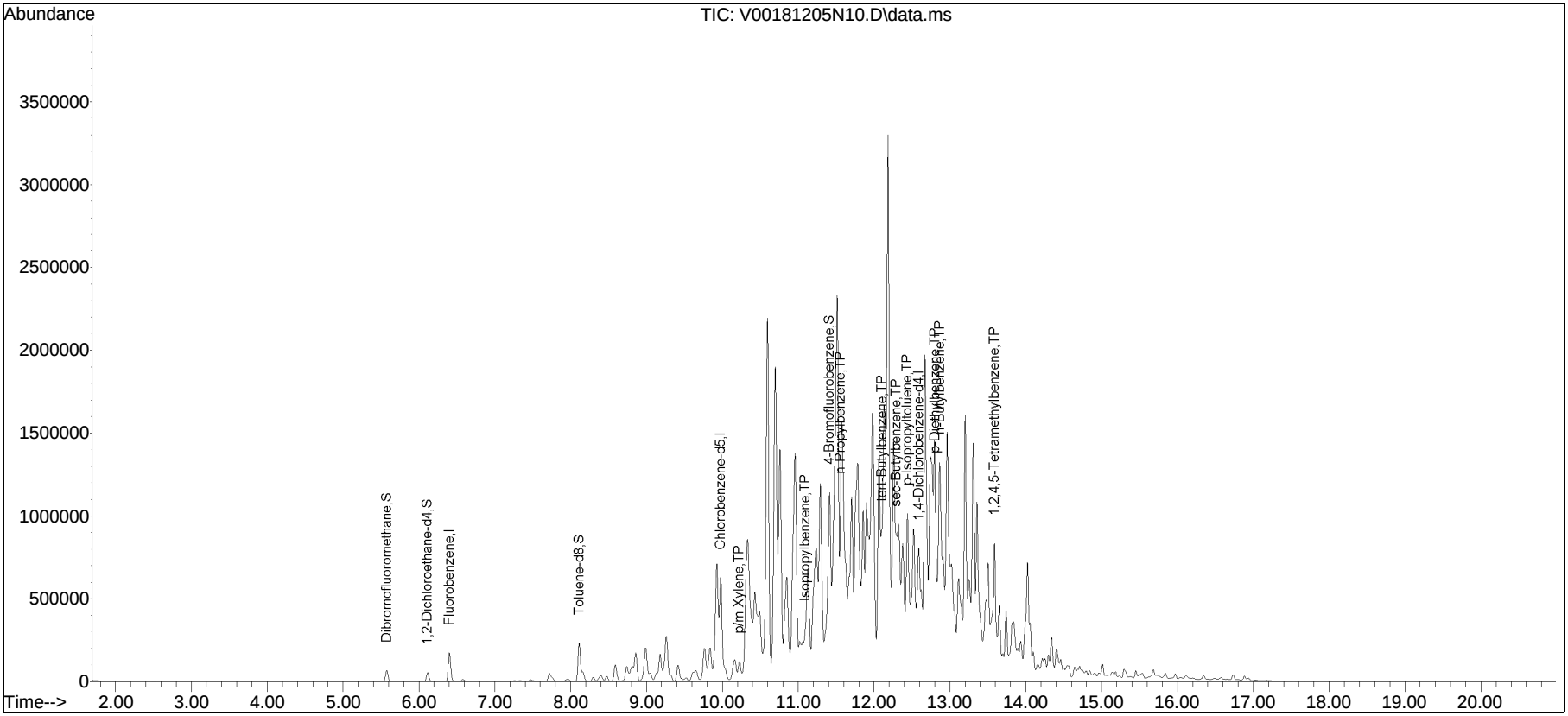
Form No: 01-25 HC (rev. 30-Sept-2013)

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA100\2018\181205N\
Data File : V00181205N10.D
Acq On : 5 Dec 2018 10:02 pm
Operator : VOA100:MV
Sample : l1849030-02D,31H,5.59,5,0.010,,a
Misc : WG1186183,ICAL15283
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 06 09:11:44 2018
Quant Method : I:\VOLATILES\VOA100\2018\181205N\V100_181127_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 28 12:46:58 2018
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox81205N\V00181205N01.D•

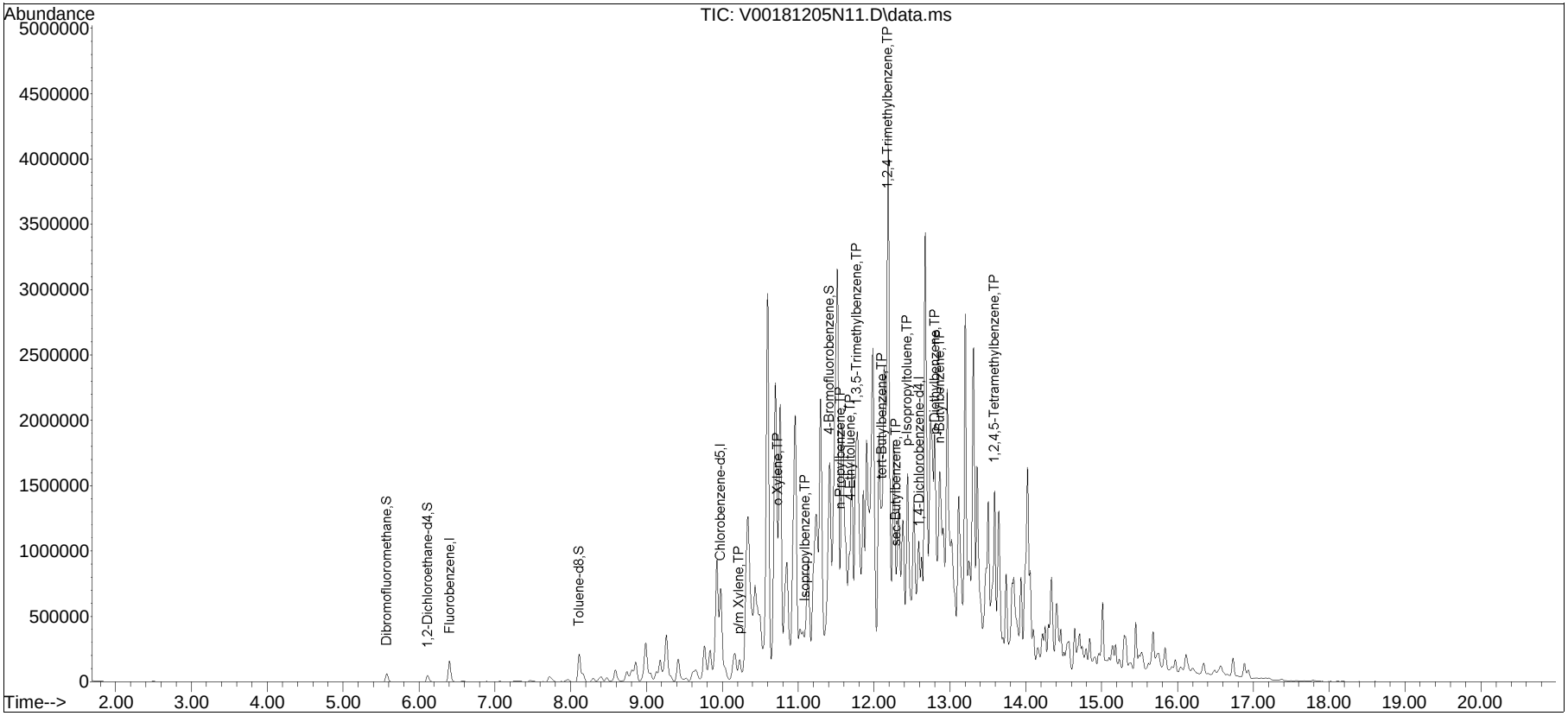


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA100\2018\181205N\
Data File : V00181205N11.D
Acq On : 5 Dec 2018 10:28 pm
Operator : VOA100:MV
Sample : l1849030-03D,31H,5.11,5,0.010,,a
Misc : WG1186183,ICAL15283
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 06 09:13:51 2018
Quant Method : I:\VOLATILES\VOA100\2018\181205N\V100_181127_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 28 12:46:58 2018
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox81205N\V00181205N01.D•

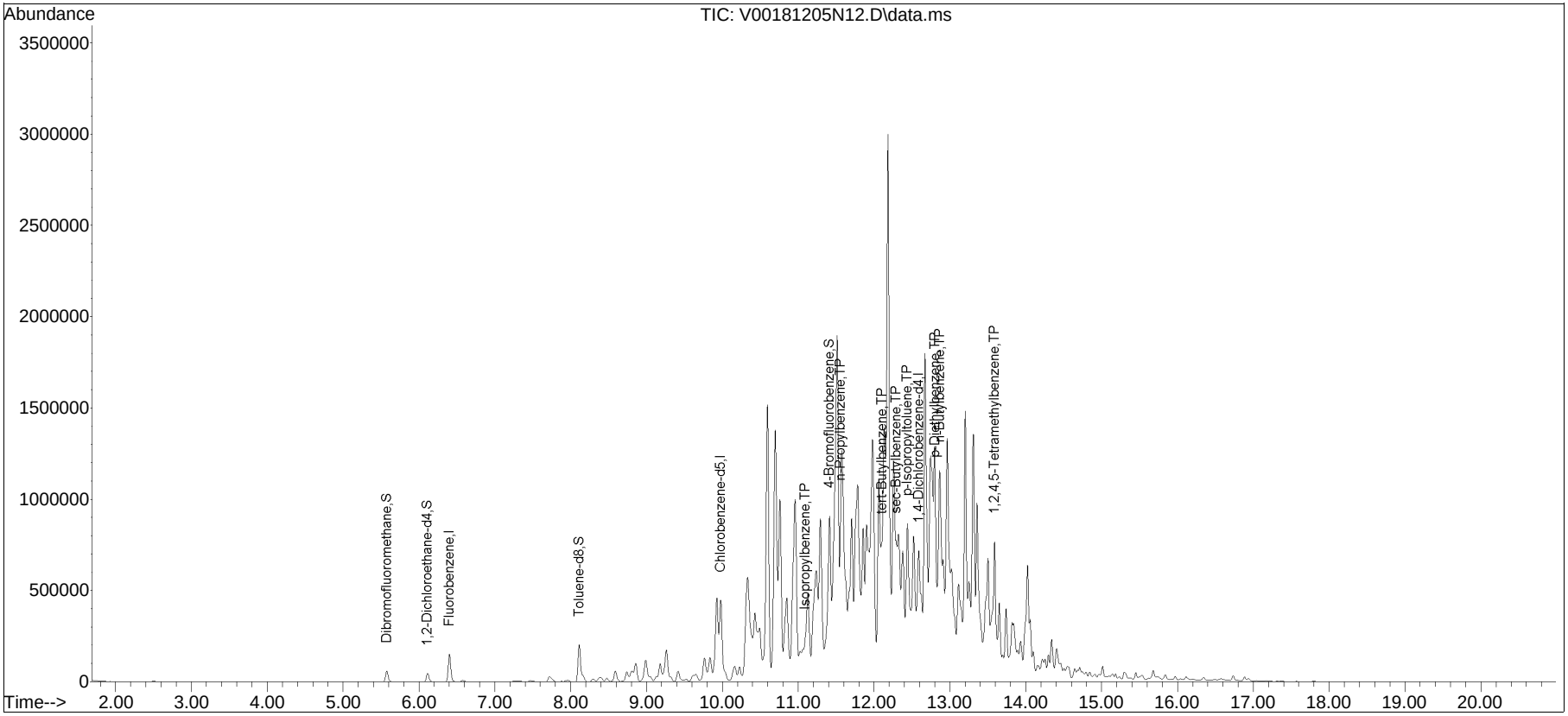


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA100\2018\181205N\
Data File : V00181205N12.D
Acq On : 5 Dec 2018 10:54 pm
Operator : VOA100:MV
Sample : l1849030-04D,31H,5.11,5,0.010,,a
Misc : WG1186183,ICAL15283
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 06 09:16:12 2018
Quant Method : I:\VOLATILES\VOA100\2018\181205N\V100_181127_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 28 12:46:58 2018
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox81205N\V00181205N01.D•

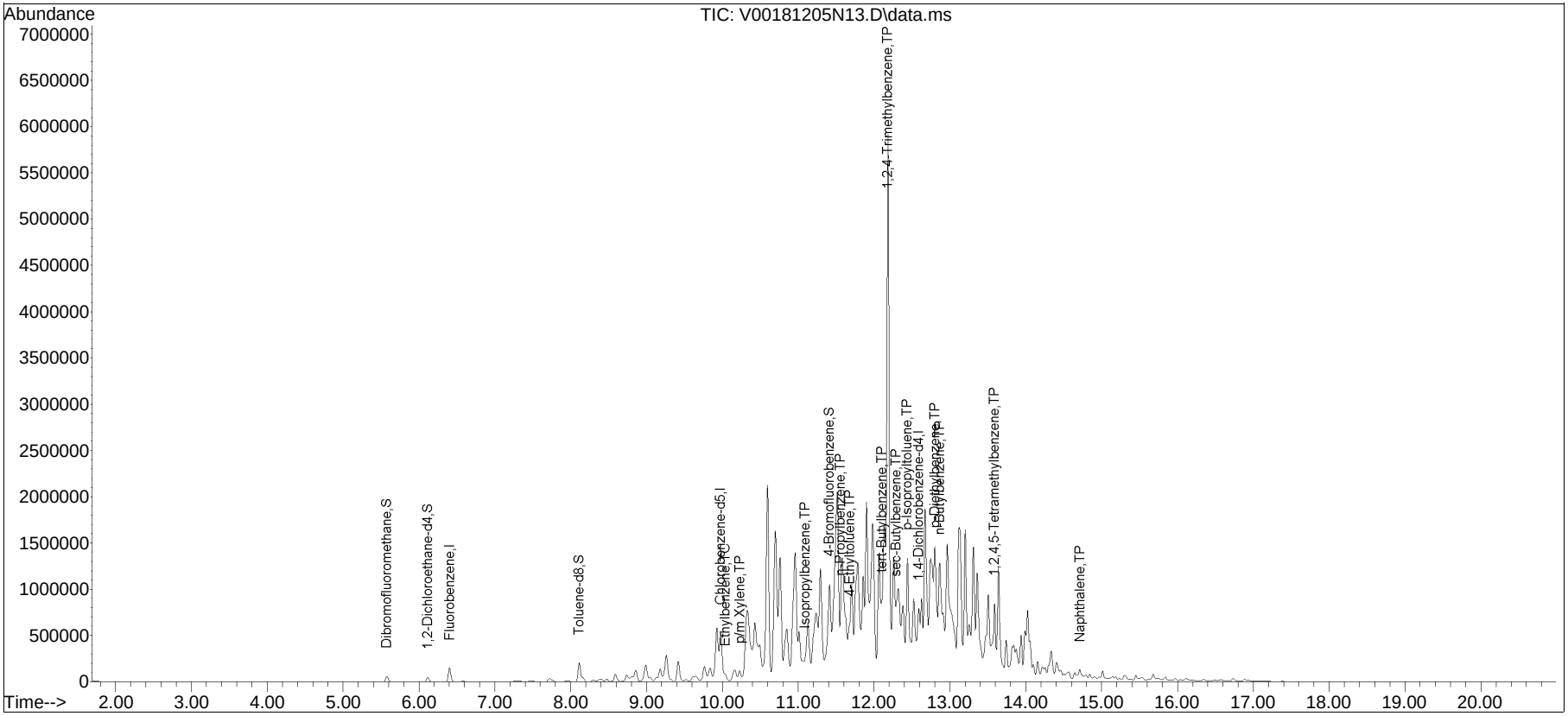


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA100\2018\181205N\
Data File : V00181205N13.D
Acq On : 5 Dec 2018 11:20 pm
Operator : VOA100:MV
Sample : l1849030-05D,31H,4.82,5,0.004,,a
Misc : WG1186183,ICAL15283
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 06 09:16:24 2018
Quant Method : I:\VOLATILES\VOA100\2018\181205N\V100_181127_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Wed Nov 28 12:46:58 2018
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox81205N\V00181205N01.D•



Technical Report

prepared for:

Langan Engineering & Environmental Services (NYC)
21 Penn Plaza, 360 West 31st Street
New York NY, 10001
Attention: Emily Snead

Report Date: 12/10/2018
Client Project ID: 170560401
York Project (SDG) No.: 18K1163

Report Date: 12/10/2018
Client Project ID: 170560401
York Project (SDG) No.: 18K1163

Langan Engineering & Environmental Services (NYC)
21 Penn Plaza, 360 West 31st Street
New York NY, 10001
Attention: Emily Snead

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 30, 2018 and listed below. The project was identified as your project: **170560401**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18K1163-01	SSV-01_113018	Soil Vapor	11/30/2018	11/30/2018
18K1163-02	SSV-02_113018	Soil Vapor	11/30/2018	11/30/2018
18K1163-03	SSV-03_113018	Soil Vapor	11/30/2018	11/30/2018

General Notes for York Project (SDG) No.: 18K1163

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 12/10/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SSV-01_113018 **York Sample ID:** 18K1163-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:32 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
71-55-6	**1,1,1-Trichloroethane**	**74**		ug/m³	0.84	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.84	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	**1,1-Dichloroethane**	**4.4**		ug/m³	0.63	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	**1,1-Dichloroethylene**	**0.98**		ug/m³	0.15	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**7.3**		ug/m³	0.76	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.71	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**2.1**		ug/m³	0.76	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	**1,3-Butadiene**	**2.3**		ug/m³	1.0	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.71	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**2.0**		ug/m³	0.46	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-01_113018 **York Sample ID:** 18K1163-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:32 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.63	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**22**		ug/m³	0.73	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**1.1**		ug/m³	0.49	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.80	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.60	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**32**		ug/m³	0.48	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**4.4**		ug/m³	0.24	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.71	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.41	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**8.7**		ug/m³	0.75	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.32	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.70	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.53	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**3.1**		ug/m³	0.76	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			

Sample Information

Client Sample ID: SSV-01_113018 **York Sample ID:** 18K1163-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:32 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	**Ethyl Benzene**	**3.8**		ug/m³	0.67	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
67-63-0	Isopropanol	ND		ug/m³	0.76	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
80-62-6	**Methyl Methacrylate**	**1.4**		ug/m³	0.63	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-09-2	**Methylene chloride**	**4.6**		ug/m³	1.1	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
142-82-5	**n-Heptane**	**2.5**		ug/m³	0.63	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	0.54	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
95-47-6	**o-Xylene**	**11**		ug/m³	0.67	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**23**		ug/m³	1.3	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**4.9**		ug/m³	0.76	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
115-07-1	*** Propylene**	**16**		ug/m³	0.27	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.66	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**3.8**		ug/m³	0.26	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.91	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:			
108-88-3	**Toluene**	**3.7**		ug/m³	0.58	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.61	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.70	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
79-01-6	**Trichloroethylene**	**0.33**		ug/m³	0.21	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**2.0**		ug/m³	0.87	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications: NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: SSV-01_113018 **York Sample ID:** 18K1163-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:32 am	11/30/2018

Volatile Organics, EPA TO15 Full List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.099	1.546	EPA TO-15	12/06/2018 09:00	12/07/2018 06:25	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*101 %*	*70-130*

Sample Information

Client Sample ID: SSV-02_113018 **York Sample ID:** 18K1163-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:51 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.0	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
71-55-6	**1,1,1-Trichloroethane**	**340**		ug/m³	0.80	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.0	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.1	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.80	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	**1,1-Dichloroethane**	**30**		ug/m³	0.59	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.14	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**8.3**		ug/m³	0.72	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.1	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.88	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.59	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.68	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.0	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**3.4**		ug/m³	0.72	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	**1,3-Butadiene**	**1.4**		ug/m³	0.97	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.88	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.68	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.88	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**3.4**		ug/m³	0.43	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
591-78-6	* 2-Hexanone	ND		ug/m³	1.2	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			

Sample Information

Client Sample ID: SSV-02_113018 **York Sample ID:** 18K1163-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:51 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	2.3	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.60	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**10**		ug/m³	0.69	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.32	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**1.7**		ug/m³	0.47	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.76	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.98	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.5	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.57	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**6.8**		ug/m³	0.46	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**34**		ug/m³	0.23	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.67	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.39	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**15**		ug/m³	0.71	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.30	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.14	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.66	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.50	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.2	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.3**		ug/m³	0.72	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
100-41-4	**Ethyl Benzene**	**2.4**		ug/m³	0.63	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-02_113018 **York Sample ID:** 18K1163-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:51 am	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	Isopropanol	ND		ug/m³	0.72	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.60	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.53	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.3**		ug/m³	1.0	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**3.9**		ug/m³	0.60	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	0.52	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**9.5**		ug/m³	0.63	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**17**		ug/m³	1.3	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**5.2**		ug/m³	0.72	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
115-07-1	*** Propylene**	**7.2**		ug/m³	0.25	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.62	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**37**		ug/m³	0.25	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.86	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:			
108-88-3	**Toluene**	**7.1**		ug/m³	0.55	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.58	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.66	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**5.5**		ug/m³	0.20	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**4.4**		ug/m³	0.82	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	0.51	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.64	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.093	1.462	EPA TO-15	12/06/2018 09:00	12/07/2018 08:48	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-02_113018 **York Sample ID:** 18K1163-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 11:51 am	11/30/2018

Volatile Organics, EPA TO15 Full List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate Recoveries	**Result**		**Acceptance Range**						
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.2 %*		*70-130*						

Sample Information

Client Sample ID: SSV-03_113018 **York Sample ID:** 18K1163-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 12:04 pm	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
71-55-6	**1,1,1-Trichloroethane**	**78**		ug/m³	0.84	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.84	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.62	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**5.5**		ug/m³	0.75	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.92	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.62	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.71	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**1.9**		ug/m³	0.75	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.92	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.71	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.92	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**2.2**		ug/m³	0.45	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			

Sample Information

Client Sample ID: SSV-03_113018 **York Sample ID:** 18K1163-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 12:04 pm	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.63	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**21**		ug/m³	0.73	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.33	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.64**		ug/m³	0.49	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.79	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.60	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**9.6**		ug/m³	0.48	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**1.2**		ug/m³	0.24	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.71	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.40	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**1.8**		ug/m³	0.75	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.32	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.70	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	**Cyclohexane**	**9.7**		ug/m³	0.53	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.3**		ug/m³	0.76	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.67	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-03_113018 **York Sample ID:** 18K1163-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 12:04 pm	11/30/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	Isopropanol	ND		ug/m³	0.75	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.63	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.55	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**2.0**		ug/m³	1.1	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**2.5**		ug/m³	0.63	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**1.5**		ug/m³	0.54	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**4.5**		ug/m³	0.67	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**8.9**		ug/m³	1.3	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**3.9**		ug/m³	0.75	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
115-07-1	*** Propylene**	**35**		ug/m³	0.26	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.65	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	Tetrachloroethylene	ND		ug/m³	0.26	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.90	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:			
108-88-3	**Toluene**	**3.1**		ug/m³	0.58	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.61	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.70	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	Trichloroethylene	ND		ug/m³	0.21	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	0.86	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.67	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.098	1.534	EPA TO-15	12/06/2018 09:00	12/07/2018 09:40	AS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SSV-03_113018 **York Sample ID:** 18K1163-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K1163	170560401	Soil Vapor	November 30, 2018 12:04 pm	11/30/2018

Volatile Organics, EPA TO15 Full List **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate Recoveries	**Result**		**Acceptance Range**						
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*105 %*		*70-130*						

Analytical Batch Summary

Batch ID: BL80321 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
18K1163-01	SSV-01_113018	12/06/18
18K1163-02	SSV-02_113018	12/06/18
18K1163-03	SSV-03_113018	12/06/18
BL80321-BLK1	Blank	12/06/18
BL80321-BS1	LCS	12/06/18

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL80321 - EPA TO15 PREP											
Blank (BL80321-BLK1)											Prepared & Analyzed: 12/06/2018
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL80321 - EPA TO15 PREP											
Blank (BL80321-BLK1)								Prepared & Analyzed: 12/06/2018			
n-Hexane	ND	0.35	ug/m³								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.064	"								
Surrogate: SURR: p-Bromofluorobenzene	*9.60*		*ppbv*	*10.0*		*96.0*	*70-130*				
LCS (BL80321-BS1)								Prepared & Analyzed: 12/06/2018			
1,1,1,2-Tetrachloroethane	9.83		ppbv	10.0		98.3	70-130				
1,1,1-Trichloroethane	10.7		"	10.0		107	70-130				
1,1,2,2-Tetrachloroethane	9.62		"	10.0		96.2	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.2		"	10.0		112	70-130				
1,1,2-Trichloroethane	10.1		"	10.0		101	70-130				
1,1-Dichloroethane	11.0		"	10.0		110	70-130				
1,1-Dichloroethylene	11.1		"	10.0		111	70-130				
1,2,4-Trichlorobenzene	12.0		"	10.0		120	70-130				
1,2,4-Trimethylbenzene	9.94		"	10.0		99.4	70-130				
1,2-Dibromoethane	9.67		"	10.0		96.7	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	11.0		"	10.0		110	70-130				
1,2-Dichloropropane	9.57		"	10.0		95.7	70-130				
1,2-Dichlorotetrafluoroethane	9.58		"	10.0		95.8	70-130				
1,3,5-Trimethylbenzene	11.3		"	10.0		113	70-130				
1,3-Butadiene	9.19		"	10.0		91.9	70-130				
1,3-Dichlorobenzene	10.9		"	10.0		109	70-130				
1,3-Dichloropropane	9.90		"	10.0		99.0	70-130				
1,4-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,4-Dioxane	9.27		"	10.0		92.7	70-130				
2-Butanone	9.49		"	10.0		94.9	70-130				
2-Hexanone	10.2		"	10.0		102	70-130				
3-Chloropropene	9.49		"	10.0		94.9	70-130				
4-Methyl-2-pentanone	9.74		"	10.0		97.4	70-130				
Acetone	9.62		"	10.0		96.2	70-130				
Acrylonitrile	9.38		"	10.0		93.8	70-130				
Benzene	8.89		"	10.0		88.9	70-130				
Benzyl chloride	11.6		"	10.0		116	70-130				
Bromodichloromethane	10.7		"	10.0		107	70-130				
Bromoform	10.4		"	10.0		104	70-130				
Bromomethane	9.36		"	10.0		93.6	70-130				
Carbon disulfide	10.1		"	10.0		101	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL80321 - EPA TO15 PREP											
LCS (BL80321-BS1)								Prepared & Analyzed: 12/06/2018			
Carbon tetrachloride	11.8		ppbv	10.0		118	70-130				
Chlorobenzene	11.1		"	10.0		111	70-130				
Chloroethane	9.85		"	10.0		98.5	70-130				
Chloroform	10.6		"	10.0		106	70-130				
Chloromethane	10.8		"	10.0		108	70-130				
cis-1,2-Dichloroethylene	10.6		"	10.0		106	70-130				
cis-1,3-Dichloropropylene	9.85		"	10.0		98.5	70-130				
Cyclohexane	9.82		"	10.0		98.2	70-130				
Dibromochloromethane	10.6		"	10.0		106	70-130				
Dichlorodifluoromethane	11.6		"	10.0		116	70-130				
Ethyl acetate	9.25		"	10.0		92.5	70-130				
Ethyl Benzene	10.9		"	10.0		109	70-130				
Hexachlorobutadiene	12.9		"	10.0		129	70-130				
Isopropanol	11.2		"	10.0		112	70-130				
Methyl Methacrylate	9.64		"	10.0		96.4	70-130				
Methyl tert-butyl ether (MTBE)	38.4		"	10.0		384	70-130	High Bias			
Methylene chloride	10.7		"	10.0		107	70-130				
n-Heptane	8.88		"	10.0		88.8	70-130				
n-Hexane	9.20		"	10.0		92.0	70-130				
o-Xylene	9.44		"	10.0		94.4	70-130				
p- & m- Xylenes	18.9		"	20.0		94.4	70-130				
p-Ethyltoluene	9.49		"	10.0		94.9	70-130				
Propylene	8.97		"	10.0		89.7	70-130				
Styrene	10.1		"	10.0		101	70-130				
Tetrachloroethylene	11.1		"	10.0		111	70-130				
Tetrahydrofuran	9.35		"	10.0		93.5	70-130				
Toluene	9.19		"	10.0		91.9	70-130				
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130				
trans-1,3-Dichloropropylene	9.78		"	10.0		97.8	70-130				
Trichloroethylene	11.2		"	10.0		112	70-130				
Trichlorofluoromethane (Freon 11)	11.1		"	10.0		111	70-130				
Vinyl acetate	24.2		"	10.0		242	70-130	High Bias			
Vinyl bromide	10.3		"	10.0		103	70-130				
Vinyl Chloride	11.3		"	10.0		113	70-130				
Surrogate: SURR: p-Bromofluorobenzene	*10.8*		*"*	*10.0*		*108*	*70-130*				

Sample and Data Qualifiers Relating to This Work Order

QL-03	This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
CCV-A	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to dectected analytes only.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 18K1163

Page 1 of 1

YOUR Information	Report To:	Invoice To:
Company: Langan	Company: SAME	Company: SAME
Address: 360 W 31st St 8th Fl NY NY 10001	Address:	Address:
Phone.: 212 479-5400	Phone:	Phone:
Contact: Emily Snead	Contact:	Contact:
E-mail: esnead@langan.com	E-mail:	E-mail:

YOUR Project Number: 170560401

YOUR Project Name: 2335 12th Ave

YOUR PO#:

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) ✓

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Kevin Gerdt

Samples Collected by: (print your name above and sign below)

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Ouldoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York ✓
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

- Summary Report
- QA Report
- NY ASP A Package
- NY ASP B Package
- Other:
- CT RCP
- CT RCP DQA/DUE
- NJDEP Reduced Deliv.
- NJDKQP
- Standard Excel EDD
- EQuIS (Standard)
- NYSDEC EQuIS
- NJDEP SRP HazSite

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ ___ ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SSV-01_113018	11/30/18 11:32	AS	-29.12	-4.98	15525	423	TO-15
SSV-02_113018	11/30/18 11:51	AS	-29.58	-3.76	28801	447	TO-15
SSV-03_113018	11/30/18 12:04	AS	-29.68	-5.95	23796	441	TO-15

Comments:

Detection Limits Required

≤ 1 ug/m³ ___ NYSDEC V1 Limits ___

Routine Survey ___ Other ___

Sampling Media

- 6 Liter Canister
- Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Langan	11/30/18 12:32	York	11/30/18 1252	York	11/30/18 13:30
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
York	11-30-18 13:30	York	11-30-18 14:00		
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				Arlene M. Schunk / YORK	11/30/18 14:00