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PHASE II
LIMITED SITE INVESTIGATION

FOR

PROPOSED HELEN HAYES RECREATIONAL FACILITY

SECTION 10, BLOCK 4, LOT 1.1 and BLOCK 5, LOT 7

VILLAGE OF WEST HAVERSTRAW, ROCKLAND COUNTY, NEW YORK

JUNE 8, 2020

Prepared for:

Town of Haverstraw
One Rosman Road
Garnerville, New York 10923

Prepared by:

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PHASE II LIMITED SITE INVESTIGATION

Proposed Helen Hayes Recreational Facility
Village of West Haverstraw, Rockland County, New York

1.0 SITE DESCRIPTION

The Site is identified as Section 10, Block 4, Lot 1.1 and Block 5, Lot 7 (portion) in the Village of West Haverstraw, Rockland County NY (See figures 1 - 4). The coordinates of the center of the Site are at 41.2130 Latitude and -73.9940 Longitude. The Site Vicinity Map is located in Appendix A. The Site Plan is located in Appendix B. It is located in the northwestern portion of the Village of West Haverstraw at the northeast corner of the intersection of Central Highway (Route 33) and Chapel Street in an area characterized by residential, commercial and institutional uses. Surface topography across the property and in the surrounding area is slightly to moderately sloping with a slope towards the north and west. The above lots total approximately 25 acres, which is hereby identified as the subject site. The parcel has no permanent structures within its boundaries. It is dominated by mainly a mowed oldfield and a successional hardwood forest with minimal herbaceous and shrub growth beneath the canopy. The wetland areas contain most of the herbaceous and shrub growth. Based on a review of historic aerial photographs and the existing vegetation, with the exception of the mowing, the site has had little or no disturbance in the recent past.

ACA reviewed the United States Department of Agriculture's *Soil Survey for Rockland County* published on the Department's WebSoil website. Soils at the Site are mapped as Alden silt loam (Ad), Urban land (Ux), Wallington silt loam (Wa) and Wethersfield gravelly silt loam, 3 to 8 percent slopes (WeB). These map units consist of nearly level to gently sloping, moderate-to poorly-drained soils with groundwater levels at approximately 5 feet below the surface of the ground. The Alden series is listed as a hydric (wetland) soil, but the other soils are not hydric. A review of the United States Geologic Survey (USGS) mapping for the area, indicated that the Site is underlain by sedimentary formations typical of the Brunswick formation. The Brunswick formation is defined as a reddish-brown shale, siltstone and mudstone with a few green and brown shale interbeds; red and dark-gray interbedded argillites near the base.

The subject property is level to gently sloping. According to the United States Geological Survey (USGS) Haverstraw, NY 7.5 Minute Series topographic map, most recently dated 2016; the property elevation is approximately 150-160 feet above mean sea level. The regional gradient slopes toward the north and the Cedar Pond Brook.

The Site map below is from the Haverstraw, NY USGS Topographic Quad.

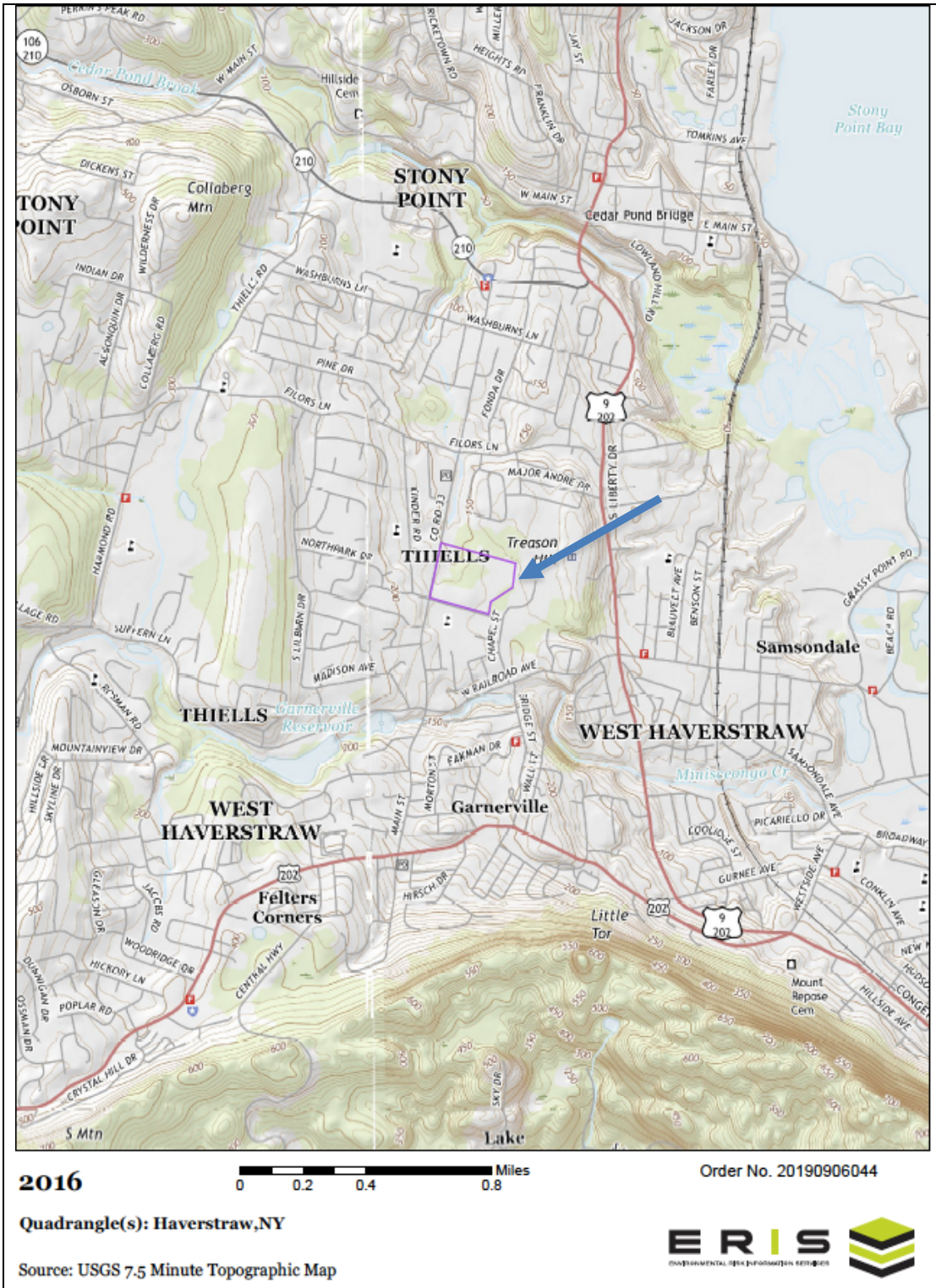


Figure 5-1: Site Location on USGS Quad Map, Haverstraw, NY Quad. Scale as shown

2.0 BACKGROUND

ACA completed a Phase I Environmental Site Assessment (ESA) for the site in September 2019, which identified the following recognized environmental conditions (RECs) in connection with the site:

- **Possible past use of agricultural pesticides:** The aerial photograph review conducted during the ESA identified the potential for historic pesticide use consistent with the past agricultural activities at the Site. During the Phase I ESA, ACA collected 4 soil samples for analysis for pesticides, lead and arsenic. One sample, 20190905-01, at 64.4 mg/kg, exceeded the NYCRR Part 375 unrestricted use limit for lead (63 mg/kg).
- **Numerous unidentified 55-gallon drums in various stages of decomposition:** ACA observed evidence of unidentified substance containers on the property as summarized below and depicted on the site plan.

UNIDENTIFIED SUBSTANCE CONTAINERS			
Material Description	**Quantity & Container Type**	**Location**	**Condition of Containers & Area**
None identified	55- gallon drum	Northwestern portion of the Site in and near the wetlands	Estimated between 15-20 drums unlabeled and rusty, no staining or other indication of a release.

The presence of the listed unidentified substance containers represents a REC based on the number of containers as well as the observed deteriorated conditions.

- **Dumping of drums, vehicle bodies, motorized equipment, metal, wood and other debris:** ACA observed evidence of the generation, storage or disposal of nonhazardous solid waste in, on or at the property as summarized below and depicted on the site plan.

NONHAZARDOUS SOLID WASTE SUMMARY TABLE						
Type of Waste	**Generation Process**	**Quantity**	**Type of Storage**	**Location**	**Disposal/Removal Method & Frequency**	**Evidence of Release?**
Construction & demolition debris Scrap metal Scrap vehicle parts	Presumed farm dump	15-20 locations	Drum	Northwest-ern portion of the Site in and near the wetlands	Not applicable	Unknown

The presence of the listed non-hazardous solid waste represents a REC based on the observed conditions.

3.0 SCOPE OF SERVICES

3.1 Scope of Work

ACA Consultants, Inc. (ACA) was contracted to investigate potential releases of constituents of concern (COCs) in soil and groundwater in connection with the identified RECs. ACA completed the following scope of work:

- Seven soil borings were advanced throughout the site to investigate the potential releases of constituents of concern (COCs) in soil and groundwater in connection with the identified RECs.
- A geophysical survey was conducted to clear the boring locations prior to drilling and help identify the location of any subsurface structures.
- Two of the soil borings were converted to temporary wells to investigate potential groundwater contamination from previous site operations.

3.2 Standard of Care

ACA's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. ACA makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that ACA does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These LSI services were performed in general accordance with the scope of work agreed with you, our client, as reflected in our proposal.

3.3 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our

recommendations are based solely upon data obtained at the time and within the scope of these services.

3.4 Reliance

This report has been prepared for the exclusive use of Hammer Land Engineering and the Town of Haverstraw. Use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Hammer Land Engineering, the Town of Haverstraw and ACA. Any unauthorized distribution or reuse is at client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal and this LSI report. The limitation of liability defined in the terms and conditions is the aggregate limit of ACA's liability to Hammer Land Engineering and the Town of Haverstraw and all relying parties unless otherwise agreed in writing.

4.0 FIELD INVESTIGATION

ACA performed the fieldwork from November 4 through November 5, 2019 under a safety plan developed for this project. Work was performed using United States Environmental Protection Agency (USEPA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots.

4.1 Geophysical Survey

Master Locators (ML) performed the geophysical survey on November 4, 2019. ML used ground conductivity electromagnetic (EM) and ground penetrating radar (GPR) methods to identify potential USTs and other structures and radio frequency (RF) to identify potential underground utilities. GPR data identified no disturbance consistent with any historic fill throughout the site and an area that included two non-metallic anomalies, likely related to subsurface utility lines. No other anomalies were identified by ML.

During the scan, the GPR identified a linear magnetic feature in the open field about 4' beneath the ground. It was marked with pink spray paint on the surface. The area was carefully excavated and a 4" iron pipe was observed running generally southwest to northeast that appeared to be in line with a power poles on the property lines. Mike Cotier of the Town of Haverstraw was notified of the finding. The excavation was then filled in. Later that day, Mr. Bill Perry from Orange-Rockland Utilities (O-RU) came to the site following their mark out. He advised that O-RU has no subsurface lines that cross the site.

4.2 Soil Borings

Between November 4 through November 5, 2019, ACA advanced seven environmental borings using Geoprobe® direct-push methodology. The borings were distributed through the site to provide a representation of the distribution of RECs on the site. These borings were advanced to a depth of between 10 and 15 feet below the ground surface (bgs), or to refusal, or to 20 feet if a temporary well was intended for the location. Continuous soil samples were collected from each location using 5-ft. macro-cores. Soil samples were screened using a photoionization detector (PID) capable of detecting total organic vapor (TOV) levels. Environmental soil samples were collected from seven locations and two distinct intervals at each location and submitted under a chain of custody for laboratory analysis by Alpha Analytical (Alpha), a New York certified laboratory. Soil samples were analyzed for the USEPA target compound list/target analyte list (TCL/TAL) and tentatively identified compounds (TICs), and the Per- and Poly-fluorinated Alkyl Substances (PFAS) list of chemical compounds. In addition, five shallow borings were advanced to 12 inches in the vicinity of SS-1 (20190905-01) to delineate the vertical and horizontal extent of the previously recorded exceedance of lead at that location. A total of seventeen (17) samples were obtained for this purpose.

Soil boring locations are shown in the Exhibit A-2 Boring Location Diagram, which is attached in Appendix A.

4.3 Temporary Monitoring Wells

Upon completion of soil sampling, temporary polyvinyl chloride (PVC) groundwater monitoring wells with 10’ screens were installed in soil boring locations TW-1 and TW-2. Prior to collecting groundwater samples, the temporary well was purged to remove stagnant water and fine sediments that entered during well installation. One groundwater sample was collected from each temporary well with a disposable bailer and submitted for laboratory analysis to Alpha under a chain of custody. The groundwater samples were analyzed for TCL/TAL plus TICs and the Per- and Poly-fluorinated Alkyl Substances (PFAS) list of chemical compounds. ACA obtained one filtered and one unfiltered sample for analysis for TAL metals due to the possible presence of suspended material.

Temporary well locations are shown in the Exhibit A-2 Boring Location Diagram, which is attached in Appendix A.

5.0 DATA EVALUATION

The LSI findings indicate that the property is primarily underlain naturally-occurring material, in depths ranging from 6 to over 20 feet bgs. An area of former wetlands has been filled over the

years by persons and materials unknown. In some areas ACA noted as much as 3' of refuse including the metal and wood, bricks, tires, concrete blocks up to 3' in size, bottles, light bulbs, vinyl floor tiles, and landscaping materials. Odors, elevated PID readings, or other evidence of releases were not encountered during environmental drilling activities. The boring logs are included in Appendix C and the full laboratory reports are included in Appendix D.

5.1 Soil Sample Results

Seventeen soil samples were obtained from the area surrounding SS-1 (20190905-01) to delineate the vertical and horizontal extent of the previously recorded exceedance of lead at that location. Soil sample analytical results were compared to the New York Department of Environmental Conservation (NYDEC) regulations enumerated in 6 NYCRR Part 375 – Environmental Remediation Programs and CP-51 / Soil Cleanup Guidance, Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives (URUSCO). Sample 1104-4S (66.3 mg/kg) exceeded the limits contained in the URUSCO of 65 mg/kg. Each was obtained from the 0-6-inch interval. Sample 1104-4D at the deeper 6-12-inch interval was below the URUSCO.

To initially evaluate the RECs related to dumping at the site, ACA conducted seven borings and collected shallow and deep samples at each location. Shallow samples (designated with "S" in the sample number) were obtained from the 0-6 inch interval, while deeper samples (designated with a "D" in the sample number) were obtained from the 30-36 inch interval. Analysis of the deeper samples was held pending the results of the shallow samples. Only samples 1104-5S (Lead @ 125 mg/kg: URUSCO = 65 mg/kg; 4,4'-DDE @ 0.00724 mg/kg: URUSCO = 0.0033 mg/kg and 4,4'-DDT @ 0.0133 mg/kg: URUSCO = 0.0033 mg/kg), 1104-8S (4,4'-DDE @ 0.00364 mg/kg: URUSCO = 0.0033 mg/kg) and 4,4'-DDT @ 0.0133 mg/kg: URUSCO = 0.0033 mg/kg) and 1104-9S (Phenol @ 0.44 mg/kg: URUSCO = 0.33 mg/kg; Aroclor 1254 (PCB) @ 1.25 mg/kg: URUSCO= 0.1 mg/kg and Cadmium @ 36.4 mg/kg: URUSCO = 2.5 mg/kg) returned results that exceeded any URUSCO limits. The deeper samples were not run due to laboratory error..

The NYDEC is requiring sampling of all environmental media and subsequent analysis for the emerging contaminants Polyfluoroalkyl Substances (PFAS) as part of all remedial programs implemented under 6 NYCRR Part 375. If PFAS is detected in any sample proposed for use as backfill at or above 1 ug/kg (part per billion), then a soil sample must be tested by the Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed. Perfluorinated Alkyl Acids (PFOA/PFOS) were analyzed by Isotope Dilution for each soil sample. Of the seven samples analyzed for PFOA/PFOS, samples 1104-5 (88.1 ug/kg), 1104-8 (1.33 ug/kg) and 1104-9 (3.97 ug/kg) exceeded the limit of 1 ug/kg. These compounds are considered to be present at levels that may exceed the standard but are estimated because their values fall between the minimum detection level (MDL) and the reporting level (RL). Further investigation may be required by the NYDEC upon their review.

Soil analytical results are summarized in the attached Microsoft Excel sheets of Appendix B and the full laboratory reports are located in Appendix D.

5.2 Groundwater Sample Results

Upon completion of soil sampling, temporary polyvinyl chloride (PVC) groundwater monitoring wells with 10' screens were installed in soil boring locations TW-1 and TW-2. TW-1 was installed at the location of soil boring 1104-5 and TW-2 was installed at soil boring 1104-6. Locations were chosen due to the proliferation of dumped materials that included empty drums, auto parts and other suspect materials. The following compounds were identified in TW-1 at estimated concentrations above the NYDEC's AWQS: Benzo(a)anthracene: 0.05 ug/l (AWQS = 0.002 ug/l); Benzo(a)pyrene: 0.03 ug/l (AWQS = 0.0 ug/l); Benzo(b)fluoranthene: 0.04 ug/l (AWQS = 0.002 ug/l); Benzo(k)fluoranthene: 0.02 ug/l (AWQS = 0.002 ug/l); Chrysene: 0.03 ug/l (AWQS = 0.002 ug/l) and Indeno(1,2,3-cd)pyrene: 0.03 ug/l (AWQS = 0.002 ug/l). These compounds are considered to be present at levels that exceed the AWQS but are estimated because their values fall between the minimum detection level (MDL) and the reporting level (RL). Two metals were identified above the AWQS as follows: Iron: 3,860 ug/l (AWQS = 300 ug/l) and Manganese: 753.2 ug/l (AWQS = 300 ug/l). These results represent an unfiltered sample which is subject to higher metal concentrations due to the presence of suspended particles. Results of the filtered samples are pending at the time of this report but will be included in an addendum, once received.

The following compounds were identified in TW-2 at estimated concentrations above the NYDEC's AWQS: Iron: 18,800 ug/l (AWQS = 300 ug/l) Lead: 40.53 ug/l (AWQS = 25 ug/l) Manganese: 1,900 ug/l (AWQS = 300 ug/l) and Sodium: 79,600 ug/l (AWQS = 20,000 ug/l).

Perfluorinated Alkyl Acids (PFOA/PFOS) were analyzed by Isotope Dilution for each ground water sample. No specific AWQS is presently listed, however NYDEC currently recognizes a maximum concentration of 70 parts per trillion (ppt) as the allowable limit. The PFOA/PFOS total for TW-1 was 37 ppt and the total for TW-2 was 24.4 ppt. Each was substantially below the recognized maximum limit.

Groundwater analytical results were compared to the New York Department of Environmental Conservation (NYDEC) regulations Ambient Water Quality Standards (AWQS). Analytical results are summarized below and in the attached Microsoft Excel sheets of Appendix B and the full laboratory reports are located in Appendix D.

6.0 CONCLUSIONS

Based on the scope of services described in this document and subject to the limitations described herein, ACA concludes the following:

- The lead exceedance identified in soil sample 20190905-01 has been delineated to below the NYDEC's Unrestricted Use Soil Cleanup Objectives. The area of impact is approximately 25 feet by 25 feet and 12 inches deep. ACA discussed the issue with Mr. Michael Kilmer of NYDEC's New Paltz office. He has recommended that the exceedance be reported to the NYDEC's Hot Line at 800-457-7362 following which the case would be referred to him for follow up.
- Lead, pesticides and PCBs are present at low levels; however, those levels still exceed the Unrestricted Use Soil Cleanup Objectives. Further investigation may be required by the NYDEC upon their review.
- PFOA/PFOS compounds are present in the soil at levels that may exceed the standard. Further investigation may be required by the NYDEC upon their review.
- Several Semi-Volatile Organic Compounds (SVOC), specifically Polycyclic Aromatic Hydrocarbons (PAH) are present in the ground water. These are commonly occurring compounds in developed areas and may be regulated by NYDEC by placing restrictions on the use of the ground water for potable purposes. Follow up with NYDEC is recommended.
- PFOA/PFOS compounds are present in the ground water at levels that do not exceed the limit recommended by NYDEC per ACA's discussion with Mr. Kilmer.

7.0 GENERAL COMMENTS

The LSI was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions and recommendations expressed in this reports is relevant to the date on which this survey was performed, and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by Hammer Land Engineering and the Town of Haverstraw for specific application to their project as discussed. This report is not a bidding document. Contractors or consultants reviewing this report must draw their own conclusion regarding further investigation or remediation deemed necessary. ACA does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report. No warranty, express or implied is made.

APPENDIX A – FIGURES

Exhibit A-1 – Site Location Map

Exhibit A-2 – Exploration Location Diagram



Site Location on USGS Quad Map, Haverstraw, NY Quad. Scale as shown

Prepared by: Acer Consulting Associates, LLC **September 30, 2019**

CENTRAL HIGHWAY - COUNTY ROUTE 33

AREA OF SURVEY

WET AREA

WET AREA WITH PHRAGMITES

STREAM NOT WELL DEFINED

Soil borings in woods are pink white and blue flags
Temporary Wells are pink and white flags

1104-5 TW-1

1104-6 / TW-2

1104-7

1104-8

1104-9

1104-10

SS#3 September 2019

SS#2 September 2019

SS#1 September 2019

SS#4 September 2019

1105-1

1105-2

Location & orientation of 4" pipe observed at approximately 4" below grade. 3 linear anomalies were recorded so there may be additional pipes.

1104-1A
1104-2A
1104-1
1104-2
1104-4
1104-3
1104-4A
1104-3A

Soil borings in field are pink flags on wire

INL GR 155.24 INV 150.79 (S) INV 145.94 (N)

INL GR 155.46 INV 151.26 (S) INV 151.16 (N)

PK NAIL N 867840.12 E 630651.42 156.68

INL GR 159.09 INV 155.49 (E) INV 155.29 (N)

INL GR 159.48 INV 158.53

INL GR 164.31 INV 162.51

24 x 42 ECMP INV 158.08

SMH RIM 165.19 INV 159.44 (S) INV 159.39 (E)

24"HDPE

INL GR 164.40 INV 159.60 (W) INV 159.50 (E)

38"CMP INV 156.25

38"CMP INV 157.22

SMH RIM 165.61 INV 155.01

INL GR 159.44 INV IN INV OUT

DMH RIM 168.57 INV 163.07 (S) INV 162.77 (N)

INL GR 167.91 INV 165.61

PK NAIL N 867135.65 E 630500.02 169.57

INL GR 172.20 INV 167.15 (S) INV 167.00 (N)

INL GR 173.36 INV 168.41(W) INV 167.51(N)

GR 172.71 INV 170.01

PK NAIL N 866926.43 E 630628.28 172.41

INL GR 158.97 INV 153.47

UP 59335 UP 59287 UP 59275 UP 59289 UP 59342 UP 59310 UP 123 UP 65 UP 59349

CINDER ROAD

BITUMINOUS PAVING

BITUMINOUS WALK

CONCRETE PAD

CONCRETE SIDEWALK

CONCRETE CURB

HIGH CHAIN LINK FENCE

WOOD FENCE

WOODED

GRASS

DEC 12 DEC 15 DEC 18 DEC 21 DEC 24 DEC 27

NOTES:

EXISTING INFORMATION SHOWN BASED ON A FIELD SURVEY BY PENNONI ASSOCIATES INC. ON 10/29/2018.

REFERENCE:
- PLAN ENTITLED "HELEN HAYES BALL FIELDS - PROPOSED BOUNDARY SURVEY", BY MASER., DATED 8/1/12, PROJECT #HVP137.

IT IS THE RESPONSIBILITY OF ALL DESIGNERS & CONTRACTORS UTILIZING THIS PLAN & THE INFORMATION CONTAINED THEREON TO CALL THE NY ONE-CALL SYSTEM AT 1-800-962-7962 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY, RECORD PLANS, AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE ARE SHOWN IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY EXPOSED UNDERGROUND UTILITIES FOR LOCATION.

VERTICAL INFORMATION BASED ON NAVD 1988 - LEICA SMART NET.

LEGEND

- FENCE
- CURB
- DEPRESSED CURB
- SPOT ELEVATION (46.34)
- LIGHT
- BOLLARD
- SIGN
- CONTOUR
- WATER LINE
- SANITARY SEWER
- STORM SEWER
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- GAS VALVE
- SANITARY MANHOLE
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- FIRE HYDRANT
- UTILITY POLE
- WATER VALVE
- AREA OF SURVEY
- TREE LINE
- BRUSH / PHRAGMITES LINE
- DECIDUOUS TREE
- WET AREA

0 40' 80'

Pennoni

PENNONI ENGINEERING & SURVEYING OF NEW YORK, P.C.
31 W. 34th Street, 8th Floor, #8038
New York, NY 10001
T 212.239.7600 F 212.465.1730

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER BEFORE BEGINNING WORK. REPORT DISCREPANCIES BEFORE PROCEEDING WITH WORK

STATE OF NEW YORK — 090... — LICENSED PROFESSIONAL ENGINEER — LAND SURVEYOR

Dennis S. DiBiasio, PLS
NEW YORK LIC. 02830700

NO.	DATE	REVISIONS	BY

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HELEN HAYES PARK

CENTRAL HIGHWAY AND CINDER ROAD
VILLAGE OF WEST HAVERSTRAW, ROCKLAND CO., NY

TOPOGRAPHY SURVEY

SUBURBAN CONSULTING ENGINEERS, INC.
96 US HIGHWAY 206, SUITE 101
FLANDERS, NJ, 07836

PROJECT	SUBCE 18001
DATE	2018 11 01
DRAWING SCALE	1"= 40'
DRAWN BY	CWS
APPROVED BY	DSD

V0401

SHEET 1 OF 1

U:\Active\SUBURB\SUBCE\SUBCE18001 - Helen Hayes Park Haverstraw\DESIGN\VISED\REVISED\SCE18001-V0401.dwg — PLOTTED: 1/20/2019 3:29 PM, BY: Charles Smith — PLOTSTYLE: Pennoni.MCS.ctb — PROJECT STATUS: —

APPENDIX B – TABLES

Table B-1 – Summary of Soil Sample Analytical Results

Table B-2 – Summary of Groundwater Sample Analytical Results

				SAMPLE ID:	1104-5S				1104-6S				1104-7S				1104-8S				1104-9S				1104-10S			
				LAB ID:	L1952316-18				L1952316-20				L1952316-22				L1952316-24				L1952316-26				L1952316-28			
				COLLECTION DATE:	11/4/2019				11/4/2019				11/4/2019				11/4/2019				11/4/2019				11/4/2019			
				SAMPLE DEPTH:																								
				SAMPLE MATRIX:	SOIL				SOIL				SOIL				SOIL				SOIL				SOIL			
		NY-CP51	NY-RESR	NY-UNRES																								
ANALYTE	CAS	(mg/kg)	(mg/kg)	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANICS BY EPA 5035																												
1,4-Dioxane	123-91-1		9.8	0.1	ND		0.1	0.045	ND		0.089	0.039	ND		0.12	0.052	ND		0.1	0.045	ND		0.1	0.044	ND		0.091	0.04
Total VOCs					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEMIVOLATILE ORGANICS BY GC/MS																												
Phenol	108-95-2		100	0.33	ND		0.18	0.027	ND		0.19	0.029	ND		0.23	0.035	ND		0.2	0.03	0.44		0.21	0.032	ND		0.19	0.029
Total SVOCs					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	-	-	-	-
ORGANOCHLORINE PESTICIDES BY GC																												
4,4'-DDE	72-55-9		1.8	0.0033	0.00724		0.00172	0.000397	0.000546	J	0.00182	0.00042	0.00155	J	0.00223	0.000515	0.00364		0.00192	0.000445	ND		0.00199	0.000461	ND		0.00176	0.000408
4,4'-DDT	50-29-3		1.7	0.0033	0.0133		0.00322	0.00138	0.00233	J	0.0034	0.00146	0.00257	J	0.00418	0.00179	0.00328	JIP	0.00361	0.00155	ND		0.00374	0.0016	ND		0.0033	0.00142
POLYCHLORINATED BIPHENYLS BY GC																												
Aroclor 1016	12674-11-2		1	0.1	ND		0.0365	0.00324	ND		0.0392	0.00348	ND		0.0466	0.00414	ND		0.0397	0.00352	ND		0.207	0.0184	ND		0.0365	0.00324
Aroclor 1221	11104-28-2		1	0.1	ND		0.0365	0.00365	ND		0.0392	0.00393	ND		0.0466	0.00467	ND		0.0397	0.00398	ND		0.207	0.0208	ND		0.0365	0.00366
Aroclor 1232	11141-16-5		1	0.1	ND		0.0365	0.00773	ND		0.0392	0.00832	ND		0.0466	0.00989	ND		0.0397	0.00841	ND		0.207	0.044	ND		0.0365	0.00774
Aroclor 1242	53469-21-9		1	0.1	ND		0.0365	0.00492	ND		0.0392	0.00529	ND		0.0466	0.00629	ND		0.0397	0.00535	ND		0.207	0.028	ND		0.0365	0.00492
Aroclor 1248	12672-29-6		1	0.1	ND		0.0365	0.00547	ND		0.0392	0.00589	ND		0.0466	0.007	ND		0.0397	0.00595	ND		0.207	0.0311	ND		0.0365	0.00548
Aroclor 1254	11097-69-1		1	0.1	ND		0.0365	0.00399	ND		0.0392	0.00429	ND		0.0466	0.0051	ND		0.0397	0.00434	1.25		0.207	0.0227	ND		0.0365	0.004
Aroclor 1260	11096-82-5		1	0.1	0.0121	J	0.0365	0.00674	ND		0.0392	0.00725	ND		0.0466	0.00862	ND		0.0397	0.00733	ND		0.207	0.0383	ND		0.0365	0.00675
Aroclor 1262	37324-23-5		1	0.1	ND		0.0365	0.00463	ND		0.0392	0.00498	ND		0.0466	0.00592	ND		0.0397	0.00504	ND		0.207	0.0263	ND		0.0365	0.00464
Aroclor 1268	11100-14-4		1	0.1	ND		0.0365	0.00378	ND		0.0392	0.00406	ND		0.0466	0.00483	ND		0.0397	0.00411	ND		0.207	0.0215	ND		0.0365	0.00378
PCBs, Total	1336-36-3		1	0.1	0.0121	J	0.0365	0.00324	ND		0.0392	0.00348	ND		0.0466	0.00414	ND		0.0397	0.00352	1.25		0.207	0.0184	ND		0.0365	0.00324
TOTAL METALS																												
Cadmium, Total	7440-43-9		2.5	2.5	0.401	J	0.891	0.087	0.186	J	0.931	0.091	0.351	J	1.13	0.111	0.328	J	0.937	0.092	36.4		0.981	0.096	0.18	J	0.9	0.088
Lead, Total	7439-92-1		400	63	125		4.45	0.239	13.4		4.65	0.249	31.6		5.66	0.304	47.2		4.69	0.251	35.8		4.9	0.263	8.96		4.5	0.241
GENERAL CHEMISTRY																												

* Comparison is not performed on parameters with non-numeric criteria.

NY-CP51: New York DEC CP-51 Soil Cleanup Levels Criteria per NY CP-51 Soil Cleanup Levels dated October 21, 2010.
NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

				SAMPLE ID:	1105-01S			
				LAB ID:	L1952432-09			
				COLLECTION DATE:	11/5/2019			
				SAMPLE DEPTH:				
				SAMPLE MATRIX:	SOIL			
		NY-CP51	NY-RESR	NY-UNRES				
ANALYTE	CAS	(mg/kg)	(mg/kg)	(mg/kg)	Conc	Q	RL	MDL
VOLATILE ORGANICS BY EPA 5035								
SEMIVOLATILE ORGANICS BY GC/MS								
ORGANOCHLORINE PESTICIDES BY GC								
4,4'-DDT	50-29-3		1.7	0.0033	ND		0.00358	0.00153
POLYCHLORINATED BIPHENYLS BY GC								
TOTAL METALS								
GENERAL CHEMISTRY								

* Comparison is not performed on parameters with non-numeric criteria.

NY-CP51: New York DEC CP-51 Soil Cleanup Levels Criteria per NY CP-51 Soil Cleanup Levels dated October 21, 2010.
NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

		SAMPLE ID:	TW-1				TW-2				FIELD BLANK			
		LAB ID:	L1952432-05				L1952432-06				L1952432-11			
		COLLECTION DATE:	11/5/2019				11/5/2019				11/5/2019			
		SAMPLE DEPTH:												
		SAMPLE MATRIX:	WATER				WATER				WATER			
		NY-AWQS												
ANALYTE	**CAS**	**(ug/l)**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**	**Conc**	**Q**	**RL**	**MDL**
VOLATILE ORGANICS BY GC/MS														
1,1,2-Trichloroethane	79-00-5	1	ND		1.5	0.5	ND		1.5	0.5	-	-	-	-
trans-1,3-Dichloropropene	10061-02-6	0.4	ND		0.5	0.16	ND		0.5	0.16	-	-	-	-
cis-1,3-Dichloropropene	10061-01-5	0.4	ND		0.5	0.14	ND		0.5	0.14	-	-	-	-
1,2,3-Trichloropropane	96-18-4	0.04	ND		2.5	0.7	ND		2.5	0.7	-	-	-	-
1,2-Dibromoethane	106-93-4	0.0006	ND		2	0.65	ND		2	0.65	-	-	-	-
1,2-Dibromo-3-chloropropane	96-12-8	0.04	ND		2.5	0.7	ND		2.5	0.7	-	-	-	-
Hexachlorobutadiene	87-68-3	0.5	ND		2.5	0.7	ND		2.5	0.7	-	-	-	-
Total VOCs			-	-	-	-	-	-	-	-	-	-	-	
PERFLUORINATED ALKYL ACIDS BY ISOTOPE DILUTION														
SEMIVOLATILE ORGANICS BY GC/MS														
Bis(2-chloroethyl)ether	111-44-4	1	ND		2	0.5	ND		2	0.5	-	-	-	-
Hexachlorocyclopentadiene	77-47-4	5	ND		20	0.69	ND		20	0.69	-	-	-	-
Nitrobenzene	98-95-3	0.4	ND		2	0.77	ND		2	0.77	-	-	-	-
1,2,4,5-Tetrachlorobenzene	95-94-3	5	ND		10	0.44	ND		10	0.44	-	-	-	-
2,4-Dichlorophenol	120-83-2	1	ND		5	0.41	ND		5	0.41	-	-	-	-
2,4-Dinitrophenol	51-28-5	10	ND		20	6.6	ND		20	6.6	-	-	-	-
Phenol	108-95-2	1	ND		5	0.57	ND		5	0.57	-	-	-	-
Total SVOCs			-	-	-	-	-	-	-	-	-	-	-	
SEMIVOLATILE ORGANICS BY GC/MS-SIM														
Benzo(a)anthracene	56-55-3	0.002	0.05	J	0.1	0.02	ND		0.1	0.02	-	-	-	-
Benzo(a)pyrene	50-32-8	0	0.03	J	0.1	0.02	ND		0.1	0.02	-	-	-	-
Benzo(b)fluoranthene	205-99-2	0.002	0.04	J	0.1	0.01	ND		0.1	0.01	-	-	-	-
Benzo(k)fluoranthene	207-08-9	0.002	0.02	J	0.1	0.01	ND		0.1	0.01	-	-	-	-
Chrysene	218-01-9	0.002	0.03	J	0.1	0.01	ND		0.1	0.01	-	-	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	0.03	J	0.1	0.01	ND		0.1	0.01	-	-	-	-
Hexachlorobenzene	118-74-1	0.04	ND		0.8	0.01	ND		0.8	0.01	-	-	-	-
Total SVOCs			0.2	-	-	-	-	-	-	-	-	-	-	
ORGANOCHLORINE PESTICIDES BY GC														
Alpha-BHC	319-84-6	0.01	ND		0.014	0.003	ND		0.014	0.003	-	-	-	-
Aldrin	309-00-2	0	ND		0.014	0.002	ND		0.014	0.002	-	-	-	-
Endrin	72-20-8	0	ND		0.029	0.003	ND		0.029	0.003	-	-	-	-
Dieldrin	60-57-1	0.004	ND		0.029	0.003	ND		0.029	0.003	-	-	-	-
Toxaphene	8001-35-2	0.06	ND		0.143	0.045	ND		0.143	0.045	-	-	-	-
Chlordane	57-74-9	0.05	ND		0.143	0.033	ND		0.143	0.033	-	-	-	-
POLYCHLORINATED BIPHENYLS BY GC														
TOTAL METALS														
Antimony, Total	7440-36-0	3	ND		4	0.42	ND		4	0.42	-	-	-	-
Iron, Total	7439-89-6	300	3860		50	19.1	18800		50	19.1	-	-	-	-
Lead, Total	7439-92-1	25	13.27		1	0.34	40.53		1	0.34	-	-	-	-
Manganese, Total	7439-96-5	300	753.2		1	0.44	1900		1	0.44	-	-	-	-
Sodium, Total	7440-23-5	20000	7030		100	29.3	79600		100	29.3	-	-	-	-
GENERAL CHEMISTRY														

* Comparison is not performed on parameters with non-numeric criteria.

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

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APPENDIX C – SOIL BORING LOGS

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility			**BORING NUMBER:**	1104-5
CLIENT:	Hammer			**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons			**DATE:**	11/4/2019
GROUNDWATER DEPTH:	60”			**DRILLER:**	John Sheehan
DATE	TIME	LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:			SOIL/GEOLOGICAL DESCRIPTION						
DEPTH (FT)	**SAMPLE # & DEPTH**	**PID/FID METER (UNITS)**	**COLOR (MUNSELL)**	**TEXTURE**	**STRUCTURE**	**CONSISTENCE**	**COARSE FRAGMENTS**	**MOTTLES**	**COMMENTS**
0-0.5									Debris, ash, refuse, plaster
0.5-2.0	1104-5S @ 1.0	0	10YR 4/3	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	GW @ 60”
ADITIONAL COMMENTS:									

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1104-6
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/4/2019
GROUNDWATER DEPTH:	36”	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION: | SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 4/2	SIL	SBK	FRI	<5%	NONE	Fill
0.5-3.0	1104-6S @ 1.0	0	10YR 4/6	SIL	SBK	FRI	<5%	NONE	Fill with debris, ash, refuse, plaster
3.0-9.5		0	N 2/0 Black	SICL	SBK	FRI	<5%	NONE	GW @ 36” Natural soil

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1104-7
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/4/2019
GROUNDWATER DEPTH:	36”	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:	SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 3/4	SIL	SBK	FRI	<5%	NONE	
0.5-3.0	1104-7S @ 1.0	0	10YR 4/6	SIL	SBK	FRI	<5%	NONE	
3.0-9.5		0	N 2/0 Black	SICL	SBK	FRI	<5%	NONE	GW @ 36” Natural soil

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1104-8
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/4/2019
GROUNDWATER DEPTH:	36”	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:	SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 3/2	SIL	SBK	FRI	<5%	NONE	
0.5-3.0	1104-8S @ 1.0	0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	N 2/0 Black	SICL	SBK	FRI	<5%	NONE	GW @ 36”

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1104-9
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/4/2019
GROUNDWATER DEPTH:	NE	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:	SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 3/2	SIL	SBK	FRI	<5%	NONE	
0.5-3.0	1104-9S @ 1.0	0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	10YR 4/3	SIL	SBK	FRI	<5%	NONE	GW > 9.5'

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1104-10
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/4/2019
GROUNDWATER DEPTH:	NE	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:			SOIL/GEOLOGICAL DESCRIPTION						
DEPTH (FT)	**SAMPLE # & DEPTH**	**PID/FID METER (UNITS)**	**COLOR (MUNSELL)**	**TEXTURE**	**STRUCTURE**	**CONSISTENCE**	**COARSE FRAGMENTS**	**MOTTLES**	**COMMENTS**
0-0.5		0	10YR 3/2	SIL	SBK	FRI	<5%	NONE	
0.5-3.0	1104-10S @ 1.0	0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	10YR 4/3	SIL	SBK	FRI	<5%	NONE	GW > 9.5'
ADITIONAL COMMENTS:									

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

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TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1105-1
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/5/2019
GROUNDWATER DEPTH:	NE	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION:	SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 3/2	SIL	SBK	FRI	<5%	NONE	
0.5-3.0		0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	N 2/0 Black	SICL	SBK	FRI	<5%	NONE	GW > 9.5'

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

Acer Consulting Associates, LLC
326 43rd Place East, Sea Isle City, NJ 08243
609-478-8119 | acerconsulting@yahoo.com

TEST BORING LOG

PROJECT:	Helen Hayes Recreational Facility	**BORING NUMBER:**	1105-2
CLIENT:	Hammer	**BORING LOCATION:**	
BORING CONTRACTOR:	Jack Shaft & Sons	**DATE:**	11/5/2019
GROUNDWATER DEPTH:	NE	**DRILLER:**	John Sheehan
DATE / TIME / LEVEL		**LOGGED BY:**	A.V. Agovino

SAMPLE INFORMATION: | SOIL/GEOLOGICAL DESCRIPTION

DEPTH (FT)	SAMPLE # & DEPTH	PID/FID METER (UNITS)	COLOR (MUNSELL)	TEXTURE	STRUCTURE	CONSISTENCE	COARSE FRAGMENTS	MOTTLES	COMMENTS
0-0.5		0	10YR 3/2	SIL	SBK	FRI	<5%	NONE	
0.5-3.0		0	10YR 4/4	SIL	SBK	FRI	<5%	NONE	
2.0-9.5		0	N 2/0 Black	SICL	SBK	FRI	<5%	NONE	GW > 9.5'

ADITIONAL COMMENTS:

Key to Symbols: Texture: Very coarse sand (VCOS) / Coarse sand (COS) / Fine sand (FS) / Sand (S) / Loamy sand (LS) / Coarse sandy loam (COSL) Sandy loam (SL) / Loam (L) / Fine sandy loam (FSL) / Silt (SI) / Silt loam (SIL) / Sandy clay loam (SCL) / Clay loam (CL) Silty clay loam (SICL) / Sandy clay (SC) / Silty clay (SIC) / Clay (C) / Very fine sand (VFS)

Structure: Platy (pl) / Prismatic (pr) / Blocky (bk) / Angular Blocky (abk) / Subangular Blocky (sbk) / Granular (gr) / Single grain (sg) Massive (m)

Mottles: Few (f) / Common (c) / Many (m) example: fmp = few, medium, prominent
Fine (f) / Medium (m) / Coarse (c) cmd = common, medium, distinct
Faint (f) / Distinct (d) / Prominent (p)

APPENDIX D – ANALYTICAL REPORTS AND CHAINS OF CUSTODY

ANALYTICAL REPORT

Lab Number:	L1941003
Client:	Acer Consulting Associates, LLC 326 43rd Place East Sea Isle City, NJ 08243
ATTN:	A. Vincent Agovino
Phone:	(609) 478-8119
Project Name:	WEST HAVERSTRAW
Project Number:	WEST HAVERSTRAW
Report Date:	09/16/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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

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

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1941003-01	20190905-01	SOIL	WEST HAVERSTRAW, NY	09/05/19 08:30	09/09/19
L1941003-02	20190905-02	SOIL	WEST HAVERSTRAW, NY	09/05/19 08:50	09/09/19
L1941003-03	20190905-03	SOIL	WEST HAVERSTRAW, NY	09/05/19 09:15	09/09/19
L1941003-04	20190905-04	SOIL	WEST HAVERSTRAW, NY	09/05/19 09:35	09/09/19

Project Name:	WEST HAVERSTRAW	**Lab Number:**	L1941003
Project Number:	WEST HAVERSTRAW	**Report Date:**	09/16/19

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	WEST HAVERSTRAW	**Lab Number:**	L1941003
Project Number:	WEST HAVERSTRAW	**Report Date:**	09/16/19

Case Narrative (continued)

Report Submission

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

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 09/16/19

ORGANICS

PESTICIDES

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-01
Client ID: 20190905-01
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 08:30
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/14/19 18:25
Analyst: AMC
Percent Solids: 78%

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.04	0.398	1	A
Lindane	ND		ug/kg	0.848	0.379	1	A
Alpha-BHC	ND		ug/kg	0.848	0.241	1	A
Beta-BHC	ND		ug/kg	2.04	0.772	1	A
Heptachlor	ND		ug/kg	1.02	0.456	1	A
Aldrin	ND		ug/kg	2.04	0.716	1	A
Heptachlor epoxide	ND		ug/kg	3.82	1.14	1	A
Endrin	ND		ug/kg	0.848	0.348	1	A
Endrin aldehyde	ND		ug/kg	2.54	0.890	1	A
Endrin ketone	ND		ug/kg	2.04	0.524	1	A
Dieldrin	ND		ug/kg	1.27	0.636	1	A
4,4'-DDE	2.05		ug/kg	2.04	0.471	1	A
4,4'-DDD	1.09	J	ug/kg	2.04	0.726	1	B
4,4'-DDT	2.68	J	ug/kg	3.82	1.64	1	A
Endosulfan I	ND		ug/kg	2.04	0.481	1	A
Endosulfan II	ND		ug/kg	2.04	0.680	1	A
Endosulfan sulfate	ND		ug/kg	0.848	0.404	1	A
Methoxychlor	ND		ug/kg	3.82	1.19	1	A
Toxaphene	ND		ug/kg	38.2	10.7	1	A
cis-Chlordane	ND		ug/kg	2.54	0.709	1	A
trans-Chlordane	ND		ug/kg	2.54	0.672	1	A
Chlordane	ND		ug/kg	16.5	6.74	1	A

Project Name: WEST HAVERSTRAW **Lab Number:** L1941003

Project Number: WEST HAVERSTRAW **Report Date:** 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-01 Date Collected: 09/05/19 08:30

Client ID: 20190905-01 Date Received: 09/09/19

Sample Location: WEST HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	54		30-150	B
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	53		30-150	A

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-02
Client ID: 20190905-02
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 08:50
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/14/19 17:15
Analyst: AMC
Percent Solids: 75%

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	6.00	1.18	1	A
Lindane	ND		ug/kg	2.50	1.12	1	A
Alpha-BHC	ND		ug/kg	2.50	0.710	1	A
Beta-BHC	ND		ug/kg	6.00	2.28	1	A
Heptachlor	ND		ug/kg	3.00	1.34	1	A
Aldrin	ND		ug/kg	6.00	2.11	1	A
Heptachlor epoxide	ND		ug/kg	11.2	3.38	1	A
Endrin	ND		ug/kg	2.50	1.02	1	A
Endrin aldehyde	ND		ug/kg	7.50	2.62	1	A
Endrin ketone	ND		ug/kg	6.00	1.54	1	A
Dieldrin	ND		ug/kg	3.75	1.88	1	A
4,4'-DDE	ND	IP	ug/kg	6.00	1.39	1	B
4,4'-DDD	ND		ug/kg	6.00	2.14	1	A
4,4'-DDT	ND		ug/kg	11.2	4.82	1	A
Endosulfan I	ND		ug/kg	6.00	1.42	1	A
Endosulfan II	ND		ug/kg	6.00	2.00	1	A
Endosulfan sulfate	ND		ug/kg	2.50	1.19	1	A
Methoxychlor	ND		ug/kg	11.2	3.50	1	A
Toxaphene	ND		ug/kg	112	31.5	1	A
cis-Chlordane	ND		ug/kg	7.50	2.09	1	A
trans-Chlordane	ND		ug/kg	7.50	1.98	1	A
Chlordane	ND		ug/kg	48.8	19.9	1	A

Project Name: WEST HAVERSTRAW **Lab Number:** L1941003

Project Number: WEST HAVERSTRAW **Report Date:** 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-02 Date Collected: 09/05/19 08:50

Client ID: 20190905-02 Date Received: 09/09/19

Sample Location: WEST HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	75		30-150	A

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-03
Client ID: 20190905-03
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 09:15
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/14/19 17:27
Analyst: AMC
Percent Solids: 70%

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	6.38	1.25	1	A
Lindane	ND		ug/kg	2.66	1.19	1	A
Alpha-BHC	ND		ug/kg	2.66	0.754	1	A
Beta-BHC	ND		ug/kg	6.38	2.42	1	A
Heptachlor	ND		ug/kg	3.19	1.43	1	A
Aldrin	ND		ug/kg	6.38	2.24	1	A
Heptachlor epoxide	ND		ug/kg	12.0	3.59	1	A
Endrin	ND		ug/kg	2.66	1.09	1	A
Endrin aldehyde	ND		ug/kg	7.97	2.79	1	A
Endrin ketone	ND		ug/kg	6.38	1.64	1	A
Dieldrin	ND		ug/kg	3.98	1.99	1	A
4,4'-DDE	1.66	J	ug/kg	6.38	1.47	1	B
4,4'-DDD	ND		ug/kg	6.38	2.27	1	A
4,4'-DDT	ND		ug/kg	12.0	5.13	1	A
Endosulfan I	ND		ug/kg	6.38	1.51	1	A
Endosulfan II	ND		ug/kg	6.38	2.13	1	A
Endosulfan sulfate	ND		ug/kg	2.66	1.26	1	A
Methoxychlor	ND		ug/kg	12.0	3.72	1	A
Toxaphene	ND		ug/kg	120	33.5	1	A
cis-Chlordane	ND		ug/kg	7.97	2.22	1	A
trans-Chlordane	ND		ug/kg	7.97	2.10	1	A
Chlordane	ND		ug/kg	51.8	21.1	1	A

Project Name: WEST HAVERSTRAW **Lab Number:** L1941003

Project Number: WEST HAVERSTRAW **Report Date:** 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-03 Date Collected: 09/05/19 09:15

Client ID: 20190905-03 Date Received: 09/09/19

Sample Location: WEST HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	66		30-150	B
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	70		30-150	A

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-04
Client ID: 20190905-04
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 09:35
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/14/19 17:39
Analyst: AMC
Percent Solids: 69%

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	6.84	1.34	1	A
Lindane	ND		ug/kg	2.85	1.27	1	A
Alpha-BHC	ND		ug/kg	2.85	0.809	1	A
Beta-BHC	ND		ug/kg	6.84	2.59	1	A
Heptachlor	ND		ug/kg	3.42	1.53	1	A
Aldrin	ND		ug/kg	6.84	2.41	1	A
Heptachlor epoxide	ND		ug/kg	12.8	3.84	1	A
Endrin	ND		ug/kg	2.85	1.17	1	A
Endrin aldehyde	ND		ug/kg	8.55	2.99	1	A
Endrin ketone	ND		ug/kg	6.84	1.76	1	A
Dieldrin	ND		ug/kg	4.27	2.14	1	A
4,4'-DDE	ND		ug/kg	6.84	1.58	1	A
4,4'-DDD	ND		ug/kg	6.84	2.44	1	A
4,4'-DDT	ND		ug/kg	12.8	5.50	1	B
Endosulfan I	ND		ug/kg	6.84	1.62	1	A
Endosulfan II	ND		ug/kg	6.84	2.28	1	A
Endosulfan sulfate	ND		ug/kg	2.85	1.36	1	A
Methoxychlor	ND		ug/kg	12.8	3.99	1	A
Toxaphene	ND		ug/kg	128	35.9	1	A
cis-Chlordane	ND		ug/kg	8.55	2.38	1	A
trans-Chlordane	ND		ug/kg	8.55	2.26	1	A
Chlordane	ND		ug/kg	55.6	22.6	1	A

Project Name: WEST HAVERSTRAW **Lab Number:** L1941003

Project Number: WEST HAVERSTRAW **Report Date:** 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-04 Date Collected: 09/05/19 09:35

Client ID: 20190905-04 Date Received: 09/09/19

Sample Location: WEST HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	63		30-150	B
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	67		30-150	A

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/14/19 13:03
Analyst: AMC

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1282478-1						
Delta-BHC	ND		ug/kg	1.55	0.304	A
Lindane	ND		ug/kg	0.647	0.289	A
Alpha-BHC	ND		ug/kg	0.647	0.184	A
Beta-BHC	ND		ug/kg	1.55	0.589	A
Heptachlor	ND		ug/kg	0.777	0.348	A
Aldrin	ND		ug/kg	1.55	0.547	A
Heptachlor epoxide	ND		ug/kg	2.91	0.874	A
Endrin	ND		ug/kg	0.647	0.265	A
Endrin aldehyde	ND		ug/kg	1.94	0.680	A
Endrin ketone	ND		ug/kg	1.55	0.400	A
Dieldrin	ND		ug/kg	0.971	0.485	A
4,4'-DDE	ND		ug/kg	1.55	0.359	A
4,4'-DDD	ND		ug/kg	1.55	0.554	A
4,4'-DDT	ND		ug/kg	2.91	1.25	A
Endosulfan I	ND		ug/kg	1.55	0.367	A
Endosulfan II	ND		ug/kg	1.55	0.519	A
Endosulfan sulfate	ND		ug/kg	0.647	0.308	A
Methoxychlor	ND		ug/kg	2.91	0.906	A
Toxaphene	ND		ug/kg	29.1	8.16	A
cis-Chlordane	ND		ug/kg	1.94	0.541	A
trans-Chlordane	ND		ug/kg	1.94	0.513	A
Chlordane	ND		ug/kg	12.6	5.14	A

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/14/19 13:03
Analyst: AMC

Extraction Method: EPA 3546
Extraction Date: 09/10/19 20:06
Cleanup Method: EPA 3620B
Cleanup Date: 09/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1282478-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	73		30-150	B
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	77		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: WEST HAVERSTRAW

Project Number: WEST HAVERSTRAW

Lab Number: L1941003

Report Date: 09/16/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1282478-2 WG1282478-3									
Delta-BHC	75		68		30-150	10		30	A
Lindane	73		68		30-150	7		30	A
Alpha-BHC	78		72		30-150	8		30	A
Beta-BHC	75		67		30-150	11		30	A
Heptachlor	74		72		30-150	3		30	A
Aldrin	66		62		30-150	6		30	A
Heptachlor epoxide	71		67		30-150	6		30	A
Endrin	75		70		30-150	7		30	A
Endrin aldehyde	62		57		30-150	8		30	A
Endrin ketone	75		70		30-150	7		30	A
Dieldrin	76		71		30-150	7		30	A
4,4'-DDE	67		62		30-150	8		30	A
4,4'-DDD	74		68		30-150	8		30	A
4,4'-DDT	76		71		30-150	7		30	A
Endosulfan I	64		60		30-150	6		30	A
Endosulfan II	72		67		30-150	7		30	A
Endosulfan sulfate	78		74		30-150	5		30	A
Methoxychlor	73		69		30-150	6		30	A
cis-Chlordane	55		51		30-150	8		30	A
trans-Chlordane	50		48		30-150	4		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

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

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1282478-2 WG1282478-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		78		30-150	B
Decachlorobiphenyl	75		70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	80		74		30-150	A
Decachlorobiphenyl	81		77		30-150	A

METALS

Project Name: WEST HAVERSTRAW
Lab Number: L1941003
Project Number: WEST HAVERSTRAW
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-01
Client ID: 20190905-01
Sample Location: WEST HAVERSTRAW, NY
Date Collected: 09/05/19 08:30
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.55		mg/kg	0.494	0.103	1	09/12/19 20:16	09/13/19 21:57	EPA 3050B	1,6010D	MC
Lead, Total	64.4		mg/kg	2.47	0.132	1	09/12/19 20:16	09/13/19 21:57	EPA 3050B	1,6010D	MC

Project Name: WEST HAVERSTRAW
Lab Number: L1941003
Project Number: WEST HAVERSTRAW
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-02
Client ID: 20190905-02
Sample Location: WEST HAVERSTRAW, NY
Date Collected: 09/05/19 08:50
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.57		mg/kg	0.512	0.106	1	09/12/19 20:16	09/13/19 22:01	EPA 3050B	1,6010D	MC
Lead, Total	20.8		mg/kg	2.56	0.137	1	09/12/19 20:16	09/13/19 22:01	EPA 3050B	1,6010D	MC

Project Name: WEST HAVERSTRAW
Lab Number: L1941003
Project Number: WEST HAVERSTRAW
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-03
Client ID: 20190905-03
Sample Location: WEST HAVERSTRAW, NY
Date Collected: 09/05/19 09:15
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.95		mg/kg	0.566	0.118	1	09/12/19 20:16	09/13/19 22:05	EPA 3050B	1,6010D	MC
Lead, Total	16.5		mg/kg	2.83	0.152	1	09/12/19 20:16	09/13/19 22:05	EPA 3050B	1,6010D	MC

Project Name: WEST HAVERSTRAW
Lab Number: L1941003
Project Number: WEST HAVERSTRAW
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-04
Client ID: 20190905-04
Sample Location: WEST HAVERSTRAW, NY
Date Collected: 09/05/19 09:35
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 69%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	7.74		mg/kg	0.568	0.118	1	09/12/19 20:16	09/13/19 22:10	EPA 3050B	1,6010D	MC
Lead, Total	27.1		mg/kg	2.84	0.152	1	09/12/19 20:16	09/13/19 22:10	EPA 3050B	1,6010D	MC

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1283504-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	09/12/19 20:16	09/13/19 19:52	1,6010D	MC
Lead, Total	ND		mg/kg	2.00	0.107	1	09/12/19 20:16	09/13/19 19:52	1,6010D	MC

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: WEST HAVERSTRAW

Project Number: WEST HAVERSTRAW

Lab Number: L1941003

Report Date: 09/16/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1283504-2 SRM Lot Number: D105-540								
Arsenic, Total	104		-		70-130	-		
Lead, Total	97		-		71-128	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1283504-3 WG1283504-4 QC Sample: L1939740-07 Client ID: MS Sample												
Arsenic, Total	5.71	10.9	17.4	107		18.9	118		75-125	8		20
Lead, Total	3.87	46.2	46.1	91		52.6	103		75-125	13		20

INORGANICS
&
MISCELLANEOUS

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-01
Client ID: 20190905-01
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 08:30
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.1		%	0.100	NA	1	-	09/10/19 12:24	121,2540G	RI

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-02
Client ID: 20190905-02
Sample Location: WEST HAVERSTRAW, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/05/19 08:50
Date Received: 09/09/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.9		%	0.100	NA	1	-	09/10/19 12:24	121,2540G	RI

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-03
Client ID: 20190905-03
Sample Location: WEST HAVERSTRAW, NY

Date Collected: 09/05/19 09:15
Date Received: 09/09/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.1		%	0.100	NA	1	-	09/10/19 12:24	121,2540G	RI

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW
Lab Number: L1941003
Report Date: 09/16/19

SAMPLE RESULTS

Lab ID: L1941003-04
Client ID: 20190905-04
Sample Location: WEST HAVERSTRAW, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/05/19 09:35
Date Received: 09/09/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	69.1		%	0.100	NA	1	-	09/10/19 12:24	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: WEST HAVERSTRAW

Project Number: WEST HAVERSTRAW

Lab Number: L1941003

Report Date: 09/16/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1282191-1 QC Sample: L1941076-03 Client ID: DUP Sample						
Solids, Total	96.7	96.1	%	1		20

Project Name: WEST HAVERSTRAW
Project Number: WEST HAVERSTRAW

Lab Number: L1941003
Report Date: 09/16/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1941003-01A	Glass 60ml unpreserved split	A	NA		4.3	Y	Absent		AS-TI(180),PB-TI(180)
L1941003-01B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		TS(7),NYTCL-8081(14)
L1941003-02A	Glass 60ml unpreserved split	A	NA		4.3	Y	Absent		AS-TI(180),PB-TI(180)
L1941003-02B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		TS(7),NYTCL-8081(14)
L1941003-03A	Glass 60ml unpreserved split	A	NA		4.3	Y	Absent		AS-TI(180),PB-TI(180)
L1941003-03B	Glass 250ml/8oz unpreserved	A	NA		4.3	Y	Absent		TS(7),NYTCL-8081(14)
L1941003-04A	Glass 60ml unpreserved split	A	NA		4.3	Y	Absent		AS-TI(180),PB-TI(180)
L1941003-04B	Glass 120ml/4oz unpreserved	A	NA		4.3	Y	Absent		TS(7),NYTCL-8081(14)

*Values in parentheses indicate holding time in days

Project Name:	WEST HAVERSTRAW	**Lab Number:**	L1941003
Project Number:	WEST HAVERSTRAW	**Report Date:**	09/16/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	WEST HAVERSTRAW	**Lab Number:**	L1941003
Project Number:	WEST HAVERSTRAW	**Report Date:**	09/16/19

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

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

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

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

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

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

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

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

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	WEST HAVERSTRAW	**Lab Number:**	L1941003
Project Number:	WEST HAVERSTRAW	**Report Date:**	09/16/19

REFERENCES

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

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

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

Mansfield Facility:

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

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

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

ALPHA ANALYTICAL

NEW YORK CHAIN OF CUSTODY

Page 1 of 1

Date Rec'd in Lab: 9/10/19

ALPHA Job #: L1941003

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

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

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

Client Information

Client: Acer Consulting Assoc. LLC
Address: 12 Hastings La
Hainesport, NJ 08036
Phone: 609-478-8119
Fax:
Email: acerconsulting@yahoo.com

Project Information

Project Name: West Haverstraw
Project Location: West Haverstraw, NY
Project #
(Use Project name as Project #): ✓
Project Manager: Vincent Agovino
ALPHAQuote #:

Turn-Around Time

Standard: ✓ Due Date:
Rush (only if pre approved): ☐ # of Days:

Deliverables

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

Regulatory Requirement

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

Billing Information

✓ Same as Clie
PO #

Disposal Site Infor

Please identify belc applicable disposal
Disposal Facility:
☐ NJ
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration

☐ one
☐ ab to do

Preservation

☐ ab to do

(Please Specify b

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Pesticides	Lead	Arsenic						Sample Specific Cc
41003 -01	20190905-01	9/5/19	830 AM	S	AVA	x	x	x						
-02	20190905-02	9/5/19	850 AM	S	AVA	x	x	x						
-03	20190905-03	9/5/19	915 AM	S	AVA	x	x	x						
-04	20190905-04	9/5/19	935 AM	S	AVA	x	x	x						

Container Type
Preservative

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

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	9/9/19 1406		9/9/19 1406
	9/9/19 1800		9-9-19 1700
	9-9-19 1930		9/9/19 1930
	9/10/19 0005		9/10/19 0005

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

ANALYTICAL REPORT

Lab Number:	L1952316
Client:	Acer Consulting Associates, LLC 326 43rd Place East Sea Isle City, NJ 08243
ATTN:	A. Vincent Agovino
Phone:	(609) 478-8119
Project Name:	HAVERSTRAW
Project Number:	HAVERSTRAW
Report Date:	11/25/19

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

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

ANALYTICAL REPORT

Lab Number:	L1952432
Client:	Acer Consulting Associates, LLC 326 43rd Place East Sea Isle City, NJ 08243
ATTN:	A. Vincent Agovino
Phone:	(609) 478-8119
Project Name:	HAVERSTRAW
Project Number:	HAVERSTRAW
Report Date:	12/31/19

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

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

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1952432-01	1104-7	SOIL	HAVERSTRAW, NY	11/05/19 10:25	11/05/19
L1952432-02	1104-8	SOIL	HAVERSTRAW, NY	11/05/19 10:32	11/05/19
L1952432-03	1104-9	SOIL	HAVERSTRAW, NY	11/05/19 10:40	11/05/19
L1952432-04	1104-10	SOIL	HAVERSTRAW, NY	11/05/19 10:50	11/05/19
L1952432-05	TW-1	WATER	HAVERSTRAW, NY	11/05/19 11:00	11/05/19
L1952432-06	TW-2	WATER	HAVERSTRAW, NY	11/05/19 11:30	11/05/19
L1952432-07	1104-5	SOIL	HAVERSTRAW, NY	11/05/19 10:15	11/05/19
L1952432-08	1104-6	SOIL	HAVERSTRAW, NY	11/05/19 10:18	11/05/19
L1952432-09	1105-01S	SOIL	HAVERSTRAW, NY	11/05/19 09:30	11/05/19
L1952432-10	1105-01D	SOIL	HAVERSTRAW, NY	11/05/19 09:30	11/05/19
L1952432-11	FIELD BLANK	WATER	HAVERSTRAW, NY	11/05/19 11:45	11/05/19

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

Case Narrative (continued)

Report Submission

December 31, 2019: This final report includes the results of all requested analyses.

December 11, 2019: This preliminary report includes the results of the Perfluorinated Alkyl Acids analysis performed on L1952432-05, -06 and -11.

November 26, 2019: This preliminary report includes the results of the Perfluorinated Alkyl Acids analysis performed on L1952432-01 through -04, -07, -08, and -09.

November 12, 2019: This preliminary report includes the results of the Volatile Organics, Semivolatile Organics, PCB, and Pesticide analyses performed on L1952432-05 and -06.

November 08, 2019: This is a preliminary report.

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

Semivolatile Organics

The WG1305008-2/-3 LCS/LCSD recoveries, associated with L1952432-09, are below the acceptance criteria for benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

Perfluorinated Alkyl Acids by Isotope Dilution

L1952432-01 through -04, -08, and -09, and WG1305713-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1305713-2 LCS recovery, associated with L1952432-01 through -04, -07, -08, and -09, is above the acceptance criteria for perfluorooctanesulfonamide (fosa) (188%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported. The LCS/LCSD RPD is above the acceptance criteria for perfluorooctanesulfonamide (fosa) (47%).

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Case Narrative (continued)

Total Metals

L1952432-09: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1305233-2/-3 LCS/LCSD recoveries (66%/69%), associated with L1952432-09, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

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

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 12/31/19

ORGANICS

VOLATILES

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00
Client ID: TW-1 Date Received: 11/05/19
Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/09/19 17:28
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	107		70-130

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/11/19 21:37
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	99		70-130

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 11:38
Analyst: MV
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.6	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.18	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.56	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.18	1
Benzene	ND		ug/kg	0.56	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	19		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.56	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.72	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	89	39.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 09 Batch: WG1305833-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 09 Batch: WG1305833-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	0.25	J	ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 09 Batch: WG1305833-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	95		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/09/19 10:27
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1306979-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/09/19 10:27
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1306979-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/09/19 10:27
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1306979-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/19 21:10
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1307495-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/19 21:10
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1307495-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: HAVERSTRAW
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Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/11/19 21:10
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1307495-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	124		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 09 Batch: WG1305833-3 WG1305833-4								
Methylene chloride	102		108		70-130	6		30
1,1-Dichloroethane	106		108		70-130	2		30
Chloroform	109		116		70-130	6		30
Carbon tetrachloride	110		117		70-130	6		30
1,2-Dichloropropane	104		111		70-130	7		30
Dibromochloromethane	83		88		70-130	6		30
1,1,2-Trichloroethane	81		85		70-130	5		30
Tetrachloroethene	91		96		70-130	5		30
Chlorobenzene	91		95		70-130	4		30
Trichlorofluoromethane	100		105		70-139	5		30
1,2-Dichloroethane	94		100		70-130	6		30
1,1,1-Trichloroethane	104		110		70-130	6		30
Bromodichloromethane	94		100		70-130	6		30
trans-1,3-Dichloropropene	85		91		70-130	7		30
cis-1,3-Dichloropropene	101		108		70-130	7		30
1,1-Dichloropropene	109		114		70-130	4		30
Bromoform	79		85		70-130	7		30
1,1,2,2-Tetrachloroethane	73		77		70-130	5		30
Benzene	99		105		70-130	6		30
Toluene	84		88		70-130	5		30
Ethylbenzene	86		89		70-130	3		30
Chloromethane	117		120		52-130	3		30
Bromomethane	121		130		57-147	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 09 Batch: WG1305833-3 WG1305833-4								
Vinyl chloride	120		124		67-130	3		30
Chloroethane	105		112		50-151	6		30
1,1-Dichloroethene	113		119		65-135	5		30
trans-1,2-Dichloroethene	108		114		70-130	5		30
Trichloroethene	100		106		70-130	6		30
1,2-Dichlorobenzene	78		83		70-130	6		30
1,3-Dichlorobenzene	79		85		70-130	7		30
1,4-Dichlorobenzene	78		82		70-130	5		30
Methyl tert butyl ether	104		110		66-130	6		30
p/m-Xylene	82		86		70-130	5		30
o-Xylene	81		84		70-130	4		30
cis-1,2-Dichloroethene	103		110		70-130	7		30
Dibromomethane	97		102		70-130	5		30
Styrene	80		83		70-130	4		30
Dichlorodifluoromethane	108		112		30-146	4		30
Acetone	122		126		54-140	3		30
Carbon disulfide	110		115		59-130	4		30
2-Butanone	110		105		70-130	5		30
Vinyl acetate	118		123		70-130	4		30
4-Methyl-2-pentanone	94		96		70-130	2		30
1,2,3-Trichloropropane	74		78		68-130	5		30
2-Hexanone	93		96		70-130	3		30
Bromochloromethane	104		113		70-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 09 Batch: WG1305833-3 WG1305833-4								
2,2-Dichloropropane	113		120		70-130	6		30
1,2-Dibromoethane	84		87		70-130	4		30
1,3-Dichloropropane	80		84		69-130	5		30
1,1,1,2-Tetrachloroethane	81		85		70-130	5		30
Bromobenzene	80		85		70-130	6		30
n-Butylbenzene	83		88		70-130	6		30
sec-Butylbenzene	83		88		70-130	6		30
tert-Butylbenzene	83		87		70-130	5		30
o-Chlorotoluene	77		82		70-130	6		30
p-Chlorotoluene	78		82		70-130	5		30
1,2-Dibromo-3-chloropropane	81		86		68-130	6		30
Hexachlorobutadiene	86		90		67-130	5		30
Isopropylbenzene	82		86		70-130	5		30
p-Isopropyltoluene	84		89		70-130	6		30
Naphthalene	81		87		70-130	7		30
Acrylonitrile	111		119		70-130	7		30
n-Propylbenzene	82		87		70-130	6		30
1,2,3-Trichlorobenzene	84		90		70-130	7		30
1,2,4-Trichlorobenzene	86		93		70-130	8		30
1,3,5-Trimethylbenzene	80		85		70-130	6		30
1,2,4-Trimethylbenzene	79		84		70-130	6		30
1,4-Dioxane	102		108		65-136	6		30
p-Diethylbenzene	85		89		70-130	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

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Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 09 Batch: WG1305833-3 WG1305833-4								
p-Ethyltoluene	82		88		70-130	7		30
1,2,4,5-Tetramethylbenzene	81		86		70-130	6		30
Ethyl ether	107		113		67-130	5		30
trans-1,4-Dichloro-2-butene	81		85		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		92		70-130
Toluene-d8	87		87		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis
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Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1306979-3 WG1306979-4								
Methylene chloride	110		95		70-130	15		20
1,1-Dichloroethane	110		97		70-130	13		20
Chloroform	110		96		70-130	14		20
Carbon tetrachloride	100		92		63-132	8		20
1,2-Dichloropropane	110		98		70-130	12		20
Dibromochloromethane	110		100		63-130	10		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	110		92		70-130	18		20
Chlorobenzene	110		97		75-130	13		20
Trichlorofluoromethane	100		91		62-150	9		20
1,2-Dichloroethane	110		100		70-130	10		20
1,1,1-Trichloroethane	110		94		67-130	16		20
Bromodichloromethane	110		95		67-130	15		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	110		100		70-130	10		20
1,1-Dichloropropene	110		100		70-130	10		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	110		100		67-130	10		20
Benzene	100		93		70-130	7		20
Toluene	110		97		70-130	13		20
Ethylbenzene	110		96		70-130	14		20
Chloromethane	100		85		64-130	16		20
Bromomethane	120		96		39-139	**22**	Q	20

Lab Control Sample Analysis

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1306979-3 WG1306979-4								
Vinyl chloride	100		82		55-140	20		20
Chloroethane	120		99		55-138	19		20
1,1-Dichloroethene	110		95		61-145	15		20
trans-1,2-Dichloroethene	110		94		70-130	16		20
Trichloroethene	110		97		70-130	13		20
1,2-Dichlorobenzene	110		95		70-130	15		20
1,3-Dichlorobenzene	110		97		70-130	13		20
1,4-Dichlorobenzene	110		98		70-130	12		20
Methyl tert butyl ether	120		100		63-130	18		20
p/m-Xylene	105		90		70-130	15		20
o-Xylene	105		95		70-130	10		20
cis-1,2-Dichloroethene	110		98		70-130	12		20
Dibromomethane	110		99		70-130	11		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	120		110		70-130	9		20
Styrene	105		95		70-130	10		20
Dichlorodifluoromethane	100		84		36-147	17		20
Acetone	120		100		58-148	18		20
Carbon disulfide	100		90		51-130	11		20
2-Butanone	110		100		63-138	10		20
Vinyl acetate	110		100		70-130	10		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	110		110		57-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1306979-3 WG1306979-4								
Bromochloromethane	120		110		70-130	9		20
2,2-Dichloropropane	110		99		63-133	11		20
1,2-Dibromoethane	110		100		70-130	10		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	110		100		64-130	10		20
Bromobenzene	110		100		70-130	10		20
n-Butylbenzene	110		91		53-136	19		20
sec-Butylbenzene	110		89		70-130	**21**	Q	20
tert-Butylbenzene	110		90		70-130	20		20
o-Chlorotoluene	110		96		70-130	14		20
p-Chlorotoluene	110		97		70-130	13		20
1,2-Dibromo-3-chloropropane	120		100		41-144	18		20
Hexachlorobutadiene	120		89		63-130	**30**	Q	20
Isopropylbenzene	110		92		70-130	18		20
p-Isopropyltoluene	110		92		70-130	18		20
Naphthalene	130		120		70-130	8		20
n-Propylbenzene	110		93		69-130	17		20
1,2,3-Trichlorobenzene	130		110		70-130	17		20
1,2,4-Trichlorobenzene	130		110		70-130	17		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	120		100		70-130	18		20
1,4-Dioxane	122		108		56-162	12		20
p-Diethylbenzene	110		93		70-130	17		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1306979-3 WG1306979-4								
p-Ethyltoluene	110		93		70-130	17		20
1,2,4,5-Tetramethylbenzene	130		110		70-130	17		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	110		100		70-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		103		70-130
Toluene-d8	103		105		70-130
4-Bromofluorobenzene	100		103		70-130
Dibromofluoromethane	106		103		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1307495-3 WG1307495-4								
Methylene chloride	84		87		70-130	4		20
1,1-Dichloroethane	92		96		70-130	4		20
Chloroform	85		86		70-130	1		20
Carbon tetrachloride	82		80		63-132	2		20
1,2-Dichloropropane	97		95		70-130	2		20
Dibromochloromethane	83		82		63-130	1		20
1,1,2-Trichloroethane	97		94		70-130	3		20
Tetrachloroethene	86		81		70-130	6		20
Chlorobenzene	86		82		75-130	5		20
Trichlorofluoromethane	80		72		62-150	11		20
1,2-Dichloroethane	94		88		70-130	7		20
1,1,1-Trichloroethane	83		85		67-130	2		20
Bromodichloromethane	84		87		67-130	4		20
trans-1,3-Dichloropropene	86		87		70-130	1		20
cis-1,3-Dichloropropene	80		78		70-130	3		20
1,1-Dichloropropene	86		84		70-130	2		20
Bromoform	87		89		54-136	2		20
1,1,2,2-Tetrachloroethane	97		100		67-130	3		20
Benzene	85		81		70-130	5		20
Toluene	90		89		70-130	1		20
Ethylbenzene	91		87		70-130	4		20
Chloromethane	94		91		64-130	3		20
Bromomethane	56		56		39-139	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1307495-3 WG1307495-4								
Vinyl chloride	86		81		55-140	6		20
Chloroethane	74		70		55-138	6		20
1,1-Dichloroethene	82		83		61-145	1		20
trans-1,2-Dichloroethene	83		78		70-130	6		20
Trichloroethene	84		79		70-130	6		20
1,2-Dichlorobenzene	89		85		70-130	5		20
1,3-Dichlorobenzene	90		89		70-130	1		20
1,4-Dichlorobenzene	88		87		70-130	1		20
Methyl tert butyl ether	76		73		63-130	4		20
p/m-Xylene	90		85		70-130	6		20
o-Xylene	90		85		70-130	6		20
cis-1,2-Dichloroethene	82		91		70-130	10		20
Dibromomethane	80		80		70-130	0		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	110		100		70-130	10		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	63		60		36-147	5		20
Acetone	100		94		58-148	6		20
Carbon disulfide	82		82		51-130	0		20
2-Butanone	98		100		63-138	2		20
Vinyl acetate	93		84		70-130	10		20
4-Methyl-2-pentanone	94		94		59-130	0		20
2-Hexanone	95		87		57-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1307495-3 WG1307495-4								
Bromochloromethane	82		87		70-130	6		20
2,2-Dichloropropane	82		86		63-133	5		20
1,2-Dibromoethane	87		85		70-130	2		20
1,3-Dichloropropane	93		91		70-130	2		20
1,1,1,2-Tetrachloroethane	85		84		64-130	1		20
Bromobenzene	88		84		70-130	5		20
n-Butylbenzene	100		93		53-136	7		20
sec-Butylbenzene	100		96		70-130	4		20
tert-Butylbenzene	80		78		70-130	3		20
o-Chlorotoluene	100		97		70-130	3		20
p-Chlorotoluene	100		97		70-130	3		20
1,2-Dibromo-3-chloropropane	80		86		41-144	7		20
Hexachlorobutadiene	79		77		63-130	3		20
Isopropylbenzene	99		94		70-130	5		20
p-Isopropyltoluene	96		90		70-130	6		20
Naphthalene	71		72		70-130	1		20
n-Propylbenzene	100		95		69-130	5		20
1,2,3-Trichlorobenzene	80		76		70-130	5		20
1,2,4-Trichlorobenzene	80		77		70-130	4		20
1,3,5-Trimethylbenzene	100		97		64-130	3		20
1,2,4-Trimethylbenzene	100		94		70-130	6		20
1,4-Dioxane	96		100		56-162	4		20
p-Diethylbenzene	89		85		70-130	5		20

Lab Control Sample Analysis
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Project Name: HAVERSTRAW
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1307495-3 WG1307495-4								
p-Ethyltoluene	100		95		70-130	5		20
1,2,4,5-Tetramethylbenzene	86		82		70-130	5		20
Ethyl ether	86		88		59-134	2		20
trans-1,4-Dichloro-2-butene	120		120		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		116		70-130
Toluene-d8	108		106		70-130
4-Bromofluorobenzene	114		112		70-130
Dibromofluoromethane	96		95		70-130

SEMIVOLATILES

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-01
Client ID: 1104-7
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:25
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 09:30
Analyst: JW
Percent Solids: 81%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.054	J	ug/kg	1.20	0.027	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.20	0.056	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.20	0.047	1
Perfluorohexanoic Acid (PFHxA)	0.089	J	ug/kg	1.20	0.063	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.20	0.054	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.20	0.073	1
Perfluorooctanoic Acid (PFOA)	0.128	J	ug/kg	1.20	0.051	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.20	0.216	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.20	0.165	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.20	0.090	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.20	0.157	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.20	0.081	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.20	0.346	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.20	0.243	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.20	0.056	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.20	0.184	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.20	0.118	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.20	0.102	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.20	0.084	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.20	0.247	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.20	0.065	1
PFOA/PFOS, Total	0.128	J	ug/kg	1.20	0.051	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-01 Date Collected: 11/05/19 10:25

Client ID: 1104-7 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	61		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	65		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	72		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**57**	Q	61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	64		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	74		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	67		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	65		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	73		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**32**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	2		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**29**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	64		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**9**	Q	26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-02
Client ID: 1104-8
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:32
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 09:47
Analyst: JW
Percent Solids: 86%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.032	J	ug/kg	1.15	0.026	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.15	0.053	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.15	0.045	1
Perfluorohexanoic Acid (PFHxA)	0.076	J	ug/kg	1.15	0.060	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.15	0.052	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.15	0.069	1
Perfluorooctanoic Acid (PFOA)	0.243	J	ug/kg	1.15	0.048	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.15	0.206	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.15	0.156	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.15	0.086	1
Perfluorooctanesulfonic Acid (PFOS)	1.09	J	ug/kg	1.15	0.149	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.15	0.077	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.15	0.329	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.15	0.231	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.15	0.054	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.15	0.175	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.15	0.112	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.15	0.097	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.15	0.080	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.15	0.234	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.15	0.062	1
PFOA/PFOS, Total	1.33	J	ug/kg	1.15	0.048	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-02 Date Collected: 11/05/19 10:32

Client ID: 1104-8 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**50**	Q	60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	**53**	Q	65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**67**	Q	70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**47**	Q	61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	**51**	Q	62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	73		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	**55**	Q	62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	56		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	**58**	Q	61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	68		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	**54**	Q	65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	58		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**15**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	**60**	Q	64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	3		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**15**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	**52**	Q	56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**11**	Q	26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-03
Client ID: 1104-9
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 10:04
Analyst: JW
Percent Solids: 66%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.389	J	ug/kg	1.44	0.033	1
Perfluoropentanoic Acid (PFPeA)	0.155	J	ug/kg	1.44	0.066	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.44	0.056	1
Perfluorohexanoic Acid (PFHxA)	0.157	J	ug/kg	1.44	0.076	1
Perfluoroheptanoic Acid (PFHpA)	0.181	J	ug/kg	1.44	0.065	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.44	0.087	1
Perfluorooctanoic Acid (PFOA)	0.579	J	ug/kg	1.44	0.060	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.44	0.258	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.44	0.196	1
Perfluorononanoic Acid (PFNA)	0.396	J	ug/kg	1.44	0.108	1
Perfluorooctanesulfonic Acid (PFOS)	3.39		ug/kg	1.44	0.187	1
Perfluorodecanoic Acid (PFDA)	0.548	J	ug/kg	1.44	0.096	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.44	0.413	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.44	0.290	1
Perfluoroundecanoic Acid (PFUnA)	0.509	J	ug/kg	1.44	0.067	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.44	0.220	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.44	0.141	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.44	0.122	1
Perfluorododecanoic Acid (PFDoA)	0.293	J	ug/kg	1.44	0.101	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.44	0.294	1
Perfluorotetradecanoic Acid (PFTA)	0.202	J	ug/kg	1.44	0.078	1
PFOA/PFOS, Total	3.97	J	ug/kg	1.44	0.060	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-03 Date Collected: 11/05/19 10:40

Client ID: 1104-9 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	75		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	84		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	65		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	71		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	87		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	74		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	72		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	78		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	71		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**34**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	82		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	3		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**37**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	74		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**25**	Q	26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-04
Client ID: 1104-10
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 10:37
Analyst: JW
Percent Solids: 89%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.08	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.08	0.050	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.08	0.042	1
Perfluorohexanoic Acid (PFHxA)	0.062	J	ug/kg	1.08	0.057	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.08	0.049	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.08	0.065	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.08	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.08	0.194	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.08	0.147	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.08	0.081	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.08	0.140	1
Perfluorodecanoic Acid (PFDA)	0.080	J	ug/kg	1.08	0.072	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.08	0.310	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.08	0.218	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.08	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.08	0.165	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.08	0.106	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.197	J	ug/kg	1.08	0.091	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.08	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.08	0.221	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.08	0.058	1
PFOA/PFOS, Total	ND		ug/kg	1.08	0.045	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-04 Date Collected: 11/05/19 10:50

Client ID: 1104-10 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**33**	Q	60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	**38**	Q	65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**69**	Q	70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**38**	Q	61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	**45**	Q	62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	82		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	**52**	Q	62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	52		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	**59**	Q	61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	76		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	**56**	Q	65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	54		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**10**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	**62**	Q	64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**13**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	58		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**22**	Q	26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 11/11/19 15:57
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 16:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.1	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	35		10-120
4-Terphenyl-d14	78		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 11/08/19 16:02
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 17:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.05	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.04	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.03	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.04	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01	1
Pyrene	0.05	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	95		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	92		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/10/19 14:54
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/19/19 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	7.65		ng/l	2.35	0.479	1
Perfluoropentanoic Acid (PFPeA)	3.06		ng/l	2.35	0.465	1
Perfluorobutanesulfonic Acid (PFBS)	4.64		ng/l	2.35	0.279	1
Perfluorohexanoic Acid (PFHxA)	3.38		ng/l	2.35	0.385	1
Perfluoroheptanoic Acid (PFHpA)	3.44		ng/l	2.35	0.264	1
Perfluorohexanesulfonic Acid (PFHxS)	1.47	J	ng/l	2.35	0.441	1
Perfluorooctanoic Acid (PFOA)	19.4		ng/l	2.35	0.277	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.35	1.56	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.35	0.808	1
Perfluorononanoic Acid (PFNA)	2.46		ng/l	2.35	0.366	1
Perfluorooctanesulfonic Acid (PFOS)	17.6		ng/l	2.35	0.592	1
Perfluorodecanoic Acid (PFDA)	0.418	J	ng/l	2.35	0.357	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.35	1.42	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.35	0.760	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.35	0.305	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.35	1.15	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.35	0.681	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.35	0.944	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.35	0.437	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.35	0.384	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.35	0.291	1
PFOA/PFOS, Total	37.0		ng/l	2.35	0.277	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	91		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	85		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	76		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	85		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	148		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	103		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	41		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	79		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	38		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	44		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	59		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	64		33-143

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 11/11/19 16:24
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 16:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	1.6	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	36		10-120
4-Terphenyl-d14	70		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 11/08/19 16:18
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 17:01

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.03	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	94		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	84		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/10/19 15:11
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/19/19 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	4.80		ng/l	1.92	0.392	1
Perfluoropentanoic Acid (PFPeA)	1.77	J	ng/l	1.92	0.381	1
Perfluorobutanesulfonic Acid (PFBS)	2.21		ng/l	1.92	0.229	1
Perfluorohexanoic Acid (PFHxA)	2.29		ng/l	1.92	0.315	1
Perfluoroheptanoic Acid (PFHpA)	2.34		ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	1.64	J	ng/l	1.92	0.362	1
Perfluorooctanoic Acid (PFOA)	16.4		ng/l	1.92	0.227	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.662	1
Perfluorononanoic Acid (PFNA)	2.24		ng/l	1.92	0.300	1
Perfluorooctanesulfonic Acid (PFOS)	8.02		ng/l	1.92	0.485	1
Perfluorodecanoic Acid (PFDA)	0.346	J	ng/l	1.92	0.292	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.623	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.250	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.942	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.558	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.773	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.358	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.315	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1
PFOA/PFOS, Total	24.4		ng/l	1.92	0.227	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	94		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	85		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	141		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	108		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	50		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	84		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	33		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	48		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		33-143

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-07
Client ID: 1104-5
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 10:53
Analyst: JW
Percent Solids: 82%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.140	J	ug/kg	1.09	0.025	1
Perfluoropentanoic Acid (PFPeA)	0.191	J	ug/kg	1.09	0.050	1
Perfluorobutanesulfonic Acid (PFBS)	0.078	J	ug/kg	1.09	0.042	1
Perfluorohexanoic Acid (PFHxA)	0.347	J	ug/kg	1.09	0.057	1
Perfluoroheptanoic Acid (PFHpA)	0.583	J	ug/kg	1.09	0.049	1
Perfluorohexanesulfonic Acid (PFHxS)	1.90		ug/kg	1.09	0.066	1
Perfluorooctanoic Acid (PFOA)	5.97		ug/kg	1.09	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.09	0.195	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.933	J	ug/kg	1.09	0.148	1
Perfluorononanoic Acid (PFNA)	0.304	J	ug/kg	1.09	0.082	1
Perfluorooctanesulfonic Acid (PFOS)	82.1		ug/kg	1.09	0.141	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.09	0.073	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.09	0.312	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.09	0.219	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.09	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.09	0.166	1
Perfluorooctanesulfonamide (FOSA)	14.2		ug/kg	1.09	0.106	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	63.9		ug/kg	1.09	0.092	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.09	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.09	0.222	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.09	0.059	1
PFOA/PFOS, Total	88.1		ug/kg	1.09	0.046	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-07 Date Collected: 11/05/19 10:15

Client ID: 1104-5 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	81		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	86		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	117		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	52		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	51		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	92		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-08
Client ID: 1104-6
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:18
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 11:10
Analyst: JW
Percent Solids: 85%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.122	J	ug/kg	1.09	0.025	1
Perfluoropentanoic Acid (PFPeA)	0.062	J	ug/kg	1.09	0.050	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.09	0.043	1
Perfluorohexanoic Acid (PFHxA)	0.104	J	ug/kg	1.09	0.057	1
Perfluoroheptanoic Acid (PFHpA)	0.087	J	ug/kg	1.09	0.049	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.09	0.066	1
Perfluorooctanoic Acid (PFOA)	0.565	J	ug/kg	1.09	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.09	0.196	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.09	0.149	1
Perfluorononanoic Acid (PFNA)	0.161	J	ug/kg	1.09	0.082	1
Perfluorooctanesulfonic Acid (PFOS)	0.306	J	ug/kg	1.09	0.142	1
Perfluorodecanoic Acid (PFDA)	0.077	J	ug/kg	1.09	0.073	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.09	0.313	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.09	0.220	1
Perfluoroundecanoic Acid (PFUnA)	0.078	J	ug/kg	1.09	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.09	0.167	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.09	0.107	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.285	J	ug/kg	1.09	0.092	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.09	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.09	0.223	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.09	0.059	1
PFOA/PFOS, Total	0.871	J	ug/kg	1.09	0.046	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-08 Date Collected: 11/05/19 10:18

Client ID: 1104-6 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	63		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	67		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	78		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**60**	Q	61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	69		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	76		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	73		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	79		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	76		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**29**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	87		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**33**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	39		26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/08/19 02:47
Analyst: JG
Percent Solids: 84%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 14:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	84	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	32	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	50	J	ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	39	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	26	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	41	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	28	J	ug/kg	160	28.	1
Pyrene	73	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	430	74.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1
1,4-Dioxane	ND		ug/kg	30	9.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	49		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	46		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/23/19 11:26
Analyst: JW
Percent Solids: 84%

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.154	J	ug/kg	1.04	0.024	1
Perfluoropentanoic Acid (PFPeA)	0.102	J	ug/kg	1.04	0.048	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.04	0.041	1
Perfluorohexanoic Acid (PFHxA)	0.133	J	ug/kg	1.04	0.055	1
Perfluoroheptanoic Acid (PFHpA)	0.092	J	ug/kg	1.04	0.047	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.04	0.063	1
Perfluorooctanoic Acid (PFOA)	0.595	J	ug/kg	1.04	0.044	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.04	0.188	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.04	0.143	1
Perfluorononanoic Acid (PFNA)	0.162	J	ug/kg	1.04	0.078	1
Perfluorooctanesulfonic Acid (PFOS)	0.367	J	ug/kg	1.04	0.136	1
Perfluorodecanoic Acid (PFDA)	0.074	J	ug/kg	1.04	0.070	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.04	0.300	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.04	0.210	1
Perfluoroundecanoic Acid (PFUnA)	0.074	J	ug/kg	1.04	0.049	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.04	0.160	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.04	0.102	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.04	0.088	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.04	0.073	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.04	0.214	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.04	0.056	1
PFOA/PFOS, Total	0.962	J	ug/kg	1.04	0.044	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**47**	Q	60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	**49**	Q	65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**52**	Q	70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**44**	Q	61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	**48**	Q	62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	**51**	Q	63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	**47**	Q	62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	40		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	**49**	Q	61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	**50**	Q	65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	**44**	Q	65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	31		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	**21**	Q	45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	**43**	Q	64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	10		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**25**	Q	42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	**30**	Q	56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	**4**	Q	26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-11
Client ID: FIELD BLANK
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:45
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 134,LCMSMS-ID
Analytical Date: 12/10/19 14:21
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/19/19 09:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.09	0.427	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.09	0.414	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.09	0.249	1
Perfluorohexanoic Acid (PFHxA)	0.431	J	ng/l	2.09	0.343	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.09	0.236	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.09	0.393	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.09	0.247	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.09	1.39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.09	0.720	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.09	0.326	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.09	0.527	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.09	0.318	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.09	1.27	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.09	0.678	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.09	0.272	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.09	1.02	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.09	0.607	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.09	0.841	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.09	0.389	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.09	0.342	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.09	0.259	1
PFOA/PFOS, Total	ND		ng/l	2.09	0.247	1

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-11 Date Collected: 11/05/19 11:45

Client ID: FIELD BLANK Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	119		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	140		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	114		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	112		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	118		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	119		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	194		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	118		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	118		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	119		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	142		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	112		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	126		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	62		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	92		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	113		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	118		33-143

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/06/19 22:38
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/05/19 22:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1305008-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/06/19 22:38
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/05/19 22:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1305008-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/06/19 22:38
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 11/05/19 22:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1305008-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	74		10-136
4-Terphenyl-d14	69		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/21/19 08:21
Analyst: JW

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,07-09 Batch: WG1305713-1					
Perfluorobutanoic Acid (PFBA)	0.104	J	ug/kg	1.00	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.00	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.00	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.00	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.00	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.00	0.061
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.00	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.00	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.00	0.136
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.00	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.00	0.130
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.00	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.00	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.00	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.00	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.00	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.00	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.00	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.00	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.00	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.00	0.054
PFOA/PFOS, Total	ND		ug/kg	1.00	0.042

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/21/19 08:21
Analyst: JW

Extraction Method: EPA 537(M)
Extraction Date: 11/07/19 11:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,07-09 Batch: WG1305713-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	75		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	93		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	102		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	75		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	110		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		26-160

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/08/19 16:33
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 16:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1306000-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/08/19 16:33
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 16:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1306000-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/08/19 16:33
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 16:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1306000-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	60		15-120
2,4,6-Tribromophenol	58		10-120
4-Terphenyl-d14	56		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 11/08/19 14:12
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 17:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 05-06 Batch: WG1306001-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 11/08/19 14:12
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 17:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 05-06 Batch: WG1306001-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	94		15-120
2,4,6-Tribromophenol	81		10-120
4-Terphenyl-d14	90		41-149

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/21/19 10:17
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/19/19 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05-06,11 Batch: WG1310558-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	0.384	J	ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 11/21/19 10:17
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 11/19/19 09:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05-06,11 Batch: WG1310558-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	101		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	112		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	96		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	88		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	109		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	100		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	70		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	107		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	49		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	96		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	85		33-143

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1305008-2 WG1305008-3								
Acenaphthene	93		69		31-137	30		50
1,2,4-Trichlorobenzene	90		78		38-107	14		50
Hexachlorobenzene	91		64		40-140	35		50
Bis(2-chloroethyl)ether	104		78		40-140	29		50
2-Chloronaphthalene	79		64		40-140	21		50
1,2-Dichlorobenzene	99		75		40-140	28		50
1,3-Dichlorobenzene	89		72		40-140	21		50
1,4-Dichlorobenzene	91		73		28-104	22		50
3,3'-Dichlorobenzidine	58		44		40-140	27		50
2,4-Dinitrotoluene	116		82		40-132	34		50
2,6-Dinitrotoluene	92		69		40-140	29		50
Fluoranthene	100		69		40-140	37		50
4-Chlorophenyl phenyl ether	86		60		40-140	36		50
4-Bromophenyl phenyl ether	92		62		40-140	39		50
Bis(2-chloroisopropyl)ether	76		67		40-140	13		50
Bis(2-chloroethoxy)methane	105		77		40-117	31		50
Hexachlorobutadiene	79		62		40-140	24		50
Hexachlorocyclopentadiene	79		60		40-140	27		50
Hexachloroethane	91		80		40-140	13		50
Isophorone	100		80		40-140	22		50
Naphthalene	92		72		40-140	24		50
Nitrobenzene	98		82		40-140	18		50
NDPA/DPA	103		75		36-157	31		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1305008-2 WG1305008-3								
n-Nitrosodi-n-propylamine	102		91		32-121	11		50
Bis(2-ethylhexyl)phthalate	125		86		40-140	37		50
Butyl benzyl phthalate	118		94		40-140	23		50
Di-n-butylphthalate	114		96		40-140	17		50
Di-n-octylphthalate	**149**	Q	102		40-140	37		50
Diethyl phthalate	100		73		40-140	31		50
Dimethyl phthalate	85		63		40-140	30		50
Benzo(a)anthracene	105		80		40-140	27		50
Benzo(a)pyrene	94		74		40-140	24		50
Benzo(b)fluoranthene	110		76		40-140	37		50
Benzo(k)fluoranthene	86		78		40-140	10		50
Chrysene	89		71		40-140	23		50
Acenaphthylene	83		63		40-140	27		50
Anthracene	96		76		40-140	23		50
Benzo(ghi)perylene	105		72		40-140	37		50
Fluorene	95		67		40-140	35		50
Phenanthrene	90		70		40-140	25		50
Dibenzo(a,h)anthracene	108		75		40-140	36		50
Indeno(1,2,3-cd)pyrene	109		77		40-140	34		50
Pyrene	90		67		35-142	29		50
Biphenyl	86		70		37-127	21		50
4-Chloroaniline	63		70		40-140	11		50
2-Nitroaniline	99		78		47-134	24		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1305008-2 WG1305008-3								
3-Nitroaniline	71		50		26-129	35		50
4-Nitroaniline	95		66		41-125	36		50
Dibenzofuran	97		68		40-140	35		50
2-Methylnaphthalene	81		68		40-140	17		50
1,2,4,5-Tetrachlorobenzene	80		60		40-117	29		50
Acetophenone	103		90		14-144	13		50
2,4,6-Trichlorophenol	90		67		30-130	29		50
p-Chloro-m-cresol	100		74		26-103	30		50
2-Chlorophenol	**113**	Q	83		25-102	31		50
2,4-Dichlorophenol	106		82		30-130	26		50
2,4-Dimethylphenol	112		83		30-130	30		50
2-Nitrophenol	119		83		30-130	36		50
4-Nitrophenol	**120**	Q	78		11-114	42		50
2,4-Dinitrophenol	57		46		4-130	21		50
4,6-Dinitro-o-cresol	119		98		10-130	19		50
Pentachlorophenol	91		63		17-109	36		50
Phenol	**101**	Q	78		26-90	26		50
2-Methylphenol	110		94		30-130.	16		50
3-Methylphenol/4-Methylphenol	107		92		30-130	15		50
2,4,5-Trichlorophenol	90		68		30-130	28		50
Benzoic Acid	**0**	Q	**0**	Q	10-110	NC		50
Benzyl Alcohol	115		86		40-140	29		50
Carbazole	98		75		54-128	27		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1305008-2 WG1305008-3								
1,4-Dioxane	68		56		40-140	19		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	93		80		25-120
Phenol-d6	93		75		10-120
Nitrobenzene-d5	86		74		23-120
2-Fluorobiphenyl	61		48		30-120
2,4,6-Tribromophenol	84		63		10-136
4-Terphenyl-d14	77		56		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-09 Batch: WG1305713-2 WG1305713-3								
Perfluorobutanoic Acid (PFBA)	100		107		71-135	7		30
Perfluoropentanoic Acid (PFPeA)	104		112		69-132	7		30
Perfluorobutanesulfonic Acid (PFBS)	101		109		72-128	8		30
Perfluorohexanoic Acid (PFHxA)	101		110		70-132	9		30
Perfluoroheptanoic Acid (PFHpA)	100		109		71-131	9		30
Perfluorohexanesulfonic Acid (PFHxS)	92		105		67-130	13		30
Perfluorooctanoic Acid (PFOA)	100		107		69-133	7		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	118		122		64-140	3		30
Perfluoroheptanesulfonic Acid (PFHpS)	113		99		70-132	13		30
Perfluorononanoic Acid (PFNA)	100		105		72-129	5		30
Perfluorooctanesulfonic Acid (PFOS)	93		103		68-136	10		30
Perfluorodecanoic Acid (PFDA)	100		104		69-133	4		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	107		111		65-137	4		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	105		117		63-144	11		30
Perfluoroundecanoic Acid (PFUnA)	96		101		64-136	5		30
Perfluorodecanesulfonic Acid (PFDS)	107		103		59-134	4		30
Perfluorooctanesulfonamide (FOSA)	**188**	Q	117		67-137	**47**	Q	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	101		101		61-139	0		30
Perfluorododecanoic Acid (PFDoA)	102		114		69-135	11		30
Perfluorotridecanoic Acid (PFTrDA)	104		115		66-139	10		30
Perfluorotetradecanoic Acid (PFTA)	100		112		69-133	11		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-09 Batch: WG1305713-2 WG1305713-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	69		69		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	77		77		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		91		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		72		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		82		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		100		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		91		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	76		72		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		98		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		105		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		95		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		88		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	77		70		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		108		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		**0**	Q	1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	76		81		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		99		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		80		26-160

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1306000-2 WG1306000-3								
Acenaphthene	66		81		37-111	20		30
1,2,4-Trichlorobenzene	56		77		39-98	**32**	Q	30
Hexachlorobenzene	65		85		40-140	27		30
Bis(2-chloroethyl)ether	61		82		40-140	29		30
2-Chloronaphthalene	61		84		40-140	**32**	Q	30
1,2-Dichlorobenzene	56		78		40-140	**33**	Q	30
1,3-Dichlorobenzene	54		74		40-140	**31**	Q	30
1,4-Dichlorobenzene	55		74		36-97	29		30
3,3'-Dichlorobenzidine	58		71		40-140	20		30
2,4-Dinitrotoluene	69		89		48-143	25		30
2,6-Dinitrotoluene	71		92		40-140	26		30
Fluoranthene	72		85		40-140	17		30
4-Chlorophenyl phenyl ether	67		85		40-140	24		30
4-Bromophenyl phenyl ether	67		86		40-140	25		30
Bis(2-chloroisopropyl)ether	61		79		40-140	26		30
Bis(2-chloroethoxy)methane	64		82		40-140	25		30
Hexachlorobutadiene	55		79		40-140	**36**	Q	30
Hexachlorocyclopentadiene	49		66		40-140	30		30
Hexachloroethane	55		77		40-140	**33**	Q	30
Isophorone	69		88		40-140	24		30
Naphthalene	65		82		40-140	23		30
Nitrobenzene	63		83		40-140	27		30
NDPA/DPA	73		90		40-140	21		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1306000-2 WG1306000-3								
n-Nitrosodi-n-propylamine	66		86		29-132	26		30
Bis(2-ethylhexyl)phthalate	73		89		40-140	20		30
Butyl benzyl phthalate	72		84		40-140	15		30
Di-n-butylphthalate	68		85		40-140	22		30
Di-n-octylphthalate	75		85		40-140	13		30
Diethyl phthalate	72		90		40-140	22		30
Dimethyl phthalate	69		91		40-140	28		30
Benzo(a)anthracene	76		90		40-140	17		30
Benzo(a)pyrene	71		79		40-140	11		30
Benzo(b)fluoranthene	74		85		40-140	14		30
Benzo(k)fluoranthene	78		92		40-140	16		30
Chrysene	70		83		40-140	17		30
Acenaphthylene	67		89		45-123	28		30
Anthracene	69		84		40-140	20		30
Benzo(ghi)perylene	74		93		40-140	23		30
Fluorene	68		88		40-140	26		30
Phenanthrene	67		81		40-140	19		30
Dibenzo(a,h)anthracene	69		86		40-140	22		30
Indeno(1,2,3-cd)pyrene	71		85		40-140	18		30
Pyrene	68		84		26-127	21		30
Biphenyl	65		85		40-140	27		30
4-Chloroaniline	55		75		40-140	**31**	Q	30
2-Nitroaniline	66		87		52-143	27		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1306000-2 WG1306000-3								
3-Nitroaniline	64		79		25-145	21		30
4-Nitroaniline	63		75		51-143	17		30
Dibenzofuran	67		82		40-140	20		30
2-Methylnaphthalene	63		84		40-140	29		30
1,2,4,5-Tetrachlorobenzene	62		83		2-134	29		30
Acetophenone	64		82		39-129	25		30
2,4,6-Trichlorophenol	66		86		30-130	26		30
p-Chloro-m-cresol	72		92		23-97	24		30
2-Chlorophenol	62		82		27-123	28		30
2,4-Dichlorophenol	66		85		30-130	25		30
2,4-Dimethylphenol	61		55		30-130	10		30
2-Nitrophenol	59		82		30-130	**33**	Q	30
4-Nitrophenol	65		**81**	Q	10-80	22		30
2,4-Dinitrophenol	68		78		20-130	14		30
4,6-Dinitro-o-cresol	71		84		20-164	17		30
Pentachlorophenol	75		91		9-103	19		30
Phenol	46		61		12-110	28		30
2-Methylphenol	65		77		30-130	17		30
3-Methylphenol/4-Methylphenol	66		81		30-130	20		30
2,4,5-Trichlorophenol	68		88		30-130	26		30
Benzoic Acid	52		58		10-164	11		30
Benzyl Alcohol	59		76		26-116	25		30
Carbazole	69		87		55-144	23		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1306000-2 WG1306000-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	57		76		21-120
Phenol-d6	50		65		10-120
Nitrobenzene-d5	56		71		23-120
2-Fluorobiphenyl	51		65		15-120
2,4,6-Tribromophenol	73		89		10-120
4-Terphenyl-d14	53		65		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 05-06 Batch: WG1306001-2 WG1306001-3								
Acenaphthene	112		104		40-140	7		40
2-Chloronaphthalene	103		100		40-140	3		40
Fluoranthene	115		103		40-140	11		40
Hexachlorobutadiene	102		102		40-140	0		40
Naphthalene	110		97		40-140	13		40
Benzo(a)anthracene	126		112		40-140	12		40
Benzo(a)pyrene	129		116		40-140	11		40
Benzo(b)fluoranthene	140		125		40-140	11		40
Benzo(k)fluoranthene	133		117		40-140	13		40
Chrysene	125		119		40-140	5		40
Acenaphthylene	101		96		40-140	5		40
Anthracene	117		108		40-140	8		40
Benzo(ghi)perylene	133		119		40-140	11		40
Fluorene	114		106		40-140	7		40
Phenanthrene	115		104		40-140	10		40
Dibenzo(a,h)anthracene	136		121		40-140	12		40
Indeno(1,2,3-cd)pyrene	138		122		40-140	12		40
Pyrene	114		100		40-140	13		40
2-Methylnaphthalene	105		98		40-140	7		40
Pentachlorophenol	82		76		40-140	8		40
Hexachlorobenzene	116		109		40-140	6		40
Hexachloroethane	91		93		40-140	2		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

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

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 05-06 Batch: WG1306001-2 WG1306001-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	72		73		21-120
Phenol-d6	60		59		10-120
Nitrobenzene-d5	90		91		23-120
2-Fluorobiphenyl	97		94		15-120
2,4,6-Tribromophenol	97		89		10-120
4-Terphenyl-d14	96		86		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06,11 Batch: WG1310558-2 WG1310558-3								
Perfluorobutanoic Acid (PFBA)	114		109		67-148	4		30
Perfluoropentanoic Acid (PFPeA)	118		113		63-161	4		30
Perfluorobutanesulfonic Acid (PFBS)	116		111		65-157	4		30
Perfluorohexanoic Acid (PFHxA)	119		112		69-168	6		30
Perfluoroheptanoic Acid (PFHpA)	116		112		58-159	4		30
Perfluorohexanesulfonic Acid (PFHxS)	106		108		69-177	2		30
Perfluorooctanoic Acid (PFOA)	116		113		63-159	3		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	126		116		49-187	8		30
Perfluoroheptanesulfonic Acid (PFHpS)	119		104		61-179	13		30
Perfluorononanoic Acid (PFNA)	120		113		68-171	6		30
Perfluorooctanesulfonic Acid (PFOS)	107		100		52-151	7		30
Perfluorodecanoic Acid (PFDA)	115		115		63-171	0		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	121		110		56-173	10		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	112		113		60-166	1		30
Perfluoroundecanoic Acid (PFUnA)	116		110		60-153	5		30
Perfluorodecanesulfonic Acid (PFDS)	122		110		38-156	10		30
Perfluorooctanesulfonamide (FOSA)	115		121		46-170	5		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	114		112		45-170	2		30
Perfluorododecanoic Acid (PFDoA)	120		110		67-153	9		30
Perfluorotridecanoic Acid (PFTrDA)	132		123		48-158	7		30
Perfluorotetradecanoic Acid (PFTA)	116		118		59-182	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06,11 Batch: WG1310558-2 WG1310558-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	101		99		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	110		107		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		95		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		95		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98		97		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		101		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102		98		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	92		89		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		101		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101		98		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		99		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		69		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		97		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50		38		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	79		74		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	90		92		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	85		80		33-143

PCBS

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 11/08/19 13:47
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 11/08/19 00:12
Cleanup Method: EPA 3665A
Cleanup Date: 11/08/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 11/08/19 14:00
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 11/08/19 00:12
Cleanup Method: EPA 3665A
Cleanup Date: 11/08/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 20:02
Analyst: AWS
Percent Solids: 84%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 09:40
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.1	3.48	1	A
Aroclor 1221	ND		ug/kg	39.1	3.92	1	A
Aroclor 1232	ND		ug/kg	39.1	8.30	1	A
Aroclor 1242	ND		ug/kg	39.1	5.28	1	A
Aroclor 1248	ND		ug/kg	39.1	5.87	1	A
Aroclor 1254	ND		ug/kg	39.1	4.28	1	A
Aroclor 1260	ND		ug/kg	39.1	7.23	1	B
Aroclor 1262	ND		ug/kg	39.1	4.97	1	A
Aroclor 1268	ND		ug/kg	39.1	4.06	1	A
PCBs, Total	ND		ug/kg	39.1	3.48	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	40		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	56		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/06/19 12:22
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 11/06/19 03:17
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 09 Batch: WG1305065-1						
Aroclor 1016	ND		ug/kg	32.3	2.87	A
Aroclor 1221	ND		ug/kg	32.3	3.24	A
Aroclor 1232	ND		ug/kg	32.3	6.85	A
Aroclor 1242	ND		ug/kg	32.3	4.35	A
Aroclor 1248	ND		ug/kg	32.3	4.84	A
Aroclor 1254	ND		ug/kg	32.3	3.53	A
Aroclor 1260	ND		ug/kg	32.3	5.97	A
Aroclor 1262	ND		ug/kg	32.3	4.10	A
Aroclor 1268	ND		ug/kg	32.3	3.35	A
PCBs, Total	ND		ug/kg	32.3	2.87	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	115		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	100		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/08/19 12:13
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 09:18
Cleanup Method: EPA 3665A
Cleanup Date: 11/07/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 05-06 Batch: WG1305739-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	68		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 09 Batch: WG1305065-2 WG1305065-3									
Aroclor 1016	98		90		40-140	9		50	A
Aroclor 1260	97		87		40-140	11		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		75		30-150	A
Decachlorobiphenyl	109		94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		78		30-150	B
Decachlorobiphenyl	99		89		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1305739-2 WG1305739-3									
Aroclor 1016	64		62		40-140	4		50	A
Aroclor 1260	64		61		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		61		30-150	A
Decachlorobiphenyl	59		57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		58		30-150	B
Decachlorobiphenyl	67		62		30-150	B

PESTICIDES

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 11/11/19 11:26
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 11/08/19 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	B
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05 Date Collected: 11/05/19 11:00

Client ID: TW-1 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	73		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8081B
Analytical Date: 11/11/19 11:38
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 11/08/19 00:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	B
4,4'-DDE	ND		ug/l	0.029	0.003	1	B
4,4'-DDD	0.005	JP	ug/l	0.029	0.003	1	B
4,4'-DDT	0.003	J	ug/l	0.029	0.003	1	B
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06 Date Collected: 11/05/19 11:30

Client ID: TW-2 Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 09:21
Analyst: BM
Percent Solids: 84%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 11:02
Cleanup Method: EPA 3620B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.91	0.374	1	A
Lindane	ND		ug/kg	0.795	0.355	1	A
Alpha-BHC	ND		ug/kg	0.795	0.226	1	A
Beta-BHC	ND		ug/kg	1.91	0.723	1	A
Heptachlor	ND		ug/kg	0.954	0.428	1	A
Aldrin	ND		ug/kg	1.91	0.672	1	A
Heptachlor epoxide	ND		ug/kg	3.58	1.07	1	A
Endrin	ND		ug/kg	0.795	0.326	1	A
Endrin aldehyde	ND		ug/kg	2.38	0.834	1	A
Endrin ketone	ND		ug/kg	1.91	0.491	1	A
Dieldrin	ND		ug/kg	1.19	0.596	1	A
4,4'-DDE	0.502	J	ug/kg	1.91	0.441	1	B
4,4'-DDD	ND		ug/kg	1.91	0.680	1	B
4,4'-DDT	ND		ug/kg	3.58	1.53	1	B
Endosulfan I	0.536	JP	ug/kg	1.91	0.451	1	A
Endosulfan II	ND		ug/kg	1.91	0.637	1	B
Endosulfan sulfate	ND		ug/kg	0.795	0.378	1	A
Methoxychlor	ND		ug/kg	3.58	1.11	1	A
Toxaphene	ND		ug/kg	35.8	10.0	1	A
cis-Chlordane	ND		ug/kg	2.38	0.664	1	A
trans-Chlordane	ND		ug/kg	2.38	0.629	1	A
Chlordane	ND		ug/kg	15.5	6.32	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952432

Project Number: HAVERSTRAW **Report Date:** 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09 Date Collected: 11/05/19 09:30

Client ID: 1105-01S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	65		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/07/19 07:54
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 11:02
Cleanup Method: EPA 3620B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 09 Batch: WG1305264-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.660	0.295	A
Alpha-BHC	ND		ug/kg	0.660	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.600	A
Heptachlor	ND		ug/kg	0.792	0.355	A
Aldrin	ND		ug/kg	1.58	0.557	A
Heptachlor epoxide	ND		ug/kg	2.97	0.890	A
Endrin	ND		ug/kg	0.660	0.270	A
Endrin aldehyde	ND		ug/kg	1.98	0.693	A
Endrin ketone	ND		ug/kg	1.58	0.408	A
Dieldrin	ND		ug/kg	0.989	0.495	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.565	A
4,4'-DDT	ND		ug/kg	2.97	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.529	A
Endosulfan sulfate	ND		ug/kg	0.660	0.314	A
Methoxychlor	ND		ug/kg	2.97	0.923	A
Toxaphene	ND		ug/kg	29.7	8.31	A
cis-Chlordane	ND		ug/kg	1.98	0.551	A
trans-Chlordane	ND		ug/kg	1.98	0.522	A
Chlordane	ND		ug/kg	12.9	5.24	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/07/19 07:54
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 11:02
Cleanup Method: EPA 3620B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 09 Batch: WG1305264-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	65		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/11/19 13:34
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 01:15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 05-06 Batch: WG1305550-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/11/19 13:34
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 11/07/19 01:15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 05-06 Batch: WG1305550-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	70		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 09 Batch: WG1305264-2 WG1305264-3									
Delta-BHC	80		76		30-150	5		30	A
Lindane	78		75		30-150	4		30	A
Alpha-BHC	81		78		30-150	4		30	A
Beta-BHC	75		75		30-150	0		30	A
Heptachlor	80		76		30-150	5		30	A
Aldrin	77		75		30-150	3		30	A
Heptachlor epoxide	80		79		30-150	1		30	A
Endrin	83		80		30-150	4		30	A
Endrin aldehyde	58		57		30-150	2		30	A
Endrin ketone	80		77		30-150	4		30	A
Dieldrin	83		80		30-150	4		30	A
4,4'-DDE	80		77		30-150	4		30	A
4,4'-DDD	80		77		30-150	4		30	A
4,4'-DDT	88		85		30-150	3		30	A
Endosulfan I	74		72		30-150	3		30	A
Endosulfan II	76		73		30-150	4		30	A
Endosulfan sulfate	68		65		30-150	5		30	A
Methoxychlor	94		94		30-150	0		30	A
cis-Chlordane	69		67		30-150	3		30	A
trans-Chlordane	67		70		30-150	4		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

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

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 09 Batch: WG1305264-2 WG1305264-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		63		30-150	B
Decachlorobiphenyl	65		64		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		65		30-150	A
Decachlorobiphenyl	68		67		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1305550-2 WG1305550-3									
Delta-BHC	71		58		30-150	20		20	A
Lindane	74		59		30-150	**22**	Q	20	A
Alpha-BHC	78		62		30-150	**23**	Q	20	A
Beta-BHC	73		57		30-150	**24**	Q	20	A
Heptachlor	73		57		30-150	**25**	Q	20	A
Aldrin	75		58		30-150	**26**	Q	20	A
Heptachlor epoxide	77		60		30-150	**25**	Q	20	A
Endrin	76		58		30-150	**28**	Q	20	A
Endrin aldehyde	56		52		30-150	7		20	A
Endrin ketone	74		62		30-150	18		20	A
Dieldrin	78		61		30-150	**25**	Q	20	A
4,4'-DDE	76		58		30-150	**27**	Q	20	A
4,4'-DDD	75		58		30-150	**25**	Q	20	A
4,4'-DDT	76		59		30-150	**26**	Q	20	A
Endosulfan I	71		55		30-150	**25**	Q	20	A
Endosulfan II	70		58		30-150	18		20	A
Endosulfan sulfate	66		56		30-150	16		20	A
Methoxychlor	71		57		30-150	**21**	Q	20	A
cis-Chlordane	71		55		30-150	**25**	Q	20	A
trans-Chlordane	72		56		30-150	**25**	Q	20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

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

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1305550-2 WG1305550-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		58		30-150	A
Decachlorobiphenyl	65		49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		54		30-150	B
Decachlorobiphenyl	64		48		30-150	B

METALS

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2.16		mg/l	0.0100	0.00327	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00367		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Barium, Total	0.04422		mg/l	0.00050	0.00017	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00012	J	mg/l	0.00050	0.00010	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00028		mg/l	0.00020	0.00005	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Calcium, Total	77.0		mg/l	0.100	0.0394	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Chromium, Total	0.00191		mg/l	0.00100	0.00017	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00466		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Copper, Total	0.01401		mg/l	0.00100	0.00038	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Iron, Total	3.86		mg/l	0.0500	0.0191	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Lead, Total	0.01327		mg/l	0.00100	0.00034	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Magnesium, Total	21.9		mg/l	0.0700	0.0242	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Manganese, Total	0.7532		mg/l	0.00100	0.00044	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	11/07/19 12:35	11/07/19 20:08	EPA 7470A	1,7470A	GD
Nickel, Total	0.00483		mg/l	0.00200	0.00055	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Potassium, Total	1.40		mg/l	0.100	0.0309	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Selenium, Total	0.00286	J	mg/l	0.00500	0.00173	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Sodium, Total	7.03		mg/l	0.100	0.0293	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00520		mg/l	0.00500	0.00157	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM
Zinc, Total	0.07631		mg/l	0.01000	0.00341	1	11/07/19 15:52	11/07/19 23:27	EPA 3005A	1,6020B	AM

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.88		mg/l	0.0100	0.00327	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00559		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Barium, Total	0.2512		mg/l	0.00050	0.00017	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00011	J	mg/l	0.00050	0.00010	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00040		mg/l	0.00020	0.00005	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Calcium, Total	93.8		mg/l	0.100	0.0394	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Chromium, Total	0.00212		mg/l	0.00100	0.00017	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00932		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Copper, Total	0.01307		mg/l	0.00100	0.00038	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Iron, Total	18.8		mg/l	0.0500	0.0191	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Lead, Total	0.04053		mg/l	0.00100	0.00034	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Magnesium, Total	18.2		mg/l	0.0700	0.0242	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Manganese, Total	1.900		mg/l	0.00100	0.00044	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	11/07/19 12:35	11/07/19 20:10	EPA 7470A	1,7470A	GD
Nickel, Total	0.01029		mg/l	0.00200	0.00055	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Potassium, Total	3.51		mg/l	0.100	0.0309	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Selenium, Total	0.00245	J	mg/l	0.00500	0.00173	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Silver, Total	0.00017	J	mg/l	0.00040	0.00016	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Sodium, Total	79.6		mg/l	0.100	0.0293	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Vanadium, Total	0.03913		mg/l	0.00500	0.00157	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM
Zinc, Total	0.06248		mg/l	0.01000	0.00341	1	11/07/19 15:52	11/07/19 23:31	EPA 3005A	1,6020B	AM

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9010		mg/kg	9.57	2.58	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.78	0.364	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Arsenic, Total	5.09		mg/kg	0.957	0.199	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Barium, Total	36.4		mg/kg	0.957	0.166	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Beryllium, Total	0.325	J	mg/kg	0.478	0.032	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Cadmium, Total	0.201	J	mg/kg	0.957	0.094	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Calcium, Total	969		mg/kg	9.57	3.35	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Chromium, Total	14.5		mg/kg	0.957	0.092	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Cobalt, Total	4.91		mg/kg	1.91	0.159	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Copper, Total	6.28		mg/kg	0.957	0.247	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Iron, Total	12400		mg/kg	4.78	0.864	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Lead, Total	26.9		mg/kg	4.78	0.256	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Magnesium, Total	1980		mg/kg	9.57	1.47	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Manganese, Total	158		mg/kg	0.957	0.152	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Mercury, Total	0.075	J	mg/kg	0.088	0.057	1	11/06/19 21:43	11/07/19 16:14	EPA 7471B	1,7471B	GD
Nickel, Total	10.0		mg/kg	2.39	0.232	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Potassium, Total	501		mg/kg	239	13.8	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Selenium, Total	0.278	J	mg/kg	1.91	0.247	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.957	0.271	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Sodium, Total	35.1	J	mg/kg	191	3.01	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.91	0.301	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Vanadium, Total	18.3		mg/kg	0.957	0.194	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC
Zinc, Total	30.2		mg/kg	4.78	0.280	2	11/06/19 20:50	11/07/19 15:11	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 09 Batch: WG1305457-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Antimony, Total	ND		mg/kg	2.00	0.152	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Calcium, Total	ND		mg/kg	4.00	1.40	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Copper, Total	ND		mg/kg	0.400	0.103	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Iron, Total	ND		mg/kg	2.00	0.361	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Magnesium, Total	ND		mg/kg	4.00	0.616	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Manganese, Total	ND		mg/kg	0.400	0.064	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Potassium, Total	ND		mg/kg	100	5.76	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Sodium, Total	1.35	J	mg/kg	80.0	1.26	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Thallium, Total	ND		mg/kg	0.800	0.126	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 09 Batch: WG1305489-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/06/19 21:43	11/07/19 14:59	1,7471B	GD

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05-06 Batch: WG1305849-1										
Mercury, Total	ND		mg/l	0.00020	0.00009	1	11/07/19 12:35	11/07/19 18:16	1,7470A	GD

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05-06 Batch: WG1305961-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Vanadium, Total	ND	mg/l	0.00500	0.00157	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM
Zinc, Total	ND	mg/l	0.01000	0.00341	1	11/07/19 15:52	11/07/19 22:56	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09 Batch: WG1305457-2 SRM Lot Number: D105-540								
Aluminum, Total	60		-		51-149	-		
Antimony, Total	163		-		19-249	-		
Arsenic, Total	94		-		70-130	-		
Barium, Total	83		-		75-125	-		
Beryllium, Total	93		-		75-125	-		
Cadmium, Total	101		-		75-125	-		
Calcium, Total	82		-		73-127	-		
Chromium, Total	89		-		70-130	-		
Cobalt, Total	96		-		75-125	-		
Copper, Total	90		-		75-125	-		
Iron, Total	75		-		38-162	-		
Lead, Total	89		-		71-128	-		
Magnesium, Total	76		-		63-137	-		
Manganese, Total	81		-		76-124	-		
Nickel, Total	94		-		70-131	-		
Potassium, Total	68		-		60-140	-		
Selenium, Total	96		-		63-137	-		
Silver, Total	89		-		69-131	-		
Sodium, Total	106		-		37-162	-		
Thallium, Total	97		-		68-132	-		
Vanadium, Total	86		-		65-135	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09 Batch: WG1305457-2 SRM Lot Number: D105-540					
Zinc, Total	95	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 09 Batch: WG1305489-2 SRM Lot Number: D105-540					
Mercury, Total	91	-	60-141	-	
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1305849-2					
Mercury, Total	87	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1305961-2					
Aluminum, Total	114	-	80-120	-	
Antimony, Total	83	-	80-120	-	
Arsenic, Total	114	-	80-120	-	
Barium, Total	108	-	80-120	-	
Beryllium, Total	104	-	80-120	-	
Cadmium, Total	111	-	80-120	-	
Calcium, Total	112	-	80-120	-	
Chromium, Total	108	-	80-120	-	
Cobalt, Total	110	-	80-120	-	
Copper, Total	107	-	80-120	-	
Iron, Total	104	-	80-120	-	
Lead, Total	118	-	80-120	-	
Magnesium, Total	112	-	80-120	-	
Manganese, Total	109	-	80-120	-	
Nickel, Total	112	-	80-120	-	
Potassium, Total	108	-	80-120	-	
Selenium, Total	115	-	80-120	-	
Silver, Total	103	-	80-120	-	
Sodium, Total	108	-	80-120	-	
Thallium, Total	113	-	80-120	-	
Vanadium, Total	113	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1305961-2					
Zinc, Total	116	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG1305457-3 QC Sample: L1952316-01 Client ID: MS Sample												
Aluminum, Total	9710	187	11200	**798**	Q	-	-		75-125	-		20
Antimony, Total	ND	46.7	32.6	**70**	Q	-	-		75-125	-		20
Arsenic, Total	4.52	11.2	13.6	81		-	-		75-125	-		20
Barium, Total	41.7	187	177	**72**	Q	-	-		75-125	-		20
Beryllium, Total	0.357	4.67	3.60	**69**	Q	-	-		75-125	-		20
Cadmium, Total	0.269J	4.76	3.53	**74**	Q	-	-		75-125	-		20
Calcium, Total	1120	934	1840	77		-	-		75-125	-		20
Chromium, Total	12.3	18.7	26.5	76		-	-		75-125	-		20
Cobalt, Total	4.25	46.7	36.6	**69**	Q	-	-		75-125	-		20
Copper, Total	12.5	23.3	27.2	**63**	Q	-	-		75-125	-		20
Iron, Total	12500	93.4	13000	**535**	Q	-	-		75-125	-		20
Lead, Total	51.2	47.6	86.1	**73**	Q	-	-		75-125	-		20
Magnesium, Total	1440	934	2180	79		-	-		75-125	-		20
Manganese, Total	157	46.7	187	**64**	Q	-	-		75-125	-		20
Nickel, Total	9.08	46.7	40.9	**68**	Q	-	-		75-125	-		20
Potassium, Total	422	934	1080	**70**	Q	-	-		75-125	-		20
Selenium, Total	0.348J	11.2	8.37	75		-	-		75-125	-		20
Silver, Total	ND	28	21.6	77		-	-		75-125	-		20
Sodium, Total	37.1J	934	718	77		-	-		75-125	-		20
Thallium, Total	ND	11.2	6.93	**62**	Q	-	-		75-125	-		20
Vanadium, Total	20.2	46.7	54.4	**73**	Q	-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG1305457-3 QC Sample: L1952316-01 Client ID: MS Sample										
Zinc, Total	52.0	46.7	81.3	**63**	Q	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG1305489-3 QC Sample: L1952316-18 Client ID: MS Sample										
Mercury, Total	0.152	0.156	0.313	104		-	-	80-120	-	20
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305849-3 QC Sample: L1952090-01 Client ID: MS Sample										
Mercury, Total	ND	0.005	0.00426	85		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305961-3 QC Sample: L1952396-01 Client ID: MS Sample										
Aluminum, Total	7.29	2	11.7	**220**	Q	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.3734	75		-	-	75-125	-	20
Arsenic, Total	0.00138	0.12	0.1394	115		-	-	75-125	-	20
Barium, Total	0.1390	2	1.868	86		-	-	75-125	-	20
Beryllium, Total	0.00025J	0.05	0.04115	82		-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.04589	90		-	-	75-125	-	20
Calcium, Total	33.0	10	46.1	**131**	Q	-	-	75-125	-	20
Chromium, Total	0.01658	0.2	0.1918	88		-	-	75-125	-	20
Cobalt, Total	0.00554	0.5	0.4394	87		-	-	75-125	-	20
Copper, Total	0.02988	0.25	0.2413	84		-	-	75-125	-	20
Iron, Total	10.5	1	11.6	110		-	-	75-125	-	20
Lead, Total	0.00439	0.51	0.6242	122		-	-	75-125	-	20
Magnesium, Total	6.35	10	19.1	**128**	Q	-	-	75-125	-	20
Manganese, Total	0.2339	0.5	0.6775	89		-	-	75-125	-	20
Nickel, Total	0.01365	0.5	0.4562	88		-	-	75-125	-	20
Potassium, Total	10.5	10	21.8	113		-	-	75-125	-	20
Selenium, Total	0.00374J	0.12	0.156	**130**	Q	-	-	75-125	-	20
Silver, Total	ND	0.05	0.04134	83		-	-	75-125	-	20
Sodium, Total	25.6	10	38.7	**131**	Q	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.1381	115		-	-	75-125	-	20
Vanadium, Total	0.01778	0.5	0.4605	88		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305961-3 QC Sample: L1952396-01 Client ID: MS Sample									
Zinc, Total	0.02377	0.5	0.5032	96	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG1305457-4 QC Sample: L1952316-01 Client ID: DUP Sample						
Lead, Total	51.2	52.4	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 09 QC Batch ID: WG1305489-4 QC Sample: L1952316-18 Client ID: DUP Sample						
Mercury, Total	0.152	0.130	mg/kg	16		20
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305849-4 QC Sample: L1952090-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305961-4 QC Sample: L1952396-01 Client ID: DUP Sample					
Aluminum, Total	7.29	7.67	mg/l	5	20
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	0.00138	0.00141	mg/l	2	20
Barium, Total	0.1390	0.1479	mg/l	6	20
Beryllium, Total	0.00025J	0.00024J	mg/l	NC	20
Cadmium, Total	ND	0.00008J	mg/l	NC	20
Calcium, Total	33.0	34.2	mg/l	4	20
Chromium, Total	0.01658	0.01750	mg/l	5	20
Cobalt, Total	0.00554	0.00551	mg/l	1	20
Copper, Total	0.02988	0.03113	mg/l	4	20
Iron, Total	10.5	11.1	mg/l	6	20
Lead, Total	0.00439	0.00447	mg/l	2	20
Magnesium, Total	6.35	6.62	mg/l	4	20
Manganese, Total	0.2339	0.2492	mg/l	6	20
Nickel, Total	0.01365	0.01486	mg/l	8	20
Potassium, Total	10.5	10.4	mg/l	1	20
Selenium, Total	0.00374J	0.00423J	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Sodium, Total	25.6	26.6	mg/l	4	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1305961-4 QC Sample: L1952396-01 Client ID: DUP Sample					
Thallium, Total	ND	ND	mg/l	NC	20
Vanadium, Total	0.01778	0.01769	mg/l	1	20
Zinc, Total	0.02377	0.02522	mg/l	6	20

INORGANICS
&
MISCELLANEOUS

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-01
Client ID: 1104-7
Sample Location: HAVERSTRAW, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/05/19 10:25
Date Received: 11/05/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.9		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-02
Client ID: 1104-8
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 10:32
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.7		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-03
Client ID: 1104-9
Sample Location: HAVERSTRAW, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/05/19 10:40
Date Received: 11/05/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	65.9		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-04
Client ID: 1104-10
Sample Location: HAVERSTRAW, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/05/19 10:50
Date Received: 11/05/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-05
Client ID: TW-1
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.019		mg/l	0.005	0.001	1	11/06/19 14:40	11/06/19 17:39	1,9010C/9012B	LH

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-06
Client ID: TW-2
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 11:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	11/06/19 14:40	11/06/19 17:40	1,9010C/9012B	LH

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-07
Client ID: 1104-5
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 10:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-08
Client ID: 1104-6
Sample Location: HAVERSTRAW, NY
Date Collected: 11/05/19 10:18
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.5		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

SAMPLE RESULTS

Lab ID: L1952432-09
Client ID: 1105-01S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/05/19 09:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.6		%	0.100	NA	1	-	11/06/19 12:49	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	11/06/19 11:45	11/06/19 15:32	1,9010C/9012B	LH

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952432
Report Date: 12/31/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 09 Batch: WG1305233-1										
Cyanide, Total	ND		mg/kg	0.89	0.19	1	11/06/19 11:45	11/06/19 14:57	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 05-06 Batch: WG1305328-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	11/06/19 14:40	11/06/19 17:20	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952432

Report Date: 12/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09 Batch: WG1305233-2 WG1305233-3								
Cyanide, Total	**66**	Q	**69**	Q	80-120	4		35
General Chemistry - Westborough Lab Associated sample(s): 05-06 Batch: WG1305328-2 WG1305328-3								
Cyanide, Total	94		93		85-115	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 09 QC Batch ID: WG1305233-4 WG1305233-5 QC Sample: L1952432-09 Client ID: 1105-01S												
Cyanide, Total	ND	11	11	99		11	94		75-125	0		35
General Chemistry - Westborough Lab Associated sample(s): 05-06 QC Batch ID: WG1305328-4 WG1305328-5 QC Sample: L1951803-05 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.197	98		0.197	98		80-120	0		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04,07-09 QC Batch ID: WG1305283-1 QC Sample: L1952432-01 Client ID: 1104-7						
Solids, Total	80.9	80.9	%	0		20

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952432-01A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-01B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-02A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-02B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-03A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-03B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-04A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-04B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-05A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-05B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-05C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-05D	Plastic 250ml unpreserved	B	7	7	2.9	Y	Absent		-
L1952432-05E	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-05F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-05G	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-05H	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-05I	Plastic 250ml NaOH preserved	B	>12	>12	2.9	Y	Absent		TCN-9010(14)
L1952432-05J	Plastic 250ml HNO3 preserved	B	<2	<2	2.9	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952432-05K	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1952432-05L	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1952432-05M	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1952432-05N	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1952432-05X	Plastic 250ml HNO3 preserved split	B	NA		2.9	Y	Absent		HOLD-METAL-DISSOLVED(180)
L1952432-06A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-06B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-06C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L1952432-06D	Plastic 250ml unpreserved	B	7	7	2.9	Y	Absent		-
L1952432-06E	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-06F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-06G	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-06H	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(7)
L1952432-06I	Plastic 250ml NaOH preserved	B	>12	>12	2.9	Y	Absent		TCN-9010(14)
L1952432-06J	Plastic 250ml HNO3 preserved	B	<2	<2	2.9	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1952432-06K	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1952432-06L	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1952432-06M	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1952432-06N	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1952432-06X	Plastic 250ml HNO3 preserved split	B	NA		2.9	Y	Absent		HOLD-METAL-DISSOLVED(180)
L1952432-07A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-07B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-08A	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		TS(7)
L1952432-08B	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)

*Values in parentheses indicate holding time in days

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952432-09A	Vial MeOH preserved	A	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1952432-09B	Vial water preserved	A	NA		2.0	Y	Absent	06-NOV-19 10:50	NYTCL-8260HLW(14)
L1952432-09C	Vial water preserved	A	NA		2.0	Y	Absent	06-NOV-19 10:50	NYTCL-8260HLW(14)
L1952432-09D	Plastic 2oz unpreserved for TS	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(28)
L1952432-09E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1952432-09F	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952432-10A	Vial MeOH preserved	A	NA		2.0	Y	Absent		HOLD-8260HLW(14)
L1952432-10B	Vial water preserved	A	NA		2.0	Y	Absent	06-NOV-19 10:50	HOLD-8260HLW(14)
L1952432-10C	Vial water preserved	A	NA		2.0	Y	Absent	06-NOV-19 10:50	HOLD-8260HLW(14)
L1952432-10D	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-WETCHEM()
L1952432-10E	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-WETCHEM()
L1952432-10F	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-METAL(180)
L1952432-10G	Glass 250ml/8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-CONTINGENCY(14)
L1952432-10H	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		HOLD-537(28)
L1952432-10I	Plastic 8oz unpreserved	A	NA		2.0	Y	Absent		-
L1952432-11A	Plastic 250ml unpreserved	A	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952432
Report Date: 12/31/19

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

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

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

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

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

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

Data Qualifiers

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952432
Project Number:	HAVERSTRAW	**Report Date:**	12/31/19

REFERENCES

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

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

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

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

Mansfield Facility:

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

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

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

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

Page 1 of 2

Date Rec'd in Lab: 11/5/19

ALPHA Job #: L1952432

Client Information
Client: Acer Consulting
Address: 32 43RD PL
Sea Isle City NJ
Phone: 609 478 8119
Fax:
Email: acerconsulting@yahoo.com

Project Information
Project Name: Haverstraw
Project Location: Haverstraw NY
Project #
(Use Project name as Project #) ☒
Project Manager: Vincent Agovino
ALPHAQuote #:

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

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Run 1105-01S @ 3day TAT All others standard.

Please specify Metals or TAL.

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

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

Billing Information
☒ Same as Client Info
PO #

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL/TAL	PFAS/PFO	Sample Specific Comments
52432-01	1104-7	11/5/19	1025	S	AVA		X	
-02	1104-8		1032	S	AVA		X	
-03	1104-9		1040	S	AVA		X	
-04	1104-10		1050	S	AVA		X	
-05	TW-1		1100	W		X	X	
-06	TW-2		1130	W		X	X	
-07	1104-5		1015	S			X	
-08	1104-6		1018	S			X	
-09	1105-01S		0930	S		X	X	
-10	1105-01D		0930	S		X	X	Hold pending shallow

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

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

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

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	11/5 245		11/5/19 1445
DO Truck ALL PJS	11/5/19 1610	PJS ALL	11/5/19 16:45
	11/5/19 21:30		11/5/19 2130

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

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

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

Page 2 of 2

Date Rec'd in Lab: 11/5/19

ALPHA Job #: L1952432

Client Information
Client: Acer Consulting
Address: 326-43RD PL
Sea Isle City
Phone: 609 478 8119
Fax:
Email: acerconsulting@yahoo

Project Information
Project Name: Haverstraw
Project Location: Haverstraw NY
Project #
(Use Project name as Project #) ☒
Project Manager: Vincent Agovino
ALPHAQuote #:

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

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

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

Billing Information
☒ Same as Client Info
PO #

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

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS/PFOS	Sample Specific Comments	Total Bottle
52A32-11	Field Blank	11/5/19	1145		AVA	X		

Container Type
Preservative

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

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	11/5/19 245	ALL PSC: ALPHA	11/5/19 1645
ALL PSC:	11/5/19 1610		11/5/19 1645
	11/5/19 21:45		11/5/19 2132

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

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

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1952316-01	S1-D	SOIL	HAVERSTRAW, NY	11/04/19 09:00	11/05/19
L1952316-02	1104-1S	SOIL	HAVERSTRAW, NY	11/04/19 09:20	11/05/19
L1952316-03	1104-1D	SOIL	HAVERSTRAW, NY	11/04/19 09:20	11/05/19
L1952316-04	1104-2S	SOIL	HAVERSTRAW, NY	11/04/19 09:50	11/05/19
L1952316-05	1104-2D	SOIL	HAVERSTRAW, NY	11/04/19 09:50	11/05/19
L1952316-06	1104-3S	SOIL	HAVERSTRAW, NY	11/04/19 10:25	11/05/19
L1952316-07	1104-4S	SOIL	HAVERSTRAW, NY	11/04/19 11:00	11/05/19
L1952316-08	1104-4D	SOIL	HAVERSTRAW, NY	11/04/19 11:00	11/05/19
L1952316-09	1104-3D	SOIL	HAVERSTRAW, NY	11/04/19 10:25	11/05/19
L1952316-10	1104-1AS	SOIL	HAVERSTRAW, NY	11/04/19 09:35	11/05/19
L1952316-11	1104-1AD	SOIL	HAVERSTRAW, NY	11/04/19 09:35	11/05/19
L1952316-12	1104-2AS	SOIL	HAVERSTRAW, NY	11/04/19 10:02	11/05/19
L1952316-13	1104-2AD	SOIL	HAVERSTRAW, NY	11/04/19 10:02	11/05/19
L1952316-14	1104-3AS	SOIL	HAVERSTRAW, NY	11/04/19 10:40	11/05/19
L1952316-15	1104-3AD	SOIL	HAVERSTRAW, NY	11/04/19 10:40	11/05/19
L1952316-16	1104-4AS	SOIL	HAVERSTRAW, NY	11/04/19 11:15	11/05/19
L1952316-17	1104-4AD	SOIL	HAVERSTRAW, NY	11/04/19 11:15	11/05/19
L1952316-18	1104-5S	SOIL	HAVERSTRAW, NY	11/04/19 13:50	11/05/19
L1952316-19	1104-5D	SOIL	HAVERSTRAW, NY	11/04/19 14:00	11/05/19
L1952316-20	1104-6S	SOIL	HAVERSTRAW, NY	11/04/19 14:30	11/05/19
L1952316-21	1104-6D	SOIL	HAVERSTRAW, NY	11/04/19 14:45	11/05/19
L1952316-22	1104-7S	SOIL	HAVERSTRAW, NY	11/04/19 15:00	11/05/19
L1952316-23	1104-7D	SOIL	HAVERSTRAW, NY	11/04/19 15:15	11/05/19
L1952316-24	1104-8S	SOIL	HAVERSTRAW, NY	11/04/19 15:40	11/05/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1952316-25	1104-8D	SOIL	HAVERSTRAW, NY	11/04/19 15:50	11/05/19
L1952316-26	1104-9S	SOIL	HAVERSTRAW, NY	11/04/19 16:15	11/05/19
L1952316-27	1104-9D	SOIL	HAVERSTRAW, NY	11/04/19 16:20	11/05/19
L1952316-28	1104-10S	SOIL	HAVERSTRAW, NY	11/04/19 16:40	11/05/19
L1952316-29	1104-10D	SOIL	HAVERSTRAW, NY	11/04/19 16:50	11/05/19

Project Name:	HAVERSTRAW	**Lab Number:**	L1952316
Project Number:	HAVERSTRAW	**Report Date:**	11/25/19

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name: HAVERSTRAW **Lab Number:** L1952316
Project Number: HAVERSTRAW **Report Date:** 11/25/19

Case Narrative (continued)

Report Submission

November 25, 2019: This final report includes the results of the Phenol and PCBs analysis performed on L1952316-27; the results of the Pesticides analysis performed on L1952316-19 and -25; and the results of the Total Lead analysis performed on L1952316-17, -19, and -27.

November 10, 2019: This is a preliminary report.

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

Semivolatile Organics

The WG1306338-2/-3 LCS/LCSD recoveries, associated with L1952316-22, -24, and -26, are below the acceptance criteria for benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

Total Metals

L1952316-18, -20, -22, -24, -26, and -28: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1305457-3 MS recovery, performed on L1952316-01, is outside the acceptance criteria for lead (73%). A post digestion spike was performed and yielded an unacceptable recovery of 61%. The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 11/25/19

ORGANICS

VOLATILES

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 14:09
Analyst: JC
Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.5	3.0	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.30	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	ND		ug/kg	0.65	0.25	1
Chlorobenzene	ND		ug/kg	0.65	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.2	0.90	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	0.65	0.22	1
Bromodichloromethane	ND		ug/kg	0.65	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.65	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.65	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.65	0.20	1
Bromoform	ND		ug/kg	5.2	0.32	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.65	0.21	1
Benzene	ND		ug/kg	0.65	0.21	1
Toluene	ND		ug/kg	1.3	0.70	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.2	1.2	1
Bromomethane	ND		ug/kg	2.6	0.75	1
Vinyl chloride	ND		ug/kg	1.3	0.43	1
Chloroethane	ND		ug/kg	2.6	0.58	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.18	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18 Date Collected: 11/04/19 13:50

Client ID: 1104-5S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.65	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.6	0.26	1
p/m-Xylene	ND		ug/kg	2.6	0.72	1
o-Xylene	ND		ug/kg	1.3	0.38	1
Xylenes, Total	ND		ug/kg	1.3	0.38	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.6	0.31	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.2	1
Carbon disulfide	ND		ug/kg	13	5.9	1
2-Butanone	ND		ug/kg	13	2.9	1
Vinyl acetate	ND		ug/kg	13	2.8	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.6	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.6	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.6	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.36	1
1,3-Dichloropropane	ND		ug/kg	2.6	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.65	0.17	1
Bromobenzene	ND		ug/kg	2.6	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.22	1
sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
tert-Butylbenzene	ND		ug/kg	2.6	0.15	1
o-Chlorotoluene	ND		ug/kg	2.6	0.25	1
p-Chlorotoluene	ND		ug/kg	2.6	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.9	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.2	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.2	0.84	1
Acrylonitrile	ND		ug/kg	5.2	1.5	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18 Date Collected: 11/04/19 13:50

Client ID: 1104-5S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	0.42	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	0.35	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.6	0.25	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.6	0.43	1
1,4-Dioxane	ND		ug/kg	100	45.	1
p-Diethylbenzene	ND		ug/kg	2.6	0.23	1
p-Ethyltoluene	ND		ug/kg	2.6	0.50	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.6	0.25	1
Ethyl ether	ND		ug/kg	2.6	0.44	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.5	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	100		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 17:06
Analyst: PK
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.6	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.18	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.56	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.18	1
Benzene	ND		ug/kg	0.56	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20 Date Collected: 11/04/19 14:30

Client ID: 1104-6S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.56	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.72	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20 Date Collected: 11/04/19 14:30

Client ID: 1104-6S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	89	39.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	97		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 14:59
Analyst: PK
Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.4	3.4	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.21	1
Chloroform	ND		ug/kg	2.2	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.18	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.39	1
Tetrachloroethene	ND		ug/kg	0.74	0.29	1
Chlorobenzene	ND		ug/kg	0.74	0.19	1
Trichlorofluoromethane	ND		ug/kg	5.9	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.74	0.25	1
Bromodichloromethane	ND		ug/kg	0.74	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.40	1
cis-1,3-Dichloropropene	ND		ug/kg	0.74	0.23	1
1,3-Dichloropropene, Total	ND		ug/kg	0.74	0.23	1
1,1-Dichloropropene	ND		ug/kg	0.74	0.23	1
Bromoform	ND		ug/kg	5.9	0.36	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.74	0.24	1
Benzene	ND		ug/kg	0.74	0.24	1
Toluene	ND		ug/kg	1.5	0.80	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	5.9	1.4	1
Bromomethane	ND		ug/kg	3.0	0.86	1
Vinyl chloride	ND		ug/kg	1.5	0.49	1
Chloroethane	ND		ug/kg	3.0	0.67	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22 Date Collected: 11/04/19 15:00

Client ID: 1104-7S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.74	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	0.25	1
Methyl tert butyl ether	ND		ug/kg	3.0	0.30	1
p/m-Xylene	ND		ug/kg	3.0	0.83	1
o-Xylene	ND		ug/kg	1.5	0.43	1
Xylenes, Total	ND		ug/kg	1.5	0.43	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.20	1
Dibromomethane	ND		ug/kg	3.0	0.35	1
Styrene	ND		ug/kg	1.5	0.29	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	11	J	ug/kg	15	7.1	1
Carbon disulfide	ND		ug/kg	15	6.7	1
2-Butanone	ND		ug/kg	15	3.3	1
Vinyl acetate	ND		ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	0.19	1
2-Hexanone	ND		ug/kg	15	1.7	1
Bromochloromethane	ND		ug/kg	3.0	0.30	1
2,2-Dichloropropane	ND		ug/kg	3.0	0.30	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.41	1
1,3-Dichloropropane	ND		ug/kg	3.0	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.74	0.19	1
Bromobenzene	ND		ug/kg	3.0	0.21	1
n-Butylbenzene	ND		ug/kg	1.5	0.25	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.0	0.17	1
o-Chlorotoluene	ND		ug/kg	3.0	0.28	1
p-Chlorotoluene	ND		ug/kg	3.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.4	1.5	1
Hexachlorobutadiene	ND		ug/kg	5.9	0.25	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	5.9	0.96	1
Acrylonitrile	ND		ug/kg	5.9	1.7	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22 Date Collected: 11/04/19 15:00

Client ID: 1104-7S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	0.48	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	0.40	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	0.28	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	0.49	1
1,4-Dioxane	ND		ug/kg	120	52.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.26	1
p-Ethyltoluene	ND		ug/kg	3.0	0.57	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.28	1
Ethyl ether	ND		ug/kg	3.0	0.50	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.4	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 15:25
Analyst: PK
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.4	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	ND		ug/kg	0.64	0.25	1
Chlorobenzene	ND		ug/kg	0.64	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	0.64	0.21	1
Bromodichloromethane	ND		ug/kg	0.64	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.64	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.64	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.64	0.20	1
Bromoform	ND		ug/kg	5.1	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.64	0.21	1
Benzene	ND		ug/kg	0.64	0.21	1
Toluene	ND		ug/kg	1.3	0.69	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.5	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.43	1
Chloroethane	ND		ug/kg	2.5	0.58	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24 Date Collected: 11/04/19 15:40

Client ID: 1104-8S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.64	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.26	1
p/m-Xylene	ND		ug/kg	2.5	0.71	1
o-Xylene	ND		ug/kg	1.3	0.37	1
Xylenes, Total	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.1	1
Carbon disulfide	ND		ug/kg	13	5.8	1
2-Butanone	ND		ug/kg	13	2.8	1
Vinyl acetate	ND		ug/kg	13	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.36	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.64	0.17	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.1	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.1	0.83	1
Acrylonitrile	ND		ug/kg	5.1	1.5	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24 Date Collected: 11/04/19 15:40

Client ID: 1104-8S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.41	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.35	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	100	45.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.49	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.4	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	100		70-130

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 16:15
Analyst: PK
Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.2	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.2	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.16	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.33	1
Tetrachloroethene	ND		ug/kg	0.62	0.24	1
Chlorobenzene	ND		ug/kg	0.62	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.87	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	0.21	1
Bromodichloromethane	ND		ug/kg	0.62	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.62	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.62	0.20	1
Bromoform	ND		ug/kg	5.0	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	0.21	1
Benzene	ND		ug/kg	0.62	0.21	1
Toluene	ND		ug/kg	1.2	0.68	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	5.0	1.2	1
Bromomethane	ND		ug/kg	2.5	0.73	1
Vinyl chloride	ND		ug/kg	1.2	0.42	1
Chloroethane	ND		ug/kg	2.5	0.56	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 Date Collected: 11/04/19 16:15

Client ID: 1104-9S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.62	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.70	1
o-Xylene	ND		ug/kg	1.2	0.36	1
Xylenes, Total	ND		ug/kg	1.2	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	6.0	1
Carbon disulfide	ND		ug/kg	12	5.7	1
2-Butanone	ND		ug/kg	12	2.8	1
Vinyl acetate	ND		ug/kg	12	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	12	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.35	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.62	0.16	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.21	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.2	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.21	1
Isopropylbenzene	ND		ug/kg	1.2	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.0	0.81	1
Acrylonitrile	ND		ug/kg	5.0	1.4	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 Date Collected: 11/04/19 16:15

Client ID: 1104-9S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	100	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	100		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/07/19 16:40
Analyst: PK
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.5	0.79	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.5	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	ND		ug/kg	1.1	0.62	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.5	1.0	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.51	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28 Date Collected: 11/04/19 16:40

Client ID: 1104-10S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.64	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	14		ug/kg	11	5.5	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.3	0.13	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.5	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.5	0.74	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28 Date Collected: 11/04/19 16:40

Client ID: 1104-10S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	91	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305833-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305833-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	0.25	J	ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/07/19 08:57
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305833-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305833-3 WG1305833-4								
Methylene chloride	102		108		70-130	6		30
1,1-Dichloroethane	106		108		70-130	2		30
Chloroform	109		116		70-130	6		30
Carbon tetrachloride	110		117		70-130	6		30
1,2-Dichloropropane	104		111		70-130	7		30
Dibromochloromethane	83		88		70-130	6		30
1,1,2-Trichloroethane	81		85		70-130	5		30
Tetrachloroethene	91		96		70-130	5		30
Chlorobenzene	91		95		70-130	4		30
Trichlorofluoromethane	100		105		70-139	5		30
1,2-Dichloroethane	94		100		70-130	6		30
1,1,1-Trichloroethane	104		110		70-130	6		30
Bromodichloromethane	94		100		70-130	6		30
trans-1,3-Dichloropropene	85		91		70-130	7		30
cis-1,3-Dichloropropene	101		108		70-130	7		30
1,1-Dichloropropene	109		114		70-130	4		30
Bromoform	79		85		70-130	7		30
1,1,2,2-Tetrachloroethane	73		77		70-130	5		30
Benzene	99		105		70-130	6		30
Toluene	84		88		70-130	5		30
Ethylbenzene	86		89		70-130	3		30
Chloromethane	117		120		52-130	3		30
Bromomethane	121		130		57-147	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305833-3 WG1305833-4								
Vinyl chloride	120		124		67-130	3		30
Chloroethane	105		112		50-151	6		30
1,1-Dichloroethene	113		119		65-135	5		30
trans-1,2-Dichloroethene	108		114		70-130	5		30
Trichloroethene	100		106		70-130	6		30
1,2-Dichlorobenzene	78		83		70-130	6		30
1,3-Dichlorobenzene	79		85		70-130	7		30
1,4-Dichlorobenzene	78		82		70-130	5		30
Methyl tert butyl ether	104		110		66-130	6		30
p/m-Xylene	82		86		70-130	5		30
o-Xylene	81		84		70-130	4		30
cis-1,2-Dichloroethene	103		110		70-130	7		30
Dibromomethane	97		102		70-130	5		30
Styrene	80		83		70-130	4		30
Dichlorodifluoromethane	108		112		30-146	4		30
Acetone	122		126		54-140	3		30
Carbon disulfide	110		115		59-130	4		30
2-Butanone	110		105		70-130	5		30
Vinyl acetate	118		123		70-130	4		30
4-Methyl-2-pentanone	94		96		70-130	2		30
1,2,3-Trichloropropane	74		78		68-130	5		30
2-Hexanone	93		96		70-130	3		30
Bromochloromethane	104		113		70-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305833-3 WG1305833-4								
2,2-Dichloropropane	113		120		70-130	6		30
1,2-Dibromoethane	84		87		70-130	4		30
1,3-Dichloropropane	80		84		69-130	5		30
1,1,1,2-Tetrachloroethane	81		85		70-130	5		30
Bromobenzene	80		85		70-130	6		30
n-Butylbenzene	83		88		70-130	6		30
sec-Butylbenzene	83		88		70-130	6		30
tert-Butylbenzene	83		87		70-130	5		30
o-Chlorotoluene	77		82		70-130	6		30
p-Chlorotoluene	78		82		70-130	5		30
1,2-Dibromo-3-chloropropane	81		86		68-130	6		30
Hexachlorobutadiene	86		90		67-130	5		30
Isopropylbenzene	82		86		70-130	5		30
p-Isopropyltoluene	84		89		70-130	6		30
Naphthalene	81		87		70-130	7		30
Acrylonitrile	111		119		70-130	7		30
n-Propylbenzene	82		87		70-130	6		30
1,2,3-Trichlorobenzene	84		90		70-130	7		30
1,2,4-Trichlorobenzene	86		93		70-130	8		30
1,3,5-Trimethylbenzene	80		85		70-130	6		30
1,2,4-Trimethylbenzene	79		84		70-130	6		30
1,4-Dioxane	102		108		65-136	6		30
p-Diethylbenzene	85		89		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305833-3 WG1305833-4								
p-Ethyltoluene	82		88		70-130	7		30
1,2,4,5-Tetramethylbenzene	81		86		70-130	6		30
Ethyl ether	107		113		67-130	5		30
trans-1,4-Dichloro-2-butene	81		85		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		92		70-130
Toluene-d8	87		87		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	99		100		70-130

SEMIVOLATILES

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/07/19 15:56
Analyst: IM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	69	J	ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	1100		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	37	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18 Date Collected: 11/04/19 13:50

Client ID: 1104-5S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	460		ug/kg	110	20.	1
Benzo(a)pyrene	420		ug/kg	140	44.	1
Benzo(b)fluoranthene	480		ug/kg	110	30.	1
Benzo(k)fluoranthene	170		ug/kg	110	29.	1
Chrysene	460		ug/kg	110	19.	1
Acenaphthylene	90	J	ug/kg	140	28.	1
Anthracene	220		ug/kg	110	35.	1
Benzo(ghi)perylene	280		ug/kg	140	21.	1
Fluorene	100	J	ug/kg	180	18.	1
Phenanthrene	880		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	59	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	260		ug/kg	140	25.	1
Pyrene	1000		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	39	J	ug/kg	180	17.	1
2-Methylnaphthalene	31	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	860	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	86.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18 Date Collected: 11/04/19 13:50

Client ID: 1104-5S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	70	J	ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	27	8.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	48		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	41		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/07/19 16:20
Analyst: IM
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	30	J	ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20 Date Collected: 11/04/19 14:30

Client ID: 1104-6S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	26	J	ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20 Date Collected: 11/04/19 14:30

Client ID: 1104-6S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	8.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	48		23-120
2-Fluorobiphenyl	45		30-120
2,4,6-Tribromophenol	86		10-136
4-Terphenyl-d14	49		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/09/19 03:47
Analyst: JG
Percent Solids: 71%

Extraction Method: EPA 3546
Extraction Date: 11/08/19 17:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	26.	1
Hexachlorobenzene	ND		ug/kg	140	26.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	31.	1
2-Chloronaphthalene	ND		ug/kg	230	23.	1
1,2-Dichlorobenzene	ND		ug/kg	230	41.	1
1,3-Dichlorobenzene	ND		ug/kg	230	40.	1
1,4-Dichlorobenzene	ND		ug/kg	230	40.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	61.	1
2,4-Dinitrotoluene	ND		ug/kg	230	46.	1
2,6-Dinitrotoluene	ND		ug/kg	230	40.	1
Fluoranthene	76	J	ug/kg	140	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	25.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	35.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	39.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	250	23.	1
Hexachlorobutadiene	ND		ug/kg	230	34.	1
Hexachlorocyclopentadiene	ND		ug/kg	660	210	1
Hexachloroethane	ND		ug/kg	180	37.	1
Isophorone	ND		ug/kg	210	30.	1
Naphthalene	ND		ug/kg	230	28.	1
Nitrobenzene	ND		ug/kg	210	34.	1
NDPA/DPA	ND		ug/kg	180	26.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	36.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	80.	1
Butyl benzyl phthalate	ND		ug/kg	230	58.	1
Di-n-butylphthalate	ND		ug/kg	230	44.	1
Di-n-octylphthalate	ND		ug/kg	230	78.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22 Date Collected: 11/04/19 15:00

Client ID: 1104-7S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	230	21.	1
Dimethyl phthalate	ND		ug/kg	230	48.	1
Benzo(a)anthracene	40	J	ug/kg	140	26.	1
Benzo(a)pyrene	ND		ug/kg	180	56.	1
Benzo(b)fluoranthene	58	J	ug/kg	140	39.	1
Benzo(k)fluoranthene	ND		ug/kg	140	37.	1
Chrysene	42	J	ug/kg	140	24.	1
Acenaphthylene	ND		ug/kg	180	36.	1
Anthracene	ND		ug/kg	140	45.	1
Benzo(ghi)perylene	32	J	ug/kg	180	27.	1
Fluorene	ND		ug/kg	230	22.	1
Phenanthrene	43	J	ug/kg	140	28.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	27.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	32.	1
Pyrene	70	J	ug/kg	140	23.	1
Biphenyl	ND		ug/kg	520	53.	1
4-Chloroaniline	ND		ug/kg	230	42.	1
2-Nitroaniline	ND		ug/kg	230	44.	1
3-Nitroaniline	ND		ug/kg	230	43.	1
4-Nitroaniline	ND		ug/kg	230	95.	1
Dibenzofuran	ND		ug/kg	230	22.	1
2-Methylnaphthalene	ND		ug/kg	280	28.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	28.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	44.	1
p-Chloro-m-cresol	ND		ug/kg	230	34.	1
2-Chlorophenol	ND		ug/kg	230	27.	1
2,4-Dichlorophenol	ND		ug/kg	210	37.	1
2,4-Dimethylphenol	ND		ug/kg	230	76.	1
2-Nitrophenol	ND		ug/kg	500	87.	1
4-Nitrophenol	ND		ug/kg	320	94.	1
2,4-Dinitrophenol	ND		ug/kg	1100	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	600	110	1
Pentachlorophenol	ND		ug/kg	180	51.	1
Phenol	ND		ug/kg	230	35.	1
2-Methylphenol	ND		ug/kg	230	36.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	330	36.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22 Date Collected: 11/04/19 15:00

Client ID: 1104-7S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	230	44.	1
Benzoic Acid	ND		ug/kg	750	230	1
Benzyl Alcohol	ND		ug/kg	230	70.	1
Carbazole	ND		ug/kg	230	22.	1
1,4-Dioxane	ND		ug/kg	34	10.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	49		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	39		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/09/19 08:42
Analyst: JG
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/08/19 17:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	220		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	1200		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	69	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	140	J	ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24 Date Collected: 11/04/19 15:40

Client ID: 1104-8S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	610		ug/kg	120	22.	1
Benzo(a)pyrene	470		ug/kg	160	49.	1
Benzo(b)fluoranthene	550		ug/kg	120	34.	1
Benzo(k)fluoranthene	210		ug/kg	120	32.	1
Chrysene	570		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	380		ug/kg	120	39.	1
Benzo(ghi)perylene	270		ug/kg	160	24.	1
Fluorene	220		ug/kg	200	19.	1
Phenanthrene	1300		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	66	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	270		ug/kg	160	28.	1
Pyrene	1100		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	74	J	ug/kg	200	19.	1
2-Methylnaphthalene	95	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24 Date Collected: 11/04/19 15:40

Client ID: 1104-8S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	91	J	ug/kg	200	19.	1
1,4-Dioxane	ND		ug/kg	30	9.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	50		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	44		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/09/19 05:34
Analyst: JG
Percent Solids: 78%

Extraction Method: EPA 3546
Extraction Date: 11/08/19 17:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	110	J	ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	25.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	220		ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 Date Collected: 11/04/19 16:15

Client ID: 1104-9S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1
Benzo(a)anthracene	32	J	ug/kg	120	24.	1
Benzo(a)pyrene	ND		ug/kg	170	51.	1
Benzo(b)fluoranthene	47	J	ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	42	J	ug/kg	120	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	ND		ug/kg	120	41.	1
Benzo(ghi)perylene	ND		ug/kg	170	24.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	64	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	29.	1
Pyrene	90	J	ug/kg	120	21.	1
Biphenyl	ND		ug/kg	480	48.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	39.	1
4-Nitroaniline	ND		ug/kg	210	86.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	73	J	ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	40.	1
p-Chloro-m-cresol	ND		ug/kg	210	31.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	69.	1
2-Nitrophenol	ND		ug/kg	450	79.	1
4-Nitrophenol	ND		ug/kg	290	85.	1
2,4-Dinitrophenol	ND		ug/kg	1000	97.	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	100	1
Pentachlorophenol	ND		ug/kg	170	46.	1
Phenol	440		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	33.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 Date Collected: 11/04/19 16:15

Client ID: 1104-9S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	210	40.	1
Benzoic Acid	990		ug/kg	680	210	1
Benzyl Alcohol	120	J	ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	20.	1
1,4-Dioxane	ND		ug/kg	31	9.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	47		23-120
2-Fluorobiphenyl	51		30-120
2,4,6-Tribromophenol	77		10-136
4-Terphenyl-d14	43		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-27
Client ID: 1104-9D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/22/19 05:13
Analyst: IM
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 11/18/19 16:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Phenol	ND		ug/kg	200	30.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	45		23-120
2-Fluorobiphenyl	46		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	41		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/07/19 17:57
Analyst: IM
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28 Date Collected: 11/04/19 16:40

Client ID: 1104-10S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	37.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28 Date Collected: 11/04/19 16:40

Client ID: 1104-10S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	8.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	109		10-136
4-Terphenyl-d14	63		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/07/19 13:49
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 18,20,28 Batch: WG1305456-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/07/19 13:49
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 18,20,28 Batch: WG1305456-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	62.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/07/19 13:49
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 18:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 18,20,28 Batch: WG1305456-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	45		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	83		10-136
4-Terphenyl-d14	74		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/09/19 00:42
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 11/08/19 11:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 22,24,26 Batch: WG1306338-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/09/19 00:42
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 11/08/19 11:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 22,24,26 Batch: WG1306338-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	25.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/09/19 00:42
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 11/08/19 11:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 22,24,26 Batch: WG1306338-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	49		23-120
2-Fluorobiphenyl	53		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	53		18-120

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/18/19 23:31
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/18/19 16:16

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 27 Batch: WG1310317-1					
Phenol	ND		ug/kg	160	25.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	48		23-120
2-Fluorobiphenyl	53		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	58		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952316

Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 18,20,28 Batch: WG1305456-2 WG1305456-3								
Acenaphthene	72		77		31-137	7		50
1,2,4-Trichlorobenzene	71		82		38-107	14		50
Hexachlorobenzene	78		81		40-140	4		50
Bis(2-chloroethyl)ether	60		70		40-140	15		50
2-Chloronaphthalene	78		86		40-140	10		50
1,2-Dichlorobenzene	64		75		40-140	16		50
1,3-Dichlorobenzene	62		74		40-140	18		50
1,4-Dichlorobenzene	62		73		28-104	16		50
3,3'-Dichlorobenzidine	51		57		40-140	11		50
2,4-Dinitrotoluene	90		94		40-132	4		50
2,6-Dinitrotoluene	93		97		40-140	4		50
Fluoranthene	77		81		40-140	5		50
4-Chlorophenyl phenyl ether	79		83		40-140	5		50
4-Bromophenyl phenyl ether	82		85		40-140	4		50
Bis(2-chloroisopropyl)ether	56		65		40-140	15		50
Bis(2-chloroethoxy)methane	66		74		40-117	11		50
Hexachlorobutadiene	69		79		40-140	14		50
Hexachlorocyclopentadiene	46		54		40-140	16		50
Hexachloroethane	60		70		40-140	15		50
Isophorone	67		75		40-140	11		50
Naphthalene	66		75		40-140	13		50
Nitrobenzene	65		74		40-140	13		50
NDPA/DPA	78		83		36-157	6		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 18,20,28 Batch: WG1305456-2 WG1305456-3								
n-Nitrosodi-n-propylamine	68		75		32-121	10		50
Bis(2-ethylhexyl)phthalate	86		91		40-140	6		50
Butyl benzyl phthalate	84		88		40-140	5		50
Di-n-butylphthalate	80		83		40-140	4		50
Di-n-octylphthalate	85		92		40-140	8		50
Diethyl phthalate	80		84		40-140	5		50
Dimethyl phthalate	87		90		40-140	3		50
Benzo(a)anthracene	77		82		40-140	6		50
Benzo(a)pyrene	75		82		40-140	9		50
Benzo(b)fluoranthene	76		82		40-140	8		50
Benzo(k)fluoranthene	79		85		40-140	7		50
Chrysene	74		79		40-140	7		50
Acenaphthylene	82		87		40-140	6		50
Anthracene	77		80		40-140	4		50
Benzo(ghi)perylene	79		85		40-140	7		50
Fluorene	77		82		40-140	6		50
Phenanthrene	73		76		40-140	4		50
Dibenzo(a,h)anthracene	76		83		40-140	9		50
Indeno(1,2,3-cd)pyrene	78		84		40-140	7		50
Pyrene	76		80		35-142	5		50
Biphenyl	78		84		37-127	7		50
4-Chloroaniline	45		51		40-140	13		50
2-Nitroaniline	93		99		47-134	6		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 18,20,28 Batch: WG1305456-2 WG1305456-3								
3-Nitroaniline	58		64		26-129	10		50
4-Nitroaniline	72		78		41-125	8		50
Dibenzofuran	75		81		40-140	8		50
2-Methylnaphthalene	74		82		40-140	10		50
1,2,4,5-Tetrachlorobenzene	79		87		40-117	10		50
Acetophenone	66		76		14-144	14		50
2,4,6-Trichlorophenol	86		92		30-130	7		50
p-Chloro-m-cresol	84		88		26-103	5		50
2-Chlorophenol	69		80		25-102	15		50
2,4-Dichlorophenol	84		90		30-130	7		50
2,4-Dimethylphenol	76		82		30-130	8		50
2-Nitrophenol	84		94		30-130	11		50
4-Nitrophenol	84		89		11-114	6		50
2,4-Dinitrophenol	77		70		4-130	10		50
4,6-Dinitro-o-cresol	85		88		10-130	3		50
Pentachlorophenol	70		75		17-109	7		50
Phenol	61		68		26-90	11		50
2-Methylphenol	69		80		30-130.	15		50
3-Methylphenol/4-Methylphenol	71		78		30-130	9		50
2,4,5-Trichlorophenol	92		94		30-130	2		50
Benzoic Acid	33		17		10-110	**64**	Q	50
Benzyl Alcohol	68		78		40-140	14		50
Carbazole	75		80		54-128	6		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 18,20,28 Batch: WG1305456-2 WG1305456-3								
1,4-Dioxane	42		49		40-140	15		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		77		25-120
Phenol-d6	70		78		10-120
Nitrobenzene-d5	52		59		23-120
2-Fluorobiphenyl	63		67		30-120
2,4,6-Tribromophenol	84		91		10-136
4-Terphenyl-d14	63		65		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 22,24,26 Batch: WG1306338-2 WG1306338-3								
Acenaphthene	64		69		31-137	8		50
1,2,4-Trichlorobenzene	60		66		38-107	10		50
Hexachlorobenzene	68		75		40-140	10		50
Bis(2-chloroethyl)ether	55		64		40-140	15		50
2-Chloronaphthalene	64		69		40-140	8		50
1,2-Dichlorobenzene	58		67		40-140	14		50
1,3-Dichlorobenzene	57		65		40-140	13		50
1,4-Dichlorobenzene	55		64		28-104	15		50
3,3'-Dichlorobenzidine	**38**	Q	43		40-140	12		50
2,4-Dinitrotoluene	70		77		40-132	10		50
2,6-Dinitrotoluene	69		76		40-140	10		50
Fluoranthene	62		68		40-140	9		50
4-Chlorophenyl phenyl ether	63		69		40-140	9		50
4-Bromophenyl phenyl ether	65		73		40-140	12		50
Bis(2-chloroisopropyl)ether	42		48		40-140	13		50
Bis(2-chloroethoxy)methane	57		61		40-117	7		50
Hexachlorobutadiene	60		64		40-140	6		50
Hexachlorocyclopentadiene	61		67		40-140	9		50
Hexachloroethane	54		62		40-140	14		50
Isophorone	56		63		40-140	12		50
Naphthalene	61		68		40-140	11		50
Nitrobenzene	58		66		40-140	13		50
NDPA/DPA	66		71		36-157	7		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 22,24,26 Batch: WG1306338-2 WG1306338-3								
n-Nitrosodi-n-propylamine	57		64		32-121	12		50
Bis(2-ethylhexyl)phthalate	68		78		40-140	14		50
Butyl benzyl phthalate	65		71		40-140	9		50
Di-n-butylphthalate	65		70		40-140	7		50
Di-n-octylphthalate	71		81		40-140	13		50
Diethyl phthalate	67		71		40-140	6		50
Dimethyl phthalate	62		69		40-140	11		50
Benzo(a)anthracene	65		75		40-140	14		50
Benzo(a)pyrene	66		76		40-140	14		50
Benzo(b)fluoranthene	67		77		40-140	14		50
Benzo(k)fluoranthene	68		78		40-140	14		50
Chrysene	64		73		40-140	13		50
Acenaphthylene	65		71		40-140	9		50
Anthracene	63		69		40-140	9		50
Benzo(ghi)perylene	64		73		40-140	13		50
Fluorene	66		71		40-140	7		50
Phenanthrene	60		66		40-140	10		50
Dibenzo(a,h)anthracene	63		72		40-140	13		50
Indeno(1,2,3-cd)pyrene	64		72		40-140	12		50
Pyrene	61		65		35-142	6		50
Biphenyl	66		72		37-127	9		50
4-Chloroaniline	**38**	Q	40		40-140	5		50
2-Nitroaniline	70		77		47-134	10		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 22,24,26 Batch: WG1306338-2 WG1306338-3								
3-Nitroaniline	50		55		26-129	10		50
4-Nitroaniline	64		67		41-125	5		50
Dibenzofuran	65		70		40-140	7		50
2-Methylnaphthalene	63		70		40-140	11		50
1,2,4,5-Tetrachlorobenzene	65		72		40-117	10		50
Acetophenone	61		67		14-144	9		50
2,4,6-Trichlorophenol	71		77		30-130	8		50
p-Chloro-m-cresol	71		75		26-103	5		50
2-Chlorophenol	64		72		25-102	12		50
2,4-Dichlorophenol	67		74		30-130	10		50
2,4-Dimethylphenol	67		76		30-130	13		50
2-Nitrophenol	64		70		30-130	9		50
4-Nitrophenol	69		66		11-114	4		50
2,4-Dinitrophenol	27		34		4-130	23		50
4,6-Dinitro-o-cresol	60		66		10-130	10		50
Pentachlorophenol	52		57		17-109	9		50
Phenol	60		68		26-90	13		50
2-Methylphenol	63		72		30-130.	13		50
3-Methylphenol/4-Methylphenol	69		78		30-130	12		50
2,4,5-Trichlorophenol	68		77		30-130	12		50
Benzoic Acid	**0**	Q	**0**	Q	10-110	NC		50
Benzyl Alcohol	63		71		40-140	12		50
Carbazole	63		69		54-128	9		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 22,24,26 Batch: WG1306338-2 WG1306338-3								
1,4-Dioxane	40		45		40-140	12		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	63		72		25-120
Phenol-d6	62		70		10-120
Nitrobenzene-d5	45		50		23-120
2-Fluorobiphenyl	49		53		30-120
2,4,6-Tribromophenol	71		77		10-136
4-Terphenyl-d14	49		53		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 27 Batch: WG1310317-2 WG1310317-3								
Phenol	80		72		26-90	11		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	78		69		25-120
Phenol-d6	77		68		10-120
Nitrobenzene-d5	56		50		23-120
2-Fluorobiphenyl	57		52		30-120
2,4,6-Tribromophenol	87		78		10-136
4-Terphenyl-d14	58		55		18-120

PCBS

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 20:02
Analyst: KB
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.5	3.24	1	A
Aroclor 1221	ND		ug/kg	36.5	3.65	1	A
Aroclor 1232	ND		ug/kg	36.5	7.73	1	A
Aroclor 1242	ND		ug/kg	36.5	4.92	1	A
Aroclor 1248	ND		ug/kg	36.5	5.47	1	A
Aroclor 1254	ND		ug/kg	36.5	3.99	1	A
Aroclor 1260	12.1	J	ug/kg	36.5	6.74	1	B
Aroclor 1262	ND		ug/kg	36.5	4.63	1	A
Aroclor 1268	ND		ug/kg	36.5	3.78	1	A
PCBs, Total	12.1	J	ug/kg	36.5	3.24	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	69		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 20:14
Analyst: KB
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.2	3.48	1	A
Aroclor 1221	ND		ug/kg	39.2	3.93	1	A
Aroclor 1232	ND		ug/kg	39.2	8.32	1	A
Aroclor 1242	ND		ug/kg	39.2	5.29	1	A
Aroclor 1248	ND		ug/kg	39.2	5.89	1	A
Aroclor 1254	ND		ug/kg	39.2	4.29	1	A
Aroclor 1260	ND		ug/kg	39.2	7.25	1	A
Aroclor 1262	ND		ug/kg	39.2	4.98	1	A
Aroclor 1268	ND		ug/kg	39.2	4.06	1	A
PCBs, Total	ND		ug/kg	39.2	3.48	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 20:38
Analyst: KB
Percent Solids: 71%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	46.6	4.14	1	A
Aroclor 1221	ND		ug/kg	46.6	4.67	1	A
Aroclor 1232	ND		ug/kg	46.6	9.89	1	A
Aroclor 1242	ND		ug/kg	46.6	6.29	1	A
Aroclor 1248	ND		ug/kg	46.6	7.00	1	A
Aroclor 1254	ND		ug/kg	46.6	5.10	1	A
Aroclor 1260	ND		ug/kg	46.6	8.62	1	A
Aroclor 1262	ND		ug/kg	46.6	5.92	1	A
Aroclor 1268	ND		ug/kg	46.6	4.83	1	A
PCBs, Total	ND		ug/kg	46.6	4.14	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 20:26
Analyst: KB
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.7	3.52	1	A
Aroclor 1221	ND		ug/kg	39.7	3.98	1	A
Aroclor 1232	ND		ug/kg	39.7	8.41	1	A
Aroclor 1242	ND		ug/kg	39.7	5.35	1	A
Aroclor 1248	ND		ug/kg	39.7	5.95	1	A
Aroclor 1254	ND		ug/kg	39.7	4.34	1	A
Aroclor 1260	ND		ug/kg	39.7	7.33	1	B
Aroclor 1262	ND		ug/kg	39.7	5.04	1	A
Aroclor 1268	ND		ug/kg	39.7	4.11	1	A
PCBs, Total	ND		ug/kg	39.7	3.52	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	73		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 D
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/07/19 12:33
Analyst: JM
Percent Solids: 78%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	207	18.4	5	A
Aroclor 1221	ND		ug/kg	207	20.8	5	A
Aroclor 1232	ND		ug/kg	207	44.0	5	A
Aroclor 1242	ND		ug/kg	207	28.0	5	A
Aroclor 1248	ND		ug/kg	207	31.1	5	A
Aroclor 1254	1250		ug/kg	207	22.7	5	B
Aroclor 1260	ND		ug/kg	207	38.3	5	A
Aroclor 1262	ND		ug/kg	207	26.3	5	A
Aroclor 1268	ND		ug/kg	207	21.5	5	A
PCBs, Total	1250		ug/kg	207	18.4	5	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-27
Client ID: 1104-9D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/21/19 23:54
Analyst: WR
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 11/18/19 18:29
Cleanup Method: EPA 3665A
Cleanup Date: 11/18/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.6	3.52	1	A
Aroclor 1221	ND		ug/kg	39.6	3.97	1	A
Aroclor 1232	ND		ug/kg	39.6	8.40	1	A
Aroclor 1242	ND		ug/kg	39.6	5.34	1	A
Aroclor 1248	ND		ug/kg	39.6	5.94	1	A
Aroclor 1254	93.7		ug/kg	39.6	4.33	1	B
Aroclor 1260	ND		ug/kg	39.6	7.32	1	A
Aroclor 1262	ND		ug/kg	39.6	5.03	1	A
Aroclor 1268	ND		ug/kg	39.6	4.10	1	A
PCBs, Total	93.7		ug/kg	39.6	3.52	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/06/19 21:03
Analyst: KB
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.5	3.24	1	A
Aroclor 1221	ND		ug/kg	36.5	3.66	1	A
Aroclor 1232	ND		ug/kg	36.5	7.74	1	A
Aroclor 1242	ND		ug/kg	36.5	4.92	1	A
Aroclor 1248	ND		ug/kg	36.5	5.48	1	A
Aroclor 1254	ND		ug/kg	36.5	4.00	1	A
Aroclor 1260	ND		ug/kg	36.5	6.75	1	A
Aroclor 1262	ND		ug/kg	36.5	4.64	1	A
Aroclor 1268	ND		ug/kg	36.5	3.78	1	A
PCBs, Total	ND		ug/kg	36.5	3.24	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	36		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	46		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/06/19 19:44
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 15:03
Cleanup Method: EPA 3665A
Cleanup Date: 11/06/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305379-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.25	A
Aroclor 1232	ND		ug/kg	32.5	6.88	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.12	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/19/19 17:03
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 11/18/19 18:29
Cleanup Method: EPA 3665A
Cleanup Date: 11/18/19
Cleanup Method: EPA 3660B
Cleanup Date: 11/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 27 Batch: WG1310380-1						
Aroclor 1016	ND		ug/kg	32.2	2.86	A
Aroclor 1221	ND		ug/kg	32.2	3.23	A
Aroclor 1232	ND		ug/kg	32.2	6.83	A
Aroclor 1242	ND		ug/kg	32.2	4.34	A
Aroclor 1248	ND		ug/kg	32.2	4.83	A
Aroclor 1254	ND		ug/kg	32.2	3.52	A
Aroclor 1260	ND		ug/kg	32.2	5.95	A
Aroclor 1262	ND		ug/kg	32.2	4.09	A
Aroclor 1268	ND		ug/kg	32.2	3.34	A
PCBs, Total	ND		ug/kg	32.2	2.86	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305379-2 WG1305379-3									
Aroclor 1016	65		61		40-140	6		50	A
Aroclor 1260	57		53		40-140	7		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		49		30-150	A
Decachlorobiphenyl	55		51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		53		30-150	B
Decachlorobiphenyl	55		51		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952316

Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 27 Batch: WG1310380-2 WG1310380-3									
Aroclor 1016	74		73		40-140	1		50	A
Aroclor 1260	68		68		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		54		30-150	A
Decachlorobiphenyl	68		68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		63		30-150	B
Decachlorobiphenyl	63		64		30-150	B

PESTICIDES

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 09:31
Analyst: BM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.72	0.336	1	A
Lindane	ND		ug/kg	0.716	0.320	1	A
Alpha-BHC	ND		ug/kg	0.716	0.203	1	A
Beta-BHC	ND		ug/kg	1.72	0.651	1	A
Heptachlor	ND		ug/kg	0.859	0.385	1	A
Aldrin	ND		ug/kg	1.72	0.605	1	A
Heptachlor epoxide	ND		ug/kg	3.22	0.966	1	A
Endrin	ND		ug/kg	0.716	0.293	1	A
Endrin aldehyde	ND		ug/kg	2.15	0.751	1	A
Endrin ketone	ND		ug/kg	1.72	0.442	1	A
Dieldrin	1.61	IP	ug/kg	1.07	0.537	1	B
4,4'-DDE	7.24		ug/kg	1.72	0.397	1	A
4,4'-DDD	ND		ug/kg	1.72	0.613	1	B
4,4'-DDT	13.3		ug/kg	3.22	1.38	1	B
Endosulfan I	ND		ug/kg	1.72	0.406	1	A
Endosulfan II	ND		ug/kg	1.72	0.574	1	A
Endosulfan sulfate	ND		ug/kg	0.716	0.341	1	A
Methoxychlor	ND		ug/kg	3.22	1.00	1	A
Toxaphene	ND		ug/kg	32.2	9.02	1	A
cis-Chlordane	1.77	JIP	ug/kg	2.15	0.598	1	B
trans-Chlordane	1.85	JIP	ug/kg	2.15	0.567	1	A
Chlordane	12.4	JIP	ug/kg	14.0	5.69	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18 Date Collected: 11/04/19 13:50

Client ID: 1104-5S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	61		30-150	B
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-19
Client ID: 1104-5D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/19/19 11:40
Analyst: SL
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 11/18/19 19:18
Cleanup Method: EPA 3620B
Cleanup Date: 11/19/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.82	0.357	1	A
Lindane	ND		ug/kg	0.760	0.340	1	A
Alpha-BHC	ND		ug/kg	0.760	0.216	1	A
Beta-BHC	ND		ug/kg	1.82	0.692	1	A
Heptachlor	ND		ug/kg	0.912	0.409	1	A
Aldrin	ND		ug/kg	1.82	0.642	1	A
Heptachlor epoxide	ND		ug/kg	3.42	1.03	1	A
Endrin	ND		ug/kg	0.760	0.312	1	A
Endrin aldehyde	ND		ug/kg	2.28	0.798	1	A
Endrin ketone	ND		ug/kg	1.82	0.470	1	A
Dieldrin	8.14		ug/kg	1.14	0.570	1	A
4,4'-DDE	114		ug/kg	1.82	0.422	1	A
4,4'-DDD	1.02	JIP	ug/kg	1.82	0.651	1	A
4,4'-DDT	94.5		ug/kg	3.42	1.47	1	A
Endosulfan I	ND		ug/kg	1.82	0.431	1	A
Endosulfan II	ND		ug/kg	1.82	0.610	1	A
Endosulfan sulfate	ND		ug/kg	0.760	0.362	1	A
Methoxychlor	ND		ug/kg	3.42	1.06	1	A
Toxaphene	ND		ug/kg	34.2	9.58	1	A
cis-Chlordane	5.05	P	ug/kg	2.28	0.636	1	A
trans-Chlordane	3.51	IP	ug/kg	2.28	0.602	1	A
Chlordane	35.7	P	ug/kg	14.8	6.04	1	B

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-19 Date Collected: 11/04/19 14:00

Client ID: 1104-5D Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	94		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 09:41
Analyst: BM
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.82	0.355	1	A
Lindane	ND		ug/kg	0.756	0.338	1	A
Alpha-BHC	ND		ug/kg	0.756	0.215	1	A
Beta-BHC	ND		ug/kg	1.82	0.688	1	A
Heptachlor	ND		ug/kg	0.908	0.407	1	A
Aldrin	ND		ug/kg	1.82	0.639	1	A
Heptachlor epoxide	ND		ug/kg	3.40	1.02	1	A
Endrin	ND		ug/kg	0.756	0.310	1	A
Endrin aldehyde	ND		ug/kg	2.27	0.794	1	A
Endrin ketone	ND		ug/kg	1.82	0.467	1	A
Dieldrin	ND		ug/kg	1.13	0.567	1	A
4,4'-DDE	0.546	J	ug/kg	1.82	0.420	1	B
4,4'-DDD	ND		ug/kg	1.82	0.647	1	B
4,4'-DDT	2.33	J	ug/kg	3.40	1.46	1	A
Endosulfan I	ND		ug/kg	1.82	0.429	1	A
Endosulfan II	ND		ug/kg	1.82	0.606	1	A
Endosulfan sulfate	ND		ug/kg	0.756	0.360	1	A
Methoxychlor	ND		ug/kg	3.40	1.06	1	A
Toxaphene	ND		ug/kg	34.0	9.53	1	A
cis-Chlordane	ND		ug/kg	2.27	0.632	1	A
trans-Chlordane	ND		ug/kg	2.27	0.599	1	A
Chlordane	ND		ug/kg	14.7	6.01	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20 Date Collected: 11/04/19 14:30

Client ID: 1104-6S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	48		30-150	B
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	51		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 09:50
Analyst: BM
Percent Solids: 71%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.23	0.436	1	A
Lindane	ND		ug/kg	0.928	0.415	1	A
Alpha-BHC	ND		ug/kg	0.928	0.264	1	A
Beta-BHC	ND		ug/kg	2.23	0.845	1	A
Heptachlor	ND		ug/kg	1.11	0.499	1	A
Aldrin	ND		ug/kg	2.23	0.784	1	A
Heptachlor epoxide	ND		ug/kg	4.18	1.25	1	A
Endrin	ND		ug/kg	0.928	0.380	1	A
Endrin aldehyde	ND		ug/kg	2.78	0.975	1	A
Endrin ketone	ND		ug/kg	2.23	0.574	1	A
Dieldrin	ND		ug/kg	1.39	0.696	1	A
4,4'-DDE	1.55	J	ug/kg	2.23	0.515	1	B
4,4'-DDD	ND		ug/kg	2.23	0.794	1	A
4,4'-DDT	2.57	J	ug/kg	4.18	1.79	1	B
Endosulfan I	ND		ug/kg	2.23	0.526	1	A
Endosulfan II	ND		ug/kg	2.23	0.744	1	A
Endosulfan sulfate	ND		ug/kg	0.928	0.442	1	A
Methoxychlor	ND		ug/kg	4.18	1.30	1	A
Toxaphene	ND		ug/kg	41.8	11.7	1	A
cis-Chlordane	ND		ug/kg	2.78	0.776	1	A
trans-Chlordane	ND		ug/kg	2.78	0.735	1	A
Chlordane	ND		ug/kg	18.1	7.38	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22 Date Collected: 11/04/19 15:00

Client ID: 1104-7S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	46		30-150	B
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	50		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 10:00
Analyst: BM
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.92	0.377	1	A
Lindane	ND		ug/kg	0.802	0.358	1	A
Alpha-BHC	ND		ug/kg	0.802	0.228	1	A
Beta-BHC	ND		ug/kg	1.92	0.730	1	A
Heptachlor	ND		ug/kg	0.962	0.431	1	A
Aldrin	ND		ug/kg	1.92	0.678	1	A
Heptachlor epoxide	ND		ug/kg	3.61	1.08	1	A
Endrin	ND		ug/kg	0.802	0.329	1	A
Endrin aldehyde	ND		ug/kg	2.40	0.842	1	A
Endrin ketone	ND		ug/kg	1.92	0.496	1	A
Dieldrin	ND		ug/kg	1.20	0.601	1	A
4,4'-DDE	3.64		ug/kg	1.92	0.445	1	A
4,4'-DDD	ND		ug/kg	1.92	0.686	1	A
4,4'-DDT	3.28	JIP	ug/kg	3.61	1.55	1	A
Endosulfan I	ND		ug/kg	1.92	0.455	1	A
Endosulfan II	ND		ug/kg	1.92	0.643	1	A
Endosulfan sulfate	ND		ug/kg	0.802	0.382	1	A
Methoxychlor	ND		ug/kg	3.61	1.12	1	A
Toxaphene	ND		ug/kg	36.1	10.1	1	A
cis-Chlordane	3.14	IP	ug/kg	2.40	0.670	1	B
trans-Chlordane	1.60	JIP	ug/kg	2.40	0.635	1	A
Chlordane	ND		ug/kg	15.6	6.37	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24 Date Collected: 11/04/19 15:40

Client ID: 1104-8S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	44		30-150	B
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	53		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-25
Client ID: 1104-8D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/19/19 11:51
Analyst: SL
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/18/19 19:18
Cleanup Method: EPA 3620B
Cleanup Date: 11/19/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.81	0.354	1	A
Lindane	ND		ug/kg	0.754	0.337	1	A
Alpha-BHC	ND		ug/kg	0.754	0.214	1	A
Beta-BHC	ND		ug/kg	1.81	0.686	1	A
Heptachlor	ND		ug/kg	0.904	0.405	1	A
Aldrin	ND		ug/kg	1.81	0.637	1	A
Heptachlor epoxide	ND		ug/kg	3.39	1.02	1	A
Endrin	ND		ug/kg	0.754	0.309	1	A
Endrin aldehyde	ND		ug/kg	2.26	0.791	1	A
Endrin ketone	ND		ug/kg	1.81	0.466	1	A
Dieldrin	ND		ug/kg	1.13	0.565	1	A
4,4'-DDE	2.84		ug/kg	1.81	0.418	1	A
4,4'-DDD	ND		ug/kg	1.81	0.645	1	A
4,4'-DDT	ND		ug/kg	3.39	1.45	1	A
Endosulfan I	ND		ug/kg	1.81	0.427	1	A
Endosulfan II	ND		ug/kg	1.81	0.604	1	A
Endosulfan sulfate	ND		ug/kg	0.754	0.359	1	A
Methoxychlor	ND		ug/kg	3.39	1.05	1	A
Toxaphene	ND		ug/kg	33.9	9.49	1	A
cis-Chlordane	ND		ug/kg	2.26	0.630	1	A
trans-Chlordane	ND		ug/kg	2.26	0.597	1	A
Chlordane	ND		ug/kg	14.7	5.99	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-25 Date Collected: 11/04/19 15:50

Client ID: 1104-8D Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	64		30-150	B
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	75		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 10:10
Analyst: BM
Percent Solids: 78%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.99	0.390	1	A
Lindane	ND		ug/kg	0.831	0.371	1	A
Alpha-BHC	ND		ug/kg	0.831	0.236	1	A
Beta-BHC	ND		ug/kg	1.99	0.756	1	A
Heptachlor	ND		ug/kg	0.997	0.447	1	A
Aldrin	ND		ug/kg	1.99	0.702	1	A
Heptachlor epoxide	ND		ug/kg	3.74	1.12	1	A
Endrin	ND		ug/kg	0.831	0.341	1	A
Endrin aldehyde	ND		ug/kg	2.49	0.872	1	A
Endrin ketone	ND		ug/kg	1.99	0.514	1	A
Dieldrin	ND		ug/kg	1.25	0.623	1	A
4,4'-DDE	ND		ug/kg	1.99	0.461	1	A
4,4'-DDD	ND		ug/kg	1.99	0.711	1	A
4,4'-DDT	ND		ug/kg	3.74	1.60	1	A
Endosulfan I	ND		ug/kg	1.99	0.471	1	A
Endosulfan II	ND		ug/kg	1.99	0.666	1	A
Endosulfan sulfate	ND		ug/kg	0.831	0.396	1	A
Methoxychlor	ND		ug/kg	3.74	1.16	1	A
Toxaphene	ND		ug/kg	37.4	10.5	1	A
cis-Chlordane	ND		ug/kg	2.49	0.695	1	A
trans-Chlordane	ND		ug/kg	2.49	0.658	1	A
Chlordane	ND		ug/kg	16.2	6.61	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26 Date Collected: 11/04/19 16:15

Client ID: 1104-9S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	56		30-150	B
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	54		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 11/07/19 22:09
Analyst: BM
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 11/06/19 17:39
Cleanup Method: EPA 3620B
Cleanup Date: 11/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.76	0.345	1	A
Lindane	ND		ug/kg	0.735	0.328	1	A
Alpha-BHC	ND		ug/kg	0.735	0.209	1	A
Beta-BHC	ND		ug/kg	1.76	0.668	1	A
Heptachlor	ND		ug/kg	0.882	0.395	1	A
Aldrin	ND		ug/kg	1.76	0.621	1	A
Heptachlor epoxide	ND		ug/kg	3.30	0.992	1	A
Endrin	ND		ug/kg	0.735	0.301	1	A
Endrin aldehyde	ND		ug/kg	2.20	0.771	1	A
Endrin ketone	ND		ug/kg	1.76	0.454	1	A
Dieldrin	ND		ug/kg	1.10	0.551	1	A
4,4'-DDE	ND		ug/kg	1.76	0.408	1	A
4,4'-DDD	ND		ug/kg	1.76	0.629	1	A
4,4'-DDT	ND		ug/kg	3.30	1.42	1	A
Endosulfan I	ND		ug/kg	1.76	0.416	1	A
Endosulfan II	ND		ug/kg	1.76	0.589	1	A
Endosulfan sulfate	ND		ug/kg	0.735	0.350	1	A
Methoxychlor	ND		ug/kg	3.30	1.03	1	A
Toxaphene	ND		ug/kg	33.0	9.26	1	A
cis-Chlordane	ND		ug/kg	2.20	0.614	1	A
trans-Chlordane	ND		ug/kg	2.20	0.582	1	A
Chlordane	ND		ug/kg	14.3	5.84	1	A

Project Name: HAVERSTRAW **Lab Number:** L1952316

Project Number: HAVERSTRAW **Report Date:** 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28 Date Collected: 11/04/19 16:40

Client ID: 1104-10S Date Received: 11/05/19

Sample Location: HAVERSTRAW, NY Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	56		30-150	B
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	52		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/07/19 07:54
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 11:02
Cleanup Method: EPA 3620B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305264-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.660	0.295	A
Alpha-BHC	ND		ug/kg	0.660	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.600	A
Heptachlor	ND		ug/kg	0.792	0.355	A
Aldrin	ND		ug/kg	1.58	0.557	A
Heptachlor epoxide	ND		ug/kg	2.97	0.890	A
Endrin	ND		ug/kg	0.660	0.270	A
Endrin aldehyde	ND		ug/kg	1.98	0.693	A
Endrin ketone	ND		ug/kg	1.58	0.408	A
Dieldrin	ND		ug/kg	0.989	0.495	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.565	A
4,4'-DDT	ND		ug/kg	2.97	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.529	A
Endosulfan sulfate	ND		ug/kg	0.660	0.314	A
Methoxychlor	ND		ug/kg	2.97	0.923	A
Toxaphene	ND		ug/kg	29.7	8.31	A
cis-Chlordane	ND		ug/kg	1.98	0.551	A
trans-Chlordane	ND		ug/kg	1.98	0.522	A
Chlordane	ND		ug/kg	12.9	5.24	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/07/19 07:54
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 11/06/19 11:02
Cleanup Method: EPA 3620B
Cleanup Date: 11/06/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305264-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	65		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/19/19 11:06
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 11/18/19 19:18
Cleanup Method: EPA 3620B
Cleanup Date: 11/19/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 19,25 Batch: WG1310386-1						
Delta-BHC	ND		ug/kg	1.55	0.304	A
Lindane	ND		ug/kg	0.646	0.289	A
Alpha-BHC	ND		ug/kg	0.646	0.183	A
Beta-BHC	ND		ug/kg	1.55	0.588	A
Heptachlor	ND		ug/kg	0.775	0.348	A
Aldrin	ND		ug/kg	1.55	0.546	A
Heptachlor epoxide	ND		ug/kg	2.91	0.872	A
Endrin	ND		ug/kg	0.646	0.265	A
Endrin aldehyde	ND		ug/kg	1.94	0.678	A
Endrin ketone	ND		ug/kg	1.55	0.399	A
Dieldrin	ND		ug/kg	0.969	0.484	A
4,4'-DDE	ND		ug/kg	1.55	0.358	A
4,4'-DDD	ND		ug/kg	1.55	0.553	A
4,4'-DDT	ND		ug/kg	2.91	1.25	A
Endosulfan I	ND		ug/kg	1.55	0.366	A
Endosulfan II	ND		ug/kg	1.55	0.518	A
Endosulfan sulfate	ND		ug/kg	0.646	0.307	A
Methoxychlor	ND		ug/kg	2.91	0.904	A
Toxaphene	ND		ug/kg	29.1	8.14	A
cis-Chlordane	ND		ug/kg	1.94	0.540	A
trans-Chlordane	ND		ug/kg	1.94	0.512	A
Chlordane	ND		ug/kg	12.6	5.14	A

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 11/19/19 11:06
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 11/18/19 19:18
Cleanup Method: EPA 3620B
Cleanup Date: 11/19/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 19,25 Batch: WG1310386-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	75		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305264-2 WG1305264-3									
Delta-BHC	80		76		30-150	5		30	A
Lindane	78		75		30-150	4		30	A
Alpha-BHC	81		78		30-150	4		30	A
Beta-BHC	75		75		30-150	0		30	A
Heptachlor	80		76		30-150	5		30	A
Aldrin	77		75		30-150	3		30	A
Heptachlor epoxide	80		79		30-150	1		30	A
Endrin	83		80		30-150	4		30	A
Endrin aldehyde	58		57		30-150	2		30	A
Endrin ketone	80		77		30-150	4		30	A
Dieldrin	83		80		30-150	4		30	A
4,4'-DDE	80		77		30-150	4		30	A
4,4'-DDD	80		77		30-150	4		30	A
4,4'-DDT	88		85		30-150	3		30	A
Endosulfan I	74		72		30-150	3		30	A
Endosulfan II	76		73		30-150	4		30	A
Endosulfan sulfate	68		65		30-150	5		30	A
Methoxychlor	94		94		30-150	0		30	A
cis-Chlordane	69		67		30-150	3		30	A
trans-Chlordane	67		70		30-150	4		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305264-2 WG1305264-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		63		30-150	B
Decachlorobiphenyl	65		64		30-150	B
2,4,5,6-Tetrachloro-m-xylene	68		65		30-150	A
Decachlorobiphenyl	68		67		30-150	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 19,25 Batch: WG1310386-2 WG1310386-3									
Delta-BHC	88		95		30-150	8		30	A
Lindane	85		91		30-150	7		30	A
Alpha-BHC	92		99		30-150	7		30	A
Beta-BHC	80		87		30-150	8		30	A
Heptachlor	91		97		30-150	6		30	A
Aldrin	78		84		30-150	7		30	A
Heptachlor epoxide	80		83		30-150	4		30	A
Endrin	93		98		30-150	5		30	A
Endrin aldehyde	72		74		30-150	3		30	A
Endrin ketone	95		97		30-150	2		30	A
Dieldrin	94		100		30-150	6		30	A
4,4'-DDE	83		89		30-150	7		30	A
4,4'-DDD	92		98		30-150	6		30	A
4,4'-DDT	96		102		30-150	6		30	A
Endosulfan I	80		85		30-150	6		30	A
Endosulfan II	89		93		30-150	4		30	A
Endosulfan sulfate	86		87		30-150	1		30	A
Methoxychlor	92		94		30-150	2		30	A
cis-Chlordane	65		72		30-150	10		30	A
trans-Chlordane	80		84		30-150	5		30	A

Lab Control Sample Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 19,25 Batch: WG1310386-2 WG1310386-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		86		30-150	B
Decachlorobiphenyl	64		75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	73		78		30-150	A
Decachlorobiphenyl	74		81		30-150	A

METALS

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-01
Client ID: S1-D
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 09:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	51.2		mg/kg	2.32	0.124	1	11/06/19 20:50	11/07/19 13:10	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-02
Client ID: 1104-1S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 09:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	53.5		mg/kg	2.40	0.129	1	11/06/19 20:50	11/07/19 14:00	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-04
Client ID: 1104-2S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 09:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	51.0		mg/kg	2.49	0.133	1	11/06/19 20:50	11/07/19 14:04	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-06
Client ID: 1104-3S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 10:25
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	29.5		mg/kg	2.37	0.127	1	11/06/19 20:50	11/07/19 14:09	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-07
Client ID: 1104-4S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	60.7		mg/kg	2.37	0.127	1	11/06/19 20:50	11/07/19 14:13	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-10
Client ID: 1104-1AS
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 09:35
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	50.7		mg/kg	2.24	0.120	1	11/06/19 20:50	11/07/19 14:17	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-12
Client ID: 1104-2AS
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 10:02
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	48.0		mg/kg	2.36	0.126	1	11/06/19 20:50	11/07/19 14:22	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-14
Client ID: 1104-3AS
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 10:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	27.7		mg/kg	2.21	0.119	1	11/06/19 20:50	11/07/19 14:26	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-16
Client ID: 1104-4AS
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 11:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	66.3		mg/kg	2.45	0.131	1	11/06/19 20:50	11/07/19 14:31	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-17
Client ID: 1104-4AD
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 11:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	59.6		mg/kg	2.43	0.130	1	11/20/19 00:14	11/22/19 15:44	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5200		mg/kg	8.91	2.40	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.45	0.338	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Arsenic, Total	2.95		mg/kg	0.891	0.185	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Barium, Total	55.8		mg/kg	0.891	0.155	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Beryllium, Total	0.045	J	mg/kg	0.445	0.029	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Cadmium, Total	0.401	J	mg/kg	0.891	0.087	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Calcium, Total	6370		mg/kg	8.91	3.12	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Chromium, Total	7.80		mg/kg	0.891	0.086	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Cobalt, Total	5.95		mg/kg	1.78	0.148	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Copper, Total	26.5		mg/kg	0.891	0.230	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Iron, Total	14300		mg/kg	4.45	0.804	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Lead, Total	125		mg/kg	4.45	0.239	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Magnesium, Total	2540		mg/kg	8.91	1.37	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Manganese, Total	231		mg/kg	0.891	0.142	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Mercury, Total	0.152		mg/kg	0.088	0.058	1	11/06/19 21:43	11/07/19 15:05	EPA 7471B	1,7471B	GD
Nickel, Total	9.85		mg/kg	2.23	0.216	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Potassium, Total	474		mg/kg	223	12.8	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.78	0.230	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.891	0.252	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Sodium, Total	95.8	J	mg/kg	178	2.81	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.78	0.281	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Vanadium, Total	27.8		mg/kg	0.891	0.181	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC
Zinc, Total	80.6		mg/kg	4.45	0.261	2	11/06/19 20:50	11/07/19 14:35	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-19
Client ID: 1104-5D
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 14:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	140		mg/kg	2.22	0.119	1	11/20/19 00:14	11/22/19 15:49	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7390		mg/kg	9.31	2.51	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.65	0.354	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Arsenic, Total	3.07		mg/kg	0.931	0.194	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Barium, Total	36.2		mg/kg	0.931	0.162	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Beryllium, Total	0.168	J	mg/kg	0.465	0.031	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Cadmium, Total	0.186	J	mg/kg	0.931	0.091	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Calcium, Total	1090		mg/kg	9.31	3.26	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Chromium, Total	9.52		mg/kg	0.931	0.089	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Cobalt, Total	5.88		mg/kg	1.86	0.154	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Copper, Total	12.3		mg/kg	0.931	0.240	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Iron, Total	15000		mg/kg	4.65	0.840	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Lead, Total	13.4		mg/kg	4.65	0.249	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Magnesium, Total	2090		mg/kg	9.31	1.43	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Manganese, Total	264		mg/kg	0.931	0.148	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.077	0.050	1	11/06/19 21:43	11/07/19 15:35	EPA 7471B	1,7471B	GD
Nickel, Total	9.59		mg/kg	2.33	0.225	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Potassium, Total	590		mg/kg	233	13.4	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.86	0.240	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.931	0.263	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Sodium, Total	59.6	J	mg/kg	186	2.93	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.86	0.293	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Vanadium, Total	17.4		mg/kg	0.931	0.189	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC
Zinc, Total	33.2		mg/kg	4.65	0.273	2	11/06/19 20:50	11/07/19 14:49	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	14700		mg/kg	11.3	3.06	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	5.66	0.430	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Arsenic, Total	4.78		mg/kg	1.13	0.236	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Barium, Total	68.2		mg/kg	1.13	0.197	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Beryllium, Total	0.340	J	mg/kg	0.566	0.037	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Cadmium, Total	0.351	J	mg/kg	1.13	0.111	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Calcium, Total	1130		mg/kg	11.3	3.97	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Chromium, Total	14.6		mg/kg	1.13	0.109	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Cobalt, Total	7.27		mg/kg	2.27	0.188	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Copper, Total	12.3		mg/kg	1.13	0.292	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Iron, Total	20900		mg/kg	5.66	1.02	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Lead, Total	31.6		mg/kg	5.66	0.304	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Magnesium, Total	3000		mg/kg	11.3	1.74	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Manganese, Total	270		mg/kg	1.13	0.180	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.116	0.076	1	11/06/19 21:43	11/07/19 15:38	EPA 7471B	1,7471B	GD
Nickel, Total	11.9		mg/kg	2.83	0.274	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Potassium, Total	762		mg/kg	283	16.3	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Selenium, Total	0.487	J	mg/kg	2.27	0.292	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	1.13	0.321	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Sodium, Total	63.7	J	mg/kg	227	3.57	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	2.27	0.357	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Vanadium, Total	30.8		mg/kg	1.13	0.230	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC
Zinc, Total	63.3		mg/kg	5.66	0.332	2	11/06/19 20:50	11/07/19 14:53	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7980		mg/kg	9.37	2.53	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.69	0.356	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Arsenic, Total	6.01		mg/kg	0.937	0.195	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Barium, Total	70.3		mg/kg	0.937	0.163	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Beryllium, Total	0.187	J	mg/kg	0.469	0.031	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Cadmium, Total	0.328	J	mg/kg	0.937	0.092	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Calcium, Total	2160		mg/kg	9.37	3.28	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Chromium, Total	10.2		mg/kg	0.937	0.090	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Cobalt, Total	6.75		mg/kg	1.87	0.156	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Copper, Total	24.0		mg/kg	0.937	0.242	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Iron, Total	15900		mg/kg	4.69	0.846	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Lead, Total	47.2		mg/kg	4.69	0.251	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Magnesium, Total	2240		mg/kg	9.37	1.44	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Manganese, Total	362		mg/kg	0.937	0.149	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Mercury, Total	0.162		mg/kg	0.098	0.064	1	11/06/19 21:43	11/07/19 15:41	EPA 7471B	1,7471B	GD
Nickel, Total	9.91		mg/kg	2.34	0.227	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Potassium, Total	752		mg/kg	234	13.5	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.87	0.242	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.937	0.265	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Sodium, Total	152	J	mg/kg	187	2.95	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.87	0.295	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Vanadium, Total	22.6		mg/kg	0.937	0.190	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC
Zinc, Total	62.6		mg/kg	4.69	0.275	2	11/06/19 20:50	11/07/19 14:58	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13600		mg/kg	9.81	2.65	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.90	0.373	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Arsenic, Total	3.31		mg/kg	0.981	0.204	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Barium, Total	70.1		mg/kg	0.981	0.171	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Beryllium, Total	0.383	J	mg/kg	0.490	0.032	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Cadmium, Total	36.4		mg/kg	0.981	0.096	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Calcium, Total	1620		mg/kg	9.81	3.43	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Chromium, Total	11.1		mg/kg	0.981	0.094	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Cobalt, Total	5.74		mg/kg	1.96	0.163	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Copper, Total	11.8		mg/kg	0.981	0.253	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Iron, Total	16600		mg/kg	4.90	0.886	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Lead, Total	35.8		mg/kg	4.90	0.263	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Magnesium, Total	2120		mg/kg	9.81	1.51	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Manganese, Total	192		mg/kg	0.981	0.156	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.104	0.068	1	11/06/19 21:43	11/07/19 15:45	EPA 7471B	1,7471B	GD
Nickel, Total	9.81		mg/kg	2.45	0.237	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Potassium, Total	640		mg/kg	245	14.1	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Selenium, Total	0.569	J	mg/kg	1.96	0.253	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.981	0.278	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Sodium, Total	46.3	J	mg/kg	196	3.09	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.96	0.309	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Vanadium, Total	26.2		mg/kg	0.981	0.199	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC
Zinc, Total	54.3		mg/kg	4.90	0.287	2	11/06/19 20:50	11/07/19 15:02	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-27
Client ID: 1104-9D
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 16:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Lead, Total	4.39		mg/kg	2.35	0.126	1	11/20/19 00:14	11/22/19 16:44	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Lab Number: L1952316
Project Number: HAVERSTRAW
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9430		mg/kg	9.00	2.43	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.50	0.342	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Arsenic, Total	1.22		mg/kg	0.900	0.187	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Barium, Total	32.3		mg/kg	0.900	0.157	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Beryllium, Total	0.207	J	mg/kg	0.450	0.030	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Cadmium, Total	0.180	J	mg/kg	0.900	0.088	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Calcium, Total	1110		mg/kg	9.00	3.15	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Chromium, Total	14.4		mg/kg	0.900	0.086	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Cobalt, Total	6.21		mg/kg	1.80	0.149	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Copper, Total	5.33		mg/kg	0.900	0.232	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Iron, Total	17200		mg/kg	4.50	0.813	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Lead, Total	8.96		mg/kg	4.50	0.241	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Magnesium, Total	3200		mg/kg	9.00	1.39	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Manganese, Total	136		mg/kg	0.900	0.143	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.074	0.049	1	11/06/19 21:43	11/07/19 15:48	EPA 7471B	1,7471B	GD
Nickel, Total	12.0		mg/kg	2.25	0.218	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Potassium, Total	1240		mg/kg	225	13.0	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.80	0.232	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.900	0.255	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Sodium, Total	85.9	J	mg/kg	180	2.84	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.80	0.284	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Vanadium, Total	15.1		mg/kg	0.900	0.183	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC
Zinc, Total	26.6		mg/kg	4.50	0.264	2	11/06/19 20:50	11/07/19 15:07	EPA 3050B	1,6010D	LC

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 Batch: WG1305457-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Antimony, Total	ND		mg/kg	2.00	0.152	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Calcium, Total	ND		mg/kg	4.00	1.40	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Copper, Total	ND		mg/kg	0.400	0.103	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Iron, Total	ND		mg/kg	2.00	0.361	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Magnesium, Total	ND		mg/kg	4.00	0.616	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Manganese, Total	ND		mg/kg	0.400	0.064	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Potassium, Total	ND		mg/kg	100	5.76	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Sodium, Total	1.35	J	mg/kg	80.0	1.26	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Thallium, Total	ND		mg/kg	0.800	0.126	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	11/06/19 20:50	11/07/19 13:01	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 18,20,22,24,26,28 Batch: WG1305489-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/06/19 21:43	11/07/19 14:59	1,7471B	GD

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 17,19,27 Batch: WG1311548-1										
Lead, Total	ND		mg/kg	2.00	0.107	1	11/20/19 00:14	11/22/19 14:02	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 Batch: WG1305457-2 SRM Lot Number: D105-540								
Aluminum, Total	60		-		51-149	-		
Antimony, Total	163		-		19-249	-		
Arsenic, Total	94		-		70-130	-		
Barium, Total	83		-		75-125	-		
Beryllium, Total	93		-		75-125	-		
Cadmium, Total	101		-		75-125	-		
Calcium, Total	82		-		73-127	-		
Chromium, Total	89		-		70-130	-		
Cobalt, Total	96		-		75-125	-		
Copper, Total	90		-		75-125	-		
Iron, Total	75		-		38-162	-		
Lead, Total	89		-		71-128	-		
Magnesium, Total	76		-		63-137	-		
Manganese, Total	81		-		76-124	-		
Nickel, Total	94		-		70-131	-		
Potassium, Total	68		-		60-140	-		
Selenium, Total	96		-		63-137	-		
Silver, Total	89		-		69-131	-		
Sodium, Total	106		-		37-162	-		
Thallium, Total	97		-		68-132	-		
Vanadium, Total	86		-		65-135	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952316

Report Date: 11/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 Batch: WG1305457-2 SRM Lot Number: D105-540					
Zinc, Total	95	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 18,20,22,24,26,28 Batch: WG1305489-2 SRM Lot Number: D105-540					
Mercury, Total	91	-	60-141	-	
Total Metals - Mansfield Lab Associated sample(s): 17,19,27 Batch: WG1311548-2 SRM Lot Number: D105-540					
Lead, Total	89	-	71-128	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 QC Batch ID: WG1305457-3 QC Sample: L1952316-01 Client ID: S1-D												
Aluminum, Total	9710	187	11200	**798**	Q	-	-		75-125	-		20
Antimony, Total	ND	46.7	32.6	**70**	Q	-	-		75-125	-		20
Arsenic, Total	4.52	11.2	13.6	81		-	-		75-125	-		20
Barium, Total	41.7	187	177	**72**	Q	-	-		75-125	-		20
Beryllium, Total	0.357	4.67	3.60	**69**	Q	-	-		75-125	-		20
Cadmium, Total	0.269J	4.76	3.53	**74**	Q	-	-		75-125	-		20
Calcium, Total	1120	934	1840	77		-	-		75-125	-		20
Chromium, Total	12.3	18.7	26.5	76		-	-		75-125	-		20
Cobalt, Total	4.25	46.7	36.6	**69**	Q	-	-		75-125	-		20
Copper, Total	12.5	23.3	27.2	**63**	Q	-	-		75-125	-		20
Iron, Total	12500	93.4	13000	**535**	Q	-	-		75-125	-		20
Lead, Total	51.2	47.6	86.1	**73**	Q	-	-		75-125	-		20
Magnesium, Total	1440	934	2180	79		-	-		75-125	-		20
Manganese, Total	157	46.7	187	**64**	Q	-	-		75-125	-		20
Nickel, Total	9.08	46.7	40.9	**68**	Q	-	-		75-125	-		20
Potassium, Total	422	934	1080	**70**	Q	-	-		75-125	-		20
Selenium, Total	0.348J	11.2	8.37	75		-	-		75-125	-		20
Silver, Total	ND	28	21.6	77		-	-		75-125	-		20
Sodium, Total	37.1J	934	718	77		-	-		75-125	-		20
Thallium, Total	ND	11.2	6.93	**62**	Q	-	-		75-125	-		20
Vanadium, Total	20.2	46.7	54.4	**73**	Q	-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 QC Batch ID: WG1305457-3 QC Sample: L1952316-01 Client ID: S1-D										
Zinc, Total	52.0	46.7	81.3	**63**	Q	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 18,20,22,24,26,28 QC Batch ID: WG1305489-3 QC Sample: L1952316-18 Client ID: 1104-5S										
Mercury, Total	0.152	0.156	0.313	104		-	-	80-120	-	20
Total Metals - Mansfield Lab Associated sample(s): 17,19,27 QC Batch ID: WG1311548-3 QC Sample: L1946727-05 Client ID: MS Sample										
Lead, Total	51.1	88.8	120	78		-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 QC Batch ID: WG1305457-4 QC Sample: L1952316-01 Client ID: S1-D						
Lead, Total	51.2	52.4	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 18,20,22,24,26,28 QC Batch ID: WG1305489-4 QC Sample: L1952316-18 Client ID: 1104-5S						
Mercury, Total	0.152	0.130	mg/kg	16		20

INORGANICS
&
MISCELLANEOUS

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-01
Client ID: S1-D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 09:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-02
Client ID: 1104-1S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 09:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.6		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-04
Client ID: 1104-2S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 09:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.4		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-06
Client ID: 1104-3S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 10:25
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.3		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-07
Client ID: 1104-4S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 11:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.1		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-10
Client ID: 1104-1AS
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 09:35
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.2		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-12
Client ID: 1104-2AS
Sample Location: HAVERSTRAW, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/19 10:02
Date Received: 11/05/19
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-14
Client ID: 1104-3AS
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 10:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.5		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-16
Client ID: 1104-4AS
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 11:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.6		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-17
Client ID: 1104-4AD
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 11:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.0		%	0.100	NA	1	-	11/19/19 00:41	121,2540G	YA

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-18
Client ID: 1104-5S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 13:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.8		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-19
Client ID: 1104-5D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.8		%	0.100	NA	1	-	11/19/19 00:41	121,2540G	YA

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-20
Client ID: 1104-6S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 14:30
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.6		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-22
Client ID: 1104-7S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:00
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.6		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-24
Client ID: 1104-8S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.7		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-25
Client ID: 1104-8D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 15:50
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.2		%	0.100	NA	1	-	11/19/19 00:41	121,2540G	YA

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW
Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-26
Client ID: 1104-9S
Sample Location: HAVERSTRAW, NY
Date Collected: 11/04/19 16:15
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.4		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-27
Client ID: 1104-9D
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:20
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.3		%	0.100	NA	1	-	11/19/19 00:41	121,2540G	YA

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

SAMPLE RESULTS

Lab ID: L1952316-28
Client ID: 1104-10S
Sample Location: HAVERSTRAW, NY

Date Collected: 11/04/19 16:40
Date Received: 11/05/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.1		%	0.100	NA	1	-	11/06/19 11:54	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: HAVERSTRAW

Project Number: HAVERSTRAW

Lab Number: L1952316

Report Date: 11/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04,06-07,10,12,14,16,18,20,22,24,26,28 QC Batch ID: WG1305168-1 QC Sample: L1952316-02 Client ID: 1104-1S						
Solids, Total	80.6	82.2	%	2		20

Project Name: HAVERSTRAW
Project Number: HAVERSTRAW

Lab Number: L1952316
Report Date: 11/25/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952316-01A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-01B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-02A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1952316-02B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-03A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		HOLD-WETCHEM()
L1952316-03B	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		HOLD-METAL(180)
L1952316-04A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-04B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-05A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-05B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-06A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1952316-06B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-07A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-07B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-08A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-08B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-09A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-09B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-10A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1952316-10B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-11A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-11B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952316-12A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1952316-12B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-13A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-13B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-14A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-14B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-15A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		HOLD-WETCHEM()
L1952316-15B	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		HOLD-METAL(180)
L1952316-16A	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1952316-16B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-17A	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-17B	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-18A	Vial MeOH preserved	B	NA		4.0	Y	Absent		NYTCL-8260HLW(14)
L1952316-18B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-18C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-18D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7)
L1952316-18E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CU-TI(180),ZN-TI(180),SE-TI(180),PB-TI(180),SB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),HG-T(28),MN-TI(180),FE-TI(180),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L1952316-18F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(14)
L1952316-19A	Vial MeOH preserved	B	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L1952316-19B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-19C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-19D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM(),TS(7),NYTCL-8081(14),HOLD-8270(14)
L1952316-19E	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		PB-TI(180)
L1952316-19F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		HOLD-WETCHEM(),TS(7),NYTCL-8081(14),HOLD-8270(14)
L1952316-20A	Vial MeOH preserved	B	NA		4.0	Y	Absent		NYTCL-8260HLW(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952316-20B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-20C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-20D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-20E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),K-TI(180),CD-TI(180),NA-TI(180),CA-TI(180)
L1952316-20F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-21A	Vial MeOH preserved	B	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L1952316-21B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-21C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-21D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-21E	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-21F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-22A	Vial MeOH preserved	B	NA		4.0	Y	Absent		NYTCL-8260HLW(14)
L1952316-22B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-22C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-22D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-22E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),PB-TI(180),CU-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MN-TI(180),HG-T(28),FE-TI(180),MG-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L1952316-22F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-23A	Vial MeOH preserved	B	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L1952316-23B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-23C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-23D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-23E	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952316-23F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-24A	Vial MeOH preserved	B	NA		4.0	Y	Absent		NYTCL-8260HLW(14)
L1952316-24B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-24C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-24D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-24E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MG-TI(180),HG-T(28),FE-TI(180),MN-TI(180),K-TI(180),CD-TI(180),NA-TI(180),CA-TI(180)
L1952316-24F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-25A	Vial MeOH preserved	B	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L1952316-25B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-25C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-25D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		TS(7),NYTCL-8081(14)
L1952316-25E	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-25F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		TS(7),NYTCL-8081(14)
L1952316-26A	Vial MeOH preserved	B	NA		4.0	Y	Absent		NYTCL-8260HLW(14)
L1952316-26B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-26C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-26D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-26E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),PB-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),MN-TI(180),HG-T(28),FE-TI(180),NA-TI(180),CA-TI(180),CD-TI(180),K-TI(180)
L1952316-26F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-27A	Vial MeOH preserved	A	NA		2.9	Y	Absent		HOLD-8260HLW(14)
L1952316-27B	Vial water preserved	A	NA		2.9	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-27C	Vial water preserved	A	NA		2.9	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1952316-27D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		NYTCL-8270(14),HOLD-WETCHEM(),TS(7),NYTCL-8082(14)
L1952316-27E	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		PB-TI(180)
L1952316-27F	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYTCL-8270(14),HOLD-WETCHEM(),TS(7),NYTCL-8082(14)
L1952316-28A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1952316-28B	Vial water preserved	A	NA		2.9	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-28C	Vial water preserved	A	NA		2.9	Y	Absent	06-NOV-19 08:41	NYTCL-8260HLW(14)
L1952316-28D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-28E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),V-TI(180),CO-TI(180),HG-T(28),MN-TI(180),FE-TI(180),MG-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L1952316-28F	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYTCL-8270(14),TS(7),NYTCL-8081(14),NYTCL-8082(14)
L1952316-29A	Vial MeOH preserved	B	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L1952316-29B	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-29C	Vial water preserved	B	NA		4.0	Y	Absent	06-NOV-19 08:41	HOLD-8260HLW(14)
L1952316-29D	Plastic 2oz unpreserved for TS	B	NA		4.0	Y	Absent		HOLD-WETCHEM()
L1952316-29E	Glass 60mL/2oz unpreserved	B	NA		4.0	Y	Absent		HOLD-METAL(180)
L1952316-29F	Glass 250ml/8oz unpreserved	B	NA		4.0	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

Project Name:	HAVERSTRAW	**Lab Number:**	L1952316
Project Number:	HAVERSTRAW	**Report Date:**	11/25/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952316
Project Number:	HAVERSTRAW	**Report Date:**	11/25/19

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

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

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

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

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

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952316
Project Number:	HAVERSTRAW	**Report Date:**	11/25/19

Data Qualifiers

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	HAVERSTRAW	**Lab Number:**	L1952316
Project Number:	HAVERSTRAW	**Report Date:**	11/25/19

REFERENCES

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

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

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

Mansfield Facility:

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

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

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

Page 1 of 3

Date Rec'd in Lab: 11/5/19

ALPHA Job #: L1952316

Client Information
Client: Acer Consulting Assoc
Address: 326 43RD PL
Sea Isle City NJ 08243
Phone: 609 478 8119
Fax:
Email: acerconsulting@yahoo.com

Project Information
Project Name: Haverstraw
Project Location: Haverstraw NY
Project #
(Use Project name as Project #) ☐
Project Manager: Vincent Agovino
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☒ # of Days: 3

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

Billing Information
☒ Same as Client Info
PO #

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

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

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
72-HR for "S" Samples

Please specify Metals or TAL.

ANALYSIS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Lead	TCL/TAL	PFAS/PFOS	Sample Specific Comments	Total Bottle
52316 - 01	S1 - D	11/4/19	0900	S	AVA	X				1
- 02	1104 - 1S		0920			X				1
- 03	1104 - 1D		0920			X			Hold pending S	1
- 04	1104 - 2S		0950			X				1
- 05	1104 - 2D		0950			X			Hold pending S	1
- 06	1104 - 3S		1025			X				1
- 07	1104 - 4S		1100			X				1
- 08	1104 - 4D		1100			X			Hold pending S	1
- 09	1104 - 3D		1025			X			Hold pending S	1
- 10	1104 - 1A S		0935			X				

Container Type: A
Preservative:

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

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
	9:19 11/5/19		11/5/19 9:19
	11/5/19 544		11/5/19 1930
	11/5/19 2345		11/5/19 23:45

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

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

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

Page 2 of 3

Date Rec'd in Lab: 11/5/19

ALPHA Job #: L1952316

Client Information

Client: Acer Consulting
Address: 32643RD PL
Sea Isle City NJ
Phone: 609 478 8119
Fax:
Email: acerconsulting@yahoo.com

Project Information

Project Name: Haverstraw
Project Location: Haverstraw NY
Project #
(Use Project name as Project #) [X]
Project Manager: Vincent Agovino
ALPHAQuote #:

Turn-Around Time

Standard [ ] Due Date:
Rush (only if pre approved) [X] # of Days: 3

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

72 HR TAT FOR "S" SAMPLES

Please specify Metals or TAL.

Deliverables

[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [X] NY Part 375
[ ] AWQ Standards [X] NY CP-51
[X] NY Restricted Use [ ] Other
[X] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[X] Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

ANALYSIS

LEAD | TCL/TAL | PFAS

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

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	LEAD	TCL/TAL	PFAS	Sample Specific Comments
L2316 -11	1104-1AD	11/4/19	0935	S	AVA	X			Hold pending S
-12	1104-2AS		1002			X			
-13	1104-2AD		1002			X			Hold pending S
-14	1104-3AS		1040			X			
-15	1104-3AD		1040			X			Hold pending S
-16	1104-4AS		1115			X			
-17	1104-4AD		1115			X			Hold pending S
-18	1104-5S		1350				X		
-19	1104-5D		1400				X		Hold pending S
-20	1104-6S		1430				X		

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

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

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

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	11/5/19 9:19		11/5/19 9:19
	11/5/19 5:47		11/6/19 2930
	11/6/19 2345		11/5/19 2345

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

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NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

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

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Page 3 of 3

Date Rec'd in Lab: 11/5/19

ALPHA Job #: L1952316

Client Information
Client: Acer Consulting Assoc
Address: 32643RD PL
Sea Isle City NJ
Phone: 609 478 8119
Fax:
Email: acerconsulting@yahoo.com

Project Information
Project Name: Haverstraw
Project Location: Haverstraw NY
Project #
(Use Project name as Project #) [X]
Project Manager: Vincent Agovino
ALPHAQuote #:

Turn-Around Time
Standard [ ] Due Date:
Rush (only if pre approved) [X] # of Days: 3

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

Billing Information
[X] Same as Client Info
PO #

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

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

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:
72 HR TAT FOR "S" SAMPLES

Please specify Metals or TAL.

ANALYSIS

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	LEAD	TCL/TAL	PFAS/PFOS	Total Bottle	Sample Specific Comments
52316 - 21	1104-6 D	11/4/19	1445	S	AVA		X	X		Hold pending S
- 22	1104-7 S		1500				X	X		
- 23	1104-7 D		1515				X	X		Hold pending S
- 24	1104-8 S		1540				X	X		
- 25	1104-8 D		1550				X	X		Hold pending S
- 26	1104-9 S		1615				X	X		
- 27	1104-9 D		1620				X	X		Hold pending S
- 28	1104-10 S		1640				X	X		
- 29	1104-10 D		1650				X	X		Hold pending S

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
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G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

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

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
	11/5/19 9:19		11/5/19 9:19
	11/5/19 544		11/5/19 1931
AAL	11/5/19 2345		11/5/19 23:45

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

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