



HydroTech Environmental

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December 9, 2019

Mr. Michael Froning
2468 Tiebout Development, LLC/SKF Development, LLC
38 West 21st Street, 8th Floor
New York, NY 10010

Re: 2468 Tiebout Avenue, Bronx, New York
HydroTech Job No. 190107 - Focused Subsurface Investigation

Dear Mr. Froning:

This letter is intended to provide you with the findings from our recent Focused Subsurface Investigation conducted at the above-referenced property ("Site"). The scope of work is based upon our recent conversations and is intended to investigate the Site for adverse impacts that would allow site eligibility into the New York State Brownfield Cleanup Program (BCP) Application.

Site Description and History

The Site is located in the western portion of the Bronx and identified as 2468 Tiebout Avenue, Bronx, NY. The Site is approximately 11,300 square feet and consists of one (1) tax lot (Block 3023, Lot 4). The Site is developed as a commercial parking lot with an asphalt cover. The Site is no longer in active operation. Ten (10) 20-yd containers, one equipment (forklift), barricades and piles of construction materials are present along the northern, eastern and southern property boundaries. An office shed is located in the northwestern corner of the property. **Figure 1** provides a Site Plan.

The average elevation of the Site is approximately 94 feet above mean sea level (USGS 7.5-Minute Central Park, New York Quadrangle, 2013). The topography of the Site and its surrounding area slopes gently toward the east and south. The elevation of surrounding area slightly slopes down from north to south along Tiebout Avenue.

Based upon a Phase I ESA performed by Middleton Environmental Inc. (MEI) in November 2018, the Site was developed with residential buildings in early 1910s and remained the same till 1980s. The Site was shown as undeveloped land since early 1990s and then utilized for commercial parking since at 2010s. No Recognized Environmental Conditions (RECs), Controlled RECs (CRECs), or Historical RECs (HRECs) were identified at the Site.



HydroTech performed a Waste Characterization in June 2019 to characterize soil for disposal purposes based upon a proposed development involving a 7-story residential and community use building with a full basement. The scope of work was established based upon regularly accepted requirements from various disposal facilities. No hazardous soil was identified. Groundwater was not encountered during the previous investigation and was anticipated to be over 30 feet bgs. It is assumed that groundwater flows east towards the Bronx River.

Scope of Work

The investigation was accomplished through the performance of Ground-Penetration Radar (GPR) survey and installation and sampling of ten (10) soil probes and four (4) soil vapor probes. HydroTech conducted the field portion of the investigation on October 18, 2019. Previous **Figure 1** also provides a Sampling Plan.

Prior to the performance of the fieldwork, an NYC One-Call Public Utility mark-out was requested. Confirmation number 192831999 was issued to the mark-out. **Appendix A** contains photographs of the fieldwork.

Ground-Penetrating Radar (GPR) Survey

The GPR survey was performed utilizing a GSSI SIR-3000 Control Unit and a 400-megahertz shielded antenna. Approximately 80% of the Site was scanned during the GPR survey, the remaining was not scanned due to the presence of the containers, equipment, construction materials and barricades. No anomaly was observed during the survey. The survey also cleared all sampling locations of subsurface obstructions.

Soil Probes

The soil probes were designated as SP-1 through SP-10 and were installed to 16 feet bgs utilizing a Geoprobe® unit. These units install soil probes utilizing direct-push technology. Soil samples were collected utilizing a five-foot long Macro core sampler fitted with dedicated acetate liners. Each sampler was installed with 1½-inch diameter drill rods. The soil probe continuously sampled at consecutive 2-foot intervals. A HydroTech geologist performed infield characterization and screening of each soil sample utilizing the Unified Soil Classification System and a Photo Ionization Detector (PID).

The general soil type consists of a shallow layer of fill material comprised of concrete and bricks from grade to depths ranging between 2 to 8 feet. This fill layer is underlain by clayey fine brown sand with gravel, which was encountered to the terminus of each boring. A slight petroleum odor and an organic vapor reading of 44.7 parts per million (ppm) was detected in the 14- to 16-foot sample from SP-2. Organic vapor readings were detected



between 10 and 14 feet bgs in SP-5, with a maximum reading of 4.7 ppm. No organic vapor readings (>0.1 ppm) or visual evidence of contamination were detected in any soil samples. **Appendix B** provides soil probe logs.

Based upon the in-field screening results, two soil samples were selected from each soil probe for confirmatory laboratory analysis based upon the maximum PID readings. These sampling intervals from each probe are listed as below:

Probe ID	Sampling Depth Interval (ft)	
SP-1	0-2	12-14
SP-2	0-2	14-16
SP-3	0-2	14-16
SP-4	0-2	10-12
SP-5	0-2	12-14
SP-6	0-2	14-16
SP-7	0-2	12-14
SP-8	0-2	14-16
SP-9	0-2	12-14
SP-10	0-2	14-16

Soil Vapor Probes

The soil vapor probes were designated SV-1 through SV-4 and were installed in a similar manner as the soil probes (i.e. direct push technology). The soil-vapor probes were installed in the subsurface soil at a minimum depth of 6 feet below surface grade. Each soil-vapor probe was then sealed above the sampling zone with bentonite slurry to prevent outdoor air infiltration. The soil-vapor probes were finished at grade with a concrete seal.

A soil vapor sample was collected from each soil-vapor probe utilizing a 6-liter pre-cleaned, passivated, evacuated whole air Summa Canister. The sampling canister was connected to a flow control valve set to collect the 6-L sample over a period of 5 hours at a rate of less than 0.2 liter per minute. **Appendix C** provides a copy of the soil-vapor sampling log.

A portable monitoring device MGD-2002 Helium-Hydrogen Lead Detector; Model 83-219, was utilized to analyze a real time sample of soil vapor from the soil vapor sampling point for the tracer prior to purging and after sampling. No Helium (<0.01 ug/m³) was detected with the Helium-Hydrogen Lead Detector prior or after sampling.

Laboratory Analyticals

The samples were properly labelled and submitted to Phoenix Environmental Laboratories. The soil samples were analyzed for volatile organic compounds (VOCs) in accordance with



EPA Method 8260, semi-volatile organic compounds (SVOCs) in accordance with EPA Method 8270 and TAL metals in accordance with EPA Method 6010. The soil vapor samples were analyzed for VOCs via EPA Method TO-15.

Soil Results

The soil analytical results were compared to Unrestricted Use Soil Cleanup Objectives (SCOs), Restricted Residential SCOs and Restricted Commercial SCOs from 6 NYCRR Part 375. The tabulated soil results are included in **Table 1**. The concentrations reported in **Table 1** are in milligrams per kilogram (mg/kg).

As indicated in **Table 1**, acetone was detected at a concentration of 0.097 mg/kg in the shallow sample from SP-1 at a concentration exceeding its respective Unrestricted Use SCO. Acetone is commonly known as a laboratory contaminant and its exceedance should not be indicative of a release. No other VOCs were detected at any samples at concentrations exceeding their respective UUSCOs.

SVOCs including benzo(a)anthracene (max. 1.8 mg/kg), benzo(a)pyrene (max. 1.6 mg/kg), benzo(b)fluoranthene (max. 1.6 mg/kg), benzo(k)fluoranthene (max. 1.4 mg/kg) and chrysene (max. 1.9 mg/kg) were detected in the shallow sample from SP-3 and the deep sample from SP-5 at concentrations exceeding their respective Unrestricted Use SCOs. Among these compounds, the concentrations of benzo(a)anthracene and benzo(b)fluoranthene also exceed their respective Restricted Residential SCOs and the concentrations of benzo(a)pyrene also exceeds its Restricted Commercial SCO.

Dibenzofuran (2.5 mg/kg) was detected at a concentration exceeding its respective Unrestricted Use SCO in the deep sample from SP-2. Indeno(1,2,3-cd)pyrene was detected at concentrations exceeding its Restricted Residential SCO in the shallow samples from SP-3, SP-7, SP-8 and SP-9 and the deep sample from SP-5, with a maximum concentration of 1.4 mg/kg. No other SVOCs were detected at concentrations exceeding their respective Unrestricted Use SCOs.

Metals including chromium (30.7 mg/kg), copper (max. 93.9 mg/kg), lead (max. 327 mg/kg), mercury (max. 0.22 mg/kg), nickel (31.7 mg/kg) and zinc (max. 558 mg/kg) were detected in seven shallow samples and three deep samples at concentrations exceeding their respective Unrestricted Use SCOs. Barium (max. 789 mg/kg) was detected in the deep sample from SP-5 and the shallow sample from SP-7 at a concentrations exceeding its respective Restricted Commercial SCO.

The detected SVOCs are typically classified as Polycyclic Aromatic Hydrocarbons (PAHs). These PAHs and metals are typically related to the presence of historic fill materials, which



is consistent with the soil screening results, during which fill material was noted in the soil samples.

Soil Vapor Results

Table 2 provides the EPA Method TO-15 results of the soil vapor samples from SV-1 through SV-4. **Table 3** provides a comparison to the NYSDOH Soil Vapor Decision Matrices. The concentrations reported in **Table 2** and **3** are in microgram per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 2 indicates both petroleum-range VOCs and chlorinated-range VOCs were detected in the soil vapor samples. The total concentrations of VOCs range from $205.79 \mu\text{g}/\text{m}^3$ in SV-3 to $65.02 \mu\text{g}/\text{m}^3$ in SV-2. Chlorinated-range VOCs include 1,3-dichlorobenzene (max. $1.47 \mu\text{g}/\text{m}^3$), carbon tetrachloride (max. $0.41 \mu\text{g}/\text{m}^3$), chloroform (max. $28.2 \mu\text{g}/\text{m}^3$), dichlorodifluoromethane (max. $3.66 \mu\text{g}/\text{m}^3$), tetrachloroethene (PCE) (max. $4.98 \mu\text{g}/\text{m}^3$) and trichlorofluoromethane (freon 11) (max. $127 \mu\text{g}/\text{m}^3$) were detected individually or collectively in the soil vapor samples. Based upon further comparison to NYSDOH, neither the concentrations of carbon tetrachloride nor PCE requires further action.

The petroleum-range VOCs include BTEX compounds (benzene, toluene, ethylbenzene, m,p-xylenes and o-xylenes) and their derivatives. The total BTEX concentrations range from $22.9 \mu\text{g}/\text{m}^3$ in SV-4 to $10.53 \mu\text{g}/\text{m}^3$ in SV-2.

The laboratory reports for the soil and soil vapor analyses are included in **Appendix D**.

Project Summary

Based upon the results presented above, there are clear impacts detected during the investigation that would make the Site eligible for the NYS Brownfield Cleanup Program. These impacts include historic fill consisting of SVOCs and metals in shallow soil in the northern, eastern and southeast portions of the Site and deeper soil beneath the eastern portion of the Site. While not present at concentrations indicating mitigation is required, soil vapor beneath the Site is impacted with both petroleum-range VOCs and chlorinated-range VOCs.

Once accepted into the Program, the Site will require additional investigation to fully comply with general DER-10 requirements. This investigation would require additional soil and soil vapor testing, and if present above bedrock, the general characterization of groundwater.

We hope this information has proven valuable to this phase of your project. Should you have any questions, please feel free to contact our office at your convenience.



2468 Tiebout Avenue, Bronx, New York
Focused Subsurface Investigation
December 9, 2019

Very Truly Yours,
HydroTech Environmental Engineering and Geology, Corp.

A blue ink signature, likely of Ruijie Xu, consisting of stylized initials and a surname.

Ruijie Xu
Project Manager

A blue ink signature, likely of Mark E. Robbins, consisting of a first name, middle initial, and surname.

Mark E. Robbins, PG
Vice President

RX:MER/as
Enc.

cc: HTE File No. 190107 w/ Enc.

Figures:

- Figure 1 – Site and Sampling Plan
- Figure 2 – Map of VOCs, SVOCs and Metals in Soil
- Figure 3 – Map of VOCs in Soil Vapor

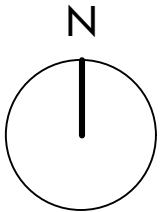
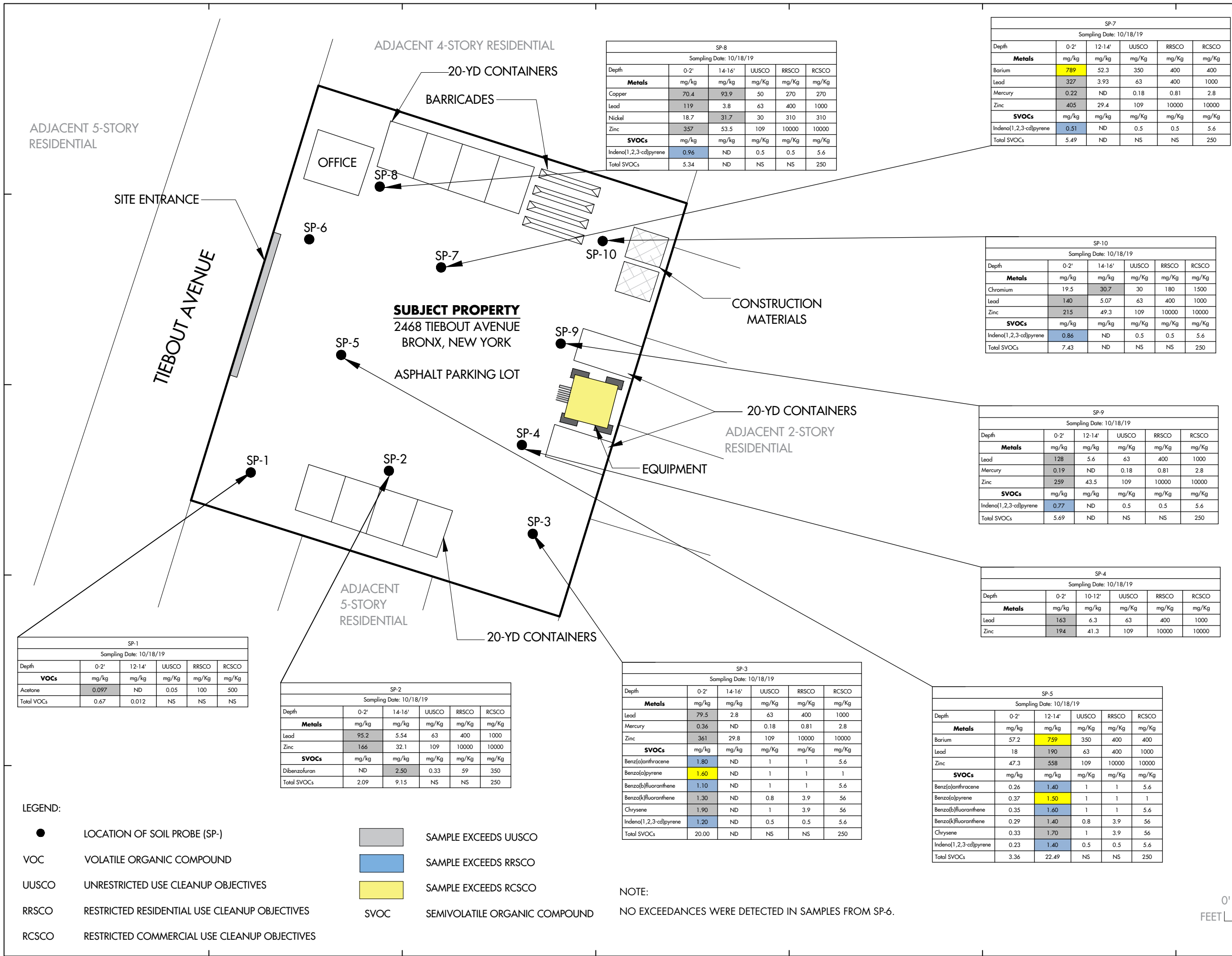
Tables:

- Table 1 – Soil Sample Analytical Results for VOCs, SVOCs and Metals
- Table 2 – Vapor Sample Analytical Results for VOCs
- Table 3 – NYSDOH Soil Vapor Decision Matrices

Appendices:

- Appendix A – Photos
- Appendix B – Soil Boring Logs
- Appendix C – Air Sampling Log
- Appendix D – Laboratory Report

FIGURES



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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

2468 TIEBOUT AVENUE
BRONX, NEW YORK

PROJECT FIGURE

FIGURE 2: MAP OF VOCs, SVOCs AND METALS
IN SOIL

PROJECT NO.
190107

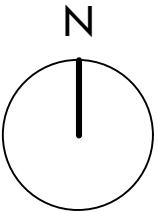
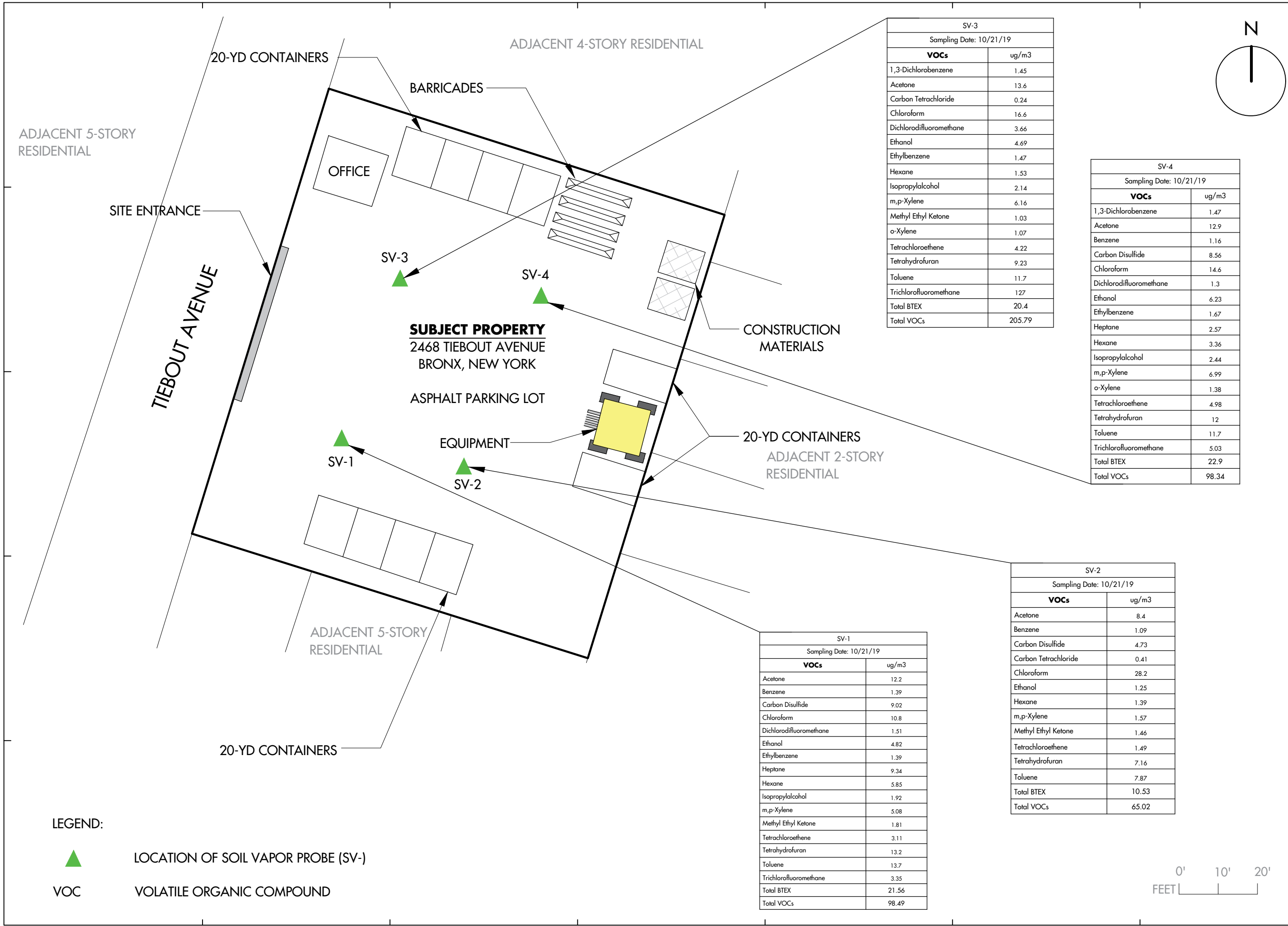
DATE
10/30/19

DRAWN BY
G.T.

REVIEWED BY
R.X.

SCALE (11X17)
AS NOTED

APPROVED BY
T.K.



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BRONX, NEW YORK

PROJECT FIGURE

FIGURE 3: MAP OF VOCs IN SOIL VAPOR

PROJECT NO. 190107	DATE 10/30/19
DRAWN BY G.T.	REVIEWED BY R.X.
SCALE (11X17) AS NOTED	APPROVED BY T.K.

TABLES

Table 1
Soil Samples Analytical Results for VOCs
2468 Tiebout Avenue, Bronx, NY

Sample ID	SP-1 (0-2)		SP-1 (12-14)		SP-2 (0-2)		SP-2 (14-16)		SP-3 (0-2)		SP-3 (14-16)		SP-4 (0-2)		SP-4 (10-12)		SP-5 (0-2)		SP-5 (12-14)		SP-6 (0-2)		SP-6 (14-16)		SP-7 (0-2)		SP-7 (12-14)		SP-8 (0-2)		SP-8 (14-16)		SP-9 (0-2)		SP-9 (12-14)		SP-10 (0-2)		SP-10 (14-16)		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Commercial		
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil								
Compound	Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result						
Units	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/Kg	mg/Kg	mg/Kg		
1,1,1,2-Tetrachloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,1,1-Trichloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	0.68	100	500		
1,1,2,2-Tetrachloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,1,2-Trichloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,1-Dichloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.27	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	0.27	26	240		
1,1-Dichloroethene	<0.0063	U	<0.0045	U	<0.0052	U	<0.33	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	0.33	100	500		
1,2-Dichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2,3-Trichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2,3-Trichloropropane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2,4-Trichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2,4-Trichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2,4-Trimethylbenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	3.6	52	190		
1,2-Dibromo-3-chloropropane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2-Dibromomethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,2-Dichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	1.1	100	500		
1,2-Dichloroethane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	0.02	3.1	30		
1,2-Dichloropropane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,3,5-Trimethylbenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	8.4	52	190		
1,3-Dichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	2.4	49	280		
1,3-Dichloropropane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
1,4-Dichlorobenzene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	1.8	100	500		
2,2-Dichloropropane	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0064	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
2-Chlorotoluene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
2-Hexanone	<0.032	U	<0.023	U	<0.026	U	<2.6	U	<0.031	U	<0.025	U	<0.025	U	<0.028	U	<0.024	U	<0.031	U	<0.027	U	<0.024	U	<0.027	U	<0.032	U	<0.021	U	<0.028	U	<0.023	U	<0.028	U	<0.023	U	<0.031	U	<0.025	U	NS	NS	NS
2-Isopropyltoluene	<0.0063	U	<0.0045	U	<0.0052	U	0.82		<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
4-Chlorotoluene	<0.0063	U	<0.0045	U	<0.0052	U	<0.53	U	<0.0061	U	<0.005	U	<0.0049	U	<0.0055	U	<0.0054	U	<0.0047	U	<0.0063	U	<0.0047	U	<0.0055	U	<0.0045	U	<0.0061	U	<0.0043	U	<0.0055	U	<0.0047	U	<0.0061	U	<0.0049	U	NS	NS	NS		
4-Methyl-2-pentanone	<0.032	U	<0.023	U	<0.026	U	<2.6	U	<0.031	U	<0.025	U	<0.025	U	<0.028	U	<0.024	U	<0.031	U	<0.027	U	<0.024	U	<0.027	U	<0.032	U	<0.021	U	<0.028	U	<0.023	U	<0.028	U	<0.023	U	<0.031	U	<0.025	U	NS	NS	NS
Acetone	0.097	S	<0.023	U																																									

NOTES:

Q is the Qualifier Column with definitions as follows:

U=analyte not detected at or above the level indicated

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

NS=this indicates that no regulatory limit has been established for this analyte

= sample exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives

Table 1 Cont'd
Soil Samples Analytical Results for SVOCs
2468 Tiebout Avenue, Bronx, NY

Sample ID	SP-1 (0-2)		SP-1 (12-14)		SP-2 (0-2)		SP-2 (14-16)		SP-3 (0-2)		SP-3 (14-16)		SP-4 (0-2)		SP-4 (10-12)		SP-5 (0-2)		SP-5 (12-14)		SP-6 (0-2)		SP-6 (14-16)		SP-7 (0-2)		SP-7 (12-14)		SP-8 (0-2)		SP-8 (14-16)		SP-9 (0-2)		SP-9 (12-14)		SP-10 (0-2)		SP-10 (14-16)		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Commercial		
Sampling Date	10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019		10/18/2019								
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil								
Compound	Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result		Result										
Units	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/Kg		mg/Kg				
1,2-Dichlorobenzene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 1.1	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	1.1		100		500
1,2-Diphenylhydrazine	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
1,3-Dichlorobenzene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	2.4		49		280
1,4-Dichlorobenzene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 1.8	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	1.8		13		130
2,4-Dinitrotoluene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
2,6-Dinitrotoluene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
2-Chloronaphthalene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
2-Methylnaphthalene	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	0.61		< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
2-Nitroaniline	< 0.99	U	< 1.1	U	< 0.98	U	< 1.1	U	< 10	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1.1	U	< 1.2	U	NS		NS		
3,3'-Dichlorobenzidine	< 1.4	U	< 1.5	U	< 1.3	U	< 1.6	U	< 14	U	< 1.5	U	< 1.5	U	< 1.6	U	< 1.4	U	< 1.5	U	< 1.4	U	< 1.5	U	< 1.5	U	< 1.5	U	< 1.4	U	< 1.5	U	< 1.5	U	< 1.6	U	< 1.5	U	< 1.6	U	NS		NS		
3-Nitroaniline	< 0.99	U	< 1.1	U	< 0.98	U	< 1.1	U	< 10	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1.1	U	< 1.2	U	NS		NS				
4-Bromophenyl phenyl ether	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
4-Chloroaniline	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
4-Chlorophenyl phenyl ether	< 0.24	U	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	NS		NS		
4-Nitroaniline	< 0.99	U	< 1.1	U	< 0.98	U	< 1.1	U	< 10	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1.1	U	< 1	U	< 1.1	U	< 1.1	U	< 1.2	U	< 1.1	U	< 1.2	U	NS		NS		
Acenaphthene	< 0.24	U	< 0.26	U	< 0.24	U	1.60		< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	< 0.27	U	< 0.24	U	< 0.26	U	< 0.27	U	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.26	U	< 0.29	U	20		100		500
Acenaphthylene	0.13	J	< 0.26	U	< 0.24	U	< 0.27	U	< 2.5	U	< 0.26	U	0.11	J	< 0.28	U	0.12	J	0.72		< 0.24	U	< 0.26	U	0.23	J	< 0.27	U	0.11	J	< 0.26	U	0.23	J	< 0.28	U	0.35		< 0.29	U	100		100		500
Anthracene	< 0.24	U	< 0.26	U	< 0.24	U	0.84		< 2.5	U	< 0.26	U	< 0.26	U	< 0.28	U	< 0.24	U	0.41		< 0.24	U	< 0.26	U	0.14	J	< 0.27	U	< 0.25	U	< 0.26	U	< 0.26	U	< 0.28	U	0.18	J	< 0.29	U	100		100		500
Benz(a)anthracene	0.13	J	< 0.26	U	0.18	J	< 0.27	U	1.80		< 0.26	U	0.28		< 0.28	U	0.26		1.40		< 0.26	U	0.38		< 0.27	U	0.27		< 0.26	U	0.37		< 0.28	U	0.46		< 0.29	U	1		1		5.6		
Benzo(a)pyrene	< 0.34	U	< 0.38	U	< 0.34	U	< 0.39	U	< 3.6	U	< 0.38	U	< 0.37	U	< 0.4	U	< 0.35	U	< 0.39	U	< 0.38	U	< 0.39	U	< 0.38	U	< 0.38	U	< 0.36	U	< 0.38	U	< 0.37	U	< 0.4	U	< 0.38	U	< 0.41	U	NS		NS		
Benzo(b)fluoranthene	0.17	J	< 0.26	U	0.19	J	< 0.27	U	1.60		< 0.26	U	0.33		< 0.28	U	0.37		1.50		< 0.26	U	0.51		< 0.27	U	0.48		< 0.26	U	0.53		< 0.28	U	0.65		< 0.29	U	1		1		5.6		
Benzo(k)fluoranthene	0.15	J	< 0.26	U	0.17	J	< 0.27	U	1.10		< 0.26	U	0.31		< 0.28	U	0.35		1.60		< 0.26	U	0.46		< 0.27	U	0.37		< 0.26	U	0.51		< 0.28	U	0.62		< 0.29	U	1		1		5.6		
Benzo(g)herylene	0.22	J	< 0.26	U	0.18	J	< 0.27	U	< 2.5	U	< 0.26	U	0.26	J	< 0.28	U	0.22	J	1.40		< 0.26	U	0.51		< 0.27	U	0.76		< 0.26	U	0.70		< 0.28	U	0.85		< 0.29	U	100		100		500		
Benzo(k)fluoranthene	0.15	J	< 0.26	U	0.14	J	< 0.27	U	1.30		< 0.26	U	0.28		< 0.28	U	0.29	J	1.40		< 0.26	U	0.43		< 0.27	U	0.31		< 0.26	U	0.38		< 0.28	U	0.53		< 0.29	U	0.8		3.9				

Table 1 Cont'd
Soil Samples Analytical Results for Metals
2468 Creston Avenue, Bronx, NY

[illegible]

Q is the Qualifier Column with definitions as follows:
 U=analyte not detected at or above the level indicated
 J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

NS=this indicates that no regulatory limit has been established for this analyte

	= sample exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
	= sample exceeds NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Commercial

Table 2
Vapor Sample Analytical Results for VOCs
2468 Tiebout Avenue, Bronx

Sample ID	SV-1		SV-2		SV-3		SV-4	
Sampling Date	10/21/2019		10/21/2019		10/21/2019		10/21/2019	
Client Matrix	Air		Air		Air		Air	
Compound	Result		Result		Result		Result	
Units	ug/m3	Q	ug/m3	Q	ug/m3	Q	ug/m3	Q
1,1,1,2-Tetrachloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,1,1-Trichloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,1,2,2-Tetrachloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,1,2-Trichloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,1-Dichloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,1-Dichloroethene	<0.20	U	<0.20	U	<0.20	U	<0.20	U
1,2,4-Trichlorobenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2,4-Trimethylbenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2-Dibromoethane(EDB)	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2-Dichlorobenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2-Dichloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2-dichloropropane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,2-Dichlorotetrafluoroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,3,5-Trimethylbenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,3-Butadiene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,3-Dichlorobenzene	<1.00	U	<1.00	U	1.45		1.47	
1,4-Dichlorobenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
1,4-Dioxane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
2-Hexanone(MBK)	<1.00	U	<1.00	U	<1.00	U	<1.00	U
4-Ethyltoluene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
4-Isopropyltoluene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
4-Methyl-2-pentanone(MIBK)	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Acetone	12.2		8.4		13.6		12.9	
Acrylonitrile	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Benzene	1.39		1.09		<1.00	U	1.16	
Benzyl chloride	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Bromodichloromethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Bromoform	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Bromomethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Carbon Disulfide	9.02		4.73		<1.00	U	8.56	
Carbon Tetrachloride	<0.20	U	0.41		0.24		<0.20	U
Chlorobenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Chloroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Chloroform	10.8		28.2		16.6		14.6	
Chloromethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Cis-1,2-Dichloroethene	<0.20	U	<0.20	U	<0.20	U	<0.20	U
cis-1,3-Dichloropropene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Cyclohexane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Dibromochloromethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Dichlorodifluoromethane	1.51		<1.00	U	3.66		1.3	
Ethanol	4.82		1.25		4.69		6.23	
Ethyl acetate	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Ethylbenzene	1.39		<1.00	U	1.47		1.67	
Heptane	9.34		<1.00	U	<1.00	U	2.57	
Hexachlorobutadiene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Hexane	5.85		1.39		1.53		3.36	
Isopropylalcohol	1.92		<1.00	U	2.14		2.44	
Isopropylbenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
m,p-Xylene	5.08		1.57		6.16		6.99	
Methyl Ethyl Ketone	1.81		1.46		1.03		<1.00	U
Methyl tert-butyl ether(MTBE)	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Methylene Chloride	<3.00	U	<3.00	U	<3.00	U	<3.00	U
n-Butylbenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
o-Xylene	<1.00	U	<1.00	U	1.07		1.38	
Propylene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
sec-Butylbenzene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Styrene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Tetrachloroethene	3.11		1.49		4.22		4.98	
Tetrahydrofuran	13.2		7.16		9.23		12	
Toluene	13.7		7.87		11.7		11.7	
Trans-1,2-Dichloroethene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
trans-1,3-Dichloropropene	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Trichloroethene	<0.20	U	<0.20	U	<0.20	U	<0.20	U
Trichlorofluoromethane	3.35		<1.00	U	127		5.03	
Trichlorotrifluoroethane	<1.00	U	<1.00	U	<1.00	U	<1.00	U
Vinyl Chloride	<0.20	U	<0.20	U	<0.20	U	<0.20	U
Total BTEX	21.56		10.53		20.4		22.9	
Total VOCs	98.49		65.02		205.79		98.34	

NOTES:

Q is the Qualifier Column with definitions as follows:

U=analyte not detected at or above the level indicated

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

NS=this indicates that no regulatory limit has been established for this analyte

Table 3
NYSDOH Soil Vapor Decision Matrices
2468 Tiebout Avenue, Bronx, NY

Sample ID	Sample Type	Matrix A				Matrix B			Matrix C	NYSDOH Decision Matrices ⁽²⁾
		1,1-Dichloroethene	Carbon Tetrachloride	cis-1,2-dichloroethene	Trichloroethene	1,1,1-Trichloroethane	Methylene Chloride	Tetrachloroethene	Vinyl Chloride	
SV-1	Soil Vapor	<0.20	<0.20	<0.20	<0.20	<1.00	<3.00	3.11	<0.20	No Further Action ⁽³⁾
SV-2	Soil Vapor	<0.20	0.41	<0.20	<0.20	<1.00	<3.00	1.49	<0.20	No Further Action ⁽³⁾
SV-3	Soil Vapor	<0.20	0.24	<0.20	<0.20	<1.00	<3.00	4.22	<0.20	No Further Action ⁽³⁾
SV-4	Soil Vapor	<0.20	<0.20	<0.20	<0.20	<1.00	<3.00	4.98	<0.20	No Further Action ⁽³⁾

NOTES:

(1) All the concentrations are reported in microgram per cubic meter (ug/m³)

(2)The NYSDOH Decision Matrices are the May 2017 version. The concentration of each compound in each vapor sample may trigger different levels of actions and the action with the highest level will be listed as recommended by NYSDOH.

(3) No further action is recommended to address human exposure.

APPENDIX A: PHOTOS



Ground Surface



Empty Containers on Site



Sidewalk outside the Site - 1



Sidewalk outside the Site - 2



GPR Survey



Installing Soil Probe



Typical Soil Sleeve



Soil Vapor Probe Secured with Manhole Cover



Helium Test



Typical Soil Vapor Sampling



Waste Drum

APPENDIX B: SOIL BORING LOGS



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-1	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, coarse dark brown sand with stones. No odor.
-2	0.0	SP	Fine light brown sand with stones. No odor.
-4	0.0	SP	Clayey light brown sand. No odor.
-6	0.0	SP	Clayey light brown sand. No odor.
-8	0.0	SP	Clayey light brown sand. No odor.
-10	0.0	SP	Fine light brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	0.0	SP	Clayey light brown sand. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-2	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt/concrete cover, fine dark brown sand. No odor.
-2	0.0	SP	Bricks with light brown sand. No odor
-4	0.0	SP	Concrete with fine light brown sand. No odor.
-6	0.0	SP	Clayey medium brown sand. No odor.
-8	0.0	SP	Clayey medium brown sand with quartz. No odor.
-10	0.0	SP	Clayey medium brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	44.7	SP	Clayey medium brown sand. Moist. Light odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-3	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine light brown sand with stones. No odor.
-2	0.0	SP	Bricks with fine dark brown sand. No odor.
-4	0.0	SP	Bricks with fine dark brown sand. No odor.
-6	0.0	SP	Fine light brown sand. No odor.
-8	0.0	SP	Clayey light brown sand. No odor.
-10	0.0	SP	Fine dark and light brown sand. No odor.
-12	0.0	SP	Fine light brown sand. No odor.
-14	0.0	SP	Fine light brown sand. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-4	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand with stones. No odor.
-2	0.0	SP	Bricks with fine light brown sand, quartz. No odor.
-4	0.0	SP	Fine dark brown sand with stones. No odor.
-6	0.0	SP	Clayey light brown sand. No odor.
-8	0.0	SP	Clayey light brown sand. No odor.
-10	0.0	SP	Clayey light brown sand. Moist. No odor.
-12	0.0	SP	Clayey medium brown sand. Wet. No odor.
-14	0.0	SP	Clayey medium brown sand. Wet. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-5	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine light brown sand with stones. No odor.
-2	0.0	SP	Bricks with fine light brown sand. No odor.
-4	0.0	SP	Bricks with fine dark brown sand. No odor.
-6	0.0	SP	Concrete with coarse dark brown sand. No odor.
-8	0.0	SP	Clayey light brown sand. No odor.
-10	3.3	SP	Clayey light brown sand. Light odor.
-12	4.7	SP	Fine reddish brown sand. Light odor.
-14	0.0	SP	Fine light brown sand. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-6	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand with stones. No odor.
-2	0.0	SP	Bricks with fine dark brown sand. No odor.
-4	0.0	SP	Bricks with fine dark brown sand. No odor.
-6	0.0	SP	Concrete with fine dark brown sand. No odor.
-8	0.0	SP	Clayey dark brown sand. No odor.
-10	0.0	SP	Clayey medium brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	0.0	SP	Clayey medium brown sand. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-7	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand with stones. No odor.
-2	0.0	SP	Bricks and stones with fine dark brown sand. No odor.
-4	0.0	SP	Concrete and stones with fine dark brown sand. No odor.
-6	0.0	SP	Fine dark brown sand with stones. No odor.
-8	0.0	SP	Clayey dark brown sand. No odor.
-10	0.0	SP	Clayey dark brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	0.0	SP	Fine reddish brown sand. Moist. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-8	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand. No odor.
-2	0.0	SP	Bricks with fine light brown sand. No odor.
-4	0.0	SP	Bricks with fine light brown sand. No odor.
-6	0.0	SP	Fine light brown sand with stones. No odor.
-8	0.0	SP	Fine light brown sand with stones. No odor.
-10	0.0	SP	Clayey light brown sand. No odor.
-12	0.0	SP	Fine reddish brown sand. Moist. No odor.
-14	0.0	SP	Fine reddish brown sand. Moist. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-9	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand with stones. No odor.
-2	0.0	SP	Bricks and stones with fine dark brown sand. No odor.
-4	0.0	SP	Bricks and stones with fine dark brown sand. No odor.
-6	0.0	SP	Bricks with fine dark brown sand. No odor.
-8	0.0	SP	Clayey dark brown sand. No odor.
-10	0.0	SP	Clayey dark brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	0.0	SP	Clayey medium brown sand. Moist. No odor.
-16			



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Soil Probe Log

Job No:	190107	Date:	10/18/2019	Page:	1 of 1
Location:	2468 Tiebout Avenue	Sampling Interval:	2 ft		
	Bronx, NY	Sampling Method:	Grab		
Boring No.:	SP-10	Driller:	Enviro Drilling		
Drilling Method:	Direct Push	Depth to Water:	N/A		
Total Depth:	16 ft				

USCS SYMBOLS

GW - Well Graded Gravel	SW - Well Graded Sand	ML - Inorganic Silt / Sandy Silt	CH - Inorganic Clay, High Plastic
GP - Poorly Graded Gravel	SP - Poorly Graded Sand	CL - Inorganic Clays/Sandy Clay	OH - Organic Silt / Clay
GM - Silty Gravel	SM - Silty Sand	OL - Inorganic Silts/Organic Silty Clay	PT - Peat/High Organics
GC - Clayey Gravel	SC - Clayey Sand	MH - Elastic Silts	

Depth Below Grade and Lithology	PID Reading (ppm)	USCS	Soil Description
0	0.0	SP	Asphalt cover, fine dark brown sand with stones. No odor.
-2	0.0	SP	Concrete and stones with fine dark brown sand. No odor.
-4	0.0	SP	Fine dark brown sand with stones. No odor.
-6	0.0	SP	Clayey dark brown sand. No odor.
-8	0.0	SP	Clayey dark brown sand. No odor.
-10	0.0	SP	Clayey dark brown sand. No odor.
-12	0.0	SP	Clayey medium brown sand. No odor.
-14	0.0	SP	Clayey medium brown sand and loose reddish brown sand. No odor.
-16			

ATTACHMENT C: AIR SAMPLING LOG

~~SV~~ Original canister & flow controller for SV-2 didn't work, so the sample was recollected w/ new summa & flow controller.

ATTACHMENT D: LABORATORY REPORT



Friday, October 25, 2019

Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Project ID: 190107-2468 TIEBOUT AVE., BX
SDG ID: GCE44287
Sample ID#s: CE44287 - CE44306

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

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

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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

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

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis/Shiller

Laboratory Director

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

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



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



SDG Comments

October 25, 2019

SDG I.D.: GCE44287

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.



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Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

October 25, 2019

SDG I.D.: GCE44287

Project ID: 190107-2468 TIEBOUT AVE., BX

Client Id	Lab Id	Matrix
SP-1 (0-2)	CE44287	SOIL
SP-1 (12-14)	CE44288	SOIL
SP-2 (0-2)	CE44289	SOIL
SP-2 (14-16)	CE44290	SOIL
SP-3 (0-2)	CE44291	SOIL
SP-3 (14-16)	CE44292	SOIL
SP-4 (0-2)	CE44293	SOIL
SP-4 (10-12)	CE44294	SOIL
SP-5 (0-2)	CE44295	SOIL
SP-5 (12-14)	CE44296	SOIL
SP-6 (0-2)	CE44297	SOIL
SP-6 (14-16)	CE44298	SOIL
SP-7 (0-2)	CE44299	SOIL
SP-7 (12-14)	CE44300	SOIL
SP-8 (0-2)	CE44301	SOIL
SP-8 (14-16)	CE44302	SOIL
SP-9 (0-2)	CE44303	SOIL
SP-9 (12-14)	CE44304	SOIL
SP-10 (0-2)	CE44305	SOIL
SP-10 (14-16)	CE44306	SOIL



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19
10/21/19

Time

13:10
13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44287

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-1 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	4670	52	7.0	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.5	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.03	0.70	0.70	mg/Kg	1	10/22/19	TH	SW6010D
Barium	55.2	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.22	0.28	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	89700	52	32	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	ND	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	9.06	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	4.87	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Copper	36.6	0.7	0.35	mg/kg	1	10/22/19	TH	SW6010D
Iron	12700	52	35	mg/Kg	10	10/22/19	TH	SW6010D
Lead	28.4	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	48900	52	35	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	169	3.5	3.5	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.12	0.06	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	9.86	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1870	5.2	2.7	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	700	5.2	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.1	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	48.3	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	53.2	0.7	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	97			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.032	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.032	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	0.097	S 0.032	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.013	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0063	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	0.25	J 0.74	0.15	mg/Kg	50	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.032	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.013	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.013	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.013	0.0032	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	0.077	J 0.7	0.074	mg/Kg	50	10/22/19	JLI	SW8260C
Total Xylenes	0.25	0.0063	0.0063	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.013	0.0032	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0063	0.0013	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0063	0.00063	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	95			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	102			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	102			%	1	10/22/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	100			%	50	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	98			%	50	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	94			%	50	10/22/19	JLI	70 - 130 %
% Toluene-d8 (50x)	104			%	50	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.24	0.17	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.24	0.14	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	0.99	0.34	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.4	0.16	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	0.99	0.68	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.24	0.16	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	0.99	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acenaphthylene	0.13	J 0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.13	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.34	0.2	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(a)pyrene	0.17	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.15	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.22	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.15	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.68	0.68	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.24	0.089	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.11	J 0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.21	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.24	0.089	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.24	0.089	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.19	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.15	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.24	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	0.11	J 0.24	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.2	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	48			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	61			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	45			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

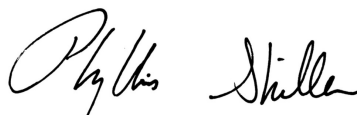
Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

S - Laboratory solvent, contamination is possible.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19
10/21/19

Time

13:15
13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44288

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-1 (12-14)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	9260	57	7.7	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.8	3.8	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.22	0.77	0.77	mg/Kg	1	10/22/19	TH	SW6010D
Barium	67.8	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.37	0.31	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	1710	5.7	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	22.2	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	8.36	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Copper	17.1	0.8	0.38	mg/kg	1	10/22/19	TH	SW6010D
Iron	14300	57	38	mg/Kg	10	10/22/19	TH	SW6010D
Lead	4.14	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	3210	5.7	3.8	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	172	3.8	3.8	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	17.7	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1780	5.7	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	324	5.7	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.4	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	24.3	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	31.2	0.8	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	87			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.023	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.023	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.0091	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0045	0.0018	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.023	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0091	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.0091	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.012	0.0091	0.0023	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0045	0.0045	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0091	0.0023	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	0.00091	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0045	0.00045	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	97			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	99			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	102			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.75	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.75	0.75	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	48			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	43			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	63			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 13:25
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44289

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-2 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	4880	53	7.0	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	8.3	3.5	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.73	0.70	0.70	mg/Kg	1	10/22/19	TH	SW6010D
Barium	162	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.34	0.28	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	78600	53	32	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.65	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	14.7	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	4.97	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Copper	26.2	0.7	0.35	mg/kg	1	10/22/19	TH	SW6010D
Iron	12800	53	35	mg/Kg	10	10/22/19	TH	SW6010D
Lead	95.2	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	37400	53	35	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	215	3.5	3.5	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.07	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	11.8	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1390	5.3	2.7	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	870	5.3	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.2	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	39.5	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	166	0.7	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	96			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.026	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.026	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.026	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.01	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0052	0.0021	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.026	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.01	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.01	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.018	0.01	0.0026	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0052	0.0052	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.01	0.0026	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0052	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0052	0.00052	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	98			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	95			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	103			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	102			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.24	0.17	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.24	0.13	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	0.98	0.34	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.3	0.16	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	0.98	0.67	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.24	0.15	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	0.98	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.18	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.34	0.2	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.19	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.17	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.18	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.14	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.67	0.67	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.24	0.088	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.2	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.24	0.088	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.24	0.088	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.36	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.14	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.24	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	0.18	J 0.24	0.094	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.35	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	57			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	64			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	55			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-2 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 13:30
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44290

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-2 (14-16)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	7660	58	7.7	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.9	3.9	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	ND	0.77	0.77	mg/Kg	1	10/22/19	TH	SW6010D
Barium	51.3	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.42	0.31	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	2640	5.8	3.6	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	19.3	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	8.00	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Copper	13.4	0.8	0.39	mg/kg	1	10/22/19	TH	SW6010D
Iron	13000	58	39	mg/Kg	10	10/22/19	TH	SW6010D
Lead	5.54	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	4660	5.8	3.9	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	178	3.9	3.9	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	15.8	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2440	5.8	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	265	5.8	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.5	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	20.5	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	32.1	0.8	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	85			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.27	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.33	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.053	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
2-Hexanone	ND	2.6	0.53	mg/Kg	50	10/23/19	JLI	SW8260C
2-Isopropyltoluene	0.82	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	2.6	0.53	mg/Kg	50	10/23/19	JLI	SW8260C
Acetone	ND	0.53	0.53	mg/Kg	50	10/23/19	JLI	SW8260C
Acrylonitrile	ND	1.1	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Benzene	ND	0.06	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Bromoform	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Bromomethane	ND	0.53	0.21	mg/Kg	50	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Chloroethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Chloroform	ND	0.37	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Chloromethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.25	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Ethylbenzene	0.16	J 0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Isopropylbenzene	0.39	J 0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.21	0.21	mg/Kg	50	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.93	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.21	0.21	mg/Kg	50	10/23/19	JLI	SW8260C
Naphthalene	0.46	J 0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
n-Propylbenzene	0.34	J 0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
o-Xylene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
sec-Butylbenzene	2.7	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Styrene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
tert-Butylbenzene	0.37	J 0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	1.1	0.26	mg/Kg	50	10/23/19	JLI	SW8260C
Toluene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.53	0.53	mg/Kg	50	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.19	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	1.1	0.26	mg/Kg	50	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.47	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.53	0.11	mg/Kg	50	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.53	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.053	0.053	mg/Kg	50	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4 (50x)	100			%	50	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	124			%	50	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	84			%	50	10/23/19	JLI	70 - 130 %
% Toluene-d8 (50x)	102			%	50	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.27	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.27	0.16	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.39	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.6	0.19	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.78	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.27	0.18	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	1.6	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	0.84	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benidine	ND	0.39	0.23	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.78	0.78	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	2.5	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.15	J 0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	3.7	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.36	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	66			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	60			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	66			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Volatile Comment:

Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 13:35
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44291

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-3 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	8060	52	6.9	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.4	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.47	0.69	0.69	mg/Kg	1	10/22/19	TH	SW6010D
Barium	257	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.31	0.28	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	67800	52	32	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.41	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	18.5	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	6.30	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Copper	26.9	0.7	0.34	mg/kg	1	10/22/19	TH	SW6010D
Iron	14200	52	34	mg/Kg	10	10/22/19	TH	SW6010D
Lead	79.5	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	27300	52	34	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	261	3.4	3.4	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.36	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	15.3	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2240	5.2	2.7	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	545	5.2	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.1	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	34.7	0.34	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	361	0.7	0.34	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	92			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.031	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.031	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.031	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.012	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0061	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C

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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.031	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.012	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.012	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.02	0.012	0.0031	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0061	0.0061	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.012	0.0031	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0061	0.0012	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0061	0.00061	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	98			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	98			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	104			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	1.1	1	mg/Kg	10	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	2.5	1.8	mg/Kg	10	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	1.1	mg/Kg	10	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	1.8	1.1	mg/Kg	10	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	2.5	1.4	mg/Kg	10	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
2-Nitroaniline	ND	10	3.6	mg/Kg	10	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	14	1.7	mg/Kg	10	10/22/19	WB	SW8270D
3-Nitroaniline	ND	10	7.2	mg/Kg	10	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
4-Chloroaniline	ND	2.5	1.7	mg/Kg	10	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
4-Nitroaniline	ND	10	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Acenaphthene	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
Acenaphthylene	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Anthracene	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Benz(a)anthracene	1.8	1	1	mg/Kg	10	10/22/19	WB	SW8270D
Benzidine	ND	3.6	2.1	mg/Kg	10	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	1.6	1	1	mg/Kg	10	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	1.1	1	1	mg/Kg	10	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	1.3	0.8	0.8	mg/Kg	10	10/22/19	WB	SW8270D
Benzoic acid	ND	7.2	7.2	mg/Kg	10	10/22/19	WB	SW8270D
Benzyl alcohol	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	2.5	0.94	mg/Kg	10	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Chrysene	1.9	1	1	mg/Kg	10	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.72	0.72	mg/Kg	10	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.72	0.72	mg/Kg	10	10/22/19	WB	SW8270D
Diethyl phthalate	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Dimethylphthalate	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	2.5	0.94	mg/Kg	10	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	2.5	0.94	mg/Kg	10	10/22/19	WB	SW8270D
Fluoranthene	3	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Fluorene	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	1.2	1.1	mg/Kg	10	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	2.5	1.3	mg/Kg	10	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
Hexachloroethane	ND	2.5	1.1	mg/Kg	10	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	1.2	0.72	0.72	mg/Kg	10	10/22/19	WB	SW8270D
Isophorone	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Naphthalene	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Nitrobenzene	ND	2.5	1.3	mg/Kg	10	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	2.5	1.4	mg/Kg	10	10/22/19	WB	SW8270D
Phenanthrene	4	2.5	1	mg/Kg	10	10/22/19	WB	SW8270D
Pyrene	4.1	2.5	1.2	mg/Kg	10	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl (10x)	Diluted Out			%	10	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out			%	10	10/22/19	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out			%	10	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Semi-Volatile Comment:

Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

Semi-Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 13:40
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44292

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-3 (14-16)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	7530	60	8.0	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	4.0	4.0	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	1.50	0.80	0.80	mg/Kg	1	10/22/19	TH	SW6010D
Barium	52.6	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.27	0.32	0.16	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	4560	6.0	3.7	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	28.0	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	7.19	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Copper	14.3	0.8	0.40	mg/kg	1	10/22/19	TH	SW6010D
Iron	14000	60	40	mg/Kg	10	10/22/19	TH	SW6010D
Lead	2.80	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	5500	6.0	4.0	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	164	4.0	4.0	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	15.5	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1700	6.0	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.6	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	444	6.0	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.6	1.6	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	34.1	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	29.8	0.8	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	88			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.025	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.025	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.025	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.01	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.005	0.002	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C

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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.01	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.01	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.016	0.01	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.005	0.005	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.01	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.005	0.001	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.005	0.0005	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	98			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	99			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	106			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.76	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.76	0.76	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	54			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	46			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	62			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19
10/21/19

Time

13:55
13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44293

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-4 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	11000	55	7.4	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.7	3.7	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.62	0.74	0.74	mg/Kg	1	10/22/19	TH	SW6010D
Barium	323	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.71	0.30	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	127000	550	340	mg/Kg	100	10/23/19	TH	SW6010D
Cadmium	0.52	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	14.9	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	6.18	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Copper	23.2	0.7	0.37	mg/kg	1	10/22/19	TH	SW6010D
Iron	12300	55	37	mg/Kg	10	10/22/19	TH	SW6010D
Lead	163	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	41400	55	37	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	330	3.7	3.7	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.12	0.07	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	13.0	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2010	5.5	2.9	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	1460	5.5	3.2	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.3	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	29.9	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	194	0.7	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	88			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.025	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.025	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.025	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.0099	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0049	0.002	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0099	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.0099	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.013	0.0099	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0049	0.0049	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0099	0.0025	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0049	0.00099	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0049	0.00049	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	98			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	101			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	103			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.37	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.74	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	0.11	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.28	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.37	0.21	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.33	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.31	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.26	J 0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.28	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.74	0.74	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.33	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.096	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.48	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.26	J 0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	0.24	J 0.26	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.47	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	48			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	46			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	53			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-4 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:00
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44294

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-4 (10-12)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	9120	59	7.9	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	4.0	4.0	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	5.22	0.79	0.79	mg/Kg	1	10/22/19	TH	SW6010D
Barium	69.0	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.51	0.32	0.16	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	2750	5.9	3.6	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	26.9	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	8.47	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Copper	21.2	0.8	0.40	mg/kg	1	10/22/19	TH	SW6010D
Iron	17700	59	40	mg/Kg	10	10/22/19	TH	SW6010D
Lead	6.30	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	4550	5.9	4.0	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	169	4.0	4.0	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.07	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	18.6	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2890	5.9	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.6	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	279	5.9	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.6	1.6	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	32.5	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	41.3	0.8	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	83			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.028	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.028	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.028	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.011	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0055	0.0022	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.028	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.011	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.017	0.011	0.0028	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0055	0.0055	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	0.0028	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0055	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0055	0.00055	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	98			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	99			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	103			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.28	0.2	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.28	0.16	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.2	0.4	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.6	0.19	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.2	0.8	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.28	0.18	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.2	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.4	0.23	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.8	0.8	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.28	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.28	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.28	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.28	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.28	0.13	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.28	0.15	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.28	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	ND	0.28	0.14	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	56			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	49			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	69			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

1

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:05
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44295

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-5 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	7290	55	7.4	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.7	3.7	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.78	0.74	0.74	mg/Kg	1	10/22/19	TH	SW6010D
Barium	57.2	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.25	0.30	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	66200	55	34	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	ND	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	16.2	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	7.23	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Copper	43.2	0.7	0.37	mg/kg	1	10/22/19	TH	SW6010D
Iron	14900	55	37	mg/Kg	10	10/22/19	TH	SW6010D
Lead	18.0	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	21600	55	37	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	166	3.7	3.7	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.07	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	16.0	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1840	5.5	2.9	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	970	5.5	3.2	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.3	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	52.7	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	47.3	0.7	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	94			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
2-Hexanone	ND	0.027	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.027	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
Acetone	ND	0.027	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
Acrylonitrile	ND	0.011	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Benzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Bromobenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Bromochloromethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Bromodichloromethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Bromoform	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Bromomethane	ND	0.0054	0.0022	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon Disulfide	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Chlorobenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Chloroform	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Chloromethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromochloromethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Dibromomethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Ethylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Isopropylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C

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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Methylene chloride	ND	0.011	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
Naphthalene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
n-Butylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
n-Propylbenzene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
o-Xylene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Styrene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrachloroethene	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.016	0.011	0.0027	mg/Kg	1	10/22/19	JLI	SW8260C
Toluene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Total Xylenes	ND	0.0054	0.0054	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	0.0027	mg/Kg	1	10/22/19	JLI	SW8260C
Trichloroethene	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0054	0.0011	mg/Kg	1	10/22/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
Vinyl chloride	ND	0.0054	0.00054	mg/Kg	1	10/22/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/22/19	JLI	70 - 130 %
% Bromofluorobenzene	98			%	1	10/22/19	JLI	70 - 130 %
% Dibromofluoromethane	102			%	1	10/22/19	JLI	70 - 130 %
% Toluene-d8	103			%	1	10/22/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.24	0.17	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.24	0.14	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1	0.35	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.4	0.17	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1	0.69	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.24	0.16	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	0.12	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.26	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.35	0.2	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.37	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.35	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.22	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.29	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.69	0.69	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.16	J 0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.33	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.42	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.23	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.24	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	0.19	J 0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.42	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	43			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	48			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	46			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-5 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date Time

10/18/19 14:10
10/21/19 13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44296

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-5 (12-14)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	7800	61	8.1	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	4.0	4.0	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	4.33	0.81	0.81	mg/Kg	1	10/22/19	TH	SW6010D
Barium	759	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.30	0.32	0.16	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	108000	61	37	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.78	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	18.6	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	5.08	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Copper	26.5	0.8	0.40	mg/kg	1	10/22/19	TH	SW6010D
Iron	12600	61	40	mg/Kg	10	10/22/19	TH	SW6010D
Lead	190	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	37100	61	40	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	376	4.0	4.0	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.16	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	11.0	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1550	6.1	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.6	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	1180	6.1	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.6	1.6	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	24.8	0.40	0.40	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	558	8.1	4.0	mg/Kg	10	10/22/19	TH	SW6010D
Percent Solid	86			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	0.0093	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	0.0056	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0094	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0047	0.0019	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	0.0011	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	0.00069	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	0.0043	J 0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0094	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0094	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	0.0045	J 0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	0.0007	J 0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	0.0012	J 0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	0.0042	J 0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	0.0011	J 0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	0.0013	J 0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.012	0.0094	0.0024	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	0.0007	J 0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	0.0085	0.0047	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0094	0.0024	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	101			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	91			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	101			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.27	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	0.61	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.39	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.19	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.77	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.27	0.18	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	0.72	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	0.41	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	1.4	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.39	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	1.5	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	1.6	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	1.4	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	1.4	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.77	0.77	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.18	J 0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	1.7	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	0.3	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	0.19	J 0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	3.2	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	0.22	J 0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	1.4	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	0.66	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	2.5	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	3.1	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	51			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	55			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	55			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date Time

10/18/19 14:20
10/21/19 13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44297

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-6 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	10000	57	7.6	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.8	3.8	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.23	0.76	0.76	mg/Kg	1	10/22/19	TH	SW6010D
Barium	117	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.36	0.30	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	59300	57	35	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	ND	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	20.4	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	7.98	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Copper	30.8	0.8	0.38	mg/kg	1	10/22/19	TH	SW6010D
Iron	16900	57	38	mg/Kg	10	10/22/19	TH	SW6010D
Lead	37.7	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	17100	57	38	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	196	3.8	3.8	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.07	0.04	mg/Kg	5	10/22/19	RS	SW7471B
Nickel	15.7	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	3860	57	30	mg/Kg	10	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	1870	5.7	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.4	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	35.9	0.38	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	88.6	0.8	0.38	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	94			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.031	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.031	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.031	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.013	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0063	0.0025	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.031	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.013	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.013	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.023	0.013	0.0031	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0063	0.0063	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.013	0.0031	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0063	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0063	0.00063	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	86			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	102			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	98			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.24	0.17	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.24	0.14	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1	0.35	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.4	0.17	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1	0.69	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.24	0.16	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.22	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.35	0.2	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.29	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.29	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.24	J 0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.23	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.69	0.69	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.17	J 0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.28	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.24	0.09	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.25	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.24	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.24	J 0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.24	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.24	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.24	0.097	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.26	0.24	0.12	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	51			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	57			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	54			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:25
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44298

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-6 (14-16)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	6560	56	7.5	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.7	3.7	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.68	0.75	0.75	mg/Kg	1	10/22/19	TH	SW6010D
Barium	53.1	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.34	0.30	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	1570	5.6	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	21.9	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	5.62	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Copper	14.7	0.7	0.37	mg/kg	1	10/22/19	TH	SW6010D
Iron	11800	56	37	mg/Kg	10	10/22/19	TH	SW6010D
Lead	6.76	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	2670	5.6	3.7	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	88.8	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	14.9	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1410	5.6	2.9	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	423	5.6	3.2	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.4	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	25.8	0.37	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	29.9	0.7	0.37	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	86			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0094	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0047	0.0019	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0094	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0094	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.02	0.0094	0.0024	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0047	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0094	0.0024	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	95			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	98			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	101			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.76	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.76	0.76	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.098	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.26	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	ND	0.26	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	48			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	45			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	64			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:30
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44299

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-7 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	8290	59	7.9	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.9	3.9	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	4.02	0.79	0.79	mg/Kg	1	10/22/19	TH	SW6010D
Barium	789	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.32	0.31	0.16	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	101000	59	36	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.63	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	19.9	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	5.97	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Copper	24.7	0.8	0.39	mg/kg	1	10/22/19	TH	SW6010D
Iron	11800	59	39	mg/Kg	10	10/22/19	TH	SW6010D
Lead	327	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	34400	59	39	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	355	3.9	3.9	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.22	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	13.0	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1890	5.9	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.6	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	985	5.9	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.5	1.6	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	29.3	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	405	0.8	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	86			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.027	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.027	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.027	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.011	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0055	0.0022	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.011	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.016	0.011	0.0027	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0055	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	0.0027	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	97			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	101			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	103			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.27	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.39	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.77	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.27	0.18	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	0.23	J 0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	0.14	J 0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	0.38	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.39	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.51	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	0.46	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	0.51	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	0.43	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.77	0.77	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.13	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	0.46	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.27	0.1	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	0.68	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.51	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	0.39	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	0.66	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	64			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	68			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	64			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-7 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:35
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44300

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-7 (12-14)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	6540	53	7.1	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.5	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.75	0.71	0.71	mg/Kg	1	10/22/19	TH	SW6010D
Barium	52.3	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.32	0.28	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	1640	5.3	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	21.9	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	5.42	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Copper	9.4	0.7	0.35	mg/kg	1	10/22/19	TH	SW6010D
Iron	11600	53	35	mg/Kg	10	10/22/19	TH	SW6010D
Lead	3.93	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	2830	5.3	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	97.8	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	14.3	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1410	5.3	2.8	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	173	5.3	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.2	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	25.1	0.35	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	29.4	0.7	0.35	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	87			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/21/19	RR/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.023	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.023	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0091	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0045	0.0018	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.023	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0091	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0091	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.016	0.0091	0.0023	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0045	0.0045	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0091	0.0023	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	0.00091	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0045	0.00045	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	100			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	95			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	103			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	102			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.27	0.19	mg/Kg	1	10/22/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
2-Chloronaphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Methylnaphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/22/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/22/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.76	mg/Kg	1	10/22/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
4-Chloroaniline	ND	0.27	0.18	mg/Kg	1	10/22/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Acenaphthylene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Anthracene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benz(a)anthracene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/22/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Benzoic acid	ND	0.76	0.76	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl alcohol	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.27	0.099	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Chrysene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dibenzofuran	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Diethyl phthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Dimethylphthalate	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-butylphthalate	ND	0.27	0.099	mg/Kg	1	10/22/19	WB	SW8270D
Di-n-octylphthalate	ND	0.27	0.099	mg/Kg	1	10/22/19	WB	SW8270D
Fluoranthene	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
Fluorene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobenzene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorobutadiene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Hexachloroethane	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
Isophorone	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Naphthalene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Nitrobenzene	ND	0.27	0.14	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.27	0.12	mg/Kg	1	10/22/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.27	0.15	mg/Kg	1	10/22/19	WB	SW8270D
Phenanthrene	ND	0.27	0.11	mg/Kg	1	10/22/19	WB	SW8270D
Pyrene	ND	0.27	0.13	mg/Kg	1	10/22/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	51			%	1	10/22/19	WB	30 - 130 %
% Nitrobenzene-d5	50			%	1	10/22/19	WB	30 - 130 %
% Terphenyl-d14	66			%	1	10/22/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:45
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44301

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-8 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	8010	58	7.7	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.9	3.9	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	3.14	0.77	0.77	mg/Kg	1	10/22/19	TH	SW6010D
Barium	215	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.49	0.31	0.15	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	80800	58	36	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.44	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	27.2	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	8.19	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Copper	70.4	0.8	0.39	mg/kg	1	10/22/19	TH	SW6010D
Iron	14900	58	39	mg/Kg	10	10/22/19	TH	SW6010D
Lead	119	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	26400	58	39	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	275	3.9	3.9	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.10	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	18.7	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2340	5.8	3.0	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.5	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	764	5.8	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.5	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	34.9	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	357	0.8	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	91			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	V/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.032	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.032	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.032	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.013	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0064	0.0026	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C

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B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.032	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.013	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.013	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.61	0.12	mg/Kg	50	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
Styrene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.61	0.061	mg/Kg	50	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.028	0.013	0.0032	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0064	0.0064	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	1.2	0.31	mg/Kg	50	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0064	0.0013	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0064	0.00064	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	102			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	83			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	103			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	97			%	1	10/23/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	99			%	50	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	99			%	50	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	88			%	50	10/23/19	JLI	70 - 130 %
% Toluene-d8 (50x)	101			%	50	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.25	0.18	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.25	0.14	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1	0.36	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.4	0.17	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1	0.72	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.25	0.17	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acenaphthylene	0.11	J 0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	0.27	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.36	0.21	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(a)pyrene	0.48	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	0.37	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	0.76	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	0.31	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.72	0.72	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.25	0.094	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.19	J 0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	0.3	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	0.21	J 0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.25	0.094	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.25	0.094	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	0.57	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.25	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.25	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.96	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.25	0.13	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.25	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	0.3	0.25	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	0.51	0.25	0.12	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	55			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	56			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	56			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

Volatile Comment:

There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 14:50
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44302

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-8 (14-16)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	7610	54	7.2	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.6	3.6	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.05	0.72	0.72	mg/Kg	1	10/22/19	TH	SW6010D
Barium	57.3	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.35	0.29	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	2220	5.4	3.3	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	0.39	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	26.3	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	9.40	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Copper	93.9	0.7	0.36	mg/kg	1	10/22/19	TH	SW6010D
Iron	12100	54	36	mg/Kg	10	10/22/19	TH	SW6010D
Lead	3.80	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	4400	5.4	3.6	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	132	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	31.7	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	1880	5.4	2.8	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	0.38	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	319	5.4	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.2	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	25.5	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	53.5	0.7	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	88			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	V/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.021	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.021	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0085	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0043	0.0017	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.021	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0085	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0085	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.013	0.0085	0.0021	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	0.00063	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0043	0.0043	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0085	0.0021	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0043	0.00085	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0043	0.00043	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	98			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	97			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	102			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	101			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.75	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthylene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.75	0.75	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	61			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	59			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	67			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date Time

10/18/19 15:00
10/21/19 13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44303

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-9 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	6660	54	7.2	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.6	3.6	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.78	0.72	0.72	mg/Kg	1	10/22/19	TH	SW6010D
Barium	313	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.25	0.29	0.14	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	67400	54	33	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.55	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	19.6	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	5.80	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Copper	28.4	0.7	0.36	mg/kg	1	10/22/19	TH	SW6010D
Iron	11800	54	36	mg/Kg	10	10/22/19	TH	SW6010D
Lead	128	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	26400	54	36	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	225	3.6	3.6	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.19	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	14.3	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2020	5.4	2.8	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.4	1.2	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	908	5.4	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.2	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	27.5	0.36	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	259	0.7	0.36	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	89			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	V/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.028	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.028	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.028	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.011	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0055	0.0022	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C

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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.028	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.011	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.022	0.011	0.0028	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	0.00073	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0055	0.0055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	0.0028	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0055	0.0011	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0055	0.00055	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	97			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	85			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	103			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	99			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.18	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.37	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.74	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthylene	0.23	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	0.37	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.37	0.21	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.53	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	0.51	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	0.7	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	0.38	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.74	0.74	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.096	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	0.12	J 0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	0.42	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	0.16	J 0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.096	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.096	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	0.64	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.77	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	0.24	J 0.26	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	0.62	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	52			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	55			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	51			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-9 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19
10/21/19

Time

15:05
13:36

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44304

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-9 (12-14)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	9300	62	8.3	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	4.1	4.1	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.32	0.83	0.83	mg/Kg	1	10/22/19	TH	SW6010D
Barium	75.5	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.49	0.33	0.17	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	4400	6.2	3.8	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	25.3	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	8.80	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Copper	19.5	0.8	0.41	mg/kg	1	10/22/19	TH	SW6010D
Iron	17700	62	41	mg/Kg	10	10/22/19	TH	SW6010D
Lead	5.60	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	6170	62	41	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	236	4.1	4.1	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	19.5	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2940	6.2	3.2	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.7	1.4	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	256	6.2	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.7	1.7	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	28.5	0.41	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	43.5	0.8	0.41	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	83			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	V/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.023	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.023	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0094	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0047	0.0019	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.023	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0094	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0094	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.016	0.0094	0.0023	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0047	0.0047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0094	0.0023	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0047	0.00094	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0047	0.00047	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	98			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	96			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	101			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	102			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.28	0.2	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.28	0.16	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1.2	0.4	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.6	0.19	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1.2	0.8	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.28	0.18	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1.2	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthylene	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.4	0.23	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.8	0.8	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.28	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.28	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.28	0.1	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.28	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.28	0.13	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.28	0.15	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	ND	0.28	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	ND	0.28	0.14	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	45			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	45			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	53			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 15:10
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44305

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-10 (0-2)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	8780	59	7.9	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	3.9	3.9	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	5.40	0.79	0.79	mg/Kg	1	10/22/19	TH	SW6010D
Barium	242	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.37	0.31	0.16	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	65800	59	36	mg/Kg	10	10/22/19	TH	SW6010D
Cadmium	0.67	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	19.5	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	6.87	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Copper	27.3	0.8	0.39	mg/kg	1	10/22/19	TH	SW6010D
Iron	14400	59	39	mg/Kg	10	10/22/19	TH	SW6010D
Lead	140	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	18700	59	39	mg/Kg	10	10/22/19	TH	SW6010D
Manganese	275	3.9	3.9	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	0.14	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	15.7	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	2000	5.9	3.1	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.6	1.3	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	459	5.9	3.4	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	3.5	1.6	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	32.7	0.39	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	215	0.8	0.39	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	87			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	V/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.031	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.031	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.031	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.012	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0061	0.0025	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C

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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.031	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.012	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.012	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.021	0.012	0.0031	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0061	0.0061	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.012	0.0031	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0061	0.0012	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0061	0.00062	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	99			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	86			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	104			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	97			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.26	0.19	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.26	0.15	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1.1	0.38	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.5	0.18	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1.1	0.75	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.26	0.17	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1.1	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthylene	0.35	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	0.18	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	0.46	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.38	0.22	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	0.65	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	0.62	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	0.85	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	0.53	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.75	0.75	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	0.55	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	0.18	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.26	0.098	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	0.88	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.86	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.26	0.12	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.26	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	0.44	0.26	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	0.88	0.26	0.13	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	62			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	62			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	64			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

Client ID: SP-10 (0-2)

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 25, 2019

FOR: Attn: Rujjie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: SOIL
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 52396

Custody Information

Collected by:
Received by: LB
Analyzed by: see "By" below

Date

10/18/19 15:15
10/21/19 13:36

Time

Laboratory Data

SDG ID: GCE44287
Phoenix ID: CE44306

Project ID: 190107-2468 TIEBOUT AVE., BX
Client ID: SP-10 (14-16)

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aluminum	11100	67	8.9	mg/Kg	10	10/22/19	TH	SW6010D
Antimony	ND	4.5	4.5	mg/Kg	1	10/22/19	TH	SW6010D
Arsenic	2.56	0.89	0.89	mg/Kg	1	10/22/19	TH	SW6010D
Barium	95.1	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Beryllium	0.38	0.36	0.18	mg/Kg	1	10/22/19	TH	SW6010D
Calcium	3570	6.7	4.1	mg/Kg	1	10/22/19	TH	SW6010D
Cadmium	ND	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Chromium	30.7	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Cobalt	11.3	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Copper	26.9	0.9	0.45	mg/kg	1	10/22/19	TH	SW6010D
Iron	23200	67	45	mg/Kg	10	10/22/19	TH	SW6010D
Lead	5.07	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Magnesium	6510	6.7	4.5	mg/Kg	1	10/22/19	TH	SW6010D
Manganese	393	4.5	4.5	mg/Kg	10	10/22/19	TH	SW6010D
Mercury	ND	0.03	0.02	mg/Kg	2	10/22/19	RS	SW7471B
Nickel	25.2	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Potassium	3690	6.7	3.5	mg/Kg	1	10/22/19	TH	SW6010D
Selenium	ND	1.8	1.5	mg/Kg	1	10/22/19	TH	SW6010D
Silver	ND	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Sodium	608	6.7	3.8	mg/Kg	1	10/22/19	TH	SW6010D
Thallium	ND	4.0	1.8	mg/Kg	1	10/22/19	TH	SW6010D
Vanadium	38.0	0.45	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Zinc	49.3	0.9	0.45	mg/Kg	1	10/22/19	TH	SW6010D
Percent Solid	80			%		10/21/19	VT	SW846-%Solid
Soil Extraction for SVOA	Completed					10/22/19	AT/K/UL	SW3545A
Mercury Digestion	Completed					10/22/19	LS/LS	SW7471B
Total Metals Digest	Completed					10/21/19	M/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,1-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dibromoethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloroethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,2-Dichloropropane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
1,3-Dichloropropane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
2,2-Dichloropropane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
2-Chlorotoluene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
2-Hexanone	ND	0.025	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
2-Isopropyltoluene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
4-Chlorotoluene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.025	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
Acetone	ND	0.025	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
Acrylonitrile	ND	0.0099	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Benzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Bromobenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Bromochloromethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Bromodichloromethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Bromoform	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Bromomethane	ND	0.0049	0.002	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon Disulfide	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Carbon tetrachloride	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Chlorobenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Chloroform	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Chloromethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromochloromethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Dibromomethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Ethylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Hexachlorobutadiene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Isopropylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0099	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Methylene chloride	ND	0.0099	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
Naphthalene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
n-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
n-Propylbenzene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
o-Xylene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
p-Isopropyltoluene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
sec-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Styrene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
tert-Butylbenzene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrachloroethene	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Tetrahydrofuran (THF)	0.013	0.0099	0.0025	mg/Kg	1	10/23/19	JLI	SW8260C
Toluene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Total Xylenes	ND	0.0049	0.0049	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0099	0.0025	mg/Kg	1	10/23/19	JLI	SW8260C
Trichloroethene	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorofluoromethane	ND	0.0049	0.00099	mg/Kg	1	10/23/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
Vinyl chloride	ND	0.0049	0.00049	mg/Kg	1	10/23/19	JLI	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	97			%	1	10/23/19	JLI	70 - 130 %
% Bromofluorobenzene	99			%	1	10/23/19	JLI	70 - 130 %
% Dibromofluoromethane	92			%	1	10/23/19	JLI	70 - 130 %
% Toluene-d8	101			%	1	10/23/19	JLI	70 - 130 %
<u>Semivolatiles</u>								
1,2-Dichlorobenzene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	0.29	0.21	mg/Kg	1	10/23/19	WB	SW8270D
1,3-Dichlorobenzene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
1,4-Dichlorobenzene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2,4-Dinitrotoluene	ND	0.29	0.16	mg/Kg	1	10/23/19	WB	SW8270D
2,6-Dinitrotoluene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
2-Chloronaphthalene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Methylnaphthalene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
2-Nitroaniline	ND	1.2	0.41	mg/Kg	1	10/23/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	1.6	0.2	mg/Kg	1	10/23/19	WB	SW8270D
3-Nitroaniline	ND	1.2	0.82	mg/Kg	1	10/23/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
4-Chloroaniline	ND	0.29	0.19	mg/Kg	1	10/23/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
4-Nitroaniline	ND	1.2	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Acenaphthylene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Anthracene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benz(a)anthracene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzidine	ND	0.41	0.24	mg/Kg	1	10/23/19	WB	SW8270D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Benzo(a)pyrene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(b)fluoranthene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(ghi)perylene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Benzo(k)fluoranthene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Benzoic acid	ND	0.82	0.82	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl alcohol	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Benzyl butyl phthalate	ND	0.29	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Chrysene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dibenzofuran	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Diethyl phthalate	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Dimethylphthalate	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-butylphthalate	ND	0.29	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Di-n-octylphthalate	ND	0.29	0.11	mg/Kg	1	10/23/19	WB	SW8270D
Fluoranthene	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
Fluorene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobenzene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorobutadiene	ND	0.29	0.15	mg/Kg	1	10/23/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Hexachloroethane	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
Isophorone	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Naphthalene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Nitrobenzene	ND	0.29	0.15	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodimethylamine	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	0.29	0.13	mg/Kg	1	10/23/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	0.29	0.16	mg/Kg	1	10/23/19	WB	SW8270D
Phenanthrene	ND	0.29	0.12	mg/Kg	1	10/23/19	WB	SW8270D
Pyrene	ND	0.29	0.14	mg/Kg	1	10/23/19	WB	SW8270D
<u>QA/QC Surrogates</u>								
% 2-Fluorobiphenyl	60			%	1	10/23/19	WB	30 - 130 %
% Nitrobenzene-d5	60			%	1	10/23/19	WB	30 - 130 %
% Terphenyl-d14	67			%	1	10/23/19	WB	30 - 130 %
Field Extraction	Completed					10/18/19		SW5035A

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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



Phyllis Shiller, Laboratory Director

October 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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QA/QC Report

October 25, 2019

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCS %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 502623 (mg/kg), QC Sample No: CE44291 2X (CE44291, CE44292, CE44293, CE44294, CE44295, CE44296, CE44297, CE44298, CE44299, CE44300, CE44301, CE44302, CE44303, CE44304, CE44305, CE44306)													
Mercury - Soil	BRL	0.03	0.36	0.23	44.1	106	98.0	7.8	<30	<30	NC	70 - 130	30 m,r

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 502622 (mg/kg), QC Sample No: CE44350 2X (CE44287, CE44288, CE44289, CE44290)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	102	102	0.0	106	109	2.8	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 502528 (mg/kg), QC Sample No: CE44287 (CE44287, CE44288, CE44289, CE44290, CE44291, CE44292, CE44293, CE44294, CE44295, CE44296, CE44297, CE44298, CE44299, CE44300, CE44301, CE44302, CE44303, CE44304, CE44305, CE44306)

ICP Metals - Soil

Aluminum	BRL	5.0	4670	3910	17.7	114	112	1.8	NC			75 - 125	30
Antimony	BRL	3.3	<3.5	<3.3	NC	108	107	0.9	98.2			75 - 125	30
Arsenic	BRL	0.67	2.03	2.49	NC	114	107	6.3	92.9			75 - 125	30
Barium	BRL	0.33	55.2	49.0	11.9	112	106	5.5	85.7			75 - 125	30
Beryllium	BRL	0.27	0.22 J	0.22	NC	101	102	1.0	91.9			75 - 125	30
Cadmium	BRL	0.33	<0.35	<0.33	NC	93.0	94.9	2.0	86.6			75 - 125	30
Calcium	BRL	5.0	89700	84700	5.70	110	106	3.7	NC			75 - 125	30
Chromium	BRL	0.33	9.06	9.90	8.90	111	106	4.6	90.8			75 - 125	30
Cobalt	BRL	0.33	4.87	4.86	0.20	106	102	3.8	88.9			75 - 125	30
Copper	BRL	0.67	36.6	21.9	50.3	115	114	0.9	104			75 - 125	30 r
Iron	BRL	5.0	12700	11600	9.10	118	108	8.8	NC			75 - 125	30
Lead	BRL	0.33	28.4	29.5	3.80	106	99.5	6.3	86.7			75 - 125	30
Magnesium	BRL	5.0	48900	45800	6.50	111	107	3.7	NC			75 - 125	30
Manganese	BRL	0.33	169	166	1.80	106	101	4.8	111			75 - 125	30
Nickel	BRL	0.33	9.86	10.8	9.10	107	105	1.9	88.1			75 - 125	30
Potassium	BRL	5.0	1870	1450	25.3	121	125	3.3	107			75 - 125	30
Selenium	BRL	1.3	<1.4	<1.3	NC	90.7	89.4	1.4	80.9			75 - 125	30
Silver	BRL	0.33	<0.35	<0.33	NC	115	110	4.4	106			75 - 125	30
Sodium	BRL	5.0	700	596	16.0	121	123	1.6	89.2			75 - 125	30
Thallium	BRL	3.0	<3.1	<3.0	NC	98.4	98.3	0.1	88.7			75 - 125	30
Vanadium	BRL	0.33	48.3	44.4	8.40	115	107	7.2	91.5			75 - 125	30
Zinc	BRL	0.67	53.2	49.7	6.80	108	103	4.7	85.3			75 - 125	30

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.



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QA/QC Report

October 25, 2019

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 502554 (mg/Kg), QC Sample No: CE44287 (CE44287, CE44288, CE44289, CE44290, CE44291, CE44292, CE44293, CE44294, CE44295, CE44296, CE44297, CE44298, CE44299, CE44300)										
Semivolatiles - Soil										
1,2-Dichlorobenzene	ND	0.18	42	46	9.1	44	44	0.0	30 - 130	30
1,2-Diphenylhydrazine	ND	0.23	53	56	5.5	45	44	2.2	30 - 130	30
1,3-Dichlorobenzene	ND	0.23	39	44	12.0	42	41	2.4	30 - 130	30
1,4-Dichlorobenzene	ND	0.23	41	43	4.8	42	41	2.4	30 - 130	30
2,4-Dinitrotoluene	ND	0.13	62	64	3.2	50	48	4.1	30 - 130	30
2,6-Dinitrotoluene	ND	0.13	57	62	8.4	48	49	2.1	30 - 130	30
2-Chloronaphthalene	ND	0.23	47	54	13.9	42	43	2.4	30 - 130	30
2-Methylnaphthalene	ND	0.23	51	55	7.5	51	55	7.5	30 - 130	30
2-Nitroaniline	ND	0.33	71	78	9.4	60	63	4.9	30 - 130	30
3,3'-Dichlorobenzidine	ND	0.13	46	63	31.2	34	33	3.0	30 - 130	30
3-Nitroaniline	ND	0.33	68	73	7.1	59	58	1.7	30 - 130	30
4-Bromophenyl phenyl ether	ND	0.23	51	57	11.1	44	45	2.2	30 - 130	30
4-Chloroaniline	ND	0.23	57	61	6.8	55	54	1.8	30 - 130	30
4-Chlorophenyl phenyl ether	ND	0.23	53	58	9.0	47	48	2.1	30 - 130	30
4-Nitroaniline	ND	0.23	62	68	9.2	55	54	1.8	30 - 130	30
Acenaphthene	ND	0.23	50	56	11.3	46	47	2.2	30 - 130	30
Acenaphthylene	ND	0.13	49	55	11.5	52	51	1.9	30 - 130	30
Anthracene	ND	0.23	54	58	7.1	51	51	0.0	30 - 130	30
Benz(a)anthracene	ND	0.23	54	59	8.8	48	49	2.1	30 - 130	30
Benzidine	ND	0.33	<10	<10	NC	<10	<10	NC	30 - 130	30
Benzo(a)pyrene	ND	0.13	52	57	9.2	49	48	2.1	30 - 130	30
Benzo(b)fluoranthene	ND	0.16	53	59	10.7	51	50	2.0	30 - 130	30
Benzo(ghi)perylene	ND	0.23	44	49	10.8	44	38	14.6	30 - 130	30
Benzo(k)fluoranthene	ND	0.23	54	61	12.2	45	46	2.2	30 - 130	30
Benzoic Acid	ND	0.33	56	74	27.7	32	28	13.3	30 - 130	30
Benzyl Alcohol	ND	0.23	49	54	9.7	51	55	7.5	30 - 130	30
Benzyl butyl phthalate	ND	0.23	57	61	6.8	54	54	0.0	30 - 130	30
Bis(2-chloroethoxy)methane	ND	0.23	48	54	11.8	45	46	2.2	30 - 130	30
Bis(2-chloroethyl)ether	ND	0.13	42	46	9.1	42	41	2.4	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	0.23	41	45	9.3	44	42	4.7	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	0.23	59	64	8.1	53	55	3.7	30 - 130	30
Chrysene	ND	0.23	54	60	10.5	49	49	0.0	30 - 130	30
Dibenz(a,h)anthracene	ND	0.13	51	56	9.3	51	47	8.2	30 - 130	30
Dibenzofuran	ND	0.23	53	58	9.0	47	49	4.2	30 - 130	30
Diethyl phthalate	ND	0.23	55	59	7.0	49	49	0.0	30 - 130	30
Dimethylphthalate	ND	0.23	52	57	9.2	46	46	0.0	30 - 130	30
Di-n-butylphthalate	ND	0.67	57	62	8.4	50	51	2.0	30 - 130	30
Di-n-octylphthalate	ND	0.23	65	72	10.2	55	55	0.0	30 - 130	30
Fluoranthene	ND	0.23	55	60	8.7	53	55	3.7	30 - 130	30
Fluorene	ND	0.23	54	59	8.8	50	52	3.9	30 - 130	30

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Hexachlorobenzene	ND	0.13	49	56	13.3	40	42	4.9	30 - 130	30
Hexachlorobutadiene	ND	0.23	41	48	15.7	44	44	0.0	30 - 130	30
Hexachlorocyclopentadiene	ND	0.23	32	28	13.3	<10	<10	NC	30 - 130	30
Hexachloroethane	ND	0.13	38	42	10.0	42	37	12.7	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	0.23	51	56	9.3	54	59	8.8	30 - 130	30
Isophorone	ND	0.13	46	52	12.2	45	45	0.0	30 - 130	30
Naphthalene	ND	0.23	46	51	10.3	46	48	4.3	30 - 130	30
Nitrobenzene	ND	0.13	53	54	1.9	53	53	0.0	30 - 130	30
N-Nitrosodimethylamine	ND	0.23	41	46	11.5	35	36	2.8	30 - 130	30
N-Nitrosodi-n-propylamine	ND	0.13	54	58	7.1	55	55	0.0	30 - 130	30
N-Nitrosodiphenylamine	ND	0.13	56	58	3.5	49	49	0.0	30 - 130	30
Phenanthrene	ND	0.13	52	56	7.4	47	50	6.2	30 - 130	30
Pyrene	ND	0.23	58	63	8.3	54	56	3.6	30 - 130	30
% 2-Fluorobiphenyl	54	%	44	51	14.7	39	39	0.0	30 - 130	30
% Nitrobenzene-d5	55	%	50	52	3.9	51	50	2.0	30 - 130	30
% Terphenyl-d14	58	%	51	55	7.5	42	43	2.4	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 502705 (mg/Kg), QC Sample No: CE44302 (CE44301, CE44302, CE44303, CE44304, CE44305, CE44306)

Semivolatiles - Soil

1,2-Dichlorobenzene	ND	0.18	35	40	13.3	39	45	14.3	30 - 130	30
1,2-Diphenylhydrazine	ND	0.23	43	47	8.9	54	57	5.4	30 - 130	30
1,3-Dichlorobenzene	ND	0.23	33	37	11.4	34	41	18.7	30 - 130	30
1,4-Dichlorobenzene	ND	0.23	37	41	10.3	37	44	17.3	30 - 130	30
2,4-Dinitrotoluene	ND	0.13	49	53	7.8	63	67	6.2	30 - 130	30
2,6-Dinitrotoluene	ND	0.13	47	51	8.2	60	64	6.5	30 - 130	30
2-Chloronaphthalene	ND	0.23	43	48	11.0	53	58	9.0	30 - 130	30
2-Methylnaphthalene	ND	0.23	43	47	8.9	51	56	9.3	30 - 130	30
2-Nitroaniline	ND	0.33	66	72	8.7	90	95	5.4	30 - 130	30
3,3'-Dichlorobenzidine	ND	0.13	50	52	3.9	71	70	1.4	30 - 130	30
3-Nitroaniline	ND	0.33	51	57	11.1	71	74	4.1	30 - 130	30
4-Bromophenyl phenyl ether	ND	0.23	46	50	8.3	59	62	5.0	30 - 130	30
4-Chloroaniline	ND	0.23	41	52	23.7	63	67	6.2	30 - 130	30
4-Chlorophenyl phenyl ether	ND	0.23	48	54	11.8	61	65	6.3	30 - 130	30
4-Nitroaniline	ND	0.23	50	56	11.3	65	68	4.5	30 - 130	30
Acenaphthene	ND	0.23	44	49	10.8	54	59	8.8	30 - 130	30
Acenaphthylene	ND	0.13	43	47	8.9	53	57	7.3	30 - 130	30
Anthracene	ND	0.23	46	50	8.3	59	63	6.6	30 - 130	30
Benz(a)anthracene	ND	0.23	47	50	6.2	61	65	6.3	30 - 130	30
Benzidine	ND	0.33	<10	<10	NC	45	42	6.9	30 - 130	30
Benzo(a)pyrene	ND	0.13	44	48	8.7	59	62	5.0	30 - 130	30
Benzo(b)fluoranthene	ND	0.16	46	49	6.3	61	66	7.9	30 - 130	30
Benzo(ghi)perylene	ND	0.23	42	43	2.4	53	56	5.5	30 - 130	30
Benzo(k)fluoranthene	ND	0.23	47	52	10.1	61	62	1.6	30 - 130	30
Benzoic Acid	ND	0.33	52	57	9.2	19	22	14.6	30 - 130	30
Benzyl Alcohol	ND	0.23	42	50	17.4	56	60	6.9	30 - 130	30
Benzyl butyl phthalate	ND	0.23	52	55	5.6	67	71	5.8	30 - 130	30
Bis(2-chloroethoxy)methane	ND	0.23	40	46	14.0	50	54	7.7	30 - 130	30
Bis(2-chloroethyl)ether	ND	0.13	33	38	14.1	41	44	7.1	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	0.23	29	33	12.9	35	39	10.8	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	0.23	53	58	9.0	69	72	4.3	30 - 130	30

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chrysene	ND	0.23	46	49	6.3	60	63	4.9	30 - 130	30
Dibenz(a,h)anthracene	ND	0.13	47	51	8.2	60	64	6.5	30 - 130	30
Dibenzofuran	ND	0.23	47	52	10.1	59	63	6.6	30 - 130	30
Diethyl phthalate	ND	0.23	49	52	5.9	62	65	4.7	30 - 130	30
Dimethylphthalate	ND	0.23	47	52	10.1	60	63	4.9	30 - 130	30
Di-n-butylphthalate	ND	0.67	51	57	11.1	66	70	5.9	30 - 130	30
Di-n-octylphthalate	ND	0.23	58	62	6.7	74	77	4.0	30 - 130	30
Fluoranthene	ND	0.23	47	52	10.1	60	63	4.9	30 - 130	30
Fluorene	ND	0.23	48	54	11.8	61	64	4.8	30 - 130	30
Hexachlorobenzene	ND	0.13	46	52	12.2	60	64	6.5	30 - 130	30
Hexachlorobutadiene	ND	0.23	43	48	11.0	46	54	16.0	30 - 130	30
Hexachlorocyclopentadiene	ND	0.23	32	28	13.3	22	28	24.0	30 - 130	30
Hexachloroethane	ND	0.13	37	39	5.3	34	43	23.4	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	0.23	47	49	4.2	60	64	6.5	30 - 130	30
Isophorone	ND	0.13	40	44	9.5	49	52	5.9	30 - 130	30
Naphthalene	ND	0.23	42	47	11.2	50	55	9.5	30 - 130	30
Nitrobenzene	ND	0.13	41	47	13.6	52	56	7.4	30 - 130	30
N-Nitrosodimethylamine	ND	0.23	33	36	8.7	42	44	4.7	30 - 130	30
N-Nitrosodi-n-propylamine	ND	0.13	44	50	12.8	55	59	7.0	30 - 130	30
N-Nitrosodiphenylamine	ND	0.13	44	49	10.8	56	59	5.2	30 - 130	30
Phenanthrene	ND	0.13	45	49	8.5	58	61	5.0	30 - 130	30
Pyrene	ND	0.23	47	52	10.1	61	64	4.8	30 - 130	30
% 2-Fluorobiphenyl	48	%	40	46	14.0	50	55	9.5	30 - 130	30
% Nitrobenzene-d5	48	%	41	45	9.3	50	55	9.5	30 - 130	30
% Terphenyl-d14	53	%	44	49	10.8	57	61	6.8	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 502894 (mg/Kg), QC Sample No: CE44287 (CE44287, CE44288, CE44289, CE44291, CE44292, CE44293, CE44294, CE44295)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	100	118	16.5				70 - 130	30
1,1,1-Trichloroethane	ND	0.005	89	104	15.5				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.003	90	105	15.4				70 - 130	30
1,1,2-Trichloroethane	ND	0.005	87	102	15.9				70 - 130	30
1,1-Dichloroethane	ND	0.005	88	104	16.7				70 - 130	30
1,1-Dichloroethene	ND	0.005	94	108	13.9				70 - 130	30
1,1-Dichloropropene	ND	0.005	82	94	13.6				70 - 130	30
1,2,3-Trichlorobenzene	ND	0.005	88	104	16.7				70 - 130	30
1,2,3-Trichloropropane	ND	0.005	86	102	17.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	0.005	92	108	16.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	0.001	87	103	16.8				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	0.005	98	116	16.8				70 - 130	30
1,2-Dibromoethane	ND	0.005	91	105	14.3				70 - 130	30
1,2-Dichlorobenzene	ND	0.005	86	102	17.0				70 - 130	30
1,2-Dichloroethane	ND	0.005	86	100	15.1				70 - 130	30
1,2-Dichloropropane	ND	0.005	88	102	14.7				70 - 130	30
1,3,5-Trimethylbenzene	ND	0.001	88	105	17.6				70 - 130	30
1,3-Dichlorobenzene	ND	0.005	88	103	15.7				70 - 130	30
1,3-Dichloropropane	ND	0.005	88	102	14.7				70 - 130	30
1,4-Dichlorobenzene	ND	0.005	87	104	17.8				70 - 130	30
2,2-Dichloropropane	ND	0.005	94	111	16.6				70 - 130	30

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
2-Chlorotoluene	ND	0.005	85	102	18.2				70 - 130	30
2-Hexanone	ND	0.025	65	78	18.2				70 - 130	30
2-Isopropyltoluene	ND	0.005	81	96	16.9				70 - 130	30
4-Chlorotoluene	ND	0.005	86	101	16.0				70 - 130	30
4-Methyl-2-pentanone	ND	0.025	73	86	16.4				70 - 130	30
Acetone	ND	0.01	58	70	18.8				70 - 130	30
Acrylonitrile	ND	0.005	77	92	17.8				70 - 130	30
Benzene	ND	0.001	83	98	16.6				70 - 130	30
Bromobenzene	ND	0.005	83	97	15.6				70 - 130	30
Bromochloromethane	ND	0.005	90	107	17.3				70 - 130	30
Bromodichloromethane	ND	0.005	93	110	16.7				70 - 130	30
Bromoform	ND	0.005	106	126	17.2				70 - 130	30
Bromomethane	ND	0.005	89	100	11.6				70 - 130	30
Carbon Disulfide	ND	0.005	86	100	15.1				70 - 130	30
Carbon tetrachloride	ND	0.005	96	112	15.4				70 - 130	30
Chlorobenzene	ND	0.005	88	104	16.7				70 - 130	30
Chloroethane	ND	0.005	86	99	14.1				70 - 130	30
Chloroform	ND	0.005	88	101	13.8				70 - 130	30
Chloromethane	ND	0.005	82	96	15.7				70 - 130	30
cis-1,2-Dichloroethene	ND	0.005	87	100	13.9				70 - 130	30
cis-1,3-Dichloropropene	ND	0.005	93	109	15.8				70 - 130	30
Dibromochloromethane	ND	0.003	105	125	17.4				70 - 130	30
Dibromomethane	ND	0.005	86	103	18.0				70 - 130	30
Dichlorodifluoromethane	ND	0.005	94	110	15.7				70 - 130	30
Ethylbenzene	ND	0.001	87	103	16.8				70 - 130	30
Hexachlorobutadiene	ND	0.005	92	112	19.6				70 - 130	30
Isopropylbenzene	ND	0.001	85	101	17.2				70 - 130	30
m&p-Xylene	ND	0.002	89	106	17.4				70 - 130	30
Methyl ethyl ketone	ND	0.005	65	74	12.9				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	0.001	95	110	14.6				70 - 130	30
Methylene chloride	ND	0.005	78	91	15.4				70 - 130	30
Naphthalene	ND	0.005	88	104	16.7				70 - 130	30
n-Butylbenzene	ND	0.001	91	110	18.9				70 - 130	30
n-Propylbenzene	ND	0.001	87	103	16.8				70 - 130	30
o-Xylene	ND	0.002	89	106	17.4				70 - 130	30
p-Isopropyltoluene	ND	0.001	89	107	18.4				70 - 130	30
sec-Butylbenzene	ND	0.001	94	114	19.2				70 - 130	30
Styrene	ND	0.005	90	106	16.3				70 - 130	30
tert-Butylbenzene	ND	0.001	86	103	18.0				70 - 130	30
Tetrachloroethene	ND	0.005	91	109	18.0				70 - 130	30
Tetrahydrofuran (THF)	ND	0.005	74	89	18.4				70 - 130	30
Toluene	ND	0.001	89	105	16.5				70 - 130	30
trans-1,2-Dichloroethene	ND	0.005	91	107	16.2				70 - 130	30
trans-1,3-Dichloropropene	ND	0.005	94	112	17.5				70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.005	92	113	20.5				70 - 130	30
Trichloroethene	ND	0.005	89	104	15.5				70 - 130	30
Trichlorofluoromethane	ND	0.005	86	99	14.1				70 - 130	30
Trichlorotrifluoroethane	ND	0.005	86	100	15.1				70 - 130	30
Vinyl chloride	ND	0.005	80	93	15.0				70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	99	100	1.0				70 - 130	30
% Bromofluorobenzene	97	%	102	104	1.9				70 - 130	30
% Dibromofluoromethane	96	%	100	103	3.0				70 - 130	30
% Toluene-d8	103	%	101	102	1.0				70 - 130	30

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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Comment:

The Low Level MS/MSD are not reported for this batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 502894H (mg/Kg), QC Sample No: CE44287 50X (CE44287 (50X))

Volatiles - Soil (High Level)

m&p-Xylene	ND	0.25	121			107	117	8.9	70 - 130	30
Toluene	ND	0.25	116			106	115	8.1	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100			100	100	0.0	70 - 130	30
% Bromofluorobenzene	98	%	103			102	105	2.9	70 - 130	30
% Dibromofluoromethane	94	%	96			92	92	0.0	70 - 130	30
% Toluene-d8	101	%	101			101	101	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 503095 (mg/Kg), QC Sample No: CE44301 (CE44296, CE44306)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	134	101	28.1				70 - 130	30	I
1,1,1-Trichloroethane	ND	0.005	108	86	22.7				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	111	83	28.9				70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	108	83	26.2				70 - 130	30	
1,1-Dichloroethane	ND	0.005	108	84	25.0				70 - 130	30	
1,1-Dichloroethene	ND	0.005	105	87	18.8				70 - 130	30	
1,1-Dichloropropene	ND	0.005	105	86	19.9				70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	105	88	17.6				70 - 130	30	
1,2,3-Trichloropropane	ND	0.005	108	83	26.2				70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	105	91	14.3				70 - 130	30	
1,2,4-Trimethylbenzene	ND	0.001	108	86	22.7				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	116	87	28.6				70 - 130	30	
1,2-Dibromoethane	ND	0.005	113	85	28.3				70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	107	84	24.1				70 - 130	30	
1,2-Dichloroethane	ND	0.005	108	82	27.4				70 - 130	30	
1,2-Dichloropropane	ND	0.005	110	85	25.6				70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	109	87	22.4				70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	107	86	21.8				70 - 130	30	
1,3-Dichloropropane	ND	0.005	112	85	27.4				70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	105	86	19.9				70 - 130	30	
2,2-Dichloropropane	ND	0.005	115	92	22.2				70 - 130	30	
2-Chlorotoluene	ND	0.005	110	88	22.2				70 - 130	30	
2-Hexanone	ND	0.025	77	60	24.8				70 - 130	30	I
2-Isopropyltoluene	ND	0.005	104	82	23.7				70 - 130	30	
4-Chlorotoluene	ND	0.005	109	87	22.4				70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	86	68	23.4				70 - 130	30	I
Acetone	ND	0.01	63	51	21.1				70 - 130	30	I
Acrylonitrile	ND	0.005	88	71	21.4				70 - 130	30	
Benzene	ND	0.001	106	82	25.5				70 - 130	30	
Bromobenzene	ND	0.005	108	83	26.2				70 - 130	30	
Bromochloromethane	ND	0.005	111	83	28.9				70 - 130	30	
Bromodichloromethane	ND	0.005	118	89	28.0				70 - 130	30	
Bromoform	ND	0.005	130	98	28.1				70 - 130	30	
Bromomethane	ND	0.005	99	84	16.4				70 - 130	30	

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Carbon Disulfide	ND	0.005	97	78	21.7				70 - 130	30
Carbon tetrachloride	ND	0.005	117	94	21.8				70 - 130	30
Chlorobenzene	ND	0.005	113	88	24.9				70 - 130	30
Chloroethane	ND	0.005	99	77	25.0				70 - 130	30
Chloroform	ND	0.005	105	81	25.8				70 - 130	30
Chloromethane	ND	0.005	90	73	20.9				70 - 130	30
cis-1,2-Dichloroethene	ND	0.005	105	82	24.6				70 - 130	30
cis-1,3-Dichloropropene	ND	0.005	116	90	25.2				70 - 130	30
Dibromochloromethane	ND	0.003	133	98	30.3				70 - 130	30
Dibromomethane	ND	0.005	110	82	29.2				70 - 130	30
Dichlorodifluoromethane	ND	0.005	93	78	17.5				70 - 130	30
Ethylbenzene	ND	0.001	110	87	23.4				70 - 130	30
Hexachlorobutadiene	ND	0.005	117	97	18.7				70 - 130	30
Isopropylbenzene	ND	0.001	110	88	22.2				70 - 130	30
m&p-Xylene	ND	0.002	112	89	22.9				70 - 130	30
Methyl ethyl ketone	ND	0.005	78	62	22.9				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	0.001	112	86	26.3				70 - 130	30
Methylene chloride	ND	0.005	92	71	25.8				70 - 130	30
Naphthalene	ND	0.005	106	83	24.3				70 - 130	30
n-Butylbenzene	ND	0.001	108	90	18.2				70 - 130	30
n-Propylbenzene	ND	0.001	110	88	22.2				70 - 130	30
o-Xylene	ND	0.002	113	88	24.9				70 - 130	30
p-Isopropyltoluene	ND	0.001	110	90	20.0				70 - 130	30
sec-Butylbenzene	ND	0.001	120	96	22.2				70 - 130	30
Styrene	ND	0.005	114	88	25.7				70 - 130	30
tert-Butylbenzene	ND	0.001	112	89	22.9				70 - 130	30
Tetrachloroethene	ND	0.005	111	90	20.9				70 - 130	30
Tetrahydrofuran (THF)	ND	0.005	82	66	21.6				70 - 130	30
Toluene	ND	0.001	110	87	23.4				70 - 130	30
trans-1,2-Dichloroethene	ND	0.005	108	85	23.8				70 - 130	30
trans-1,3-Dichloropropene	ND	0.005	120	91	27.5				70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.005	114	89	24.6				70 - 130	30
Trichloroethene	ND	0.005	112	88	24.0				70 - 130	30
Trichlorofluoromethane	ND	0.005	97	78	21.7				70 - 130	30
Trichlorotrifluoroethane	ND	0.005	99	84	16.4				70 - 130	30
Vinyl chloride	ND	0.005	88	73	18.6				70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	99	100	1.0				70 - 130	30
% Bromofluorobenzene	97	%	102	103	1.0				70 - 130	30
% Dibromofluoromethane	97	%	99	101	2.0				70 - 130	30
% Toluene-d8	100	%	100	101	1.0				70 - 130	30

Comment:

The Low Level MS/MSD are not reported for this batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 503095H (mg/Kg), QC Sample No: CE44301 50X (CE44290 (50X) , CE44301 (50X))

Volatiles - Soil (High Level)

1,1,1,2-Tetrachloroethane	ND	0.25	126	131	3.9	116			70 - 130	30
1,1,1-Trichloroethane	ND	0.25	101	104	2.9	91			70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.25	109	113	3.6	90			70 - 130	30
1,1,2-Trichloroethane	ND	0.25	103	108	4.7	100			70 - 130	30
1,1-Dichloroethane	ND	0.25	99	102	3.0	92			70 - 130	30
1,1-Dichloroethene	ND	0.25	71	73	2.8	61			70 - 130	30

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1-Dichloropropene	ND	0.25	105	112	6.5	99			70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.25	117	123	5.0	109			70 - 130	30	
1,2,3-Trichloropropane	ND	0.25	108	113	4.5	98			70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.25	123	132	7.1	116			70 - 130	30	I
1,2,4-Trimethylbenzene	ND	0.25	112	119	6.1	110			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.25	117	122	4.2	99			70 - 130	30	
1,2-Dibromoethane	ND	0.25	112	116	3.5	106			70 - 130	30	
1,2-Dichlorobenzene	ND	0.25	111	117	5.3	108			70 - 130	30	
1,2-Dichloroethane	ND	0.25	103	109	5.7	102			70 - 130	30	
1,2-Dichloropropane	ND	0.25	107	113	5.5	104			70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.25	114	122	6.8	111			70 - 130	30	
1,3-Dichlorobenzene	ND	0.25	114	121	6.0	110			70 - 130	30	
1,3-Dichloropropane	ND	0.25	111	115	3.5	107			70 - 130	30	
1,4-Dichlorobenzene	ND	0.25	113	120	6.0	111			70 - 130	30	
2,2-Dichloropropane	ND	0.25	109	112	2.7	96			70 - 130	30	
2-Chlorotoluene	ND	0.25	112	120	6.9	110			70 - 130	30	
2-Hexanone	ND	1.3	78	81	3.8	71			70 - 130	30	
2-Isopropyltoluene	ND	0.25	106	114	7.3	103			70 - 130	30	
4-Chlorotoluene	ND	0.25	112	120	6.9	110			70 - 130	30	
4-Methyl-2-pentanone	ND	1.3	83	87	4.7	76			70 - 130	30	
Acetone	ND	0.5	52	53	1.9	46			70 - 130	30	I,m
Acrylonitrile	ND	0.25	86	87	1.2	76			70 - 130	30	
Benzene	ND	0.25	103	116	11.9	104			70 - 130	30	
Bromobenzene	ND	0.25	106	113	6.4	106			70 - 130	30	
Bromochloromethane	ND	0.25	96	104	8.0	95			70 - 130	30	
Bromodichloromethane	ND	0.25	108	111	2.7	99			70 - 130	30	
Bromoform	ND	0.25	116	115	0.9	95			70 - 130	30	
Bromomethane	0.12 J	0.25	63	66	4.7	54			70 - 130	30	I,m
Carbon Disulfide	ND	0.25	64	70	9.0	55			70 - 130	30	I,m
Carbon tetrachloride	ND	0.25	103	107	3.8	89			70 - 130	30	
Chlorobenzene	ND	0.25	116	123	5.9	111			70 - 130	30	
Chloroethane	ND	0.25	22	24	8.7	20			70 - 130	30	I,m
Chloroform	ND	0.25	97	100	3.0	90			70 - 130	30	
Chloromethane	ND	0.25	87	89	2.3	75			70 - 130	30	
cis-1,2-Dichloroethene	ND	0.25	96	99	3.1	90			70 - 130	30	
cis-1,3-Dichloropropene	ND	0.25	112	115	2.6	106			70 - 130	30	
Dibromochloromethane	ND	0.15	118	123	4.1	105			70 - 130	30	
Dibromomethane	ND	0.25	105	109	3.7	102			70 - 130	30	
Dichlorodifluoromethane	ND	0.25	86	89	3.4	69			70 - 130	30	m
Ethylbenzene	ND	0.25	114	123	7.6	110			70 - 130	30	
Hexachlorobutadiene	ND	0.25	136	144	5.7	121			70 - 130	30	I
Isopropylbenzene	ND	0.25	112	122	8.5	111			70 - 130	30	
m&p-Xylene	ND	0.25	117	125	6.6	111			70 - 130	30	
Methyl ethyl ketone	ND	0.25	75	74	1.3	67			70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	0.25	105	105	0.0	96			70 - 130	30	
Methylene chloride	ND	0.25	80	84	4.9	76			70 - 130	30	
Naphthalene	ND	0.25	112	118	5.2	105			70 - 130	30	
n-Butylbenzene	ND	0.25	122	132	7.9	116			70 - 130	30	I
n-Propylbenzene	ND	0.25	116	126	8.3	113			70 - 130	30	
o-Xylene	ND	0.25	116	123	5.9	113			70 - 130	30	
p-Isopropyltoluene	ND	0.25	118	128	8.1	115			70 - 130	30	
sec-Butylbenzene	ND	0.25	126	135	6.9	122			70 - 130	30	I
Styrene	ND	0.25	116	123	5.9	112			70 - 130	30	

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
tert-Butylbenzene	ND	0.25	114	123	7.6	112			70 - 130	30
Tetrachloroethene	ND	0.25	116	128	9.8	113			70 - 130	30
Tetrahydrofuran (THF)	ND	0.25	81	81	0.0	72			70 - 130	30
Toluene	ND	0.25	110	118	7.0	107			70 - 130	30
trans-1,2-Dichloroethene	ND	0.25	97	105	7.9	91			70 - 130	30
trans-1,3-Dichloropropene	ND	0.25	112	118	5.2	106			70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.25	110	114	3.6	97			70 - 130	30
Trichloroethene	ND	0.25	112	119	6.1	119			70 - 130	30
Trichlorofluoromethane	ND	0.25	22	23	4.4	20			70 - 130	30
Trichlorotrifluoroethane	ND	0.25	68	78	13.7	63			70 - 130	30
Vinyl chloride	ND	0.25	72	76	5.4	64			70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	98	99	1.0	100			70 - 130	30
% Bromofluorobenzene	97	%	104	104	0.0	104			70 - 130	30
% Dibromofluoromethane	87	%	94	92	2.2	92			70 - 130	30
% Toluene-d8	100	%	100	99	1.0	100			70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 502886 (mg/Kg), QC Sample No: CE45345 (CE44297, CE44298, CE44299, CE44300, CE44301, CE44302, CE44303, CE44304, CE44305)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	128	131	2.3	122	124	1.6	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	109	112	2.7	101	101	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	110	116	5.3	106	104	1.9	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	108	110	1.8	105	104	1.0	70 - 130	30	
1,1-Dichloroethane	ND	0.005	107	111	3.7	101	102	1.0	70 - 130	30	
1,1-Dichloroethene	ND	0.005	112	115	2.6	103	105	1.9	70 - 130	30	
1,1-Dichloropropene	ND	0.005	99	109	9.6	103	95	8.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	106	113	6.4	97	96	1.0	70 - 130	30	
1,2,3-Trichloropropane	ND	0.005	108	115	6.3	105	106	0.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	107	113	5.5	93	91	2.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	0.001	109	114	4.5	103	101	2.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	117	122	4.2	110	113	2.7	70 - 130	30	
1,2-Dibromoethane	ND	0.005	111	114	2.7	112	108	3.6	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	107	111	3.7	101	100	1.0	70 - 130	30	
1,2-Dichloroethane	ND	0.005	107	109	1.9	105	102	2.9	70 - 130	30	
1,2-Dichloropropane	ND	0.005	110	112	1.8	106	105	0.9	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	111	115	3.5	105	105	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	107	112	4.6	99	98	1.0	70 - 130	30	
1,3-Dichloropropane	ND	0.005	110	112	1.8	110	109	0.9	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	107	111	3.7	98	97	1.0	70 - 130	30	
2,2-Dichloropropane	ND	0.005	117	120	2.5	104	106	1.9	70 - 130	30	
2-Chlorotoluene	ND	0.005	107	112	4.6	105	104	1.0	70 - 130	30	
2-Hexanone	ND	0.025	79	84	6.1	80	77	3.8	70 - 130	30	
2-Isopropyltoluene	ND	0.005	104	107	2.8	100	101	1.0	70 - 130	30	
4-Chlorotoluene	ND	0.005	106	111	4.6	101	101	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	88	93	5.5	87	83	4.7	70 - 130	30	
Acetone	ND	0.01	69	72	4.3	66	65	1.5	70 - 130	30	
Acrylonitrile	ND	0.005	92	97	5.3	87	86	1.2	70 - 130	30	
Benzene	ND	0.001	103	105	1.9	108	98	9.7	70 - 130	30	
Bromobenzene	ND	0.005	104	108	3.8	102	101	1.0	70 - 130	30	
Bromochloromethane	ND	0.005	109	113	3.6	105	105	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bromodichloromethane	ND	0.005	117	119	1.7	107	108	0.9	70 - 130	30	
Bromoform	ND	0.005	125	133	6.2	111	117	5.3	70 - 130	30	I
Bromomethane	ND	0.005	108	119	9.7	95	102	7.1	70 - 130	30	
Carbon Disulfide	ND	0.005	102	105	2.9	94	94	0.0	70 - 130	30	
Carbon tetrachloride	ND	0.005	113	116	2.6	104	108	3.8	70 - 130	30	
Chlorobenzene	ND	0.005	112	113	0.9	111	108	2.7	70 - 130	30	
Chloroethane	ND	0.005	99	101	2.0	93	92	1.1	70 - 130	30	
Chloroform	ND	0.005	106	110	3.7	99	99	0.0	70 - 130	30	
Chloromethane	ND	0.005	97	100	3.0	91	90	1.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	106	109	2.8	99	98	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	117	120	2.5	108	105	2.8	70 - 130	30	
Dibromochloromethane	ND	0.003	126	133	5.4	117	120	2.5	70 - 130	30	I
Dibromomethane	ND	0.005	108	110	1.8	106	105	0.9	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	110	113	2.7	102	104	1.9	70 - 130	30	
Ethylbenzene	ND	0.001	111	113	1.8	109	106	2.8	70 - 130	30	
Hexachlorobutadiene	ND	0.005	121	125	3.3	115	115	0.0	70 - 130	30	
Isopropylbenzene	ND	0.001	109	113	3.6	106	107	0.9	70 - 130	30	
m&p-Xylene	ND	0.002	112	114	1.8	109	106	2.8	70 - 130	30	
Methyl ethyl ketone	ND	0.005	73	85	15.2	75	69	8.3	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	0.001	113	119	5.2	108	106	1.9	70 - 130	30	
Methylene chloride	ND	0.005	93	96	3.2	88	87	1.1	70 - 130	30	
Naphthalene	ND	0.005	108	113	4.5	103	101	2.0	70 - 130	30	
n-Butylbenzene	ND	0.001	115	120	4.3	103	103	0.0	70 - 130	30	
n-Propylbenzene	ND	0.001	109	114	4.5	106	106	0.0	70 - 130	30	
o-Xylene	ND	0.002	113	116	2.6	111	107	3.7	70 - 130	30	
p-Isopropyltoluene	ND	0.001	113	118	4.3	106	106	0.0	70 - 130	30	
sec-Butylbenzene	ND	0.001	122	128	4.8	118	118	0.0	70 - 130	30	
Styrene	ND	0.005	113	115	1.8	109	107	1.9	70 - 130	30	
tert-Butylbenzene	ND	0.001	112	115	2.6	110	109	0.9	70 - 130	30	
Tetrachloroethene	ND	0.005	112	115	2.6	110	108	1.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	88	93	5.5	84	81	3.6	70 - 130	30	
Toluene	ND	0.001	110	113	2.7	108	105	2.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	108	113	4.5	102	103	1.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	119	122	2.5	109	108	0.9	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	118	124	5.0	98	100	2.0	70 - 130	30	
Trichloroethene	ND	0.005	110	111	0.9	109	109	0.0	70 - 130	30	
Trichlorofluoromethane	ND	0.005	101	104	2.9	94	94	0.0	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	105	109	3.7	104	104	0.0	70 - 130	30	
Vinyl chloride	ND	0.005	96	98	2.1	87	90	3.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	97	%	103	101	2.0	104	103	1.0	70 - 130	30	
% Dibromofluoromethane	99	%	98	102	4.0	98	96	2.1	70 - 130	30	
% Toluene-d8	103	%	102	102	0.0	100	100	0.0	70 - 130	30	

Comment:

A blank MS/MSD was analyzed with this Low Level batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

QA/QC Data

SDG I.D.: GCE44287

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

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



Phyllis Shiller, Laboratory Director
October 25, 2019

Friday, October 25, 2019

Criteria: NY: 375, 375NR, 375RRS, GW

State: NY

Sample Criteria Exceedances Report

GCE44287 - HYDROBRO

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CE44287	\$8260SMRNY	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	97	32	50	50	ug/Kg
CE44289	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	95.2	0.35	63	63	mg/Kg
CE44289	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	166	0.7	109	109	mg/Kg
CE44290	\$8260SMRNY	Total Xylenes	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	530	260	260	ug/Kg
CE44290	\$8260SMRNY	Vinyl chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	53	20	20	ug/Kg
CE44290	\$8260SMRNY	Methylene chloride	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	210	50	50	ug/Kg
CE44290	\$8260SMRNY	Methyl Ethyl Ketone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	210	120	120	ug/Kg
CE44290	\$8260SMRNY	Acetone	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	530	50	50	ug/Kg
CE44290	\$8260SMRNY	1,2-Dichloroethane	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	53	20	20	ug/Kg
CE44290	\$BN-SMR	Dibenzofuran	NY / 375-6.8 Volatiles / Unrestricted Use Soil	2500	270	330	330	ug/Kg
CE44291	\$BN-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Commercial	ND	720	560	560	ug/Kg
CE44291	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1600	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1100	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1600	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	ND	720	330	330	ug/Kg
CE44291	\$BN-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1800	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1200	720	500	500	ug/Kg
CE44291	\$BN-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1800	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1200	720	500	500	ug/Kg
CE44291	\$BN-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1100	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1600	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1300	800	800	800	ug/Kg
CE44291	\$BN-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1900	1000	1000	1000	ug/Kg
CE44291	\$BN-SMR	Dibenz(a,h)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	ND	720	330	330	ug/Kg
CE44291	\$BN-SMR	Dibenzofuran	NY / 375-6.8 Volatiles / Unrestricted Use Soil	ND	720	330	330	ug/Kg
CE44291	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.36	0.03	0.18	0.18	mg/Kg
CE44291	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	79.5	0.34	63	63	mg/Kg
CE44291	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	361	0.7	109	109	mg/Kg
CE44293	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	163	0.37	63	63	mg/Kg
CE44293	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	194	0.7	109	109	mg/Kg
CE44296	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Commercial	1500	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Residential Restricted	1600	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1500	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	1400	270	500	500	ug/Kg
CE44296	\$BN-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Residential Restricted	1400	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Benzo(b)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1600	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Benzo(k)fluoranthene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1400	270	800	800	ug/Kg
CE44296	\$BN-SMR	Chrysene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1700	270	1000	1000	ug/Kg

Friday, October 25, 2019

Criteria: NY: 375, 375NR, 375RRS, GW

State: NY

Sample Criteria Exceedances Report

GCE44287 - HYDROBRO

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CE44296	\$BN-SMR	Benz(a)anthracene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1400	270	1000	1000	ug/Kg
CE44296	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1400	270	500	500	ug/Kg
CE44296	\$BN-SMR	Benzo(a)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	1500	270	1000	1000	ug/Kg
CE44296	BA-SM	Barium	NY / 375-6.8 Metals / Commercial	759	0.40	400	400	mg/Kg
CE44296	BA-SM	Barium	NY / 375-6.8 Metals / Residential Restricted	759	0.40	400	400	mg/Kg
CE44296	BA-SM	Barium	NY / 375-6.8 Metals / Unrestricted Use Soil	759	0.40	350	350	mg/Kg
CE44296	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	190	0.40	63	63	mg/Kg
CE44296	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	558	8.1	109	109	mg/Kg
CE44299	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	510	270	500	500	ug/Kg
CE44299	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	510	270	500	500	ug/Kg
CE44299	BA-SM	Barium	NY / 375-6.8 Metals / Commercial	789	0.39	400	400	mg/Kg
CE44299	BA-SM	Barium	NY / 375-6.8 Metals / Residential Restricted	789	0.39	400	400	mg/Kg
CE44299	BA-SM	Barium	NY / 375-6.8 Metals / Unrestricted Use Soil	789	0.39	350	350	mg/Kg
CE44299	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.22	0.03	0.18	0.18	mg/Kg
CE44299	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	327	0.39	63	63	mg/Kg
CE44299	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	405	0.8	109	109	mg/Kg
CE44301	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	960	250	500	500	ug/Kg
CE44301	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	960	250	500	500	ug/Kg
CE44301	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	70.4	0.8	50	50	mg/kg
CE44301	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	119	0.39	63	63	mg/Kg
CE44301	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	357	0.8	109	109	mg/Kg
CE44302	CU-SM	Copper	NY / 375-6.8 Metals / Unrestricted Use Soil	93.9	0.7	50	50	mg/kg
CE44302	NI-SM	Nickel	NY / 375-6.8 Metals / Unrestricted Use Soil	31.7	0.36	30	30	mg/Kg
CE44303	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	770	260	500	500	ug/Kg
CE44303	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	770	260	500	500	ug/Kg
CE44303	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.19	0.03	0.18	0.18	mg/Kg
CE44303	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	128	0.36	63	63	mg/Kg
CE44303	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	259	0.7	109	109	mg/Kg
CE44305	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Residential Restricted	860	260	500	500	ug/Kg
CE44305	\$BN-SMR	Indeno(1,2,3-cd)pyrene	NY / 375-6.8 Semivolatiles / Unrestricted Use Soil	860	260	500	500	ug/Kg
CE44305	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	140	0.39	63	63	mg/Kg
CE44305	ZN-SM	Zinc	NY / 375-6.8 Metals / Unrestricted Use Soil	215	0.8	109	109	mg/Kg
CE44306	CR-SM	Chromium	NY / 375-6.8 Metals / Unrestricted Use Soil	30.7	0.45	30		mg/Kg

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



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NY Temperature Narration

October 25, 2019

SDG I.D.: GCE44287

The samples in this delivery group were received at 3.3°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



NY/NJ CHAIN OF CUSTODY RECORD

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Client Services (860) 645-8726

Customer: Hydro Tech Environmental, Corp
Address: 15 Ocean Avenue, 2nd Floor, Brooklyn, NY 11225

Project: 190107 - 2468 Tiebout Avenue, BX
Report to: Ruijie Xu, rxu@hydrotechenvironmental.com
Invoice to: Anna Maria Guerrieri, aguerrieri@hydrotechenvironmental.com

Project P.O.: 52396

This section **MUST** be completed with Bottle Quantities.

Contact Options:

Fax: 718-636-0800
Phone: rxu@hydrotechenvironmental.com
Email:

Coolant: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐
Temp: 8.3°C Pg 1 of 2

Client Sample - Information - Identification

Sampler's Signature: *[Signature]* Date: 10/18/19

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
44787	SP-1 (0-2)	S	10/18/19	13:10
44788	SP-1 (12-14)			13:15
44789	SP-2 (0-2)			13:25
44790	SP-2 (14-16)			13:30
44791	SP-3 (10-2)			13:35
44792	SP-3 (14-16)			13:40
44793	SP-4 (0-2)			13:55
44794	SP-4 (10-2)			14:00
44795	SP-5 (0-2)			14:05
44796	SP-6 (12-14)			14:10
44797	SP-6 (0-2)			14:20

Analysis Request

GL VOA Vial (1 methanol) 12 H ₂ O	GL Soil container () oz	GL Amber 1000mL Jars (1 HCl)	PL H ₂ SO ₄ [250mL] [500mL] [1000mL]	PL HNO ₃ 250mL	PL NaOH 250mL	Bacteria Bottle
--	--------------------------	------------------------------	--	---------------------------	---------------	-----------------

Relinquished by: *[Signature]* Accepted by: *[Signature]*

Date: 10/18/19

Time: 15:20

Date: 10-21-19

Time: 9:45

Date: 10-21-19

Time: 13:30

Comments, Special Requirements or Regulations:

Refer to Quote #HY100819BA

The vial with methanol for sample SP-5 (12-14) was spilled and approx. 3 ml of methanol were left in the vial prior to sampling.

Turnaround:

☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ 5 Days
☐ 10 Days
☐ Other

*SURCHARGE APPLIES

NJ

☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil
☐ Cleanup Criteria
☐ GW Criteria

NY

☐ NY 375 GWP
☒ NY375 Unrestricted Use Soil
☐ NY375 Residential
☒ Restricted/Residential
☒ Commercial
☐ Industrial

Data Format

☒ Phoenix Std Report
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQUIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

Data Package

☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

State where samples were collected: NY



NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Customer: Hydro Tech Environmental, Corp
Address: 15 Ocean Avenue, 2nd Floor, Brooklyn, NY 11225

Project: 190107 - 2468 Tiebout Avenue, BX
Report to: Ruijie Xu, rxu@hydrotechenvironmental.com
Invoice to: Anna Maria Guerrieri, aguerrieri@hydrotechenvironmental.com

Project P.O.: 52396

This section MUST be completed with Bottle Quantities.

Contact Options:

Fax: 718-636-0800
Phone: rxu@hydrotechenvironmental.com
Email:

Coolant: Yes ☒ No ☐
IPK ☒ ICE ☐

Temp: 33°C Pg 2 of 2

Client Sample - Information - Identification		Analysis Request	
Sampler's Signature	Date	Analysis Request	Date
	10/18/19	SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil B=Bulk L=Liquid	
PHOENIX USE ONLY		Sample Matrix	Date Sampled
44298	3P-604-16	S	10/18/19 14:25
44299	3P-7(0-2)		14:30
44300	3P-7(12-14)		14:35
44301	3P-8(0-2)		14:45
44302	3P-8(14-16)		14:50
44303	3P-9(0-2)		15:00
44304	3P-9(12-14)		15:05
44305	3P-10(0-2)		15:10
44306	3P-10(14-16)		15:15

Relinquished by:	Accepted by:	Date:	Time:
		10/18/19	15:20
		10-21-19	9:45
		10-21-19	13:34

Comments, Special Requirements or Regulations:

Refer to Quote #HY100819BA

Turnaround:	NJ	NY	Data Format	Data Package
☐ 1 Day* ☐ 2 Days* ☐ 3 Days* ☒ 5 Days ☐ 10 Days ☐ Other *SURCHARGE APPLIES	☐ Res. Criteria ☐ Non-Res. Criteria ☐ Impact to GW Soil ☐ Cleanup Criteria ☐ GW Criteria	☐ NY 375 GWP ☒ NY375 Unrestricted Use Soil ☐ NY375 Residential ☒ Restricted/Residential Commercial ☐ Industrial	☒ Phoenix Std Report ☐ Excel ☐ PDF ☐ GIS/Key ☐ EQUIS ☐ NJ Hazsite EDD ☐ NY EZ EDD (ASP) ☐ Other	☐ N. Reduced Deliv. * ☐ NY Enhanced (ASP B) * ☐ Other

State where samples were collected: NY



Thursday, October 24, 2019

Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Project ID: 2468 TIEBOUX AVE BRONX
SDG ID: GCE45348
Sample ID#s: CE45348 - CE45351

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

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

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

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

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

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

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



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



SDG Comments

October 24, 2019

SDG I.D.: GCE45348

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.



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Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

October 24, 2019

SDG I.D.: GCE45348

Project ID: 2468 TIEBOUX AVE BRONX

Client Id	Lab Id	Matrix
SV-1	CE45348	AIR
SV-2	CE45349	AIR
SV-3	CE45350	AIR
SV-4	CE45351	AIR



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



Analysis Report

October 24, 2019

FOR: Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: AIR
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 190107
Canister Id: 28563

Custody Information

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

Date

10/21/19 11:15
10/22/19 15:26

Time

Laboratory Data

SDG ID: GCE45348
Phoenix ID: CE45348

Project ID: 2468 TIEBOUX AVE BRONX
Client ID: SV-1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	10/23/19	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	10/23/19	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	10/23/19	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
4-Ethyltoluene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Acetone	5.16	0.421	0.421	12.2	1.00	1.00	10/23/19	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	10/23/19	KCA	1
Benzene	0.434	0.313	0.313	1.39	1.00	1.00	10/23/19	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	10/23/19	KCA	1

Client ID: SV-1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	10/23/19	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	10/23/19	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	10/23/19	KCA	1
Carbon Disulfide	2.90	0.321	0.321	9.02	1.00	1.00	10/23/19	KCA	1
Carbon Tetrachloride	ND	0.032	0.032	ND	0.20	0.20	10/23/19	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	10/23/19	KCA	1
Chloroform	2.21	0.205	0.205	10.8	1.00	1.00	10/23/19	KCA	1
Chloromethane	ND	0.485	0.485	ND	1.00	1.00	10/23/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	10/23/19	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	10/23/19	KCA	1
Dichlorodifluoromethane	0.306	0.202	0.202	1.51	1.00	1.00	10/23/19	KCA	1
Ethanol	2.56	0.531	0.531	4.82	1.00	1.00	10/23/19	KCA	1
Ethyl acetate	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Ethylbenzene	0.320	0.230	0.230	1.39	1.00	1.00	10/23/19	KCA	1
Heptane	2.28	0.244	0.244	9.34	1.00	1.00	10/23/19	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	10/23/19	KCA	1
Hexane	1.66	0.284	0.284	5.85	1.00	1.00	10/23/19	KCA	1
Isopropylalcohol	0.780	0.407	0.407	1.92	1.00	1.00	10/23/19	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
m,p-Xylene	1.17	0.230	0.230	5.08	1.00	1.00	10/23/19	KCA	1
Methyl Ethyl Ketone	0.614	0.339	0.339	1.81	1.00	1.00	10/23/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Methylene Chloride	ND	0.864	0.864	ND	3.00	3.00	10/23/19	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
o-Xylene	ND	0.230	0.230	ND	1.00	1.00	10/23/19	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	10/23/19	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
Styrene	ND	0.235	0.235	ND	1.00	1.00	10/23/19	KCA	1
Tetrachloroethene	0.459	0.037	0.037	3.11	0.25	0.25	10/23/19	KCA	1
Tetrahydrofuran	4.48	0.339	0.339	13.2	1.00	1.00	10/23/19	KCA	1
Toluene	3.65	0.266	0.266	13.7	1.00	1.00	10/23/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	10/23/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	10/23/19	KCA	1
Trichlorofluoromethane	0.596	0.178	0.178	3.35	1.00	1.00	10/23/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	10/23/19	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	10/23/19	KCA	1
<u>QA/OC Surrogates/Internals</u>									
% Bromofluorobenzene	96	%	%	96	%	%	10/23/19	KCA	1
% IS-1,4-Difluorobenzene	94	%	%	94	%	%	10/23/19	KCA	1
% IS-Bromochloromethane	94	%	%	94	%	%	10/23/19	KCA	1
% IS-Chlorobenzene-d5	101	%	%	101	%	%	10/23/19	KCA	1

Client ID: SV-1

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

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



Phyllis Shiller, Laboratory Director

October 24, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 24, 2019

FOR: Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: AIR
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 190107
Canister Id: 28582

Custody Information

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

Date

10/21/19 12:25
10/22/19 15:26

Time

Laboratory Data

SDG ID: GCE45348
Phoenix ID: CE45349

Project ID: 2468 TIEBOUX AVE BRONX
Client ID: SV-2

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	10/23/19	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	10/23/19	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	10/23/19	KCA	1
1,3-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
4-Ethyltoluene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Acetone	3.54	0.421	0.421	8.40	1.00	1.00	10/23/19	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	10/23/19	KCA	1
Benzene	0.341	0.313	0.313	1.09	1.00	1.00	10/23/19	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	10/23/19	KCA	1

Client ID: SV-2

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	10/23/19	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	10/23/19	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	10/23/19	KCA	1
Carbon Disulfide	1.52	0.321	0.321	4.73	1.00	1.00	10/23/19	KCA	1
Carbon Tetrachloride	0.065	0.032	0.032	0.41	0.20	0.20	10/23/19	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	10/23/19	KCA	1
Chloroform	5.77	0.205	0.205	28.2	1.00	1.00	10/23/19	KCA	1
Chloromethane	ND	0.485	0.485	ND	1.00	1.00	10/23/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	10/23/19	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	10/23/19	KCA	1
Dichlorodifluoromethane	ND	0.202	0.202	ND	1.00	1.00	10/23/19	KCA	1
Ethanol	0.662	0.531	0.531	1.25	1.00	1.00	10/23/19	KCA	1
Ethyl acetate	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Ethylbenzene	ND	0.230	0.230	ND	1.00	1.00	10/23/19	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	10/23/19	KCA	1
Hexane	0.395	0.284	0.284	1.39	1.00	1.00	10/23/19	KCA	1
Isopropylalcohol	ND	0.407	0.407	ND	1.00	1.00	10/23/19	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
m,p-Xylene	0.361	0.230	0.230	1.57	1.00	1.00	10/23/19	KCA	1
Methyl Ethyl Ketone	0.494	0.339	0.339	1.46	1.00	1.00	10/23/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Methylene Chloride	ND	0.864	0.864	ND	3.00	3.00	10/23/19	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
o-Xylene	ND	0.230	0.230	ND	1.00	1.00	10/23/19	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	10/23/19	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
Styrene	ND	0.235	0.235	ND	1.00	1.00	10/23/19	KCA	1
Tetrachloroethene	0.220	0.037	0.037	1.49	0.25	0.25	10/23/19	KCA	1
Tetrahydrofuran	2.43	0.339	0.339	7.16	1.00	1.00	10/23/19	KCA	1
Toluene	2.09	0.266	0.266	7.87	1.00	1.00	10/23/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	10/23/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	10/23/19	KCA	1
Trichlorofluoromethane	ND	0.178	0.178	ND	1.00	1.00	10/23/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	10/23/19	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	10/23/19	KCA	1
<u>QA/OC Surrogates/Internals</u>									
% Bromofluorobenzene	93	%	%	93	%	%	10/23/19	KCA	1
% IS-1,4-Difluorobenzene	108	%	%	108	%	%	10/23/19	KCA	1
% IS-Bromochloromethane	109	%	%	109	%	%	10/23/19	KCA	1
% IS-Chlorobenzene-d5	109	%	%	109	%	%	10/23/19	KCA	1

Client ID: SV-2

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

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



Phyllis Shiller, Laboratory Director

October 24, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 24, 2019

FOR: Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: AIR
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 190107
Canister Id: 460

Custody Information

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

Date

10/21/19 11:15
10/22/19 15:26

Time

Laboratory Data

SDG ID: GCE45348
Phoenix ID: CE45350

Project ID: 2468 TIEBOUX AVE BRONX
Client ID: SV-3

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	10/23/19	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	10/23/19	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	10/23/19	KCA	1
1,3-Dichlorobenzene	0.241	0.166	0.166	1.45	1.00	1.00	10/23/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
4-Ethyltoluene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Acetone	5.71	0.421	0.421	13.6	1.00	1.00	10/23/19	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	10/23/19	KCA	1
Benzene	ND	0.313	0.313	ND	1.00	1.00	10/23/19	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	10/23/19	KCA	1

Client ID: SV-3

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	10/23/19	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	10/23/19	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	10/23/19	KCA	1
Carbon Disulfide	ND	0.321	0.321	ND	1.00	1.00	10/23/19	KCA	1
Carbon Tetrachloride	0.038	0.032	0.032	0.24	0.20	0.20	10/23/19	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	10/23/19	KCA	1
Chloroform	3.41	0.205	0.205	16.6	1.00	1.00	10/23/19	KCA	1
Chloromethane	ND	0.485	0.485	ND	1.00	1.00	10/23/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	10/23/19	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	10/23/19	KCA	1
Dichlorodifluoromethane	0.741	0.202	0.202	3.66	1.00	1.00	10/23/19	KCA	1
Ethanol	2.49	0.531	0.531	4.69	1.00	1.00	10/23/19	KCA	1
Ethyl acetate	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Ethylbenzene	0.338	0.230	0.230	1.47	1.00	1.00	10/23/19	KCA	1
Heptane	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	10/23/19	KCA	1
Hexane	0.433	0.284	0.284	1.53	1.00	1.00	10/23/19	KCA	1
Isopropylalcohol	0.870	0.407	0.407	2.14	1.00	1.00	10/23/19	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
m,p-Xylene	1.42	0.230	0.230	6.16	1.00	1.00	10/23/19	KCA	1
Methyl Ethyl Ketone	0.348	0.339	0.339	1.03	1.00	1.00	10/23/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Methylene Chloride	ND	0.864	0.864	ND	3.00	3.00	10/23/19	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
o-Xylene	0.247	0.230	0.230	1.07	1.00	1.00	10/23/19	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	10/23/19	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
Styrene	ND	0.235	0.235	ND	1.00	1.00	10/23/19	KCA	1
Tetrachloroethene	0.622	0.037	0.037	4.22	0.25	0.25	10/23/19	KCA	1
Tetrahydrofuran	3.13	0.339	0.339	9.23	1.00	1.00	10/23/19	KCA	1
Toluene	3.11	0.266	0.266	11.7	1.00	1.00	10/23/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	10/23/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	10/23/19	KCA	1
Trichlorofluoromethane	22.7	0.178	0.178	127	1.00	1.00	10/23/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	10/23/19	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	10/23/19	KCA	1
<u>QA/OC Surrogates/Internals</u>									
% Bromofluorobenzene	95	%	%	95	%	%	10/23/19	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	10/23/19	KCA	1
% IS-Bromochloromethane	101	%	%	101	%	%	10/23/19	KCA	1
% IS-Chlorobenzene-d5	105	%	%	105	%	%	10/23/19	KCA	1

Client ID: SV-3

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

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



Phyllis Shiller, Laboratory Director

October 24, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Analysis Report

October 24, 2019

FOR: Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Sample Information

Matrix: AIR
Location Code: HYDROBRO
Rush Request: 72 Hour
P.O.#: 190107
Canister Id: 217

Custody Information

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

Date

10/21/19 11:00
10/22/19 15:26

Time

Laboratory Data

SDG ID: GCE45348
Phoenix ID: CE45351

Project ID: 2468 TIEBOUX AVE BRONX
Client ID: SV-4

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>									
1,1,1,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	0.146	ND	1.00	1.00	10/23/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	0.183	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,1-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	0.135	ND	1.00	1.00	10/23/19	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	0.130	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichloroethane	ND	0.247	0.247	ND	1.00	1.00	10/23/19	KCA	1
1,2-dichloropropane	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	0.143	ND	1.00	1.00	10/23/19	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
1,3-Butadiene	ND	0.452	0.452	ND	1.00	1.00	10/23/19	KCA	1
1,3-Dichlorobenzene	0.245	0.166	0.166	1.47	1.00	1.00	10/23/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	0.166	ND	1.00	1.00	10/23/19	KCA	1
1,4-Dioxane	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
2-Hexanone(MBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
4-Ethyltoluene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
4-Isopropyltoluene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	0.244	ND	1.00	1.00	10/23/19	KCA	1
Acetone	5.44	0.421	0.421	12.9	1.00	1.00	10/23/19	KCA	1
Acrylonitrile	ND	0.461	0.461	ND	1.00	1.00	10/23/19	KCA	1
Benzene	0.362	0.313	0.313	1.16	1.00	1.00	10/23/19	KCA	1
Benzyl chloride	ND	0.193	0.193	ND	1.00	1.00	10/23/19	KCA	1

Client ID: SV-4

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	0.149	ND	1.00	1.00	10/23/19	KCA	1
Bromoform	ND	0.097	0.097	ND	1.00	1.00	10/23/19	KCA	1
Bromomethane	ND	0.258	0.258	ND	1.00	1.00	10/23/19	KCA	1
Carbon Disulfide	2.75	0.321	0.321	8.56	1.00	1.00	10/23/19	KCA	1
Carbon Tetrachloride	ND	0.032	0.032	ND	0.20	0.20	10/23/19	KCA	1
Chlorobenzene	ND	0.217	0.217	ND	1.00	1.00	10/23/19	KCA	1
Chloroethane	ND	0.379	0.379	ND	1.00	1.00	10/23/19	KCA	1
Chloroform	3.00	0.205	0.205	14.6	1.00	1.00	10/23/19	KCA	1
Chloromethane	ND	0.485	0.485	ND	1.00	1.00	10/23/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.051	0.051	ND	0.20	0.20	10/23/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Cyclohexane	ND	0.291	0.291	ND	1.00	1.00	10/23/19	KCA	1
Dibromochloromethane	ND	0.118	0.118	ND	1.00	1.00	10/23/19	KCA	1
Dichlorodifluoromethane	0.263	0.202	0.202	1.30	1.00	1.00	10/23/19	KCA	1
Ethanol	3.31	0.531	0.531	6.23	1.00	1.00	10/23/19	KCA	1
Ethyl acetate	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Ethylbenzene	0.385	0.230	0.230	1.67	1.00	1.00	10/23/19	KCA	1
Heptane	0.627	0.244	0.244	2.57	1.00	1.00	10/23/19	KCA	1
Hexachlorobutadiene	ND	0.094	0.094	ND	1.00	1.00	10/23/19	KCA	1
Hexane	0.955	0.284	0.284	3.36	1.00	1.00	10/23/19	KCA	1
Isopropylalcohol	0.993	0.407	0.407	2.44	1.00	1.00	10/23/19	KCA	1
Isopropylbenzene	ND	0.204	0.204	ND	1.00	1.00	10/23/19	KCA	1
m,p-Xylene	1.61	0.230	0.230	6.99	1.00	1.00	10/23/19	KCA	1
Methyl Ethyl Ketone	ND	0.339	0.339	ND	1.00	1.00	10/23/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	0.278	ND	1.00	1.00	10/23/19	KCA	1
Methylene Chloride	ND	0.864	0.864	ND	3.00	3.00	10/23/19	KCA	1
n-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
o-Xylene	0.319	0.230	0.230	1.38	1.00	1.00	10/23/19	KCA	1
Propylene	ND	0.581	0.581	ND	1.00	1.00	10/23/19	KCA	1
sec-Butylbenzene	ND	0.182	0.182	ND	1.00	1.00	10/23/19	KCA	1
Styrene	ND	0.235	0.235	ND	1.00	1.00	10/23/19	KCA	1
Tetrachloroethene	0.735	0.037	0.037	4.98	0.25	0.25	10/23/19	KCA	1
Tetrahydrofuran	4.06	0.339	0.339	12.0	1.00	1.00	10/23/19	KCA	1
Toluene	3.10	0.266	0.266	11.7	1.00	1.00	10/23/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	0.252	ND	1.00	1.00	10/23/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	0.221	ND	1.00	1.00	10/23/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	10/23/19	KCA	1
Trichlorofluoromethane	0.895	0.178	0.178	5.03	1.00	1.00	10/23/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	0.131	ND	1.00	1.00	10/23/19	KCA	1
Vinyl Chloride	ND	0.078	0.078	ND	0.20	0.20	10/23/19	KCA	1
<u>QA/OC Surrogates/Internals</u>									
% Bromofluorobenzene	96	%	%	96	%	%	10/23/19	KCA	1
% IS-1,4-Difluorobenzene	103	%	%	103	%	%	10/23/19	KCA	1
% IS-Bromochloromethane	102	%	%	102	%	%	10/23/19	KCA	1
% IS-Chlorobenzene-d5	104	%	%	104	%	%	10/23/19	KCA	1

Client ID: SV-4

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

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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

Comments:

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



Phyllis Shiller, Laboratory Director

October 24, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



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



Canister Sampling Information

October 24, 2019

FOR: Attn: Ruijie Xu
Hydro Tech Env Geology and Eng, DPC
15 Ocean Avenue, 2nd Floor
Brooklyn, NY 11225

Location Code: HYDROBRO

SDG I.D.: GCE45348

Project ID: 2468 TIEBOUX AVE BRONX

Client Id	Lab Id	Canister		Reg. Id	Chk Out Date	Laboratory					Field			
		Id	Type			Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
SV-1	CE45348	28563	6.0L	6981	10/14/19	-30	-6	43	46	6.7	-29	-6.5	10/21/19 9:25	10/21/19 11:15
SV-2	CE45349	28582	6.0L	5704	10/14/19	-30	-10	43	20	73.0	-29	-12	10/21/19 9:55	10/21/19 12:25
SV-3	CE45350	460	6.0L	5396	10/14/19	-30	-7	43	44	2.3	-30	-7.5	10/21/19 9:30	10/21/19 11:15
SV-4	CE45351	217	6.0L	3178	10/14/19	-30	-4	43	46	6.7	-30	-5	10/21/19 9:15	10/21/19 11:10



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QA/QC Report

October 24, 2019

QA/QC Data

SDG I.D.: GCE45348

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 502877 (ppbv), QC Sample No: CE45302 (CE45348, CE45349, CE45350, CE45351)												
Volatiles												
1,1,1,2-Tetrachloroethane	ND	0.200	ND	1.37	98	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.200	ND	1.09	105	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.200	ND	1.37	97	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.200	ND	1.09	98	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.200	ND	0.81	106	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.200	ND	0.79	107	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	92	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.200	ND	1.54	104	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.200	ND	1.20	100	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.200	ND	0.81	112	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.200	ND	0.92	109	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	103	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	103	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.452	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.200	ND	1.20	92	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.200	ND	1.20	98	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.278	ND	1.00	107	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.244	ND	1.00	97	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.204	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
4-Isopropyltoluene	ND	0.182	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	104	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	0.421	ND	1.00	105	7.00	6.72	2.95	2.83	4.2	70 - 130	25
Acrylonitrile	ND	0.461	ND	1.00	95	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.313	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
Benzyl chloride	ND	0.193	ND	1.00	120	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.200	ND	1.34	110	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.200	ND	2.07	92	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.200	ND	0.78	103	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.321	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.200	ND	1.26	116	ND	ND	ND	ND	NC	70 - 130	25
Chlorobenzene	ND	0.200	ND	0.92	104	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.200	ND	0.53	101	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	112	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.200	ND	0.41	83	1.31	1.15	0.637	0.558	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	111	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	112	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.291	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.200	ND	1.70	106	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	135	2.32	2.05	0.470	0.415	NC	70 - 130	25
Ethanol	ND	0.531	ND	1.00	104	4.12	3.69	2.19	1.96	NC	70 - 130	25

QA/QC Data

SDG I.D.: GCE45348

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	0.278	ND	1.00	116	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.230	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Heptane	ND	0.244	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
Hexachlorobutadiene	ND	0.094	ND	1.00	96	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.284	ND	1.00	96	ND	ND	ND	ND	NC	70 - 130	25
Isopropylalcohol	ND	0.407	ND	1.00	91	1.53	1.47	0.621	0.600	NC	70 - 130	25
Isopropylbenzene	ND	0.204	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.230	ND	1.00	107	ND	ND	ND	ND	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.339	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.200	ND	0.69	108	1.81	1.48	0.520	0.426	NC	70 - 130	25
n-Butylbenzene	ND	0.182	ND	1.00	102	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.230	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
Propylene	ND	0.581	ND	1.00	144	ND	ND	ND	ND	NC	70 - 130	25
sec-Butylbenzene	ND	0.182	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.235	ND	1.00	102	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.200	ND	1.36	102	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	0.339	ND	1.00	104	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.266	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.200	ND	0.79	94	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.200	ND	0.91	105	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.200	ND	1.07	101	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.200	ND	1.12	101	1.74	1.60	0.310	0.285	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.200	ND	1.53	104	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.200	ND	0.51	97	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	89	%	89	%	96	91	93	91	93	NC	70 - 130	25
% IS-1,4-Difluorobenzene	132	%	132	%	80	117	111	117	111	NC	60 - 140	25
% IS-Bromochloromethane	144	%	144	%	74	124	113	124	113	NC	60 - 140	25
% IS-Chlorobenzene-d5	121	%	121	%	84	111	107	111	107	NC	60 - 140	25

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

s = This parameter is outside laboratory Blank Surrogate specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

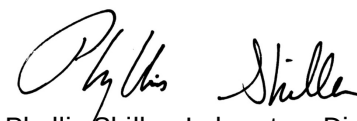
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

October 24, 2019

Thursday, October 24, 2019

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCE45348 - HYDROBRO

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

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



CHAIN OF CUSTODY RECORD AIR ANALYSES

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery: ☐ Fax # _____ ☒ Email: phoenixlabs@phoenixlabs.com
Pg. 1 of 1

Report to: Ruffie Xu Invoice to: Anna Maria Guerrieri Project Name: 190107
Address: 15 Ocean Ave, 2nd Fl, Brooklyn, NY 11225 Address: 27 Arden Drive, Suite K, Hempstead, NY 11788 Location: 2468 Ticehurst Ave., Bronx
Project Mgr: Ruffie Xu P.O. # _____ State: NY
Phone # 718-626-0800 Quote # HY100819BA Sampled by: Ruffie Xu

Phoenix ID #	Client Sample ID	LAB USE ONLY				Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start ("Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	MATRIX		ANALYSES		Is Canister Returned Unused? Y/N
		Canister ID #	Canister Size (L)	Outgoing Canister Pressure ("Hg)	Incoming Canister Pressure ("Hg)								Soil Gas	Grab (G) Composite (C)	TO-14	TO-15	
45348	SV-1	28563	6	-6	-6	6981	9:25	11:15	10/21/19	-29	-6.5		✓		✓		N
45349	SV-2	28563 28582	6	-10	-10	6981 5704	9:30	12:25		-30	-12		✓		✓		N
45350	SV-3	460	6	-7	-7	5396	9:30	11:15		-30	-7.5		✓		✓		N
45351	SV-4	217	6	-4	-4	3178	9:45	11:10		-30	-5		✓		✓		N
		19786				2974											N
		28603				28653											Y

Relinquished by: [Signature] Date: 10/21/19 12:30 Criteria Requested: N/A Deliverable: ☒ Excel ☐ RCP ☐ Equis ☐
Accepted by: [Signature] Date: 10/23/19 9:40 MCP ☐ Other: ☐
Date where samples collected: 10/22/19 15:20 CISKey ☐
SPECIAL INSTRUCTIONS, OC REQUIREMENTS, REGULATORY INFORMATION:
Refer to Quote # HY100819BA
Flow Controller # 2974 (originally connected w/ Summa canister #19786) didn't work after 30 min connection. SV-2 was reconnected w/ flow controller # 5704 and Summa canister # 28582
I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.
Signature: _____ Date: _____