Restoration & Conservation LLC

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Phase 2: Remedial Investigation & Soils Characterization Report

Prepared For
11 St., & Broadway LLC

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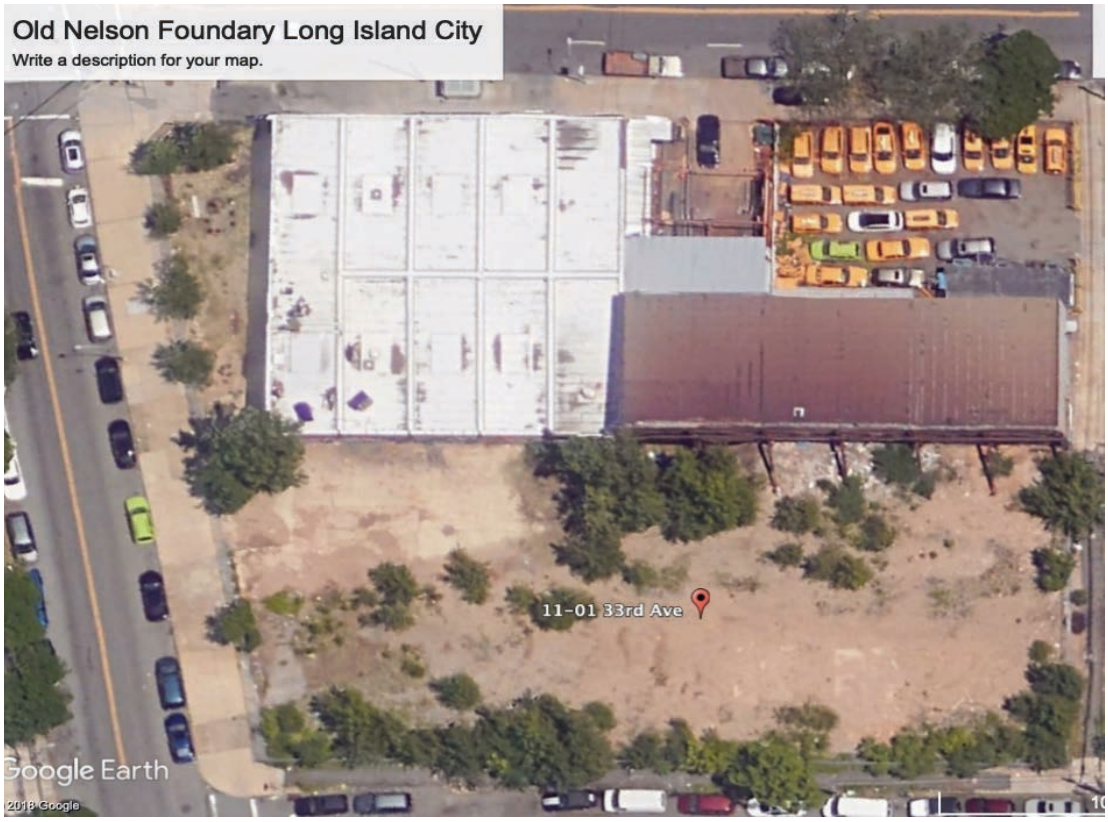
Environmental Introduction

I am a certified Environmental and Marine Scientist, and have put together a Phase 2 soils investigation & characterization report including a limited horizontal and vertical delineation from soil test pit locations from 11-01 33rd Avenue, Long Island City, New York. This property location will likely be investigated and remediated under the oversight of NYCOER or the New York State Department of Environmental Conservation (NYSDEC) in the Brownfield Cleanup Program.

Figure (1)



Site History

The subject property consists of one lot in Queens County, identified as Block 316, Lot 1 and measuring approximately 0.6 acres or 26,615-square-foot. The property is currently undeveloped and is protected by a chain link fence. The site was historically identified as Nelson Foundry or Nelson Galvanizing and is

listed on several environmental databases, including Petroleum Bulk Storage, Chemical Bulk Storage, Hazardous Waste Generator or Transporter, Air Discharge Facility, and US Superfund/CERCLIS Site. Previous investigations and cleanup were performed by New York City Department of Environmental Protection (NYCDEP) and United States Environmental Protection Agency (USEPA) between 1988 and 2000. Past remedial efforts included stabilization and securing of vats, sumps, drums and other containers (including off-site disposal of numerous drums and other containers).

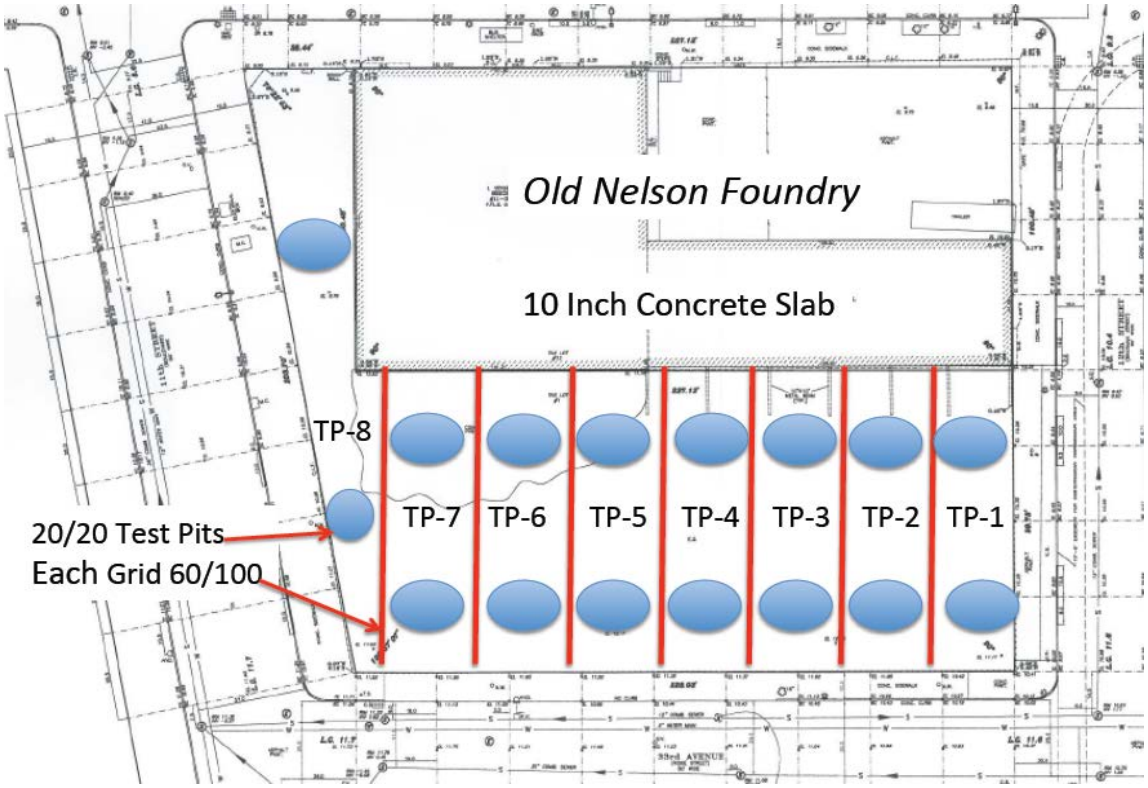
The Site Plan identifies aboveground storage tanks, solid waste storage areas, 55-gallon drum storage areas, car battery storage areas, and areas of exposed soil. Historic environmental concerns included storage tanks containing sulfuric acid, hydrofluoric acid, sodium hydroxide, zinc ammonium chloride, molten zinc and fuel oil. Drums and smaller containers on the site contained lacquer adhesive, sulfuric acid, hydrofluoric acid, zinc ammonium chloride, zinc oxide and solid zinc pieces, and liquid solid wastes that were used in a neutralization bath-tub to neutralize spent baths of acids and bases. Here we set out to address and identify the various chemical compounds associated with non-hazardous, hazardous and petroleum contaminated soils at the "Site" for clean up purposes and for further prevention of off site migration. The Site has reportedly been vacant since 1994.

Site Sampling Methodology & Investigation Approach

The site is 26,615 sq/ft. Therefore, we divided the site into eight 60/100 grid sections and proceeded to excavate 20/20 large test pits until we encountered groundwater soil saturation zone. The reason this was conducted allows a reviewer to obtain a visual observation of historic fill stratification vertically and horizontally within the soil test pits (TP). This is helpful for cost analysis purposes related to facility disposal costs, minimize and isolate any hazardous waste soils. Physical characteristics are also, critical in pollution fingerprinting as all NJDEP and PADEP facilities have specification guidelines that are required in their permits for the type of soils they allow into their landfill or treatment

facility. Characterizing a "site" for chemical and physical features are of primary interest for all NYSDEC Part 360 Facilities if the chemical constituents pass 6NYCRR Protection of Groundwater RSCOs. The soil samples were collected utilizing an 2CY bucket attached to an excavator for deep wide excavation test pits (TP) down to about 15ft close to the groundwater intrusion. Ground water varies throughout the site and is shallowest towards the South East of the property. Groundwater can be seen at the shallowest depth of 7ft located at Grid #1 and deepens to a depth of 15ft located at Grid #5-6 and then becomes shallow again at Grid #7-8ft at 9-10ft. Therefore, careful excavation at this site was practiced due to the presence of hazardous soils and petroleum impacts. This method allows for a complete visual understanding of the historic fill impacts horizontally and vertically to the groundwater depth. Each soil layer showed mixed material, and or physical characteristics of decomposed petroleum. TP-1 showed evidence of a release, however, even though we opened up large excavated holes we were not able to find any UST. The UST may be located under the 10 inch concrete slab Figure (2).

Figure (2)



Sample Collection Methods

Each grid consisted of 2-test pit (A-B) within each grid. Five (5) grabs were placed into a stainless steel bowl and mixed into a composite sample; with one VOC grab at the highest PID reading from 0-to terminal depth of excavation. Each grid TP has its own separate composite sample A and B respectively. For the VOC sample an 2 oz jar was be quickly submerged into the dirt, and filled to the surface with soil and closed for analysis. Between each sample, the shovel and spoon bowl was wiped clean with a towel and DI water. All samples were transported to a New York State Certified Commercial Laboratory for analysis. The analytical test method for the soil & water boring samples collected were analyzed based on USEPA Test Methods 8260-8270 for volatile organic compounds and semi volatile organic compounds were followed. NELAP Accredited Lab CT License No. PH-0723 New Jersey License No. CT-005 New York License No. 10854 PA License No. 68-04440.

Sample Analysis

We also visually screened for all recognizable uncontaminated concrete, asphalt, rock, brick and soil (RUCARBS) and for the presence of slag & flyash/coal-tar within the 0-3ft layer in three of the four grids and confirmed these historic fill indicators co-mingled with RUCARBS solid waste. PID-VOC was also used to record highest/lowest readings during grab samples for compositing and VOC grabs. All soil samples were placed in laboratory approved containers and cooled with ice to 4C. The samples will be transported to a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory under proper chain-of-custody-protocol. All of the samples will be compared for the following 6NYCRR Part 375 (a) Unrestricted Use list compounds: for SVOCs, VOC, PCBs, Pesticides, Herbicides and the metal list. Sampling equipment will be decontaminated between each sample collection. Samples were stored in laboratory provided glass jars, kept on ice, and transported to the lab under chain-of-custody procedures.

Physical Observation Characteristics Methodology

A primary *in-situ* specific method to use as a screening tool will be to place random grab samples from different areas within each grid, and place them into a stainless steel screen and flood the screen with and without water for the investigation of visual historic fill fragments. The screen measurements were be 0.2mm and 6mm. We examined the samples with a dry-sieve. Each test pit are listed as 1-2-3-4-5-6-7 & 8 respectively was screened for historic fill signatures. Here we set out to identify any REC recognized environmental concerns and how far these chemical signatures migrate vertically and horizontally throughout each of the grids. **(Figure 3 TP 1-8 below)** shows a 3D visual of Grid physical and chemical characterizations.

Results

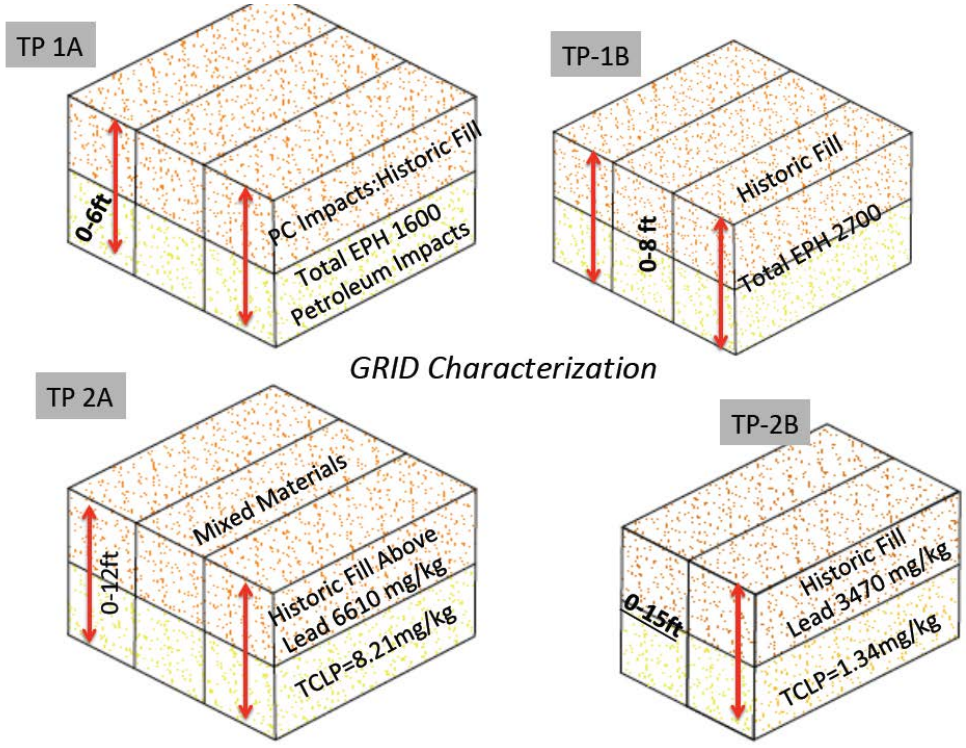
As per the Report Date: December 19th 2018; Client Project ID: 11-03 33rd Ave Long Island City; **(Appendix 1a),** Phoenix Lab Project ID No.: CC11477 - CC11500, CC12941 and CC12942. Grid#s 1-6 had a homogenous presence of decomposed chemically oxidized decomposed soils, which consisted of ash, slag, coal fragments and RCA co-mingled into the soils, consistent with the Foundries maintenance activities. Grids 7-8 had the moderate presence of historic fill fragments comingled into the soils. Compared to grids 1-2-3-4-5 and 6 having a higher presence of historic fill and hydrocarbon PID-VOC signatures. **Appendix 1b; Table 1**, Soil Analysis Summary, compared to 6NYCRR NYSDEC Unrestricted, and Restricted Residential Use Soil Clean Up Objectives, specifically for the protection of ground water RSCOs. Historic fill is rejected at most NYC Part 360 Facilities, and a site such as this one, may have a difficult time disposing of said physical characteristics commonly found in historic fill.

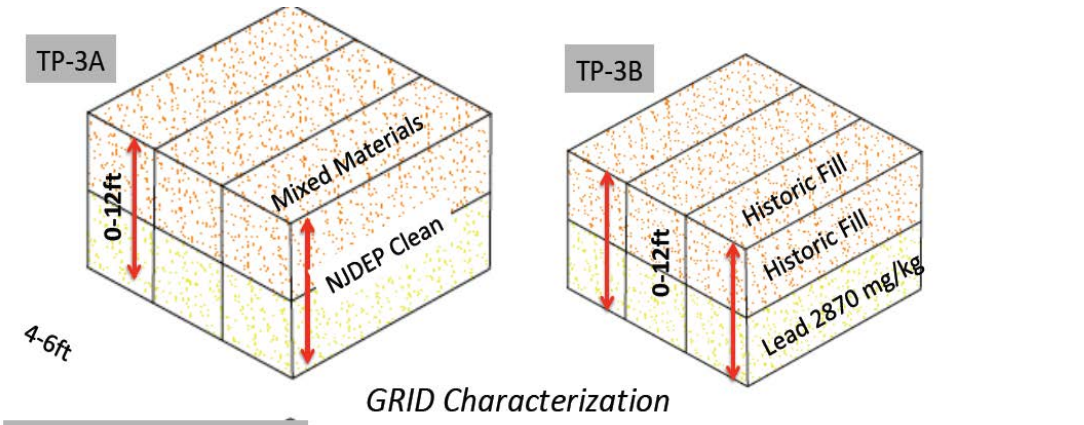
For the identification of UST leaks or impacts we used NJDEP EPH (Cat. 2 Non-Fractionated) hydrocarbons, which is a signature of PAHs consistent in petroleum contaminated soils in a decomposed state. We also used the visual appearance of "Historic fill" material. Historic fill means non-indigenous

material, deposited to raise the topographic elevation of the site, which was contaminated prior to emplacement, and is in no way connected with the operations at the location of emplacement and which includes, without limitation, construction debris, dredge spoils, incinerator residue, demolition debris, fly ash, or non-hazardous solid waste. Historic fill consists of municipal solid waste ash, debris, sediments and other wasters that were used to create usable land by filling shorelines, wetlands, and topographical locations prior to 1960. Historic fill contains SVOCs, PAH, organic pesticides, PCBs and other contaminants that can exceed, human health standards, and for the protection of ground water including ecological resources.

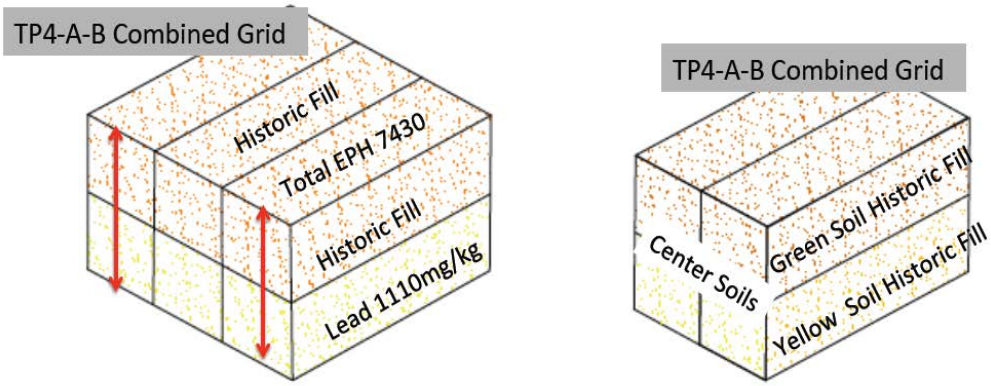
3D Grid Analysis

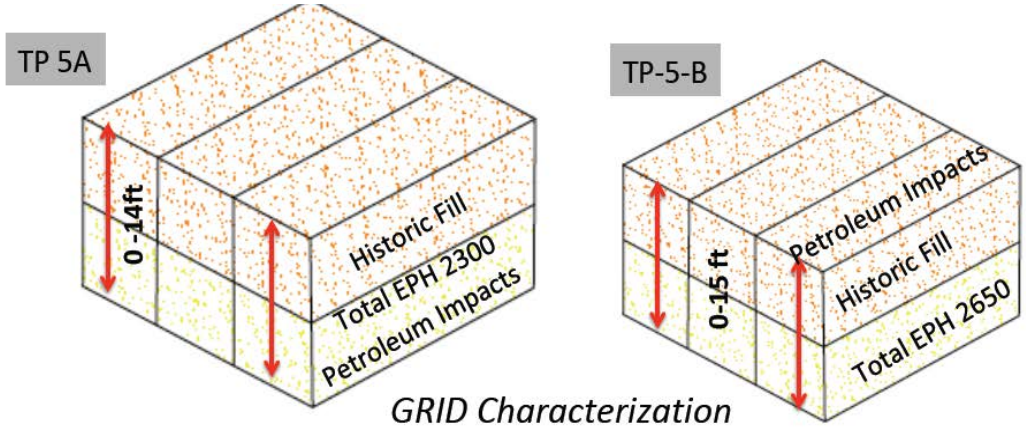
Figure (3); TP-1-8; shows a 3D visual diagram to assist the reviewer understand the type of soils that are found at the Old Nelson Foundry.



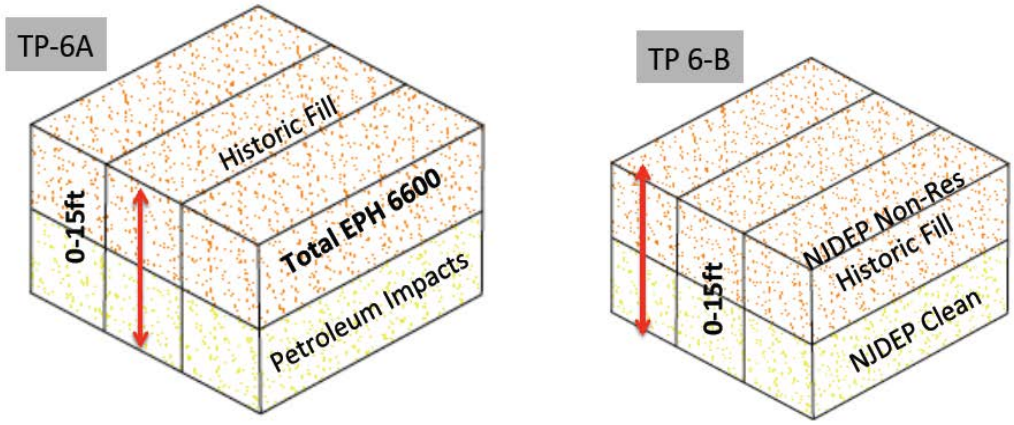


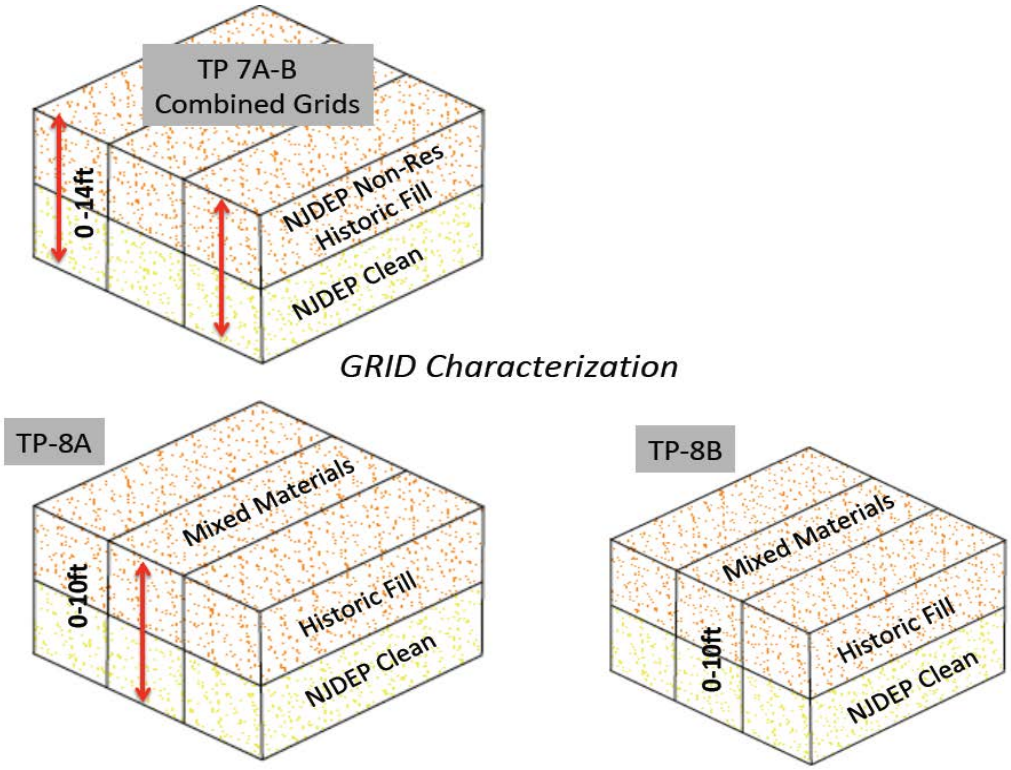
GRID Characterization





GRID Characterization





Grid #1; TP-A-B

Photoionization VOC- PID meter began to show high readings of 240-295ppm as we excavated vertically 0-6ft. PC impacted soils were evident starting at 4ft consisting of saturated caked petroleum-impacted soils, and coal fragments. Total Extractable Hydrocarbons are between 1600-2700mg/kg respectively throughout both Test Pits. TAL Metals show exceedances in zinc at 11,900 TP-A and TP-B 6,040 mg/kg respectively. Lead was seen at 475 mg/kg at TP-A, and TP-B, at 707 mg/kg, which is consistent with the rinse baths used at the Old Nelson Foundries daily activity practices, TCLP levels were below 20x RCRA rule. Tentatively identified SVOC Compounds show extremely high levels hydrocarbon signatures consistent with an oil tank spill; TPH total extractable hydrocarbons show 1,600mg/kg at TP-A and 2,700mg/kg at TP-B. VOCs, Pesticides, Herbicides and PCBs were all with NYSDEC Unrestricted Use RSCOs

Grid #2; TP-A-B

Similar to Grid #1; Photoionization VOC- PID meter began to show high readings of 220-245ppm as we excavated vertically 0-9ft. PC impacted soils were

evident starting at 4ft consisting of saturated caked petroleum-impacted soils, and coal fragments. Hazardous Lead Soils were found in TP-A. Total lead in TP-A= 6610mg/kg and TCLP of 8.21mg/kg exceeding the RCRA 20x rule of 5.00 mg/kg. TP-B 3,470mg/kg with a TCLP at 1.34mg/kg below the 5.00mg/kg RCRA 20x rule. TP-B are consistent with TP-A show extreme values of zinc at 139,000 mg/kg and lead at 3,470mg/kg and a non hazardous result of TCLP at 1.30 mg/kg. All metals and exceed all regulatory limits above 6NYCRR Unrestricted Use Subpart 375 RSCOs.

Grid #3; TP-A-B

Compared to Grid#1-2; grid #3 TP-A shows a different level of hydrocarbon signatures from PID-VOC readings, which shows an average of ND-70ppm. This also includes SVOC, VOC, PCB, Pesticides and Herbicides, all showing levels within Unrestricted Use RSCOs. It appears that the soils in Grid #3 TP-A are protected by a concrete slab and barrier between Grid #2 TP-A and Grid #3 TP-B surrounding both sides of other impacted Test Pits and Grids with have high levels of RCRA metals above the regulatory limits. However, TP-B shows a completely different result. RCRA meals such as Arsenic at 32mg/kg, lead at 2870mg/kg, nickel at 85mg/kg, and barium at 281mg.kg and copper at 273mg/kg all exceeding all 6NYCRR Unrestricted, and Restricted Residential regulatory RSCOs. TPH total extractable hydrocarbons show ND levels at TP-B. VOCs, Pesticides, Herbicides and PCBs were all with NYSDEC Unrestricted Use RSCOs

Grid #4; TP-A-B Combined Grid

Grid #4 TP A and B were combined due to identical physical characteristics, odors, and soil composition. RCRA meals such as Arsenic at 32.3mg/kg, lead at 1,110mg/kg, nickel at 54mg/kg, and barium at 173mg.kg and copper at 173mg/kg all exceeding all 6NYCRR Unrestricted, and Restricted Residential regulatory RSCOs. RCRA TCLP values are below hazardous levels. TPH total extractable hydrocarbons show ND levels at TP-B. VOCs, Pesticides, Herbicides and PCBs were all with NYSDEC Unrestricted Use RSCOs

Grid #5; TP-A-B and Grid #6 TP-A-B

Compared to Grid#1-2-3 this grid shows a different similar level of of hydrocarbon signatures from PID-VOC readings, which shows an average of ND-175-210ppm. RCRA metals exceed Unrestricted Use RSCO. Its important to note that strong hydrocarbon odors were evident without any identification of a USTs. However, all it is important to note that all RCRA metals are below 6NYCRR Restricted Residential regulatory RSCOs. RCRA TCLP values are below hazardous levels. This also includes SVOC, VOC, PCB, Pesticides and Herbicides, all showing levels within Unrestricted Use RSCOs. TP-B in this grid, is also consistent with TP-A in that similar levels of hydrocarbon signatures from PID-VOC readings, which shows an average of ND-125-217ppm and is consistent with Grid #3 showing a presence of caked decomposed petroleum co-mingled into the soils along with historic fill fragments. In TP A-B the TPH results show 2,300-2,500mg/kg respectively which is consistent with UTS leak.

Grid #7; TP-A-B Combined

Compared to Grid#1-2-3-4-5-6; this Grid #7 was also consistent in its physical characteristics shows a different level of hydrocarbon signatures from PID-VOC readings, which shows an average of ND-750ppm. This also includes SVOC, VOC, PCB, Pesticides and Herbicides, all showing levels within Unrestricted Use RSCOs. RCRA meals such as Arsenic, lead, nickel, and barium are below 6NYCRR Unrestricted, except for copper at 224mg/kg which is within Restricted Residential regulatory RSCOs. VOCs, Pesticides, Herbicides and PCBs were all with NYSDEC Unrestricted Use RSCOs.

Grid #8; TP-A-B

Compared to Grid#1-2-3-4-5-6 and 7 we notice a common physical characteristic indicative of historic fill. However, Grid 8 TP-A-B shows a low level of hydrocarbon signatures from PID-VOC readings, which shows an average of NDppm. SVOC, VOC, PCB, Pesticides and Herbicides, all showing levels within Unrestricted Use RSCOs. RCRA meals within Restricted Residential regulatory RSCOs including VOCs, Pesticides, Herbicides and PCBs.

Figure (4)

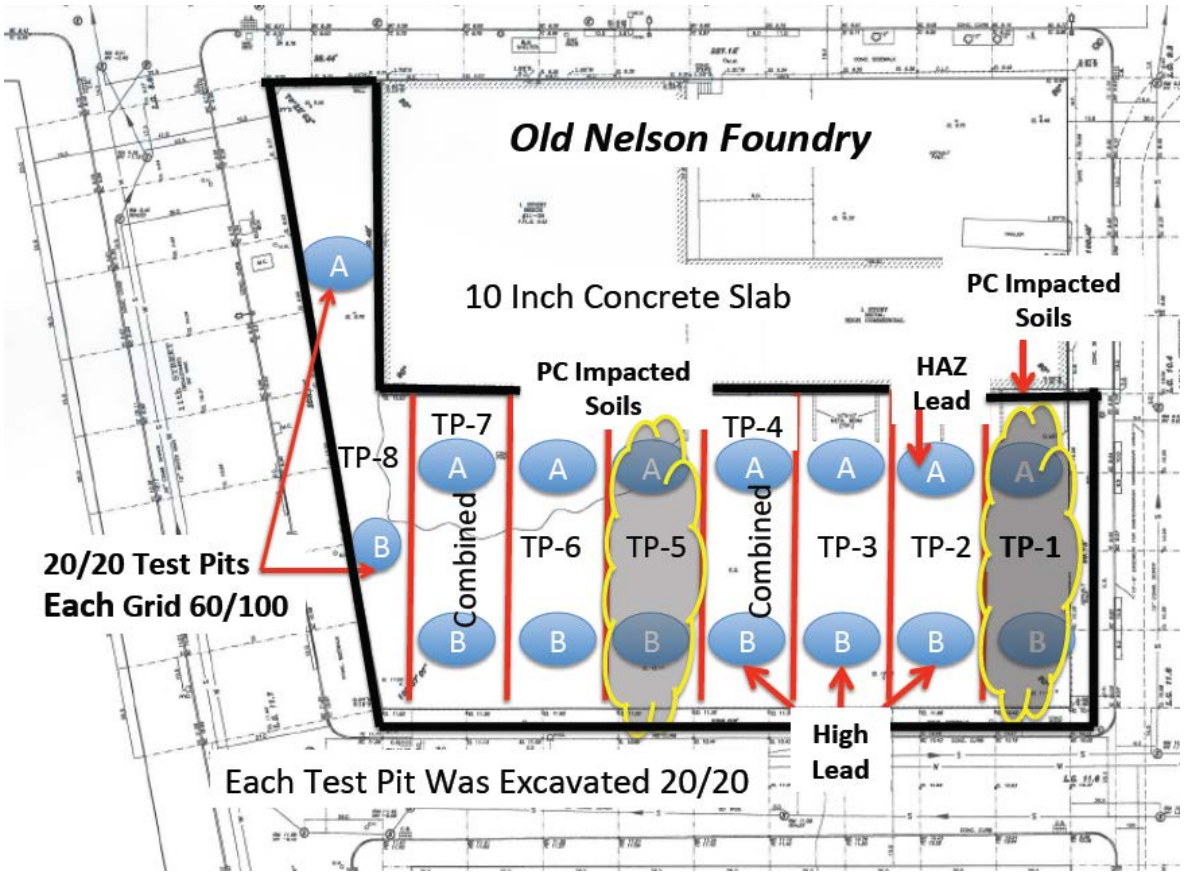


Figure 5; Grid #1

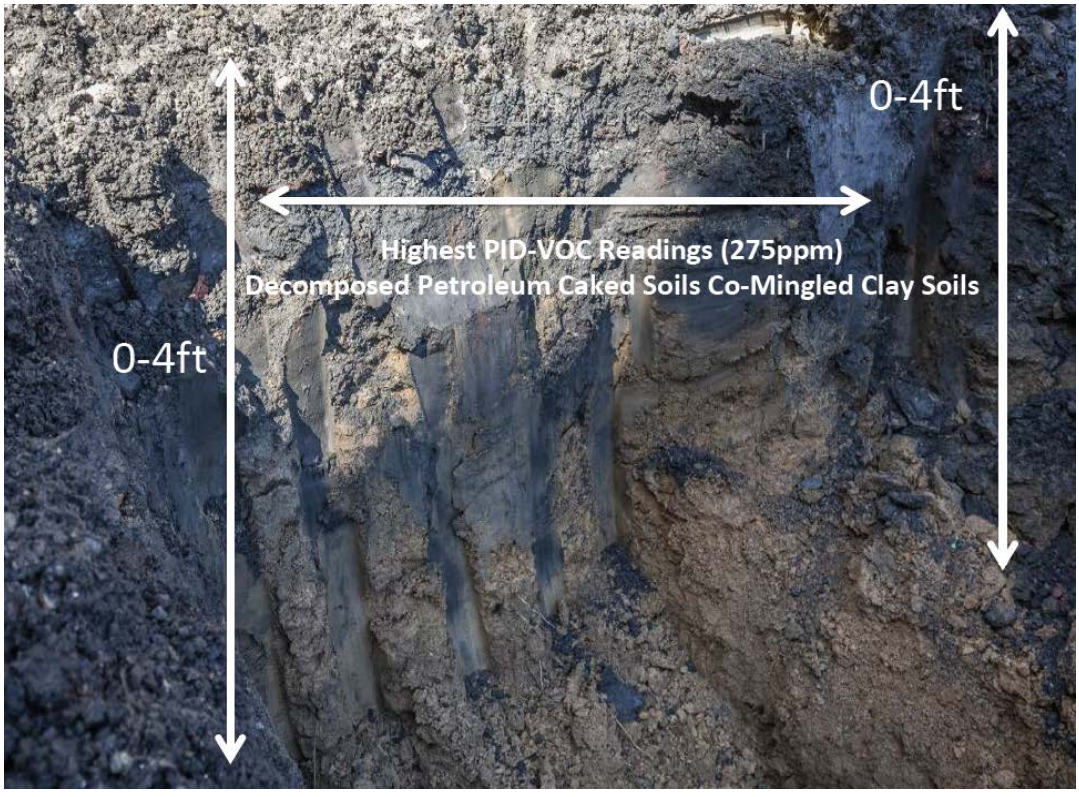


Figure 6; Grid #2

Figure 7; Grid #3

Figure 8; Grid 4-5

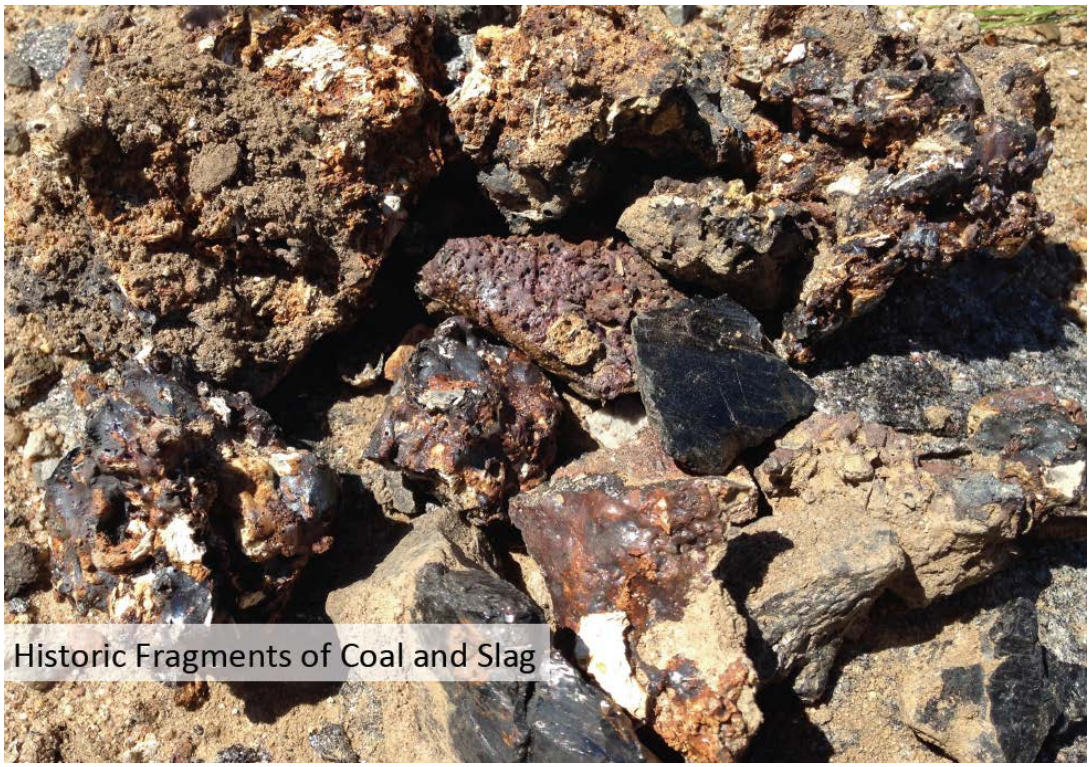


Figure 9; Consistent 2-6 Grids

Discussion of Hazardous Waste Presence and Economics

All of Grid #2 and high lead Grid #3 are of soils that are slated for either hazardous lead soil disposal or high lead soil disposal options. Further chemical testing delineation and step out grabs along Grids 2-3 will be needed to further isolate these high lead chemical signatures surrounding these grids. These high levels are above the EPA and NYSDEC regulatory limits that were found from these positive RCRA TCLP hazardous lead results **(Appendix; 1a-b).** NYS Tax cost for hazardous lead generators can cost $156/ton in taxes alone, not including transportation and disposal costs. During the clean up phase we can conduct the next round of sampling that will determine hazardous vs non-hazardous soil delineation between the Grids surrounding Grid #2 for the purposes of disposing a limited about hazardous soils compared to contaminated non-hazardous soils under RCRA. Careful step out grab samples around the hazardous lead soil location will lesson the economic burden for ownership. This can be compared to targeting and isolating a cancerous tumor by using target chemical testing applications for TCLP lead only. Once non hazardous soils are identified surrounding the step out lead results from the original hazardous lead sample ID ; the site Qualified Environmental Consultant can quantify the amount of hazardous lead soils that are needed to be removed.

Slag and Coal: In accordance with the NYSDEC, historic fill materials containing slag and coal are not formally classified, however, such material may be classified as industrial waste in NY, ID-27 dry industrial waste in NJ, or Regulated Fill in PA. Therefore, these materials characterized by this sampling event may be managed as non-hazardous solid waste in accordance with applicable regulations. It is important to note that coal, slag and ash cannot be taken to any NYSDEC Part 360 Facility in Region #1 and #2 as there are strict regulatory standards that these facilities must meet under the new Part 360 Rules. Regardless of the by-product produced, there are many toxic substances that are present in coal ash that can cause major health problems in humans, especially when disturbed during excavation. Some toxic constituents that are

found in coal ash are arsenic, selenium, cadmium, lead, copper, mercury and chromium. Given that this material has been encountered in a NYC Park and next to a school; it is pertinent that this material be taken to a regulated facility that accepts PC Impacted PC soils.

Excavation, Removal & Disposal

Upon completing the soil characterization and pollution fingerprinting, Restoration created a grid based upon the lab test results and separate the grids according to SCOs from NJDEP and PADEP criteria. Initial Lab reports were submitted to Bayshore Soil Management Program. Phoenix Analytical Labs followed the BSM test lab guide **Appendix (2).** Following the submittal review; ownership obtain an acceptance letter from an approved NJDEP Class B facility for all Grids, which can be issued by Bayshore Soil Management. In summery, all grids from a depth of 0-10ft show gross signs of classic historic fill 0-15ft depth across the site except for Grids #1-2 which indicates ground water at a much shallower depth.

Grids #3-4-5-6-7

Volatile Organic Compounds:

The laboratory analysis performed on twelve (3) soil samples, did not detect any target VOCs above the applicable 6NYCRR Part 375 RSCOs.

Polychlorinated Biphenyls (PCBs):

Total PCBs were also not detected in any samples above RSCOs.

Chlorinated Herbicides & Organochlorine Pesticides:

No chlorinated herbicides were detected in the twelve (12) soil samples at concentrations above their respective Part 375 UUSCOs.

Soil Vapor and Ground Water

Soil Vapor and Ground Water Results during 2019 conducted by Ted Yen PE, are consistent with this reports REC findings. Gross contamination of soils are exceeding levels of petroleum based VOCs that are found in soil vapor above the

regulatory limits in the exact grids that tested positive for EPH and SVOC-PAH results; **Appendix (A-B).**

Conclusion

This concludes this remedial soils characterization report that was imperative for all off site disposal grids that were tested. We will follow the RWAP during all construction practices and have a daily CAMP, QEP with a VOC meter on site during all earth moving activities. As per the creation of a RWAP, all excavated stockpiles will be covered from each grid if there are any delays in construction production. If there are no delays we plan to "live load" each selected grid and take to the appropriate DEC or OER-approved facilities. BMPs and soil migration off site will be controlled and monitored and controlled as per the RWAP. Daily reports will be submitted to the DEC or OER the following day after work activities. NO soils will be removed and taken to any facility without alerting the OER in advance. It is clear that all co-mingled soils and RUCARBS must be separated if the GC is interested in taking any identifiable brick and concrete off site to an NYSDEC Part 360 Registered Facility. It will be made clear that all RUCARBS co-mingled with any soils are not to be taken off site as they may have residual contaminated soils associated with the RUCARB.

It is important to note that all soils at these location Grids# 1-2-3-4-5-6-7-8 cannot be transported to a NYSDEC Part 360 Receiving Facility due to gross levels of contamination and high historic fill presence. Only PADEP approved Hazardous waste facilities, NJDEP Class B Treatment Facilities and PADEP Regulated Facilities. Soils from Grid 7 and 8 can be hauled and disposed of into a PADEP Residential Use Facility depending upon acceptance criterion at the time of submittal. Historic fill is rejected at most NYC Part 360 Facilities, and a site such as this one, may have a difficult time disposing of said physical characteristics commonly found in historic fill.

Figure 10; Grid #6 Historic Fill

CERTIFICATION

I, Dr. James M. Cervino, am a Qualified Environmental Professional as defined in §43-140. I have primary direct responsibility for implementation of this remedial characterization Phase 2 report.

Dr.James M. Cervino April 21th 2019.

QEP Name

QEP Signature

CERTIFIED MARINE & ENVIRONMENTAL PROFESSIONAL
Dr. James M. Cervino MS, PhD
OSHA - HAZMAT certified | NYS DEC SWPPP certified

PHOENIX
Environmental Laboratories, Inc.

Wednesday, December 19, 2018

Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Project ID: 11-03 33RD AVE
Sample ID#s: CC11477 - CC11500, CC12941 - CC12942

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

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

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

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

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

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

NY # 11301

SDG Comments

December 19, 2018

SDG I.D.: GCC11477

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

CC11489 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

CC11497 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

CC11500 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

CC12942 - Client provided soil jar for volatile analysis. Phoenix prepared sample per method 5035.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11477

Project ID: 11-03 33RD AVE
Client ID: 1 A VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	85		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1000	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,1-Dichloroethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,1-Dichloroethene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	240	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromoethane	ND	120	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND	900	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloropropane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
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1,4-Dichlorobenzene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND	5900	ug/kg	50	12/11/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	5900	ug/kg	50	12/11/18	JLI	SW8260C
Acetone	ND	12000	ug/kg	50	12/11/18	JLI	SW8260C
Benzene	ND	120	ug/kg	50	12/11/18	JLI	SW8260C
Bromochloromethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Bromodichloromethane	ND	1000	ug/kg	50	12/11/18	JLI	SW8260C
Bromoform	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Bromomethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Carbon Disulfide	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Carbon tetrachloride	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Chlorobenzene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 1 A VOC

Phoenix I.D.: CC11477

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Chloroform	ND	600	ug/kg	50	12/11/18	JLI	SW8260C
Chloromethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Cyclohexane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Dibromochloromethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Dichlorodifluoromethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Ethylbenzene	ND	1000	ug/kg	50	12/11/18	JLI	SW8260C
Isopropylbenzene	1200	1200	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Methyl ethyl ketone	ND	7100	ug/kg	50	12/11/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	930	ug/kg	50	12/11/18	JLI	SW8260C
Methylacetate	ND	950	ug/kg	50	12/11/18	JLI	SW8260C
Methylcyclohexane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Methylene chloride	ND	5900	ug/kg	50	12/11/18	JLI	SW8260C
o-Xylene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Styrene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Tetrachloroethene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Toluene	ND	700	ug/kg	50	12/11/18	JLI	SW8260C
Total Xylenes	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Trichloroethene	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Trichlorofluoromethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	1200	ug/kg	50	12/11/18	JLI	SW8260C
Vinyl chloride	ND	210	ug/kg	50	12/11/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	93		%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	98		%	50	12/11/18	JLI	70 - 130 %
% Toluene-d8	81		%	50	12/11/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4800	ug/Kg	50	12/11/18	JLI	SW8260C
Acrolein	ND	500	ug/Kg	50	12/11/18	JLI	SW8260C
Acrylonitrile	ND	900	ug/Kg	50	12/11/18	JLI	SW8260C
Tert-butyl alcohol	ND	24000	ug/Kg	50	12/11/18	JLI	SW8260C
Volatile Library Search	Completed				12/12/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Due to the presence of a large amount of non-target petroleum material, this sample required a dilution. Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11478

Project ID: 11-03 33RD AVE
Client ID: 1 A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	12.2	0.83	mg/Kg	1	12/12/18	EK	SW6010C
Barium	113	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	0.40	0.33	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	9.19	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	10.1	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	39.8	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Copper	91.4	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.04	0.03	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	251	4.1	mg/Kg	10	12/14/18	EK	SW6010C
Nickel	30.3	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Lead	474	41	mg/Kg	100	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.72	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	0.115	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	1.52	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	52.6	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	11900	83	mg/Kg	100	12/13/18	EK	SW6010C
Percent Solid	85		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 1 A

Phoenix I.D.: CC11478

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	7.08	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	184		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	0.98	0.59	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
C9-C28	1600	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
Total EPH	1600	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	58		%	5	12/14/18	JRB	40 - 140 %	
% Terphenyl (surr)	71		%	5	12/14/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-D	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-DB	ND	1900	ug/Kg	10	12/12/18	CW	SW8151A	
Dalapon	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dicamba	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dichloroprop	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
Dinoseb	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	55		%	10	12/12/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	108		%	5	12/13/18	AW	30 - 150 %	
% TCMX	77		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	
4,4' -DDE	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	12	2.3	ug/Kg	2	12/13/18	CW	SW8081B	
a-BHC	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
a-Chlordane	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Aldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
b-BHC	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Chlordane	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
d-BHC	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Dieldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan I	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan II	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan sulfate	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin aldehyde	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin ketone	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
g-BHC	ND	1.5	ug/Kg	2	12/13/18	CW	SW8081B	
g-Chlordane	ND	5.0	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor epoxide	ND	7.7	ug/Kg	2	12/13/18	CW	SW8081B	
Methoxychlor	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
Toxaphene	ND	150	ug/Kg	2	12/13/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	79		%	2	12/13/18	CW	30 - 150 %	
% TCMX	77		%	2	12/13/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	620	270	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	3400	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 1 A

Phoenix I.D.: CC11478

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	760	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	290	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	1200	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	1900	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	3400	270	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	2400	270	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	490	270	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	91		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	79		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	95		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	81		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 1 A

Phoenix I.D.: CC11478

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	73		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

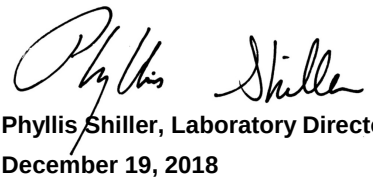
Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11479

Project ID: 11-03 33RD AVE
Client ID: 2 A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	25.7	0.81	mg/Kg	1	12/12/18	EK	SW6010C
Barium	110	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.32	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	101	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	5.99	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	58.0	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Copper	153	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.16	0.07	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	250	4.0	mg/Kg	10	12/13/18	EK	SW6010C
Nickel	30.4	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	6610	400	mg/Kg	1000	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.33	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	0.784	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	8.21	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	18.9	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	201000	8100	mg/Kg	10000	12/14/18	EK	SW6010C
Percent Solid	85		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.46	0.46	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	7.78	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	164		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	580	mg/kg	10	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	580	mg/kg	10	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	580	mg/kg	10	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	50		%	10	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	74		%	10	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-D	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-DB	ND	1900	ug/Kg	10	12/12/18	CW	SW8151A	
Dalapon	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dicamba	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dichloroprop	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
Dinoseb	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	39		%	10	12/12/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	90		%	5	12/13/18	AW	30 - 150 %	
% TCMX	78		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	2.9	2.3	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	5.0	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 2 A

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	4.7	2.3	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	3.8	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	3.8	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	38	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	3.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.5	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	3.8	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	7.7	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	38	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	150	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	68		%	2	12/12/18	CW	30 - 150 %	
% TCMX	60		%	2	12/12/18	CW	30 - 150 %	
Semivolatiles								
1,1-Biphenyl	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	610	ug/Kg	1	12/12/18	WB	SW8270D	

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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	330	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	360	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	270	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	330	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	710	270	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	310	270	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	760	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	440	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	310	270	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	410	270	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	72		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	71		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 2 A

Phoenix I.D.: CC11479

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	62		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

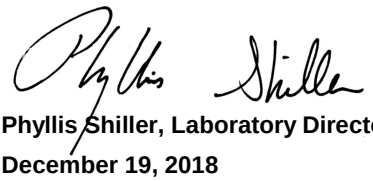
Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11480

Project ID: 11-03 33RD AVE
Client ID: 2 A VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	86			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,1,2-Trichloroethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,1-Dichloroethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,1-Dichloroethene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dibromoethane	ND		8.0	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichloroethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichloropropane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,3-Dichlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
1,4-Dichlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
2-Hexanone	ND		42	ug/kg	1	12/13/18	PS	SW8260C
4-Methyl-2-pentanone	ND		42	ug/kg	1	12/13/18	PS	SW8260C
Acetone	200	S	85	ug/kg	1	12/13/18	PS	SW8260C
Benzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Bromochloromethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Bromodichloromethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Bromoform	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Bromomethane	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Carbon Disulfide	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Carbon tetrachloride	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C
Chlorobenzene	ND		8.5	ug/kg	1	12/13/18	PS	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 2 A VOC

Phoenix I.D.: CC11480

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Chloroform	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Chloromethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
cis-1,2-Dichloroethene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
cis-1,3-Dichloropropene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Cyclohexane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Dibromochloromethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Dichlorodifluoromethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Ethylbenzene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Isopropylbenzene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
m&p-Xylene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Methyl ethyl ketone	ND	51	ug/kg	1	12/13/18	PS	SW8260C
Methyl t-butyl ether (MTBE)	ND	17	ug/kg	1	12/13/18	PS	SW8260C
Methylacetate	ND	6.8	ug/kg	1	12/13/18	PS	SW8260C
Methylcyclohexane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Methylene chloride	ND	42	ug/kg	1	12/13/18	PS	SW8260C
o-Xylene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Styrene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Tetrachloroethene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Toluene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Total Xylenes	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
trans-1,2-Dichloroethene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Trichloroethene	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Trichlorofluoromethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Trichlorotrifluoroethane	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
Vinyl chloride	ND	8.5	ug/kg	1	12/13/18	PS	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	1	12/13/18	PS	70 - 130 %
% Bromofluorobenzene	89		%	1	12/13/18	PS	70 - 130 %
% Dibromofluoromethane	101		%	1	12/13/18	PS	70 - 130 %
% Toluene-d8	93		%	1	12/13/18	PS	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	34	ug/Kg	1	12/13/18	PS	SW8260C
Acrolein	ND	8.5	ug/Kg	1	12/13/18	PS	SW8260C
Acrylonitrile	ND	34	ug/Kg	1	12/13/18	PS	SW8260C
Tert-butyl alcohol	ND	170	ug/Kg	1	12/13/18	PS	SW8260C
Volatile Library Search	Completed				12/14/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 2 A VOC

Phoenix I.D.: CC11480

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

Volatile Comment:
Sample exhibited matrix interference in the volatile analysis. Both Low-level vials were analyzed with one or more poor internal standard responses. The high level analysis did not exhibit this interference. Had any compounds been detected in the high level analysis, they would have been reported at that dilution. The low level analysis was reported, in order to meet the requested reporting criteria.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

S - Laboratory solvent, contamination is possible.

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11481

Project ID: 11-03 33RD AVE
Client ID: 2 B VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	82			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND		1000	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND		1100	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		1100	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromoethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND		1100	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND		1100	ug/kg	50	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND		1100	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND		28	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND		28	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	72	S	55	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND		5.5	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 2 B VOC

Phoenix I.D.: CC11481

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	1100	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	33	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	4.4	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	28	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	5.5	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	91		%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	93		%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	88		%	1	12/13/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	22	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	5.5	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	22	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	110	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed				12/13/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

S - Laboratory solvent, contamination is possible.

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11482

Project ID: 11-03 33RD AVE
Client ID: 2 B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	33.1	0.82	mg/Kg	1	12/12/18	EK	SW6010C
Barium	188	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.33	0.33	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	43.7	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	11.9	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	98.1	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Copper	188	8.2	mg/kg	10	12/13/18	EK	SW6010C
Mercury	0.18	0.07	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	597	4.1	mg/Kg	10	12/13/18	EK	SW6010C
Nickel	67.2	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Lead	3470	410	mg/Kg	1000	12/13/18	TH	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.21	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	0.466	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	1.34	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	31.1	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	139000	820	mg/Kg	1000	12/13/18	TH	SW6010C
Percent Solid	85		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.47	0.47	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 2 B

Phoenix I.D.: CC11482

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	7.72	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	159		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.59	0.59	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	290	mg/kg	5	12/18/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	290	mg/kg	5	12/18/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	290	mg/kg	5	12/18/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	40		%	5	12/18/18	JRB	40 - 140 %	
% Terphenyl (surr)	48		%	5	12/18/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-D	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
2,4-DB	ND	1900	ug/Kg	10	12/12/18	CW	SW8151A	
Dalapon	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dicamba	ND	97	ug/Kg	10	12/12/18	CW	SW8151A	
Dichloroprop	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
Dinoseb	ND	190	ug/Kg	10	12/12/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	33		%	10	12/12/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	220	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	190	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	93		%	5	12/13/18	AW	30 - 150 %	
% TCMX	78		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	
4,4' -DDE	ND	5.0	ug/Kg	2	12/13/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	3.0	ug/Kg	2	12/13/18	CW	SW8081B	
a-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
a-Chlordane	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Aldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
b-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Chlordane	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
d-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Dieldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan I	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan II	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan sulfate	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin aldehyde	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin ketone	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/13/18	CW	SW8081B	
g-Chlordane	ND	10	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor epoxide	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Methoxychlor	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/13/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	80		%	2	12/13/18	CW	30 - 150 %	
% TCMX	63		%	2	12/13/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	460	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 2 B

Phoenix I.D.: CC11482

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	390	270	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	770	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	77		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	66		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	62		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	68		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 2 B

Phoenix I.D.: CC11482

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	54		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

Pesticide Comment:
A dilution of the pesticide extract was necessary due to matrix interference caused by the presence of PCBs in the sample, the requested criteria could not be met for all pesticide compounds.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11483

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	4.32	0.76	mg/Kg	1	12/12/18	EK	SW6010C
Barium	81.1	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	0.40	0.31	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	0.78	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	7.18	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	24.8	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Copper	27.1	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.18	0.03	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	149	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Nickel	16.8	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Lead	88.3	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.5	1.5	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.27	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.4	3.4	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	24.2	0.38	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	1160	76	mg/Kg	100	12/13/18	EK	SW6010C
Percent Solid	83		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.45	0.45	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB

Phoenix I.D.: CC11483

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	10.4	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	31.7		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.60	0.60	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	119		%	1	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	116		%	1	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	52		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	115		%	5	12/13/18	AW	30 - 150 %	
% TCMX	83		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.4	ug/Kg	2	12/13/18	CW	SW8081B	
4,4' -DDE	ND	2.4	ug/Kg	2	12/13/18	CW	SW8081B	

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB

Phoenix I.D.: CC11483

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.4	ug/Kg	2	12/13/18	CW	SW8081B	
a-BHC	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
a-Chlordane	ND	4.0	ug/Kg	2	12/13/18	CW	SW8081B	
Aldrin	ND	4.0	ug/Kg	2	12/13/18	CW	SW8081B	
b-BHC	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Chlordane	ND	40	ug/Kg	2	12/13/18	CW	SW8081B	
d-BHC	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Dieldrin	ND	4.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan I	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan II	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan sulfate	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin aldehyde	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin ketone	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/13/18	CW	SW8081B	
g-Chlordane	ND	4.0	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor epoxide	ND	8.0	ug/Kg	2	12/13/18	CW	SW8081B	
Methoxychlor	ND	40	ug/Kg	2	12/13/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/13/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	85		%	2	12/13/18	CW	30 - 150 %	
% TCMX	76		%	2	12/13/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	480	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB

Phoenix I.D.: CC11483

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	800	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	66		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	50		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	48		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	41		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	51		%	1	12/12/18	WB	30 - 130 %

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB

Phoenix I.D.: CC11483

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	52		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11484

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromoethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
2-Hexanone	ND	36	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	ND	71	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB VOC

Phoenix I.D.: CC11484

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
m&p-Xylene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	43	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	5.7	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	36	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	7.1	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	12/13/18	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/13/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	94		%	1	12/13/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	29	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	7.1	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	29	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	140	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed				12/13/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 3 A UNDER SLAB VOC

Phoenix I.D.: CC11484

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

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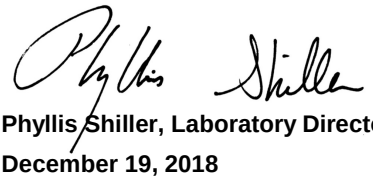

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11485

Project ID: 11-03 33RD AVE
Client ID: 3 B VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromoethane	ND		8.0	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND		980	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND		46	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND		46	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	200	S	92	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND		9.2	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 3 B VOC

Phoenix I.D.: CC11485

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	980	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	55	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	18	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	7.3	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	46	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	9.2	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	90		%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	91		%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	108		%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	88		%	1	12/13/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	37	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	9.2	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	37	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	180	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed				12/13/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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

S - Laboratory solvent, contamination is possible.

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
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Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11486

Project ID: 11-03 33RD AVE
Client ID: 3 B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	32.7	0.80	mg/Kg	1	12/12/18	EK	SW6010C
Barium	281	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.32	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	15.7	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	14.2	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	195	4.0	mg/Kg	10	12/13/18	EK	SW6010C
Copper	273	8.0	mg/kg	10	12/13/18	EK	SW6010C
Mercury	0.40	0.17	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	604	4.0	mg/Kg	10	12/13/18	EK	SW6010C
Nickel	85.7	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	2870	400	mg/Kg	1000	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	PS	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.30	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	0.262	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	0.32	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	41.2	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	51100	800	mg/Kg	1000	12/13/18	EK	SW6010C
Percent Solid	78		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.49	0.49	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 3 B

Phoenix I.D.: CC11486

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	7.28	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	107		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.19	0.64	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/18/18	MG/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	640	mg/kg	10	12/19/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	640	mg/kg	10	12/19/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	640	mg/kg	10	12/19/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	61		%	10	12/19/18	JRB	40 - 140 %	
% Terphenyl (surr)	38		%	10	12/19/18	JRB	40 - 140 %	3
Chlorinated Herbicides								
2,4,5-T	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2100	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	31		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1221	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1232	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1242	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1248	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1254	220	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1260	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1262	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1268	ND	85	ug/Kg	2	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	76		%	2	12/13/18	AW	30 - 150 %	
% TCMX	62		%	2	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.5	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	10	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.5	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	42	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.7	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	8.5	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	42	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	170	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	59		%	2	12/12/18	CW	30 - 150 %	
% TCMX	53		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	670	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	670	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	500	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	670	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	670	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 3 B

Phoenix I.D.: CC11486

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	340	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	630	290	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	420	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	210	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	370	290	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	840	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	310	290	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	420	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	420	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	ND	290	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	71		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	54		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	66		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	68		%	1	12/12/18	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	60		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Pesticide Comment:
A dilution of the pesticide extract was necessary due to matrix interference caused by the presence of PCBs in the sample, the requested criteria could not be met for all pesticide compounds.

Hexavalent Chromium:
This sample is in a reducing state.

EPH Comment:
Elevated reporting level due to matrix interference.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11487

Project ID: 11-03 33RD AVE
Client ID: 4 A+B VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	81			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,1,2-Trichloroethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,1-Dichloroethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,1-Dichloroethene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dibromoethane	ND		8.0	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichloroethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,2-Dichloropropane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,3-Dichlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
1,4-Dichlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
2-Hexanone	ND		41	ug/kg	1	12/13/18	PS	SW8260C
4-Methyl-2-pentanone	ND		41	ug/kg	1	12/13/18	PS	SW8260C
Acetone	410	S	83	ug/kg	1	12/13/18	PS	SW8260C
Benzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Bromochloromethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Bromodichloromethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Bromoform	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Bromomethane	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Carbon Disulfide	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Carbon tetrachloride	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C
Chlorobenzene	ND		8.3	ug/kg	1	12/13/18	PS	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 4 A+B VOC

Phoenix I.D.: CC11487

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Chloroform	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Chloromethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
cis-1,2-Dichloroethene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
cis-1,3-Dichloropropene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Cyclohexane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Dibromochloromethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Dichlorodifluoromethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Ethylbenzene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Isopropylbenzene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
m&p-Xylene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Methyl ethyl ketone	ND	83	ug/kg	1	12/13/18	PS	SW8260C
Methyl t-butyl ether (MTBE)	ND	17	ug/kg	1	12/13/18	PS	SW8260C
Methylacetate	ND	6.6	ug/kg	1	12/13/18	PS	SW8260C
Methylcyclohexane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Methylene chloride	ND	41	ug/kg	1	12/13/18	PS	SW8260C
o-Xylene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Styrene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Tetrachloroethene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Toluene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Total Xylenes	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
trans-1,2-Dichloroethene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Trichloroethene	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Trichlorofluoromethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Trichlorotrifluoroethane	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
Vinyl chloride	ND	8.3	ug/kg	1	12/13/18	PS	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	12/13/18	PS	70 - 130 %
% Bromofluorobenzene	81		%	1	12/13/18	PS	70 - 130 %
% Dibromofluoromethane	121		%	1	12/13/18	PS	70 - 130 %
% Toluene-d8	80		%	1	12/13/18	PS	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	33	ug/Kg	1	12/13/18	PS	SW8260C
Acrolein	ND	8.3	ug/Kg	1	12/13/18	PS	SW8260C
Acrylonitrile	ND	33	ug/Kg	1	12/13/18	PS	SW8260C
Tert-butyl alcohol	ND	170	ug/Kg	1	12/13/18	PS	SW8260C
Volatile Library Search	Completed				12/14/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

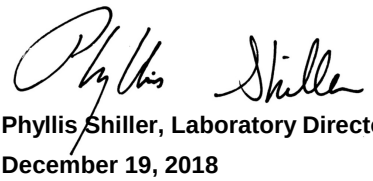
Volatile Comment:
Sample exhibited matrix interference in the volatile analysis. Both Low-level vials were analyzed with one or more poor internal standard responses. The high level analysis did not exhibit this interference. Had any compounds been detected in the high level analysis, they would have been reported at that dilution. The low level analysis was reported, in order to meet the requested reporting criteria.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

S - Laboratory solvent, contamination is possible.

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



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11488

Project ID: 11-03 33RD AVE
Client ID: 4 A+B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	32.3	0.85	mg/Kg	1	12/12/18	EK	SW6010C
Barium	173	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	0.34	0.34	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	11.8	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	11.2	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	101	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Copper	173	8.5	mg/kg	10	12/13/18	EK	SW6010C
Mercury	0.39	0.16	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	435	4.2	mg/Kg	10	12/13/18	EK	SW6010C
Nickel	54.9	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Lead	1110	420	mg/Kg	1000	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Barium	0.17	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Cadmium	0.243	0.050	mg/L	1	12/12/18	TH	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	1.78	0.10	mg/L	1	12/12/18	TH	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C
Thallium	< 3.8	3.8	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	27.9	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	35600	850	mg/Kg	1000	12/13/18	EK	SW6010C
Percent Solid	81		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.49	0.49	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 4 A+B

Phoenix I.D.: CC11488

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	6.79	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	136		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	2.24	0.56	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	730	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	6700	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	7430	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	5	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	Diluted Out		%	5	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	40		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1221	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1232	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1242	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1248	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1254	100	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1260	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1262	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1268	ND	82	ug/Kg	2	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	73		%	2	12/13/18	AW	30 - 150 %	
% TCMX	57		%	2	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	24	ug/Kg	20	12/13/18	PS	SW8081B	
4,4' -DDE	ND	24	ug/Kg	20	12/13/18	PS	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	61	24	ug/Kg	20	12/13/18	PS	SW8081B	
a-BHC	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
a-Chlordane	ND	41	ug/Kg	20	12/13/18	PS	SW8081B	
Aldrin	ND	16	ug/Kg	20	12/13/18	PS	SW8081B	
b-BHC	ND	16	ug/Kg	20	12/13/18	PS	SW8081B	
Chlordane	ND	200	ug/Kg	20	12/13/18	PS	SW8081B	
d-BHC	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Dieldrin	ND	16	ug/Kg	20	12/13/18	PS	SW8081B	
Endosulfan I	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Endosulfan II	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Endosulfan sulfate	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Endrin	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Endrin aldehyde	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Endrin ketone	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
g-BHC	ND	16	ug/Kg	20	12/13/18	PS	SW8081B	
g-Chlordane	ND	41	ug/Kg	20	12/13/18	PS	SW8081B	
Heptachlor	ND	82	ug/Kg	20	12/13/18	PS	SW8081B	
Heptachlor epoxide	ND	41	ug/Kg	20	12/13/18	PS	SW8081B	
Methoxychlor	ND	410	ug/Kg	20	12/13/18	PS	SW8081B	
Toxaphene	ND	490	ug/Kg	20	12/13/18	PS	SW8081B	
QA/QC Surrogates								
% DCBP	50		%	20	12/13/18	PS	30 - 150 %	
% TCMX	46		%	20	12/13/18	PS	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	490	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 4 A+B

Phoenix I.D.: CC11488

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	13000	2800	ug/Kg	10	12/12/18	WB	SW8270D
Caprolactam	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	810	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	460	280	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	82		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	58		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	67		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	71		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 4 A+B

Phoenix I.D.: CC11488

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	54		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

Pesticide Comment:
Some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11489

Project ID: 11-03 33RD AVE
Client ID: 5 A CENTER OIL VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	79		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	L 80	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromoethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	L 380	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND	L 31	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	L 31	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	ND	L 63	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND	L 6.3	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 5 A CENTER OIL VOC

Phoenix I.D.: CC11489

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	L	380	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	6.5	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	L	38	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	L	13	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	L	5.0	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	L	31	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	6.5		6.3	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	L	6.3	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	91			%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	89			%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	105			%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	86			%	1	12/13/18	JLI	70 - 130 %
Volatiles								
1,1,1,2-Tetrachloroethane	ND	L	25	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	L	6.3	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	L	25	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	L	130	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed					12/14/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

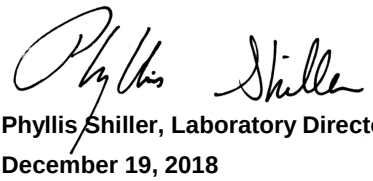
This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

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

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11490

Project ID: 11-03 33RD AVE
Client ID: 5 A CENTER OIL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	10.0	0.80	mg/Kg	1	12/12/18	EK	SW6010C
Barium	65.2	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	0.36	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	29.1	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	5.64	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	154	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Copper	199	8.0	mg/kg	10	12/13/18	EK	SW6010C
Mercury	0.17	0.15	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	140	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Nickel	18.1	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	139	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	PS	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.24	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	0.466	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	0.13	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	67.5	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	994	8.0	mg/Kg	10	12/13/18	EK	SW6010C
Percent Solid	84		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 5 A CENTER OIL

Phoenix I.D.: CC11490

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	5.96	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	147		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	2.18	0.60	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
C9-C28	2300	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
Total EPH	2300	290	mg/kg	5	12/14/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	46		%	5	12/14/18	JRB	40 - 140 %	
% Terphenyl (surr)	71		%	5	12/14/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	99	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	99	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	99	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	99	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	38		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	99		%	5	12/13/18	AW	30 - 150 %	
% TCMX	68		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	3.0	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.4	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	3.9	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	3.9	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	39	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	3.9	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	3.9	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	7.8	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	39	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	68		%	2	12/12/18	CW	30 - 150 %	
% TCMX	39		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	630	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	700	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	630	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	470	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	630	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	630	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 5 A CENTER OIL

Phoenix I.D.: CC11490

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	560	270	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	500	270	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	590	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	430	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	310	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	320	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	660	270	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	780	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	1000	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	480	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	1200	270	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	2000	270	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	1400	270	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	78		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	61		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	63		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	59		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	69		%	1	12/12/18	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	68		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

Hexavalent Chromium:
This sample is in a reducing state.

Herbicide Comment:
Sample was evaluated against an external standard.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11491

Project ID: 11-03 33RD AVE
Client ID: 5 B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	3.99	0.82	mg/Kg	1	12/12/18	EK	SW6010C
Barium	108	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.33	0.33	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	1.37	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	4.74	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	21.0	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Copper	26.9	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.32	0.16	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	113	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Nickel	9.09	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Lead	157	41	mg/Kg	100	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.19	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	0.16	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.7	3.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	19.8	0.41	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	1730	82	mg/Kg	100	12/13/18	EK	SW6010C
Percent Solid	82		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.46	0.46	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 5 B

Phoenix I.D.: CC11491

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	6.12	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	188		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	1.30	0.61	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	150	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	2500	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	2650	60	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Interference		%	1	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	Interference		%	1	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	48		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1221	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1232	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1242	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1248	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1254	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1260	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1262	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1268	ND	80	ug/Kg	2	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	71		%	2	12/13/18	AW	30 - 150 %	
% TCMX	63		%	2	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.4	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	7.0	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	3.0	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	40	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	8.0	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	40	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	48		%	2	12/12/18	CW	30 - 150 %	
% TCMX	39		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	480	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	640	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 5 B

Phoenix I.D.: CC11491

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	480	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	350	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	290	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	520	280	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	800	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	1100	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	1500	280	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	1200	280	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	74		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	61		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	65		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	61		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	68		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 5 B

Phoenix I.D.: CC11491

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	72		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

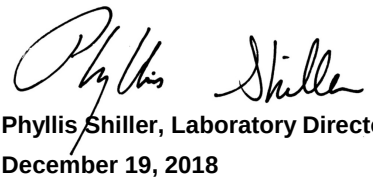
Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11492

Project ID: 11-03 33RD AVE
Client ID: 5 B VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,1,2,2-Tetrachloroethane	ND	1000	ug/kg	50	12/11/18	PS	SW8260C
1,1,2-Trichloroethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,1-Dichloroethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,1-Dichloroethene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,2,3-Trichlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,2,4-Trichlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,2-Dibromo-3-chloropropane	ND	240	ug/kg	50	12/11/18	PS	SW8260C
1,2-Dibromoethane	ND	120	ug/kg	50	12/11/18	PS	SW8260C
1,2-Dichlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,2-Dichloroethane	ND	900	ug/kg	50	12/11/18	PS	SW8260C
1,2-Dichloropropane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,3-Dichlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
1,4-Dichlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
2-Hexanone	ND	6100	ug/kg	50	12/11/18	PS	SW8260C
4-Methyl-2-pentanone	ND	6100	ug/kg	50	12/11/18	PS	SW8260C
Acetone	ND	12000	ug/kg	50	12/11/18	PS	SW8260C
Benzene	ND	59	ug/kg	50	12/11/18	PS	SW8260C
Bromochloromethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Bromodichloromethane	ND	1000	ug/kg	50	12/11/18	PS	SW8260C
Bromoform	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Bromomethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Carbon Disulfide	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Carbon tetrachloride	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Chlorobenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 5 B VOC

Phoenix I.D.: CC11492

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Chloroform	ND	600	ug/kg	50	12/11/18	PS	SW8260C
Chloromethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
cis-1,2-Dichloroethene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
cis-1,3-Dichloropropene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Cyclohexane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Dibromochloromethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Dichlorodifluoromethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Ethylbenzene	ND	1000	ug/kg	50	12/11/18	PS	SW8260C
Isopropylbenzene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
m&p-Xylene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Methyl ethyl ketone	ND	7300	ug/kg	50	12/11/18	PS	SW8260C
Methyl t-butyl ether (MTBE)	ND	930	ug/kg	50	12/11/18	PS	SW8260C
Methylacetate	ND	980	ug/kg	50	12/11/18	PS	SW8260C
Methylcyclohexane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Methylene chloride	ND	6100	ug/kg	50	12/11/18	PS	SW8260C
o-Xylene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Styrene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Tetrachloroethene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Toluene	ND	700	ug/kg	50	12/11/18	PS	SW8260C
Total Xylenes	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
trans-1,2-Dichloroethene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
trans-1,3-Dichloropropene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Trichloroethene	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Trichlorofluoromethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Trichlorotrifluoroethane	ND	1200	ug/kg	50	12/11/18	PS	SW8260C
Vinyl chloride	ND	210	ug/kg	50	12/11/18	PS	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	91		%	50	12/11/18	PS	70 - 130 %
% Bromofluorobenzene	90		%	50	12/11/18	PS	70 - 130 %
% Dibromofluoromethane	97		%	50	12/11/18	PS	70 - 130 %
% Toluene-d8	84		%	50	12/11/18	PS	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4900	ug/Kg	50	12/11/18	PS	SW8260C
Acrolein	ND	500	ug/Kg	50	12/11/18	PS	SW8260C
Acrylonitrile	ND	900	ug/Kg	50	12/11/18	PS	SW8260C
Tert-butyl alcohol	ND	24000	ug/Kg	50	12/11/18	PS	SW8260C
Volatile Library Search	Completed				12/14/18	JLI	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Poor IS recoveries were observed for low level volatiles due to dirt in the threads of the vial preventing the sample from purging. Both low level vials had this problem, results are reported from the methanol high level.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11493

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	2.59	0.85	mg/Kg	1	12/12/18	EK	SW6010C
Barium	37.2	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.34	0.34	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	< 0.42	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	4.44	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	47.2	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Copper	26.3	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	< 0.07	0.07	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	75.6	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Nickel	10.4	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Lead	24.8	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.61	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.8	3.8	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	24.6	0.42	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	102	0.8	mg/Kg	1	12/13/18	EK	SW6010C
Percent Solid	82		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	1.68	0.45	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL

Phoenix I.D.: CC11493

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	6.58	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	19.1		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.61	0.61	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	3000	mg/kg	50	12/14/18	JRB	NJEPH 10-08 R3	1
C9-C28	6600	3000	mg/kg	50	12/14/18	JRB	NJEPH 10-08 R3	1
Total EPH	6600	3000	mg/kg	50	12/14/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	50	12/14/18	JRB	40 - 140 %	
% Terphenyl (surr)	Diluted Out		%	50	12/14/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	100	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	44		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1221	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1232	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1242	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1248	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1254	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1260	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1262	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
PCB-1268	ND	200	ug/Kg	5	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	100		%	5	12/13/18	AW	30 - 150 %	
% TCMX	69		%	5	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.4	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	10	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.4	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	40	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	10	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	4.0	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	7.9	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	40	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	35		%	2	12/12/18	CW	30 - 150 %	
% TCMX	30		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	490	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	650	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL

Phoenix I.D.: CC11493

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	300	280	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	410	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	810	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	410	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	410	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	570	280	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	280	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	420	280	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	83		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	61		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	72		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	76		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL

Phoenix I.D.: CC11493

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	64		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

Hexavalent Chromium:
This sample is in a reducing state.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11494

Project ID: 11-03 33RD AVE
Client ID: 6 B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	10.9	0.80	mg/Kg	1	12/12/18	EK	SW6010C
Barium	109	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	0.45	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	3.65	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	13.4	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	38.0	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Copper	103	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.14	0.13	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	492	40	mg/Kg	100	12/13/18	EK	SW6010C
Nickel	32.5	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	267	40	mg/Kg	100	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.93	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	0.075	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	1.32	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	66.9	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	7620	80	mg/Kg	100	12/13/18	EK	SW6010C
Percent Solid	89		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.42	0.42	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 6 B

Phoenix I.D.: CC11494

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	7.80	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	212		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.56	0.56	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	280	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	280	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	280	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	51		%	5	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	63		%	5	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	93	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	93	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	190	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	1900	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	93	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	93	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	190	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	190	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	45		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1221	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1232	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1242	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1248	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1254	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1260	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1262	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1268	ND	180	ug/Kg	5	12/12/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	63		%	5	12/12/18	AW	30 - 150 %	
% TCMX	63		%	5	12/12/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.2	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	2.2	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	5.0	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	3.7	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	3.7	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	37	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	3.7	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.5	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	3.7	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	7.3	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	37	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	150	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	64		%	2	12/12/18	CW	30 - 150 %	
% TCMX	47		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	590	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	590	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	440	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	590	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	590	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 6 B

Phoenix I.D.: CC11494

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	370	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	180	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	730	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	300	260	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	370	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	180	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	370	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	260	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	330	260	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	70		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	55		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	55		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	56		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	60		%	1	12/12/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 6 B

Phoenix I.D.: CC11494

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	52		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

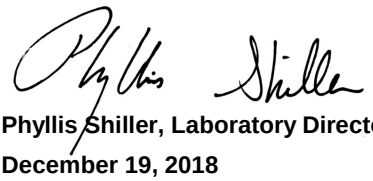
Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11495

Project ID: 11-03 33RD AVE
Client ID: 7 A+B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	3.71	0.80	mg/Kg	1	12/12/18	EK	SW6010C
Barium	75.0	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.32	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	< 0.40	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	5.31	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	53.3	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Copper	224	8.0	mg/kg	10	12/13/18	EK	SW6010C
Mercury	< 0.17	0.17	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	53.9	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Nickel	11.7	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	58.7	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.50	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	0.21	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	14.6	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	69.1	8.0	mg/Kg	10	12/13/18	EK	SW6010C
Percent Solid	78		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.51	0.51	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 7 A+B

Phoenix I.D.: CC11495

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	5.64	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	55.8		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	5.03	0.64	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/12/18	JJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	63	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	240	63	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	240	63	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	69		%	1	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	78		%	1	12/13/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2100	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	110	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	210	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	47		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1221	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1232	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1242	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1248	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1254	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1260	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1262	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
PCB-1268	ND	84	ug/Kg	2	12/13/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	77		%	2	12/13/18	AW	30 - 150 %	
% TCMX	72		%	2	12/13/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.5	ug/Kg	2	12/12/18	CW	SW8081B	
4,4' -DDE	ND	5.0	ug/Kg	2	12/12/18	CW	SW8081B	

Ver 1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.5	ug/Kg	2	12/12/18	CW	SW8081B	
a-BHC	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
a-Chlordane	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Aldrin	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
b-BHC	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Chlordane	ND	42	ug/Kg	2	12/12/18	CW	SW8081B	
d-BHC	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Dieldrin	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan I	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan II	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Endosulfan sulfate	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin aldehyde	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Endrin ketone	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
g-BHC	ND	1.7	ug/Kg	2	12/12/18	CW	SW8081B	
g-Chlordane	ND	4.2	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Heptachlor epoxide	ND	8.4	ug/Kg	2	12/12/18	CW	SW8081B	
Methoxychlor	ND	42	ug/Kg	2	12/12/18	CW	SW8081B	
Toxaphene	ND	170	ug/Kg	2	12/12/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	48		%	2	12/12/18	CW	30 - 150 %	
% TCMX	44		%	2	12/12/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dichlorophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dimethylphenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dinitrophenol	ND	680	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2-Chloronaphthalene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2-Chlorophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2-Methylnaphthalene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
2-Nitroaniline	ND	680	ug/Kg	1	12/13/18	WB	SW8270D	
2-Nitrophenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	430	ug/Kg	1	12/13/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	510	ug/Kg	1	12/13/18	WB	SW8270D	
3-Nitroaniline	ND	680	ug/Kg	1	12/13/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/13/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	430	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chloroaniline	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	300	ug/Kg	1	12/13/18	WB	SW8270D	
4-Nitroaniline	ND	680	ug/Kg	1	12/13/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
Client ID: 7 A+B

Phoenix I.D.: CC11495

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/13/18	WB	SW8270D
Acenaphthene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Acetophenone	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Anthracene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Atrazine	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzaldehyde	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Benzyl butyl phthalate	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Caprolactam	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Carbazole	ND	430	ug/Kg	1	12/13/18	WB	SW8270D
Chrysene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	210	ug/Kg	1	12/13/18	WB	SW8270D
Dibenzofuran	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Diethyl phthalate	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Dimethylphthalate	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Di-n-butylphthalate	ND	850	ug/Kg	1	12/13/18	WB	SW8270D
Di-n-octylphthalate	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Fluoranthene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Fluorene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorobenzene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorobutadiene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Hexachloroethane	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Isophorone	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Naphthalene	770	300	ug/Kg	1	12/13/18	WB	SW8270D
Nitrobenzene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodimethylamine	ND	430	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	430	ug/Kg	1	12/13/18	WB	SW8270D
Pentachlorophenol	ND	430	ug/Kg	1	12/13/18	WB	SW8270D
Phenanthrene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Phenol	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
Pyrene	ND	300	ug/Kg	1	12/13/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	81		%	1	12/13/18	WB	30 - 130 %
% 2-Fluorobiphenyl	60		%	1	12/13/18	WB	30 - 130 %
% 2-Fluorophenol	59		%	1	12/13/18	WB	30 - 130 %
% Nitrobenzene-d5	62		%	1	12/13/18	WB	30 - 130 %
% Phenol-d5	66		%	1	12/13/18	WB	30 - 130 %

Project ID: 11-03 33RD AVE
Client ID: 7 A+B

Phoenix I.D.: CC11495

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	55		%	1	12/13/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/13/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Semi-Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11496

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromoethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND		590	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND		21	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND		21	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	63	S	42	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND		4.2	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL VOC

Phoenix I.D.: CC11496

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	590	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	25	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	8.5	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	3.4	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	21	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	4.2	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	90		%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	90		%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	73		%	1	12/13/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	17	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	4.2	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	17	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	85	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed				12/13/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 6 A OIL VOC

Phoenix I.D.: CC11496

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

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

S - Laboratory solvent, contamination is possible.

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11497

Project ID: 11-03 33RD AVE
Client ID: 6 B VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,1-Dichloroethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,1-Dichloroethene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2-Dibromoethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,2-Dichloropropane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
2-Hexanone	ND	L 28	ug/kg	1	12/11/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	L 28	ug/kg	1	12/11/18	JLI	SW8260C
Acetone	ND	L 56	ug/kg	1	12/11/18	JLI	SW8260C
Benzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Bromochloromethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Bromodichloromethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Bromoform	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Bromomethane	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Carbon Disulfide	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Carbon tetrachloride	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C
Chlorobenzene	ND	L 5.6	ug/kg	1	12/11/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 6 B VOC

Phoenix I.D.: CC11497

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Chloroform	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Chloromethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Cyclohexane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Dibromochloromethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Dichlorodifluoromethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Ethylbenzene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Isopropylbenzene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
m&p-Xylene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Methyl ethyl ketone	ND	L	33	ug/kg	1	12/11/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	L	11	ug/kg	1	12/11/18	JLI	SW8260C
Methylacetate	ND	L	4.4	ug/kg	1	12/11/18	JLI	SW8260C
Methylcyclohexane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Methylene chloride	ND	L	28	ug/kg	1	12/11/18	JLI	SW8260C
o-Xylene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Styrene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Tetrachloroethene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Toluene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Total Xylenes	ND		5.6	ug/kg	1	12/11/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Trichloroethene	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Trichlorofluoromethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
Vinyl chloride	ND	L	5.6	ug/kg	1	12/11/18	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	91			%	1	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	85			%	1	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	99			%	1	12/11/18	JLI	70 - 130 %
% Toluene-d8	83			%	1	12/11/18	JLI	70 - 130 %
Volatiles								
1,1,1,2-Tetrachloroethane	ND	L	22	ug/Kg	1	12/11/18	JLI	SW8260C
Acrolein	ND	L	5.6	ug/Kg	1	12/11/18	JLI	SW8260C
Acrylonitrile	ND	L	22	ug/Kg	1	12/11/18	JLI	SW8260C
Tert-butyl alcohol	ND	L	110	ug/Kg	1	12/11/18	JLI	SW8260C
Volatile Library Search	Completed					12/12/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 6 B VOC

Phoenix I.D.: CC11497

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

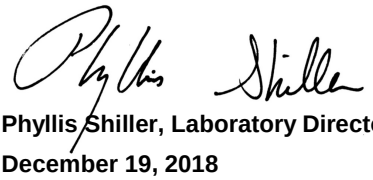
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

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

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



Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11498

Project ID: 11-03 33RD AVE
Client ID: 7 A+B VOC

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	79			%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,1,2-Trichloroethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,1-Dichloroethene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dibromoethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloroethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,2-Dichloropropane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,3-Dichlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
1,4-Dichlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
2-Hexanone	ND		34	ug/kg	1	12/13/18	JLI	SW8260C
4-Methyl-2-pentanone	ND		34	ug/kg	1	12/13/18	JLI	SW8260C
Acetone	100	S	67	ug/kg	1	12/13/18	JLI	SW8260C
Benzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Bromochloromethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Bromodichloromethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Bromoform	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Bromomethane	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Carbon Disulfide	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Carbon tetrachloride	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C
Chlorobenzene	ND		6.7	ug/kg	1	12/13/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 7 A+B VOC

Phoenix I.D.: CC11498

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Chloroform	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Chloromethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Cyclohexane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Dibromochloromethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Dichlorodifluoromethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Ethylbenzene	3.0	2.7	ug/kg	1	12/13/18	JLI	SW8260C
Isopropylbenzene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
m&p-Xylene	6.2	5.4	ug/kg	1	12/13/18	JLI	SW8260C
Methyl ethyl ketone	ND	40	ug/kg	1	12/13/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/kg	1	12/13/18	JLI	SW8260C
Methylacetate	ND	5.4	ug/kg	1	12/13/18	JLI	SW8260C
Methylcyclohexane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Methylene chloride	ND	34	ug/kg	1	12/13/18	JLI	SW8260C
o-Xylene	5.6	5.4	ug/kg	1	12/13/18	JLI	SW8260C
Styrene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Tetrachloroethene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Toluene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Total Xylenes	11.8	5.4	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Trichloroethene	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorofluoromethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
Vinyl chloride	ND	6.7	ug/kg	1	12/13/18	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	92		%	1	12/13/18	JLI	70 - 130 %
% Bromofluorobenzene	86		%	1	12/13/18	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	12/13/18	JLI	70 - 130 %
% Toluene-d8	81		%	1	12/13/18	JLI	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	27	ug/Kg	1	12/13/18	JLI	SW8260C
Acrolein	ND	6.7	ug/Kg	1	12/13/18	JLI	SW8260C
Acrylonitrile	ND	27	ug/Kg	1	12/13/18	JLI	SW8260C
Tert-butyl alcohol	ND	130	ug/Kg	1	12/13/18	JLI	SW8260C
Volatile Library Search	Completed				12/13/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 7 A+B VOC

Phoenix I.D.: CC11498

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

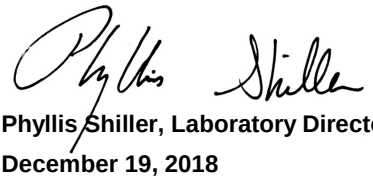
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

December 19, 2018

Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11499

Project ID: 11-03 33RD AVE
Client ID: 1 B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/12/18	EK	SW6010C
Arsenic	7.66	0.81	mg/Kg	1	12/12/18	EK	SW6010C
Barium	114	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Beryllium	< 0.32	0.32	mg/Kg	1	12/12/18	EK	SW6010C
Cadmium	5.55	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Cobalt	6.55	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Chromium	53.6	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Copper	72.9	0.8	mg/kg	1	12/12/18	EK	SW6010C
Mercury	0.17	0.15	mg/Kg	1	12/11/18	RS	SW7471B
Manganese	253	40	mg/Kg	100	12/13/18	EK	SW6010C
Nickel	21.5	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Lead	707	40	mg/Kg	100	12/13/18	EK	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/12/18	EK	SW6010C
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Barium	0.51	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Cadmium	0.130	0.050	mg/L	1	12/12/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A
TCLP Lead	1.12	0.10	mg/L	1	12/12/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	CPP	SW6010C
Thallium	< 3.6	3.6	mg/Kg	1	12/12/18	EK	SW6010C
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A
Vanadium	34.6	0.40	mg/Kg	1	12/12/18	EK	SW6010C
Zinc	6040	81	mg/Kg	100	12/13/18	EK	SW6010C
Percent Solid	85		%		12/10/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.47	0.47	mg/Kg	1	12/13/18	KMH	SW7196A

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 1 B

Phoenix I.D.: CC11499

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	6.88	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	53.2		mV	1	12/10/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.53	0.53	mg/Kg	1	12/12/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/11/18	MB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/11/18	MJ/CKV	SW3545A	
Mercury Digestion	Completed				12/11/18	EV/Q	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/11/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	59	mg/kg	1	12/18/18	JRB	NJEPH 10-08 R3	1
C9-C28	2700	59	mg/kg	1	12/18/18	JRB	NJEPH 10-08 R3	1
Total EPH	2700	59	mg/kg	1	12/18/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Interference		%	1	12/18/18	JRB	40 - 140 %	
% Terphenyl (surr)	114		%	1	12/18/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	98	ug/Kg	10	12/13/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	98	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/13/18	CW	SW8151A	
Dalapon	ND	98	ug/Kg	10	12/13/18	CW	SW8151A	
Dicamba	ND	98	ug/Kg	10	12/13/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/13/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	47		%	10	12/13/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1221	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1232	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1242	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1248	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1254	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1260	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1262	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
PCB-1268	ND	190	ug/Kg	5	12/12/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	109		%	5	12/12/18	AW	30 - 150 %	
% TCMX	69		%	5	12/12/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	
4,4' -DDE	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.3	ug/Kg	2	12/13/18	CW	SW8081B	
a-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
a-Chlordane	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Aldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
b-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Chlordane	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
d-BHC	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Dieldrin	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan I	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan II	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endosulfan sulfate	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin aldehyde	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Endrin ketone	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/13/18	CW	SW8081B	
g-Chlordane	ND	3.9	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Heptachlor epoxide	ND	7.8	ug/Kg	2	12/13/18	CW	SW8081B	
Methoxychlor	ND	39	ug/Kg	2	12/13/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/13/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	68		%	2	12/13/18	CW	30 - 150 %	
% TCMX	53		%	2	12/13/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	1500	270	ug/Kg	1	12/12/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dichlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dimethylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrophenol	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chloronaphthalene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Chlorophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylnaphthalene	6700	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
2-Nitrophenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	470	ug/Kg	1	12/12/18	WB	SW8270D	
3-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chloroaniline	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D	
4-Nitroaniline	ND	620	ug/Kg	1	12/12/18	WB	SW8270D	

Project ID: 11-03 33RD AVE
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1100	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthene	980	270	ug/Kg	1	12/12/18	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Anthracene	460	270	ug/Kg	1	12/12/18	WB	SW8270D
Atrazine	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benz(a)anthracene	290	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzaldehyde	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(b)fluoranthene	290	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	700	270	ug/Kg	1	12/12/18	WB	SW8270D
Caprolactam	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Carbazole	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Chrysene	370	270	ug/Kg	1	12/12/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
Dibenzofuran	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-butylphthalate	ND	780	ug/Kg	1	12/12/18	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluoranthene	740	270	ug/Kg	1	12/12/18	WB	SW8270D
Fluorene	2300	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorobutadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Naphthalene	3000	270	ug/Kg	1	12/12/18	WB	SW8270D
Nitrobenzene	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodimethylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	190	ug/Kg	1	12/12/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Pentachlorophenol	ND	390	ug/Kg	1	12/12/18	WB	SW8270D
Phenanthrene	5200	270	ug/Kg	1	12/12/18	WB	SW8270D
Phenol	ND	270	ug/Kg	1	12/12/18	WB	SW8270D
Pyrene	1100	270	ug/Kg	1	12/12/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	96		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorobiphenyl	53		%	1	12/12/18	WB	30 - 130 %
% 2-Fluorophenol	72		%	1	12/12/18	WB	30 - 130 %
% Nitrobenzene-d5	87		%	1	12/12/18	WB	30 - 130 %
% Phenol-d5	75		%	1	12/12/18	WB	30 - 130 %

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Phoenix I.D.: CC11499

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	62		%	1	12/12/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/12/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

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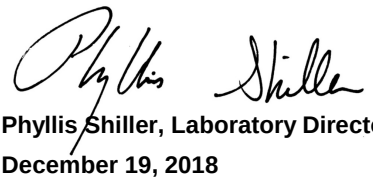

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	8:00
Location Code:	RCAGROUP	Received by:	B	12/10/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC11500

Project ID: 11-03 33RD AVE
Client ID: 1 B VOC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		12/10/18	AK	SW846-%Solid
Volatiles (TCL)							
1,1,1-Trichloroethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,1-Dichloroethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,1-Dichloroethene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	L 80	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dibromoethane	ND	L 32	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloroethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,2-Dichloropropane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
2-Hexanone	ND	L 1600	ug/kg	50	12/11/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	L 1600	ug/kg	50	12/11/18	JLI	SW8260C
Acetone	ND	L 3200	ug/kg	50	12/11/18	JLI	SW8260C
Benzene	ND	L 60	ug/kg	50	12/11/18	JLI	SW8260C
Bromochloromethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Bromodichloromethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Bromoform	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Bromomethane	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Carbon Disulfide	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Carbon tetrachloride	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C
Chlorobenzene	ND	L 320	ug/kg	50	12/11/18	JLI	SW8260C

Project ID: 11-03 33RD AVE
Client ID: 1 B VOC

Phoenix I.D.: CC11500

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Chloroform	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Chloromethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Cyclohexane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Dibromochloromethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Dichlorodifluoromethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Ethylbenzene	170	L	130	ug/kg	50	12/11/18	JLI	SW8260C
Isopropylbenzene	440	L	320	ug/kg	50	12/11/18	JLI	SW8260C
m&p-Xylene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Methyl ethyl ketone	ND	L	1900	ug/kg	50	12/11/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	L	640	ug/kg	50	12/11/18	JLI	SW8260C
Methylacetate	ND	L	260	ug/kg	50	12/11/18	JLI	SW8260C
Methylcyclohexane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Methylene chloride	ND	L	1600	ug/kg	50	12/11/18	JLI	SW8260C
o-Xylene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Styrene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Tetrachloroethene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Toluene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Total Xylenes	ND		320	ug/kg	50	12/11/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Trichloroethene	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Trichlorofluoromethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	L	320	ug/kg	50	12/11/18	JLI	SW8260C
Vinyl chloride	ND	L	210	ug/kg	50	12/11/18	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	90			%	50	12/11/18	JLI	70 - 130 %
% Bromofluorobenzene	105			%	50	12/11/18	JLI	70 - 130 %
% Dibromofluoromethane	96			%	50	12/11/18	JLI	70 - 130 %
% Toluene-d8	79			%	50	12/11/18	JLI	70 - 130 %
Volatiles								
1,1,1,2-Tetrachloroethane	ND	L	1300	ug/Kg	50	12/11/18	JLI	SW8260C
Acrolein	ND	L	320	ug/Kg	50	12/11/18	JLI	SW8260C
Acrylonitrile	ND	L	900	ug/Kg	50	12/11/18	JLI	SW8260C
Tert-butyl alcohol	ND	L	6400	ug/Kg	50	12/11/18	JLI	SW8260C
Volatile Library Search	Completed					12/12/18	JLI	

Project ID: 11-03 33RD AVE
Client ID: 1 B VOC

Phoenix I.D.: CC11500

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

Volatile Comment:
Due to the presence of a large amount of non-target petroleum material, this sample required a dilution. Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	
Location Code:	RCAGROUP	Received by:	SW	12/12/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC12941

Project ID: OLD NELSON FOUNDRY
Client ID: 8A COMP

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	1	12/13/18	CPP	SW6010C
Arsenic	12.4	0.84	mg/Kg	1	12/13/18	CPP	SW6010C
Barium	116	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Beryllium	0.47	0.33	mg/Kg	1	12/13/18	CPP	SW6010C
Cadmium	1.54	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Cobalt	10.2	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Chromium	20.9	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Copper	72.9	0.8	mg/kg	1	12/13/18	CPP	SW6010C
Mercury	0.29	0.06	mg/Kg	1	12/13/18	RS	SW7471B
Manganese	574	4.2	mg/Kg	10	12/14/18	EK	SW6010C
Nickel	21.3	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Lead	164	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Antimony	< 7.0	7.0	mg/Kg	1	12/13/18	CPP	SW6010C
Selenium	< 1.7	1.7	mg/Kg	1	12/13/18	CPP	SW6010C
TCLP Silver	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C
TCLP Barium	0.92	0.10	mg/L	1	12/13/18	CPP	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/13/18	CPP	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/13/18	rs	SW7470A
TCLP Lead	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C
Thallium	< 3.8	3.8	mg/Kg	1	12/13/18	CPP	SW6010C
TCLP Metals Digestion	Completed				12/13/18	EV/EV	SW3010A
Vanadium	28.6	0.42	mg/Kg	1	12/13/18	CPP	SW6010C
Zinc	406	8.4	mg/Kg	10	12/14/18	EK	SW6010C
Percent Solid	83		%		12/12/18	AK	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.47	0.47	mg/Kg	1	12/14/18	KMH	SW7196A

Ver 1

Project ID: OLD NELSON FOUNDRY
Client ID: 8A COMP

Phoenix I.D.: CC12941

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
pH at 25C - Soil	8.32	1.00	pH Units	1	12/12/18 18:48	O	SW9045	1
Redox Potential	179		mV	1	12/12/18	O	SM2580B-09	1
Total Cyanide (SW9010C Distill.)	< 0.54	0.54	mg/Kg	1	12/13/18	O/GD	SW9012B	
Soil Extraction for PCB	Completed				12/12/18	BB/V	SW3545A	
Soil Extraction for Pesticides	Completed				12/12/18	BB/V	SW3545A	
Soil Extraction for SVOA	Completed				12/12/18	BB/CKV	SW3545A	
Mercury Digestion	Completed				12/13/18	Q/Q	SW7471B	
EPH Extraction	Completed				12/12/18	SB/CK	NJDEP 10-08 R3	
Soil Extraction for Herbicide	Completed				12/12/18	C/D	SW8151A	
TCLP Digestion Mercury	Completed				12/13/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/12/18	Q	SW1311	
Total Metals Digest	Completed				12/12/18	SAG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	60	mg/kg	1	12/14/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	60	mg/kg	1	12/14/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	60	mg/kg	1	12/14/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	65		%	1	12/14/18	JRB	40 - 140 %	
% Terphenyl (surr)	67		%	1	12/14/18	JRB	40 - 140 %	
Chlorinated Herbicides								
2,4,5-T	ND	99	ug/Kg	10	12/14/18	CW	SW8151A	
2,4,5-TP (Silvex)	ND	99	ug/Kg	10	12/14/18	CW	SW8151A	
2,4-D	ND	200	ug/Kg	10	12/14/18	CW	SW8151A	
2,4-DB	ND	2000	ug/Kg	10	12/14/18	CW	SW8151A	
Dalapon	ND	99	ug/Kg	10	12/14/18	CW	SW8151A	
Dicamba	ND	99	ug/Kg	10	12/14/18	CW	SW8151A	
Dichloroprop	ND	200	ug/Kg	10	12/14/18	CW	SW8151A	
Dinoseb	ND	200	ug/Kg	10	12/14/18	CW	SW8151A	
QA/QC Surrogates								
% DCAA	48		%	10	12/14/18	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1221	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1232	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1242	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1248	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1254	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1260	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1262	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
PCB-1268	ND	400	ug/Kg	10	12/14/18	AW	SW8082A	
QA/QC Surrogates								
% DCBP	95		%	10	12/14/18	AW	30 - 150 %	
% TCMX	89		%	10	12/14/18	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	2.4	ug/Kg	2	12/17/18	CW	SW8081B	
4,4' -DDE	ND	2.4	ug/Kg	2	12/17/18	CW	SW8081B	

Project ID: OLD NELSON FOUNDRY
Client ID: 8A COMP

Phoenix I.D.: CC12941

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4,4' -DDT	ND	2.4	ug/Kg	2	12/17/18	CW	SW8081B	
a-BHC	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
a-Chlordane	ND	4.0	ug/Kg	2	12/17/18	CW	SW8081B	
Aldrin	ND	4.0	ug/Kg	2	12/17/18	CW	SW8081B	
b-BHC	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Chlordane	ND	40	ug/Kg	2	12/17/18	CW	SW8081B	
d-BHC	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Dieldrin	ND	4.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endosulfan I	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endosulfan II	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endosulfan sulfate	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endrin	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endrin aldehyde	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Endrin ketone	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
g-BHC	ND	1.6	ug/Kg	2	12/17/18	CW	SW8081B	
g-Chlordane	ND	4.0	ug/Kg	2	12/17/18	CW	SW8081B	
Heptachlor	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Heptachlor epoxide	ND	8.0	ug/Kg	2	12/17/18	CW	SW8081B	
Methoxychlor	ND	40	ug/Kg	2	12/17/18	CW	SW8081B	
Toxaphene	ND	160	ug/Kg	2	12/17/18	CW	SW8081B	
QA/QC Surrogates								
% DCBP	91		%	2	12/17/18	CW	30 - 150 %	
% TCMX	58		%	2	12/17/18	CW	30 - 150 %	

Semivolatiles

1,1-Biphenyl	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,3,4,6-tetrachlorophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dichlorophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dimethylphenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dinitrophenol	ND	640	ug/Kg	1	12/13/18	WB	SW8270D	
2,4-Dinitrotoluene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2,6-Dinitrotoluene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2-Chloronaphthalene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2-Chlorophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2-Methylnaphthalene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
2-Nitroaniline	ND	640	ug/Kg	1	12/13/18	WB	SW8270D	
2-Nitrophenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	12/13/18	WB	SW8270D	1
3,3'-Dichlorobenzidine	ND	480	ug/Kg	1	12/13/18	WB	SW8270D	
3-Nitroaniline	ND	640	ug/Kg	1	12/13/18	WB	SW8270D	
4,6-Dinitro-2-methylphenol	ND	1200	ug/Kg	1	12/13/18	WB	SW8270D	
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chloroaniline	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	12/13/18	WB	SW8270D	
4-Nitroaniline	ND	640	ug/Kg	1	12/13/18	WB	SW8270D	

Ver 1

Project ID: OLD NELSON FOUNDRY
Client ID: 8A COMP

Phoenix I.D.: CC12941

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitrophenol	ND	1200	ug/Kg	1	12/13/18	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Atrazine	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzaldehyde	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Caprolactam	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Carbazole	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Dibenz(a,h)anthracene	ND	200	ug/Kg	1	12/13/18	WB	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Di-n-butylphthalate	ND	800	ug/Kg	1	12/13/18	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Fluoranthene	410	280	ug/Kg	1	12/13/18	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	12/13/18	WB	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	12/13/18	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Phenol	ND	280	ug/Kg	1	12/13/18	WB	SW8270D
Pyrene	390	280	ug/Kg	1	12/13/18	WB	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	72		%	1	12/13/18	WB	30 - 130 %
% 2-Fluorobiphenyl	62		%	1	12/13/18	WB	30 - 130 %
% 2-Fluorophenol	52		%	1	12/13/18	WB	30 - 130 %
% Nitrobenzene-d5	53		%	1	12/13/18	WB	30 - 130 %
% Phenol-d5	60		%	1	12/13/18	WB	30 - 130 %

Project ID: OLD NELSON FOUNDRY
Client ID: 8A COMP

Phoenix I.D.: CC12941

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	61		%	1	12/13/18	WB	30 - 130 %
SVOA Library Search Top 15	Completed				12/17/18	WB	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 19, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	
Location Code:	RCAGROUP	Received by:	SW	12/12/18	15:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11477
Phoenix ID: CC12942

Project ID: OLD NELSON FOUNDRY
Client ID: 8A GRAB

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	85			%		12/12/18	AK	SW846-%Solid
Volatiles (TCL)								
1,1,1-Trichloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,1,2-Trichloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,1-Dichloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,1-Dichloroethene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2-Dibromoethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2-Dichlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2-Dichloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,2-Dichloropropane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,3-Dichlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
1,4-Dichlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
2-Hexanone	ND	L	29	ug/kg	1	12/14/18	JLI	SW8260C
4-Methyl-2-pentanone	ND	L	29	ug/kg	1	12/14/18	JLI	SW8260C
Acetone	ND	L	58	ug/kg	1	12/14/18	JLI	SW8260C
Benzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Bromochloromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Bromodichloromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Bromoform	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Bromomethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Carbon Disulfide	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Carbon tetrachloride	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Chlorobenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C

Project ID: OLD NELSON FOUNDRY
Client ID: 8A GRAB

Phoenix I.D.: CC12942

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Chloroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Chloroform	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Chloromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
cis-1,2-Dichloroethene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
cis-1,3-Dichloropropene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Cyclohexane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Dibromochloromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Dichlorodifluoromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Ethylbenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Isopropylbenzene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
m&p-Xylene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Methyl ethyl ketone	ND	L	35	ug/kg	1	12/14/18	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	L	12	ug/kg	1	12/14/18	JLI	SW8260C
Methylacetate	ND	L	4.7	ug/kg	1	12/14/18	JLI	SW8260C
Methylcyclohexane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Methylene chloride	ND	L	29	ug/kg	1	12/14/18	JLI	SW8260C
o-Xylene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Styrene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Tetrachloroethene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Toluene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Total Xylenes	ND		5.8	ug/kg	1	12/14/18	JLI	SW8260C
trans-1,2-Dichloroethene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
trans-1,3-Dichloropropene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Trichloroethene	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Trichlorofluoromethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Trichlorotrifluoroethane	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
Vinyl chloride	ND	L	5.8	ug/kg	1	12/14/18	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102			%	1	12/14/18	JLI	70 - 130 %
% Bromofluorobenzene	95			%	1	12/14/18	JLI	70 - 130 %
% Dibromofluoromethane	97			%	1	12/14/18	JLI	70 - 130 %
% Toluene-d8	99			%	1	12/14/18	JLI	70 - 130 %
Volatile Library Search Top 10	Completed					12/17/18	JLI	

Project ID: OLD NELSON FOUNDRY
Client ID: 8A GRAB

Phoenix I.D.: CC12942

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 1 A VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11477

Sample wt/vol: 2.57 (g/mL) g Lab File ID: 1211M18.D

Level: (low/med) Meth Date Received: 12/10/18

% Moisture: not dec. 15 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 50

Soil Extract Volume: 10000 (uL) Soil Aliquot Vol (uL): 100

Number TICs found: 17 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
103-65-1	n-Propylbenzene	7.077	2500	Q
95-63-6	1,2,4-Trimethylbenzene	7.611	5900	Q
135-98-8	sec-Butylbenzene	7.71	2500	Q
99-87-6	p-Isopropyltoluene	7.846	1100	Q
527-84-4	2-Isopropyltoluene	8.081	630	Q
104-51-8	n-Butylbenzene	8.249	2200	Q
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	8.521	16000	JN
000934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	8.589	16000	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	9.039	19000	JN
	unknown	9.416	14000	J
004175-53-5	1H-Indene, 2,3-dihydro-1,3-dimethyl-	9.677	8600	JN
017059-48-2	1H-Indene, 2,3-dihydro-1,6-dimethyl-	9.829	11000	JN
	unknown	9.928	11000	J
108-05-4	Naphthalene	10.09	5300	Q
006682-71-9	1H-Indene, 2,3-dihydro-4,7-dimethyl-	10.394	11000	JN
	unknown	10.655	9000	J
007524-63-2	Naphthalene, 1,2,3,4-tetrahydro-2,6-dimethyl-	10.770	11000	JN

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 2 A VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11480

Sample wt/vol: 2.92 (g/mL) g Lab File ID: 1211M19.D

Level: (low/med) Meth Date Received: 12/10/18

% Moisture: not dec. 14 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 50

Soil Extract Volume: 10000 (uL) Soil Aliquot Vol (uL): 100

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000582-16-1	Naphthalene, 2,7-dimethyl-	7.208	1200	JN
000575-41-7	Naphthalene, 1,3-dimethyl-	7.867	2300	JN
	unknown	9.928	2800	J
002245-38-7	Naphthalene, 1,6,7-trimethyl-	10.514	1200	JN

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 2 B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11481

Sample wt/vol: 5.48 (g/mL) g Lab File ID: 1212_87.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 18 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 3 A UNDER SLAB VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water): SOIL Lab Sample ID: CC11484

Sample wt/vol: 4.17 (g/mL) g Lab File ID: 1212_88.D

Level: (low/med): Low Date Received: 12/10/18

% Moisture: not dec. 16 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 3 B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11485

Sample wt/vol: 3.3 (g/mL) g Lab File ID: 1212_89.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 17 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 4 A+B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11487

Sample wt/vol: 4.51 (g/mL) g Lab File ID: 1211M23.D

Level: (low/med) Meth Date Received: 12/10/18

% Moisture: not dec. 19 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 50

Soil Extract Volume: 10000 (uL) Soil Aliquot Vol (uL): 100

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 5 A CENTER OIL VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11489

Sample wt/vol: 5.04 (g/mL) g Lab File ID: 1212_91.D

Level: (low/med) PPL Date Received: 12/10/18

% Moisture: not dec. 21 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
60-29-7	Diethyl ether	1.715	390	Q
108-67-8	1,3,5-Trimethylbenzene	6.512	19	Q
95-63-6	1,2,4-Trimethylbenzene	6.816	47	Q
99-87-6	p-Isopropyltoluene	7.015	6.7	Q
	unknown	7.278	64	J
000095-93-2	Benzene, 1,2,4,5-tetramethyl-	8.012	21	JN
000544-76-3	Hexadecane	8.138	44	JN
006044-71-9	Dodecane, 6-methyl-	8.269	23	JN
108-05-4	Naphthalene	8.877	430	Q
000090-12-0	Naphthalene, 1-methyl-	9.601	24	JN
080655-44-3	Decahydro-4,4,8,9,10-pentamethylnaphthalene	9.674	17	JN
000091-57-6	Naphthalene, 2-methyl-	9.705	45	JN
	unknown	10.015	69	J
	unknown	10.214	22	J
	unknown	10.256	43	J

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 5 B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11492

Sample wt/vol: 2.53 (g/mL) g Lab File ID: 1211M25.D

Level: (low/med) Meth Date Received: 12/10/18

% Moisture: not dec. 16 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 50

Soil Extract Volume: 10000 (uL) Soil Aliquot Vol (uL): 100

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 6 A OIL VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11496

Sample wt/vol: 7.01 (g/mL) g Lab File ID: 1213M19.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 16 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 17 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000611-14-3	Benzene, 1-ethyl-2-methyl-	7.172	41	JN
108-67-8	1,3,5-Trimethylbenzene	7.255	12	Q
002847-72-5	Decane, 4-methyl-	7.360	55	JN
95-63-6	1,2,4-Trimethylbenzene	7.611	3.7	Q
135-98-8	sec-Butylbenzene	7.71	9.5	Q
	unknown	7.768	16	J
99-87-6	p-Isopropyltoluene	7.846	38	Q
527-84-4	2-Isopropyltoluene	8.087	5.9	Q
	unknown	8.139	15	J
001120-21-4	Undecane	8.176	130	JN
104-51-8	n-Butylbenzene	8.244	2.2	Q
002980-69-0	Undecane, 4-methyl-	8.521	20	JN
	unknown	8.662	38	J
000544-76-3	Hexadecane	9.222	93	JN
	unknown	9.395	30	J
108-05-4	Naphthalene	10.09	2.6	Q
	unknown	10.817	31	J

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 6 B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11497

Sample wt/vol: 4.99 (g/mL) g Lab File ID: 1211M27.D

Level: (low/med) PPL Date Received: 12/10/18

% Moisture: not dec. 10 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 7 A+B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11498

Sample wt/vol: 4.73 (g/mL) g Lab File ID: 1213M20.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 21 Date Analyzed: 12/13/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000620-14-4	Benzene, 1-ethyl-3-methyl-	7.161	8.4	JN
108-67-8	1,3,5-Trimethylbenzene	7.255	4.7	Q
000611-14-3	Benzene, 1-ethyl-2-methyl-	7.444	7.1	JN
95-63-6	1,2,4-Trimethylbenzene	7.611	15	Q
99-87-6	p-Isopropyltoluene	7.846	5.1	Q
000496-11-7	Indane	8.145	10	JN
000766-97-2	Benzene, 1-ethynyl-4-methyl-	8.448	8.3	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	9.034	10	JN
108-05-4	Naphthalene	10.09	36	Q
	unknown	10.817	7.5	J

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 1 B VOC

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC11500

Sample wt/vol: 10.08 (g/mL) g Lab File ID: 1211M29.D

Level: (low/med) PPH Date Received: 12/10/18

% Moisture: not dec. 13 Date Analyzed: 12/11/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 50

Soil Extract Volume: 10000 (uL) Soil Aliquot Vol (uL): 100

Number TICs found: 18 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
103-65-1	n-Propylbenzene	7.072	740	Q
108-67-8	1,3,5-Trimethylbenzene	7.255	430	Q
95-63-6	1,2,4-Trimethylbenzene	7.611	2800	Q
135-98-8	sec-Butylbenzene	7.71	1200	Q
99-87-6	p-Isopropyltoluene	7.846	130	Q
527-84-4	2-Isopropyltoluene	8.087	390	Q
104-51-8	n-Butylbenzene	8.249	570	Q
000934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	8.589	5900	JN
000488-23-3	Benzene, 1,2,3,4-tetramethyl-	9.039	6800	JN
	unknown	9.416	7000	J
017059-48-2	1H-Indene, 2,3-dihydro-1,6-dimethyl-	9.677	4200	JN
004218-48-8	Benzene, 1-ethyl-4-(1-methylethyl)-	9.735	3700	JN
	unknown	10.043	4000	J
108-05-4	Naphthalene	10.095	2000	Q
053172-84-2	Benzene, (1-methyl-1-butenyl)-	10.394	7400	JN
002809-64-5	Naphthalene, 1,2,3,4-tetrahydro-5-methyl-	10.655	6100	JN
	unknown	10.775	5500	J
000091-57-6	Naphthalene, 2-methyl-	10.932	4100	JN

FORM I VOA-TIC

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 8A GRAB

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC11477

Matrix:(soil/water) SOIL Lab Sample ID: CC12942

Sample wt/vol: 5.04 (g/mL) g Lab File ID: 1213L35.D

Level: (low/med) PPL Date Received: 12/12/18

% Moisture: not dec. 15 Date Analyzed: 12/14/18

GC Column: rtx-vms ID: 0.18 (mm) Dilution Factor: 1

Soil Extract Volume: 5000 (uL) Soil Aliquot Vol (uL): 5000

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 1 A

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11478

Sample wt/vol: 15.4 (g/mL) g Lab File ID: 1212_15.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 15 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000874-41-9	Benzene, 1-ethyl-2,4-dimethyl-	4.270	4500	JN
	unknown hydrocarbon	4.711	3500	J
	unknown hydrocarbon	5.081	3000	J
	unknown hydrocarbon	5.251	5100	J
000090-12-0	Naphthalene, 1-methyl-	5.615	5800	JN
003891-98-3	Dodecane, 2,6,10-trimethyl-	5.768	4200	JN
000581-40-8	Naphthalene, 2,3-dimethyl-	6.144	3200	JN
	unknown hydrocarbon	6.162	4700	J
002245-38-7	Naphthalene, 1,6,7-trimethyl-	6.720	3400	JN
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	7.202	10000	JN
	unknown hydrocarbon	7.431	3400	J
000544-76-3	Hexadecane	7.607	5800	JN
	unknown hydrocarbon	7.643	3400	J
000832-69-9	Phenanthrene, 1-methyl-	8.183	3000	JN
003674-66-6	Phenanthrene, 2,5-dimethyl-	8.712	3300	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 2 A

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11479

Sample wt/vol: 15.48 (g/mL) g Lab File ID: 1212_16.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 15 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000763-93-9	3-Hexen-2-one	2.542	320	JNA
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.807	22000	JNA
000629-62-9	Pentadecane	6.320	410	JN
000544-76-3	Hexadecane	6.755	380	JN
000629-92-5	Nonadecane	7.930	380	JN
000112-95-8	Eicosane	8.283	410	JN
000629-94-7	Heneicosane	8.641	360	JN
	unknown hydrocarbon	16.350	1600	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 2 B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11482

Sample wt/vol: 15.19 (g/mL) g Lab File ID: 1212_08.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 15 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 11 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	6600	JNA
000544-76-3	Hexadecane	6.755	320	JN
021164-95-4	Hexadecane, 7,9-dimethyl-	6.961	320	JN
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	7.190	440	JN
	unknown hydrocarbon	7.554	450	J
000638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	7.595	390	JN
000629-92-5	Nonadecane	7.930	450	JN
000057-10-3	n-Hexadecanoic acid	8.154	370	JN
000112-95-8	Eicosane	8.283	490	JN
001560-84-5	Eicosane, 2-methyl-	8.641	310	JN
	unknown hydrocarbon	16.344	1300	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 3 A UNDER SLAB

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11483

Sample wt/vol: 15.01 (g/mL) g Lab File ID: 1212_13.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 17 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	5100	JNA
013798-23-7	Sulfur	6.720	420	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

CLIENT ID

3 B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11486

Sample wt/vol: 15.33 (g/mL) g Lab File ID: 1212_17.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 22 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.795	2400	JNA
000085-44-9	Phthalic anhydride	5.609	570	JN
	unknown hydrocarbon	8.770	1200	J
	unknown hydrocarbon	8.929	900	J
	unknown hydrocarbon	16.379	3300	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 4 A+B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11488

Sample wt/vol: 15.27 (g/mL) g Lab File ID: 1212_18.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 19 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	8000	JNA
080655-44-3	Decahydro-4,4,8,9,10-pentamethylna	6.168	2300	JN
	unknown hydrocarbon	6.215	1100	J
	unknown hydrocarbon	6.309	1300	J
	unknown hydrocarbon	6.344	4000	J
	unknown hydrocarbon	6.379	1100	J
	unknown hydrocarbon	6.403	950	J
	unknown hydrocarbon	6.726	3500	J
	unknown hydrocarbon	6.761	2100	J
	unknown hydrocarbon	6.790	4300	J
	unknown hydrocarbon	6.867	960	J
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	7.225	3000	JN
000483-78-3	Naphthalene, 1,6-dimethyl-4-(1-met	7.266	3200	JN
	unknown hydrocarbon	15.856	3200	J
	unknown hydrocarbon	16.421	6100	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 5 A CENTER OIL

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11490

Sample wt/vol: 15.22 (g/mL) g Lab File ID: 1212_19.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 16 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	2000	JNA
000100-42-5	Styrene	3.136	2500	JN
055337-80-9	Bicyclo[4.2.0]octa-1,3,5-triene, 7	3.770	1500	JN
	unknown hydrocarbon	3.788	1800	J
002327-99-3	Benzene, 1,2-propadienyl-	4.105	1600	JN
	unknown hydrocarbon	4.569	2400	J
000527-84-4	Benzene, 1-methyl-2-(1-methylethyl	5.110	1300	JN
000535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	5.145	820	JN
	unknown hydrocarbon	6.168	1800	J
	unknown hydrocarbon	6.397	850	J
000829-26-5	Naphthalene, 2,3,6-trimethyl-	6.726	2400	JN
	unknown hydrocarbon	6.785	1900	J
	unknown hydrocarbon	6.978	1200	J
000483-78-3	Naphthalene, 1,6-dimethyl-4-(1-met	7.261	6400	JN
	unknown hydrocarbon	7.930	4500	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 5 B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11491

Sample wt/vol: 15.28 (g/mL) g Lab File ID: 1212_20.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 18 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	2500	JNA
	unknown hydrocarbon	6.162	1800	J
	unknown hydrocarbon	6.303	990	J
	unknown hydrocarbon	6.338	3100	J
	unknown hydrocarbon	6.373	700	J
	unknown hydrocarbon	6.397	930	J
021693-51-6	Naphthalene, 1,2,3,4-tetrahydro-1,	6.591	800	JN
	unknown hydrocarbon	6.726	2400	J
	unknown hydrocarbon	6.785	2400	J
	unknown hydrocarbon	6.861	900	J
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	7.214	2200	JN
000483-78-3	Naphthalene, 1,6-dimethyl-4-(1-met	7.261	3700	JN
	unknown hydrocarbon	7.931	3200	J
	unknown hydrocarbon	15.804	590	J
	unknown hydrocarbon	16.380	1100	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 6 A OIL

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11493

Sample wt/vol: 15.03 (g/mL) g Lab File ID: 1212_21.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 18 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.801	6200	JNA
	unknown hydrocarbon	6.168	2800	J
	unknown hydrocarbon	6.215	990	J
	unknown hydrocarbon	6.309	1400	J
	unknown hydrocarbon	6.344	5200	J
	unknown hydrocarbon	6.379	1200	J
	unknown hydrocarbon	6.403	1200	J
	unknown hydrocarbon	6.597	1200	J
	unknown hydrocarbon	6.726	1200	J
	unknown hydrocarbon	6.796	3600	J
	unknown hydrocarbon	6.867	1300	J
	unknown hydrocarbon	7.225	1700	J
000483-78-3	Naphthalene, 1,6-dimethyl-4-(1-met	7.272	3200	JN
	unknown hydrocarbon	15.815	3200	J
	unknown hydrocarbon	16.391	5500	J

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 6 B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11494

Sample wt/vol: 15.33 (g/mL) g Lab File ID: 1212_22.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 11 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.813	13000	JNA

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 7 A+B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11495

Sample wt/vol: 15.02 (g/mL) g Lab File ID: 1213_22.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 22 decanted:(Y/N) NA Date Extracted: 12/13/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/13/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.646	13000	JNA
	unknown hydrocarbon	6.002	480	J
	unknown hydrocarbon	6.181	820	J
	unknown hydrocarbon	6.558	540	J
	unknown hydrocarbon	6.622	660	J
	unknown hydrocarbon	6.667	390	J
	unknown hydrocarbon	7.058	440	J
000483-78-3	Naphthalene, 1,6-dimethyl-4-(1-met	7.098	670	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 1 B

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC11499

Sample wt/vol: 15.14 (g/mL) g Lab File ID: 1212_23.D

Level: (low/med) Low Date Received: 12/10/18

% Moisture: not dec. 15 decanted:(Y/N) NA Date Extracted: 12/12/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/12/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	unknown hydrocarbon	5.257	5600	J
	unknown hydrocarbon	5.627	9300	J
003891-98-3	Dodecane, 2,6,10-trimethyl-	5.780	5500	JN
000575-43-9	Naphthalene, 1,6-dimethyl-	6.180	14000	JN
000829-26-5	Naphthalene, 2,3,6-trimethyl-	6.744	5200	JN
001921-70-6	Pentadecane, 2,6,10,14-tetramethyl	7.220	19000	JN
	unknown hydrocarbon	7.455	7900	J
003892-00-0	Pentadecane, 2,6,10-trimethyl-	7.625	13000	JN
	unknown hydrocarbon	7.989	5400	J
	unknown hydrocarbon	8.060	5300	J
000832-69-9	Phenanthrene, 1-methyl-	8.207	6700	JN
002531-84-2	Phenanthrene, 2-methyl-	8.236	11000	JN
	unknown hydrocarbon	8.312	5600	J
001576-67-6	Phenanthrene, 3,6-dimethyl-	8.659	8600	JN
003674-66-6	Phenanthrene, 2,5-dimethyl-	8.747	7300	JN

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT ID: 8A COMP

Lab Name: Phoenix Environmental Labs Client: RCAGROUP

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCC1147

Matrix:(soil/water) SOIL Lab Sample ID: CC12941

Sample wt/vol: 15 (g/mL) g Lab File ID: 1213_19.D

Level: (low/med) Low Date Received: 12/12/18

% Moisture: not dec. 17 decanted:(Y/N) NA Date Extracted: 12/13/18

GPC Cleanup (Y/N): N pH: NA Date Analyzed: 12/13/2018

Conc. Extract Volume: 1000 (uL) Dilution Factor 1

Injection Volume: 2 (uL)

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/KG) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-hydroxy-4-methyl-	2.885	6900	JNA

FORM I SEMIVOA-TIC

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

December 19, 2018

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 459748 (mg/kg), QC Sample No: CC12354 40X (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)													
Chromium, Hexavalent - Soil													
Chromium, Hexavalent	BRL	0.40	<0.41	<0.40	NC	98.2						85 - 115	30
Chromium, Hexavalent (Ins)						101			101			85 - 115	30
Chromium, Hexavalent (Sol)						96.2			89.3			85 - 115	30
QA/QC Batch 459968 (mg/kg), QC Sample No: CC12355 40X (CC12941)													
Chromium, Hexavalent - Soil													
Chromium, Hexavalent	BRL	0.40	<0.41	<0.40	NC	99.2						85 - 115	30
Chromium, Hexavalent (Ins)						102			97.3			85 - 115	30
Chromium, Hexavalent (Sol)						91.5			86.9			85 - 115	30
QA/QC Batch 459358 (mg/kg), QC Sample No: CC07546 (CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)													
Mercury - Soil	BRL	0.03	0.15	0.18	18.2	92.0	106	14.1	107			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 459357 (mg/kg), QC Sample No: CC10895 (CC11478, CC11479, CC11482, CC11483)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	92.9	104	11.3	87.8			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 459533 (mg/L), QC Sample No: CC11558 (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	101			80.9			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 459737 (mg/L), QC Sample No: CC12415 (CC12941)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	95.5			83.2			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 459734 (mg/kg), QC Sample No: CC12615 (CC12941)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	97.8	96.2	1.6	84.0			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 459456 (mg/kg), QC Sample No: CC11754 (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)													
ICP Metals - Soil													
Antimony	BRL	3.2	<3.6	<3.8	NC	108			101			75 - 125	30
Arsenic	BRL	0.64	1.67	1.59	NC	113			103			75 - 125	30
Barium	BRL	0.32	45.5	44.2	2.90	112			108			75 - 125	30
Beryllium	BRL	0.26	0.32	0.34	NC	106			101			75 - 125	30
Cadmium	BRL	0.32	0.43	0.51	NC	108			102			75 - 125	30

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chromium	BRL	0.32	10.6	28.5	91.6	108			105			75 - 125	30	r
Cobalt	BRL	0.32	7.08	8.06	12.9	106			101			75 - 125	30	
Copper	BRL	0.64	23.0	24.0	4.30	107			105			75 - 125	30	
Lead	BRL	1.2	19.6	22.8	15.1	106			103			75 - 125	30	
Manganese	BRL	0.32	198	257	25.9	106			>130			75 - 125	30	m
Nickel	BRL	0.32	11.0	14.9	30.1	105			102			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.5	NC	97.9			94.9			75 - 125	30	
Silver	BRL	0.32	<0.36	<0.38	NC	101			97.3			75 - 125	30	
Thallium	BRL	2.9	<3.2	<3.4	NC	111			103			75 - 125	30	
Vanadium	BRL	0.32	19.7	22.8	14.6	109			100			75 - 125	30	
Zinc	BRL	0.64	54.7	63.8	15.4	108			102			75 - 125	30	
QA/QC Batch 459546 (mg/L), QC Sample No: CC11754 (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.01	<0.01	<0.01	NC	114			105			75 - 125	20	
Barium	BRL	0.01	0.38	0.38	0	108			94.8			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	108			99.5			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	103			100			75 - 125	20	
Lead	BRL	0.010	0.054	0.052	3.80	106			99.8			75 - 125	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	113			104			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	101			104			75 - 125	20	
QA/QC Batch 459627 (mg/kg), QC Sample No: CC12444 (CC12941)														
ICP Metals - Soil														
Antimony	BRL	3.3	<3.7	<4.0	NC	97.4			84.2			75 - 125	30	
Arsenic	BRL	0.66	8.07	9.40	15.2	101			93.5			75 - 125	30	
Barium	BRL	0.33	111	99.2	11.2	107			80.8			75 - 125	30	
Beryllium	BRL	0.26	0.54	0.52	NC	98.0			92.5			75 - 125	30	
Cadmium	BRL	0.33	0.61	1.26	NC	113			93.6			75 - 125	30	
Chromium	BRL	0.33	24.1	23.6	2.10	97.5			91.5			75 - 125	30	
Cobalt	BRL	0.33	10.5	10.1	3.90	106			92.3			75 - 125	30	
Copper	BRL	0.66	55.1	50.2	9.30	97.7			81.8			75 - 125	30	
Lead	BRL	0.33	61.0	132	73.6	97.0			91.9			75 - 125	30	r
Manganese	BRL	0.33	299	353	16.6	103			123			75 - 125	30	
Nickel	BRL	0.33	17.9	17.4	2.80	104			90.9			75 - 125	30	
Selenium	BRL	1.3	<1.5	<1.6	NC	96.0			88.6			75 - 125	30	
Silver	BRL	0.33	<0.37	<0.40	NC	93.1			90.2			75 - 125	30	
Thallium	BRL	3.0	<3.4	<3.6	NC	109			93.0			75 - 125	30	
Vanadium	BRL	0.33	34.6	36.1	4.20	97.1			90.9			75 - 125	30	
Zinc	BRL	0.66	90.1	99.4	9.80	98.6			81.3			75 - 125	30	
QA/QC Batch 459742 (mg/L), QC Sample No: CC12444 (CC12941)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.01	<0.01	<0.01	NC	111			102			75 - 125	20	
Barium	BRL	0.01	0.68	0.68	0	102			93.7			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	106			97.3			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	100			93.8			75 - 125	20	
Lead	BRL	0.010	0.044	0.046	NC	102			94.1			75 - 125	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	110			99.7			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	98.6			93.7			75 - 125	20	

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

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NY # 11301

QA/QC Report

December 19, 2018

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 459472 (mg/Kg), QC Sample No: CC11494 50X (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.56	NC	98.7			104			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 459699 (mg/Kg), QC Sample No: CC12931 50X (CC12941)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.49	<0.54	NC	95.6			105			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 459705 (PH), QC Sample No: CC12615 (CC12941)													
pH at 25C - Soil			8.80	8.79	0.10	100						85 - 115	20

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QA/QC Report

December 19, 2018

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 460419 (mg/kg), QC Sample No: CC11932 (CC11486)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	50	53						40 - 140	30	
>C28-C40	ND	50							40 - 140	30	
% Terphenyl (surr)	38	%	64						40 - 140	30	s
% COD (surr)	35	%	63						40 - 140	30	s
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 459446 (mg/kg), QC Sample No: CC11933 (CC11478, CC11479, CC11482, CC11483, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	50	113	80	34.2	65	72	10.2	40 - 140	30	r
>C28-C40	ND	50							40 - 140	30	
% Terphenyl (surr)	70	%	115	96	18.0	85	101	17.2	40 - 140	30	
% COD (surr)	71	%	73	75	2.7	84	74	12.7	40 - 140	30	
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 459620 (mg/kg), QC Sample No: CC11934 (CC12941)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	50	99	75	27.6	74			40 - 140	30	
>C28-C40	ND	50							40 - 140	30	
% Terphenyl (surr)	55	%	76	111	37.4	17			40 - 140	30	m,r
% COD (surr)	54	%	75	84	11.3	55			40 - 140	30	
Comment:											
There is no MSD to report for this batch.											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 459453 (ug/Kg), QC Sample No: CC11707 10X (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)											
Chlorinated Herbicides - Soil											
2,4,5-T	ND	83	52	57	9.2	56	54	3.6	40 - 140	30	
2,4,5-TP (Silvex)	ND	83	58	63	8.3	64	62	3.2	40 - 140	30	
2,4-D	ND	170	46	52	12.2	49	47	4.2	40 - 140	30	
2,4-DB	ND	1700	72	48	40.0	52	54	3.8	40 - 140	30	r
Dalapon	ND	83	36	40	10.5	35	34	2.9	40 - 140	30	l
Dicamba	ND	83	57	61	6.8	59	56	5.2	40 - 140	30	
Dichloroprop	ND	170	60	66	9.5	65	62	4.7	40 - 140	30	
Dinoseb	ND	170	48	49	2.1	58	56	3.5	40 - 140	30	
% DCAA (Surrogate Rec)	30	%	47	50	6.2	51	49	4.0	30 - 150	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 459634 (ug/Kg), QC Sample No: CC13346 10X (CC12941)										
Chlorinated Herbicides - Soil										
2,4,5-T	ND	83	66	54	20.0	65	72	10.2	40 - 140	30
2,4,5-TP (Silvex)	ND	83	63	57	10.0	68	64	6.1	40 - 140	30
2,4-D	ND	170	57	51	11.1	61	58	5.0	40 - 140	30
2,4-DB	ND	1700	62	59	5.0	69	68	1.5	40 - 140	30
Dalapon	ND	83	37	34	8.5	57	48	17.1	40 - 140	30
Dicamba	ND	83	61	55	10.3	70	63	10.5	40 - 140	30
Dichloroprop	ND	170	75	66	12.8	82	78	5.0	40 - 140	30
Dinoseb	ND	170	60	56	6.9	67	88	27.1	40 - 140	30
% DCAA (Surrogate Rec)	33	%	49	46	6.3	55	52	5.6	30 - 150	30
QA/QC Batch 459438 (ug/Kg), QC Sample No: CC11933 2X (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	100	92	8.3	76	70	8.2	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	108	103	4.7	86	84	2.4	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	100	%	115	106	8.1	89	87	2.3	30 - 150	30
% TCMX (Surrogate Rec)	100	%	110	101	8.5	83	82	1.2	30 - 150	30
QA/QC Batch 459614 (ug/Kg), QC Sample No: CC12354 2X (CC12941)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	33	95	87	8.8	72	83	14.2	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	98	111	12.4	90	92	2.2	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	94	%	107	117	8.9	92	96	4.3	30 - 150	30
% TCMX (Surrogate Rec)	87	%	92	112	19.6	93	99	6.3	30 - 150	30
QA/QC Batch 459440 (ug/Kg), QC Sample No: CC11933 2X (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499)										
Pesticides - Soil										
4,4' -DDD	ND	1.7	98	95	3.1	73	77	5.3	40 - 140	30
4,4' -DDE	ND	1.7	95	95	0.0	70	73	4.2	40 - 140	30
4,4' -DDT	ND	1.7	97	97	0.0	74	80	7.8	40 - 140	30
a-BHC	ND	1.0	78	76	2.6	58	61	5.0	40 - 140	30
a-Chlordane	ND	3.3	87	85	2.3	66	69	4.4	40 - 140	30
Aldrin	ND	1.0	90	86	4.5	67	71	5.8	40 - 140	30
b-BHC	ND	1.0	83	80	3.7	57	65	13.1	40 - 140	30
Chlordane	ND	33	93	91	2.2	70	74	5.6	40 - 140	30
d-BHC	ND	3.3	88	85	3.5	62	67	7.8	40 - 140	30
Dieldrin	ND	1.0	90	87	3.4	66	70	5.9	40 - 140	30

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Endosulfan I	ND	3.3	86	84	2.4	69	66	4.4	40 - 140	30	
Endosulfan II	ND	3.3	100	101	1.0	71	76	6.8	40 - 140	30	
Endosulfan sulfate	ND	3.3	94	92	2.2	69	72	4.3	40 - 140	30	
Endrin	ND	3.3	87	86	1.2	73	76	4.0	40 - 140	30	
Endrin aldehyde	ND	3.3	67	73	8.6	53	54	1.9	40 - 140	30	
Endrin ketone	ND	3.3	95	90	5.4	75	55	30.8	40 - 140	30	r
g-BHC	ND	1.0	83	80	3.7	61	65	6.3	40 - 140	30	
g-Chlordane	ND	3.3	93	91	2.2	70	74	5.6	40 - 140	30	
Heptachlor	ND	3.3	86	83	3.6	67	71	5.8	40 - 140	30	
Heptachlor epoxide	ND	3.3	91	89	2.2	69	72	4.3	40 - 140	30	
Methoxychlor	ND	3.3	94	98	4.2	75	83	10.1	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	71	%	97	91	6.4	72	80	10.5	30 - 150	30	
% TCMX	64	%	81	76	6.4	63	65	3.1	30 - 150	30	
QA/QC Batch 459616 (ug/Kg), QC Sample No: CC12354 2X (CC12941)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	110	83	28.0	89	93	4.4	40 - 140	30	
4,4' -DDE	ND	1.7	111	81	31.3	87	85	2.3	40 - 140	30	r
4,4' -DDT	ND	1.7	110	84	26.8	93	91	2.2	40 - 140	30	
a-BHC	ND	1.0	106	79	29.2	74	73	1.4	40 - 140	30	
a-Chlordane	ND	3.3	115	87	27.7	86	81	6.0	40 - 140	30	
Aldrin	ND	1.0	108	81	28.6	78	83	6.2	40 - 140	30	
b-BHC	ND	1.0	109	82	28.3	84	92	9.1	40 - 140	30	
Chlordane	ND	33	119	90	27.8	84	66	24.0	40 - 140	30	
d-BHC	ND	3.3	114	87	26.9	79	107	30.1	40 - 140	30	
Dieldrin	ND	1.0	109	83	27.1	84	88	4.7	40 - 140	30	
Endosulfan I	ND	3.3	117	91	25.0	81	79	2.5	40 - 140	30	
Endosulfan II	ND	3.3	118	89	28.0	92	94	2.2	40 - 140	30	
Endosulfan sulfate	ND	3.3	109	85	24.7	72	81	11.8	40 - 140	30	
Endrin	ND	3.3	117	89	27.2	81	95	15.9	40 - 140	30	
Endrin aldehyde	ND	3.3	87	62	33.6	83	79	4.9	40 - 140	30	r
Endrin ketone	ND	3.3	108	81	28.6	80	84	4.9	40 - 140	30	
g-BHC	ND	1.0	106	80	28.0	75	83	10.1	40 - 140	30	
g-Chlordane	ND	3.3	119	90	27.8	84	66	24.0	40 - 140	30	
Heptachlor	ND	3.3	115	86	28.9	77	96	22.0	40 - 140	30	
Heptachlor epoxide	ND	3.3	112	86	26.3	80	56	35.3	40 - 140	30	r
Methoxychlor	ND	3.3	111	84	27.7	98	102	4.0	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	62	%	103	80	25.1	76	78	2.6	30 - 150	30	
% TCMX	86	%	108	78	32.3	84	75	11.3	30 - 150	30	r
QA/QC Batch 459436 (ug/kg), QC Sample No: CC11482 (CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11499)											
Semivolatiles - Soil											
1,1-Biphenyl	ND	230	67	62	7.8	69	65	6.0	30 - 130	30	
1,2,4,5-Tetrachlorobenzene	ND	230	62	64	3.2	60	57	5.1	30 - 130	30	
2,3,4,6-tetrachlorophenol	ND	230	67	70	4.4	62	67	7.8	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	78	73	6.6	66	73	10.1	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	76	79	3.9	81	76	6.4	30 - 130	30	
2,4-Dichlorophenol	ND	130	72	76	5.4	75	80	6.5	30 - 130	30	
2,4-Dimethylphenol	ND	230	73	72	1.4	78	80	2.5	30 - 130	30	
2,4-Dinitrophenol	ND	230	10	24	82.4	59	72	19.8	30 - 130	30	l,r
2,4-Dinitrotoluene	ND	130	81	88	8.3	81	87	7.1	30 - 130	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,6-Dinitrotoluene	ND	130	75	81	7.7	79	83	4.9	30 - 130	30	
2-Chloronaphthalene	ND	230	73	69	5.6	73	69	5.6	30 - 130	30	
2-Chlorophenol	ND	230	64	63	1.6	81	93	13.8	30 - 130	30	
2-Methylnaphthalene	ND	230	67	67	0.0	71	68	4.3	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	65	69	6.0	79	90	13.0	30 - 130	30	
2-Nitroaniline	ND	330	104	102	1.9	81	93	13.8	30 - 130	30	
2-Nitrophenol	ND	230	67	64	4.6	76	78	2.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	69	76	9.7	84	95	12.3	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	68	73	7.1	48	47	2.1	30 - 130	30	
3-Nitroaniline	ND	330	92	90	2.2	81	87	7.1	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	28	45	46.6	77	86	11.0	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	78	85	8.6	76	71	6.8	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	75	80	6.5	74	81	9.0	30 - 130	30	
4-Chloroaniline	ND	230	72	68	5.7	66	72	8.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	75	75	0.0	70	69	1.4	30 - 130	30	
4-Nitroaniline	ND	230	76	80	5.1	78	82	5.0	30 - 130	30	
4-Nitrophenol	ND	230	76	74	2.7	72	78	8.0	30 - 130	30	
Acenaphthene	ND	230	72	70	2.8	69	66	4.4	30 - 130	30	
Acenaphthylene	ND	130	69	64	7.5	67	66	1.5	30 - 130	30	
Acetophenone	ND	230	58	59	1.7	74	82	10.3	30 - 130	30	
Anthracene	ND	230	79	73	7.9	71	69	2.9	30 - 130	30	
Atrazine	ND	130	81	84	3.6	74	74	0.0	30 - 130	30	
Benz(a)anthracene	ND	230	75	74	1.3	68	66	3.0	30 - 130	30	
Benzaldehyde	ND	230	<10	<10	NC	79	109	31.9	30 - 130	30	l,r
Benzo(a)pyrene	ND	130	71	72	1.4	61	56	8.5	30 - 130	30	
Benzo(b)fluoranthene	ND	160	74	73	1.4	69	63	9.1	30 - 130	30	
Benzo(ghi)perylene	ND	230	75	72	4.1	58	51	12.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	78	78	0.0	66	63	4.7	30 - 130	30	
Benzyl butyl phthalate	ND	230	79	81	2.5	85	87	2.3	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	70	67	4.4	76	75	1.3	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	56	52	7.4	67	75	11.3	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	47	45	4.3	60	65	8.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	81	85	4.8	84	85	1.2	30 - 130	30	
Caprolactam	ND	230	72	74	2.7	71	80	11.9	30 - 130	30	
Carbazole	ND	230	78	77	1.3	72	72	0.0	30 - 130	30	
Chrysene	ND	230	78	77	1.3	69	66	4.4	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	81	79	2.5	73	68	7.1	30 - 130	30	
Dibenzofuran	ND	230	75	69	8.3	72	69	4.3	30 - 130	30	
Diethyl phthalate	ND	230	78	76	2.6	76	77	1.3	30 - 130	30	
Dimethylphthalate	ND	230	78	76	2.6	78	78	0.0	30 - 130	30	
Di-n-butylphthalate	ND	670	88	77	13.3	81	81	0.0	30 - 130	30	
Di-n-octylphthalate	ND	230	83	88	5.8	86	84	2.4	30 - 130	30	
Fluoranthene	ND	230	80	73	9.2	65	62	4.7	30 - 130	30	
Fluorene	ND	230	75	73	2.7	71	69	2.9	30 - 130	30	
Hexachlorobenzene	ND	130	79	81	2.5	64	55	15.1	30 - 130	30	
Hexachlorobutadiene	ND	230	60	52	14.3	63	54	15.4	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	54	54	0.0	18	<10	NC	30 - 130	30	m
Hexachloroethane	ND	130	52	45	14.4	57	54	5.4	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	71	76	6.8	74	54	31.3	30 - 130	30	r
Isophorone	ND	130	62	61	1.6	66	67	1.5	30 - 130	30	
Naphthalene	ND	230	63	59	6.6	71	69	2.9	30 - 130	30	
Nitrobenzene	ND	130	61	62	1.6	78	87	10.9	30 - 130	30	
N-Nitrosodimethylamine	ND	230	52	45	14.4	65	78	18.2	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
N-Nitrosodi-n-propylamine	ND	130	64	66	3.1	79	88	10.8	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	75	75	0.0	73	72	1.4	30 - 130	30	
Pentachlorophenol	ND	230	70	81	14.6	73	79	7.9	30 - 130	30	
Phenanthrene	ND	130	78	73	6.6	74	69	7.0	30 - 130	30	
Phenol	ND	230	66	67	1.5	80	100	22.2	30 - 130	30	
Pyrene	ND	230	82	75	8.9	66	62	6.3	30 - 130	30	
% 2,4,6-Tribromophenol	68	%	75	83	10.1	75	75	0.0	30 - 130	30	
% 2-Fluorobiphenyl	65	%	62	57	8.4	63	59	6.6	30 - 130	30	
% 2-Fluorophenol	60	%	60	57	5.1	76	86	12.3	30 - 130	30	
% Nitrobenzene-d5	52	%	52	52	0.0	67	74	9.9	30 - 130	30	
% Phenol-d5	63	%	64	67	4.6	79	89	11.9	30 - 130	30	
% Terphenyl-d14	69	%	65	65	0.0	54	52	3.8	30 - 130	30	

Comment:

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

QA/QC Batch 459611 (ug/kg), QC Sample No: CC12444 (CC11495)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	63	66	4.7	62	65	4.7	30 - 130	30	
1,2,4,5-Tetrachlorobenzene	ND	230	70	73	4.2	70	73	4.2	30 - 130	30	
2,3,4,6-tetrachlorophenol	ND	230	67	73	8.6	69	75	8.3	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	81	87	7.1	81	85	4.8	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	80	83	3.7	78	83	6.2	30 - 130	30	
2,4-Dichlorophenol	ND	130	77	80	3.8	75	84	11.3	30 - 130	30	
2,4-Dimethylphenol	ND	230	72	75	4.1	74	80	7.8	30 - 130	30	
2,4-Dinitrophenol	ND	230	25	<10	NC	87	79	9.6	30 - 130	30	l
2,4-Dinitrotoluene	ND	130	78	85	8.6	81	85	4.8	30 - 130	30	
2,6-Dinitrotoluene	ND	130	82	90	9.3	83	86	3.6	30 - 130	30	
2-Chloronaphthalene	ND	230	70	75	6.9	72	75	4.1	30 - 130	30	
2-Chlorophenol	ND	230	63	70	10.5	62	72	14.9	30 - 130	30	
2-Methylnaphthalene	ND	230	65	69	6.0	66	72	8.7	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	63	67	6.2	63	81	25.0	30 - 130	30	
2-Nitroaniline	ND	330	102	103	1.0	91	98	7.4	30 - 130	30	
2-Nitrophenol	ND	230	85	92	7.9	86	93	7.8	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	66	73	10.1	65	78	18.2	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	69	74	7.0	62	54	13.8	30 - 130	30	
3-Nitroaniline	ND	330	81	86	6.0	73	80	9.2	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	50	19	89.9	98	85	14.2	30 - 130	30	l,r
4-Bromophenyl phenyl ether	ND	230	80	84	4.9	75	81	7.7	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	75	82	8.9	74	83	11.5	30 - 130	30	
4-Chloroaniline	ND	230	78	82	5.0	69	75	8.3	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	74	78	5.3	70	75	6.9	30 - 130	30	
4-Nitroaniline	ND	230	79	84	6.1	76	82	7.6	30 - 130	30	
4-Nitrophenol	ND	230	69	69	0.0	66	76	14.1	30 - 130	30	
Acenaphthene	ND	230	69	72	4.3	67	74	9.9	30 - 130	30	
Acenaphthylene	ND	130	61	66	7.9	61	67	9.4	30 - 130	30	
Acetophenone	ND	230	56	65	14.9	57	66	14.6	30 - 130	30	
Anthracene	ND	230	67	71	5.8	68	75	9.8	30 - 130	30	
Atrazine	ND	130	70	72	2.8	61	66	7.9	30 - 130	30	
Benz(a)anthracene	ND	230	68	72	5.7	67	89	28.2	30 - 130	30	
Benzaldehyde	ND	230	10	11	9.5	84	102	19.4	30 - 130	30	l
Benzo(a)pyrene	ND	130	66	71	7.3	64	86	29.3	30 - 130	30	
Benzo(b)fluoranthene	ND	160	66	71	7.3	66	91	31.8	30 - 130	30	r

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(ghi)perylene	ND	230	65	69	6.0	58	69	17.3	30 - 130	30	
Benzo(k)fluoranthene	ND	230	66	73	10.1	62	81	26.6	30 - 130	30	
Benzyl butyl phthalate	ND	230	70	76	8.2	64	76	17.1	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	64	69	7.5	63	69	9.1	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	48	55	13.6	57	64	11.6	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	48	52	8.0	50	56	11.3	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	74	78	5.3	74	78	5.3	30 - 130	30	
Caprolactam	ND	230	61	69	12.3	55	65	16.7	30 - 130	30	
Carbazole	ND	230	67	71	5.8	66	72	8.7	30 - 130	30	
Chrysene	ND	230	69	74	7.0	68	92	30.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	71	81	13.2	69	78	12.2	30 - 130	30	
Dibenzofuran	ND	230	67	72	7.2	65	71	8.8	30 - 130	30	
Diethyl phthalate	ND	230	67	72	7.2	64	70	9.0	30 - 130	30	
Dimethylphthalate	ND	230	71	75	5.5	68	73	7.1	30 - 130	30	
Di-n-butylphthalate	ND	670	70	75	6.9	68	72	5.7	30 - 130	30	
Di-n-octylphthalate	ND	230	88	94	6.6	85	90	5.7	30 - 130	30	
Fluoranthene	ND	230	66	70	5.9	69	101	37.6	30 - 130	30	r
Fluorene	ND	230	66	71	7.3	67	74	9.9	30 - 130	30	
Hexachlorobenzene	ND	130	75	80	6.5	71	74	4.1	30 - 130	30	
Hexachlorobutadiene	ND	230	73	77	5.3	76	76	0.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	55	60	8.7	45	36	22.2	30 - 130	30	
Hexachloroethane	ND	130	53	61	14.0	57	60	5.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	70	75	6.9	64	79	21.0	30 - 130	30	
Isophorone	ND	130	61	65	6.3	59	64	8.1	30 - 130	30	
Naphthalene	ND	230	61	64	4.8	64	68	6.1	30 - 130	30	
Nitrobenzene	ND	130	64	70	9.0	65	77	16.9	30 - 130	30	
N-Nitrosodimethylamine	ND	230	46	50	8.3	49	56	13.3	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	65	74	12.9	63	75	17.4	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	68	72	5.7	66	71	7.3	30 - 130	30	
Pentachlorophenol	ND	230	63	58	8.3	76	84	10.0	30 - 130	30	
Phenanthrene	ND	130	66	70	5.9	65	91	33.3	30 - 130	30	r
Phenol	ND	230	60	69	14.0	60	70	15.4	30 - 130	30	
Pyrene	ND	230	67	72	7.2	69	105	41.4	30 - 130	30	r
% 2,4,6-Tribromophenol	66	%	76	82	7.6	74	80	7.8	30 - 130	30	
% 2-Fluorobiphenyl	59	%	60	63	4.9	60	62	3.3	30 - 130	30	
% 2-Fluorophenol	55	%	54	61	12.2	56	65	14.9	30 - 130	30	
% Nitrobenzene-d5	55	%	55	63	13.6	57	67	16.1	30 - 130	30	
% Phenol-d5	60	%	61	68	10.9	60	71	16.8	30 - 130	30	
% Terphenyl-d14	54	%	56	60	6.9	56	58	3.5	30 - 130	30	

Comment:

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

QA/QC Batch 459612 (ug/kg), QC Sample No: CC13346 (CC12941)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	67	65	3.0	68	65	4.5	30 - 130	30	
1,2,4,5-Tetrachlorobenzene	ND	230	67	67	0.0	72	68	5.7	30 - 130	30	
2,3,4,6-tetrachlorophenol	ND	230	65	69	6.0	74	72	2.7	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	75	75	0.0	81	77	5.1	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	76	77	1.3	81	78	3.8	30 - 130	30	
2,4-Dichlorophenol	ND	130	73	75	2.7	78	76	2.6	30 - 130	30	
2,4-Dimethylphenol	ND	230	75	75	0.0	82	78	5.0	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10	<10	NC	57	51	11.1	30 - 130	30	l

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dinitrotoluene	ND	130	67	74	9.9	82	82	0.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	71	78	9.4	84	82	2.4	30 - 130	30	
2-Chloronaphthalene	ND	230	72	71	1.4	75	71	5.5	30 - 130	30	
2-Chlorophenol	ND	230	68	67	1.5	70	71	1.4	30 - 130	30	
2-Methylnaphthalene	ND	230	68	67	1.5	66	64	3.1	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	67	68	1.5	71	70	1.4	30 - 130	30	
2-Nitroaniline	ND	330	93	97	4.2	101	98	3.0	30 - 130	30	
2-Nitrophenol	ND	230	70	69	1.4	74	73	1.4	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	70	71	1.4	75	75	0.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	76	77	1.3	95	90	5.4	30 - 130	30	
3-Nitroaniline	ND	330	84	89	5.8	93	92	1.1	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	15	12	22.2	79	63	22.5	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	230	75	79	5.2	80	76	5.1	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	74	77	4.0	81	79	2.5	30 - 130	30	
4-Chloroaniline	ND	230	74	74	0.0	77	74	4.0	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	73	77	5.3	80	76	5.1	30 - 130	30	
4-Nitroaniline	ND	230	73	77	5.3	80	80	0.0	30 - 130	30	
4-Nitrophenol	ND	230	70	74	5.6	78	75	3.9	30 - 130	30	
Acenaphthene	ND	230	72	71	1.4	67	63	6.2	30 - 130	30	
Acenaphthylene	ND	130	66	68	3.0	71	68	4.3	30 - 130	30	
Acetophenone	ND	230	61	61	0.0	62	63	1.6	30 - 130	30	
Anthracene	ND	230	73	75	2.7	57	54	5.4	30 - 130	30	
Atrazine	ND	130	79	82	3.7	77	74	4.0	30 - 130	30	
Benz(a)anthracene	ND	230	71	73	2.8	48	43	11.0	30 - 130	30	
Benzaldehyde	ND	230	<10	<10	NC	76	90	16.9	30 - 130	30	l
Benzo(a)pyrene	ND	130	71	74	4.1	52	48	8.0	30 - 130	30	
Benzo(b)fluoranthene	ND	160	74	77	4.0	59	53	10.7	30 - 130	30	
Benzo(ghi)perylene	ND	230	65	68	4.5	59	54	8.8	30 - 130	30	
Benzo(k)fluoranthene	ND	230	74	74	0.0	57	52	9.2	30 - 130	30	
Benzyl butyl phthalate	ND	230	79	82	3.7	84	78	7.4	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	230	69	68	1.5	70	69	1.4	30 - 130	30	
Bis(2-chloroethyl)ether	ND	130	56	56	0.0	59	59	0.0	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	230	51	50	2.0	52	52	0.0	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	230	81	84	3.6	86	81	6.0	30 - 130	30	
Caprolactam	ND	230	71	74	4.1	70	73	4.2	30 - 130	30	
Carbazole	ND	230	73	77	5.3	64	60	6.5	30 - 130	30	
Chrysene	ND	230	73	75	2.7	51	45	12.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	130	73	76	4.0	76	71	6.8	30 - 130	30	
Dibenzofuran	ND	230	72	73	1.4	63	60	4.9	30 - 130	30	
Diethyl phthalate	ND	230	74	77	4.0	79	75	5.2	30 - 130	30	
Dimethylphthalate	ND	230	75	77	2.6	77	76	1.3	30 - 130	30	
Di-n-butylphthalate	ND	670	79	84	6.1	82	77	6.3	30 - 130	30	
Di-n-octylphthalate	ND	230	81	84	3.6	87	82	5.9	30 - 130	30	
Fluoranthene	ND	230	73	76	4.0	NC	NC	NC	30 - 130	30	
Fluorene	ND	230	72	74	2.7	64	61	4.8	30 - 130	30	
Hexachlorobenzene	ND	130	73	73	0.0	74	70	5.6	30 - 130	30	
Hexachlorobutadiene	ND	230	69	67	2.9	69	65	6.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	230	64	63	1.6	49	29	51.3	30 - 130	30	m,r
Hexachloroethane	ND	130	59	58	1.7	56	55	1.8	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	230	67	69	2.9	59	53	10.7	30 - 130	30	
Isophorone	ND	130	63	63	0.0	65	64	1.6	30 - 130	30	
Naphthalene	ND	230	65	64	1.6	58	56	3.5	30 - 130	30	
Nitrobenzene	ND	130	64	64	0.0	69	71	2.9	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
N-Nitrosodimethylamine	ND	230	54	53	1.9	57	59	3.4	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	130	67	66	1.5	69	71	2.9	30 - 130	30	
N-Nitrosodiphenylamine	ND	130	72	76	5.4	79	75	5.2	30 - 130	30	
Pentachlorophenol	ND	230	60	55	8.7	78	72	8.0	30 - 130	30	
Phenanthrene	ND	130	71	73	2.8	NC	NC	NC	30 - 130	30	
Phenol	ND	230	67	68	1.5	70	71	1.4	30 - 130	30	
Pyrene	ND	230	74	77	4.0	NC	NC	NC	30 - 130	30	
% 2,4,6-Tribromophenol	58	%	70	73	4.2	77	72	6.7	30 - 130	30	
% 2-Fluorobiphenyl	53	%	61	61	0.0	63	60	4.9	30 - 130	30	
% 2-Fluorophenol	47	%	62	62	0.0	65	65	0.0	30 - 130	30	
% Nitrobenzene-d5	42	%	53	55	3.7	59	61	3.3	30 - 130	30	
% Phenol-d5	51	%	66	67	1.5	69	70	1.4	30 - 130	30	
% Terphenyl-d14	55	%	59	62	5.0	62	58	6.7	30 - 130	30	

Comment:

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

QA/QC Batch 459961 (ug/kg), QC Sample No: CC10529 (CC11496, CC11498)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	109	121	10.4	111	105	5.6	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	93	104	11.2	92	92	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	103	113	9.3	100	104	3.9	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	100	111	10.4	100	105	4.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0	90	101	11.5	90	93	3.3	70 - 130	30	
1,1-Dichloroethene	ND	5.0	101	112	10.3	91	89	2.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	103	114	10.1	96	114	17.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	104	115	10.0	100	116	14.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	106	123	14.8	94	103	9.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	97	108	10.7	97	103	6.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	108	119	9.7	106	115	8.1	70 - 130	30	
1,2-Dichloroethane	ND	5.0	84	95	12.3	87	90	3.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0	100	111	10.4	103	105	1.9	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	106	117	9.9	103	112	8.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	111	121	8.6	108	118	8.8	70 - 130	30	
2-Hexanone	ND	25	78	87	10.9	69	77	11.0	70 - 130	30	m
4-Methyl-2-pentanone	ND	25	85	96	12.2	82	86	4.8	70 - 130	30	
Acetone	ND	10	61	66	7.9	37	37	0.0	70 - 130	30	l,m
Acrolein	ND	25	76	86	12.3	58	75	25.6	70 - 130	30	m
Acrylonitrile	ND	5.0	87	102	15.9	82	93	12.6	70 - 130	30	
Benzene	ND	1.0	96	107	10.8	98	100	2.0	70 - 130	30	
Bromochloromethane	ND	5.0	94	106	12.0	97	99	2.0	70 - 130	30	
Bromodichloromethane	ND	5.0	100	110	9.5	101	97	4.0	70 - 130	30	
Bromoform	ND	5.0	111	123	10.3	105	96	9.0	70 - 130	30	
Bromomethane	ND	5.0	111	122	9.4	100	94	6.2	70 - 130	30	
Carbon Disulfide	ND	5.0	103	115	11.0	94	91	3.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	99	113	13.2	96	91	5.3	70 - 130	30	
Chlorobenzene	ND	5.0	106	117	9.9	106	110	3.7	70 - 130	30	
Chloroethane	ND	5.0	101	112	10.3	94	88	6.6	70 - 130	30	
Chloroform	ND	5.0	87	97	10.9	87	91	4.5	70 - 130	30	
Chloromethane	ND	5.0	93	102	9.2	77	87	12.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	98	110	11.5	99	100	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	103	114	10.1	105	105	0.0	70 - 130	30	
Cyclohexane	ND	5.0	83	93	11.4	78	84	7.4	70 - 130	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dibromochloromethane	ND	3.0	111	123	10.3	110	103	6.6	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	110	124	12.0	78	99	23.7	70 - 130	30	
Ethylbenzene	ND	1.0	99	111	11.4	99	103	4.0	70 - 130	30	
Isopropylbenzene	ND	1.0	106	117	9.9	100	107	6.8	70 - 130	30	
m&p-Xylene	ND	2.0	97	107	9.8	95	100	5.1	70 - 130	30	
Methyl ethyl ketone	ND	5.0	73	79	7.9	76	73	4.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	86	96	11.0	87	90	3.4	70 - 130	30	
Methylacetate	ND	5.0	77	91	16.7	87	81	7.1	70 - 130	30	
Methylcyclohexane	ND	5.0	96	112	15.4	90	103	13.5	70 - 130	30	
Methylene chloride	ND	5.0	88	98	10.8	92	88	4.4	70 - 130	30	
o-Xylene	ND	2.0	98	108	9.7	98	101	3.0	70 - 130	30	
Styrene	ND	5.0	99	110	10.5	99	104	4.9	70 - 130	30	
tert-butyl alcohol	ND	100	104	120	14.3	110	111	0.9	70 - 130	30	
Tetrachloroethene	ND	5.0	118	133	12.0	115	123	6.7	70 - 130	30	l
Toluene	ND	1.0	104	117	11.8	105	109	3.7	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	100	113	12.2	98	100	2.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	94	106	12.0	96	97	1.0	70 - 130	30	
Trichloroethene	ND	5.0	108	120	10.5	108	112	3.6	70 - 130	30	
Trichlorofluoromethane	ND	5.0	99	112	12.3	90	80	11.8	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	103	119	14.4	93	99	6.3	70 - 130	30	
Vinyl chloride	ND	5.0	99	106	6.8	83	99	17.6	70 - 130	30	
% 1,2-dichlorobenzene-d4	90	%	99	98	1.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	89	%	89	91	2.2	94	91	3.2	70 - 130	30	
% Dibromofluoromethane	96	%	97	95	2.1	94	97	3.1	70 - 130	30	
% Toluene-d8	83	%	98	99	1.0	98	100	2.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 459947 (ug/kg), QC Sample No: CC11069 (CC11480, CC11481, CC11484, CC11485, CC11487, CC11489)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	111	110	0.9	107	108	0.9	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	101	106	4.8	100	104	3.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	105	105	0.0	102	103	1.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	103	101	2.0	100	102	2.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	102	104	1.9	101	103	2.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	101	101	0.0	96	89	7.6	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	120	118	1.7	117	116	0.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	117	117	0.0	117	116	0.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	110	107	2.8	96	100	4.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	110	110	0.0	103	107	3.8	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	105	105	0.0	107	105	1.9	70 - 130	30	
1,2-Dichloroethane	ND	5.0	100	103	3.0	103	102	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	103	105	1.9	104	104	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	107	108	0.9	110	109	0.9	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	105	104	1.0	107	105	1.9	70 - 130	30	
2-Hexanone	ND	25	104	101	2.9	92	94	2.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	104	105	1.0	96	100	4.1	70 - 130	30	
Acetone	ND	10	72	71	1.4	56	58	3.5	70 - 130	30	m
Acrolein	ND	25	90	89	1.1	81	79	2.5	70 - 130	30	
Acrylonitrile	ND	5.0	101	100	1.0	102	102	0.0	70 - 130	30	
Benzene	ND	1.0	101	105	3.9	104	103	1.0	70 - 130	30	
Bromochloromethane	ND	5.0	103	101	2.0	98	102	4.0	70 - 130	30	
Bromodichloromethane	ND	5.0	108	112	3.6	104	105	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Bromoform	ND	5.0	113	115	1.8	96	103	7.0	70 - 130	30	
Bromomethane	ND	5.0	101	100	1.0	101	100	1.0	70 - 130	30	
Carbon Disulfide	ND	5.0	105	106	0.9	83	83	0.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	106	108	1.9	100	98	2.0	70 - 130	30	
Chlorobenzene	ND	5.0	103	104	1.0	104	104	0.0	70 - 130	30	
Chloroethane	ND	5.0	102	105	2.9	105	106	0.9	70 - 130	30	
Chloroform	ND	5.0	98	98	0.0	99	96	3.1	70 - 130	30	
Chloromethane	ND	5.0	93	95	2.1	93	92	1.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	102	1.0	105	102	2.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	112	114	1.8	104	107	2.8	70 - 130	30	
Cyclohexane	ND	5.0	94	95	1.1	97	97	0.0	70 - 130	30	
Dibromochloromethane	ND	3.0	118	117	0.9	103	109	5.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	99	98	1.0	88	91	3.4	70 - 130	30	
Ethylbenzene	ND	1.0	106	107	0.9	107	108	0.9	70 - 130	30	
Isopropylbenzene	ND	1.0	106	107	0.9	107	106	0.9	70 - 130	30	
m&p-Xylene	ND	2.0	105	106	0.9	107	107	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	91	90	1.1	91	93	2.2	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	95	92	3.2	92	56	48.6	70 - 130	30	m,r
Methylacetate	ND	5.0	89	88	1.1	88	83	5.8	70 - 130	30	
Methylcyclohexane	ND	5.0	102	102	0.0	107	107	0.0	70 - 130	30	
Methylene chloride	ND	5.0	90	89	1.1	88	82	7.1	70 - 130	30	
o-Xylene	ND	2.0	109	111	1.8	109	111	1.8	70 - 130	30	
Styrene	ND	5.0	109	109	0.0	109	111	1.8	70 - 130	30	
tert-butyl alcohol	ND	100	109	89	20.2	103	94	9.1	70 - 130	30	
Tetrachloroethene	ND	5.0	110	111	0.9	111	112	0.9	70 - 130	30	
Toluene	ND	1.0	102	106	3.8	104	104	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	103	102	1.0	101	92	9.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	108	111	2.7	100	104	3.9	70 - 130	30	
Trichloroethene	ND	5.0	106	109	2.8	108	109	0.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	102	103	1.0	101	100	1.0	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	106	106	0.0	108	100	7.7	70 - 130	30	
Vinyl chloride	ND	5.0	95	96	1.0	91	85	6.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	97	%	100	100	0.0	100	99	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	101	101	0.0	100	99	1.0	70 - 130	30	
% Dibromofluoromethane	99	%	101	102	1.0	97	96	1.0	70 - 130	30	
% Toluene-d8	95	%	98	99	1.0	97	97	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 459573 (ug/kg), QC Sample No: CC11180 (CC11477 (50X) , CC11481 (50X) , CC11485 (50X) , CC11489 (50X) , CC11492 (50X) , CC11496 (50X) , CC11497, CC11500 (50X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	121	122	0.8	103	91	12.4	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	99	99	0.0	93	83	11.4	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	113	114	0.9	107	92	15.1	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	112	114	1.8	107	92	15.1	70 - 130	30	
1,1-Dichloroethane	ND	5.0	97	99	2.0	95	83	13.5	70 - 130	30	
1,1-Dichloroethene	ND	5.0	105	105	0.0	95	83	13.5	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	117	119	1.7	112	100	11.3	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	112	116	3.5	108	99	8.7	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	122	125	2.4	98	87	11.9	70 - 130	30	
1,2-Dibromoethane	ND	5.0	108	110	1.8	104	90	14.4	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	119	120	0.8	115	101	13.0	70 - 130	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloroethane	ND	5.0	95	97	2.1	91	78	15.4	70 - 130	30	
1,2-Dichloropropane	ND	5.0	112	113	0.9	110	93	16.7	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	115	115	0.0	111	99	11.4	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	119	121	1.7	115	102	12.0	70 - 130	30	
2-Hexanone	ND	25	86	89	3.4	81	68	17.4	70 - 130	30	m
4-Methyl-2-pentanone	ND	25	95	99	4.1	90	78	14.3	70 - 130	30	
Acetone	ND	10	62	67	7.8	56	48	15.4	70 - 130	30	l,m
Acrolein	ND	25	88	87	1.1	77	68	12.4	70 - 130	30	m
Acrylonitrile	ND	5.0	97	97	0.0	92	82	11.5	70 - 130	30	
Benzene	ND	1.0	106	108	1.9	105	89	16.5	70 - 130	30	
Bromochloromethane	ND	5.0	102	103	1.0	96	86	11.0	70 - 130	30	
Bromodichloromethane	ND	5.0	112	113	0.9	96	86	11.0	70 - 130	30	
Bromoform	ND	5.0	127	131	3.1	89	82	8.2	70 - 130	30	l
Bromomethane	ND	5.0	119	116	2.6	74	70	5.6	70 - 130	30	
Carbon Disulfide	ND	5.0	107	107	0.0	94	84	11.2	70 - 130	30	
Carbon tetrachloride	ND	5.0	106	108	1.9	87	82	5.9	70 - 130	30	
Chlorobenzene	ND	5.0	112	116	3.5	114	99	14.1	70 - 130	30	
Chloroethane	ND	5.0	105	105	0.0	108	110	1.8	70 - 130	30	
Chloroform	ND	5.0	92	92	0.0	83	79	4.9	70 - 130	30	
Chloromethane	ND	5.0	100	101	1.0	96	81	16.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	104	104	0.0	102	90	12.5	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	117	118	0.9	107	91	16.2	70 - 130	30	
Cyclohexane	ND	5.0	89	89	0.0	90	79	13.0	70 - 130	30	
Dibromochloromethane	ND	3.0	125	128	2.4	99	90	9.5	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	130	128	1.6	120	106	12.4	70 - 130	30	
Ethylbenzene	ND	1.0	107	107	0.0	108	95	12.8	70 - 130	30	
Isopropylbenzene	ND	1.0	112	114	1.8	113	99	13.2	70 - 130	30	
m&p-Xylene	ND	2.0	104	106	1.9	105	92	13.2	70 - 130	30	
Methyl ethyl ketone	ND	5.0	79	80	1.3	77	66	15.4	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	92	94	2.2	88	78	12.0	70 - 130	30	
Methylacetate	ND	5.0	106	101	4.8	109	84	25.9	70 - 130	30	
Methylcyclohexane	ND	5.0	108	109	0.9	111	95	15.5	70 - 130	30	
Methylene chloride	ND	5.0	94	95	1.1	88	77	13.3	70 - 130	30	
o-Xylene	ND	2.0	107	108	0.9	106	93	13.1	70 - 130	30	
Styrene	ND	5.0	109	110	0.9	107	94	12.9	70 - 130	30	
tert-butyl alcohol	ND	100	162	128	23.4	106	90	16.3	70 - 130	30	l
Tetrachloroethene	ND	5.0	125	130	3.9	128	112	13.3	70 - 130	30	
Toluene	ND	1.0	115	116	0.9	115	97	17.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	122	111	9.4	107	90	17.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	108	109	0.9	96	83	14.5	70 - 130	30	
Trichloroethene	ND	5.0	118	119	0.8	117	99	16.7	70 - 130	30	
Trichlorofluoromethane	ND	5.0	106	104	1.9	97	106	8.9	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	108	110	1.8	101	91	10.4	70 - 130	30	
Vinyl chloride	ND	5.0	103	104	1.0	105	88	17.6	70 - 130	30	
% 1,2-dichlorobenzene-d4	91	%	100	100	0.0	97	99	2.0	70 - 130	30	
% Bromofluorobenzene	90	%	90	92	2.2	91	90	1.1	70 - 130	30	
% Dibromofluoromethane	95	%	95	95	0.0	92	93	1.1	70 - 130	30	
% Toluene-d8	83	%	99	100	1.0	100	98	2.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 459982 (ug/kg), QC Sample No: CC12501 (CC12942)											
Volatiles - Soil											
1,1,1-Trichloroethane	ND	5.0	108	106	1.9	106	106	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	107	105	1.9	100	103	3.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	101	99	2.0	111	110	0.9	70 - 130	30	
1,1-Dichloroethane	ND	5.0	109	107	1.9	106	102	3.8	70 - 130	30	
1,1-Dichloroethene	ND	5.0	109	109	0.0	108	108	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	87	93	6.7	97	99	2.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	88	93	5.5	102	103	1.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	102	101	1.0	102	106	3.8	70 - 130	30	
1,2-Dibromoethane	ND	5.0	104	101	2.9	102	102	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	102	102	0.0	106	107	0.9	70 - 130	30	
1,2-Dichloroethane	ND	5.0	105	102	2.9	102	103	1.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	103	100	3.0	102	102	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	102	102	0.0	106	109	2.8	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	102	101	1.0	106	108	1.9	70 - 130	30	
2-Hexanone	ND	25	85	80	6.1	82	82	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	25	91	85	6.8	108	108	0.0	70 - 130	30	
Acetone	ND	10	70	68	2.9	67	64	4.6	70 - 130	30	l,m
Benzene	ND	1.0	105	102	2.9	105	105	0.0	70 - 130	30	
Bromochloromethane	ND	5.0	107	106	0.9	108	105	2.8	70 - 130	30	
Bromodichloromethane	ND	5.0	106	102	3.8	102	102	0.0	70 - 130	30	
Bromoform	ND	5.0	105	103	1.9	99	99	0.0	70 - 130	30	
Bromomethane	ND	5.0	115	116	0.9	126	129	2.4	70 - 130	30	
Carbon Disulfide	ND	5.0	112	111	0.9	110	111	0.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	110	92	17.8	91	106	15.2	70 - 130	30	
Chlorobenzene	ND	5.0	105	103	1.9	106	108	1.9	70 - 130	30	
Chloroethane	ND	5.0	122	117	4.2	115	124	7.5	70 - 130	30	
Chloroform	ND	5.0	105	104	1.0	105	103	1.9	70 - 130	30	
Chloromethane	ND	5.0	109	106	2.8	109	107	1.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	109	104	4.7	109	103	5.7	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	105	103	1.9	105	105	0.0	70 - 130	30	
Cyclohexane	ND	5.0	102	99	3.0	103	102	1.0	70 - 130	30	
Dibromochloromethane	ND	3.0	108	109	0.9	106	106	0.0	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	138	136	1.5	132	138	4.4	70 - 130	30	l,m
Ethylbenzene	ND	1.0	106	105	0.9	110	111	0.9	70 - 130	30	
Isopropylbenzene	ND	1.0	104	103	1.0	104	108	3.8	70 - 130	30	
m&p-Xylene	ND	2.0	105	103	1.9	110	110	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	84	81	3.6	80	82	2.5	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	106	103	2.9	107	103	3.8	70 - 130	30	
Methylacetate	ND	5.0	104	99	4.9	115	116	0.9	70 - 130	30	
Methylcyclohexane	ND	5.0	97	93	4.2	97	99	2.0	70 - 130	30	
Methylene chloride	ND	5.0	90	89	1.1	92	91	1.1	70 - 130	30	
o-Xylene	ND	2.0	107	104	2.8	109	109	0.0	70 - 130	30	
Styrene	ND	5.0	104	103	1.0	107	108	0.9	70 - 130	30	
Tetrachloroethene	ND	5.0	104	102	1.9	107	110	2.8	70 - 130	30	
Toluene	ND	1.0	104	101	2.9	105	107	1.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	108	107	0.9	109	109	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	101	99	2.0	103	104	1.0	70 - 130	30	
Trichloroethene	ND	5.0	108	104	3.8	110	111	0.9	70 - 130	30	
Trichlorofluoromethane	ND	5.0	116	113	2.6	112	115	2.6	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	108	107	0.9	109	108	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCC11477

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Vinyl chloride	ND	5.0	120	118	1.7	121	121	0.0	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	101	100	1.0	70 - 130	30
% Bromofluorobenzene	97	%	99	99	0.0	104	103	1.0	70 - 130	30
% Dibromofluoromethane	99	%	99	101	2.0	100	94	6.2	70 - 130	30
% Toluene-d8	99	%	99	99	0.0	99	99	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.
s = This parameter is outside laboratory Blank Surrogate specified recovery limits.

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

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

Phyllis Shiller, Laboratory Director
December 19, 2018

Wednesday, December 19, 2018

Criteria: NJ: RC; NY: 375NR, 375RS, CP51S

State: NY

Sample Criteria Exceedances Report

GCC11477 - RCAGROUP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC11477	$8260_TCL_SM	Total Xylenes	NY / CP-51 Soil Cleanup / Gas & Fuel Oil Criteria	ND	1200	260	260	ug/kg
CC11477	$8260_TCL_SM	1,2-Dibromoethane	NJ / Soil Remediation Standard / Res. Direct Contact	ND	120	8	5	ug/kg
CC11477	$8260_TCL_SM	1,2-Dibromo-3-chloropropane	NJ / Soil Remediation Standard / Res. Direct Contact	ND	240	80	5	ug/kg
CC11477	$8260_TCL_SM	Benzene	NY / CP-51 Soil Cleanup / Gas & Fuel Oil Criteria	ND	120	60	60	ug/kg
CC11478	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	9.19	0.41	2.5	2.5	mg/Kg
CC11478	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	474	41	400	1	mg/Kg
CC11478	PB-SM	Lead	NY / 375-6.8 Metals / Residential	474	41	400	400	mg/Kg
CC11478	ZN-SM	Zinc	NY / 375-6.8 Metals / Commercial	11900	83	10000	10000	mg/Kg
CC11478	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	11900	83	2200	2200	mg/Kg
CC11479	AS-SM	Arsenic	NJ / Soil Remediation Standard / Res. Direct Contact	25.7	0.81	19	1	mg/Kg
CC11479	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	25.7	0.81	16	16	mg/Kg
CC11479	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential	25.7	0.81	16	16	mg/Kg
CC11479	CD-SM	Cadmium	NJ / Soil Remediation Standard / Res. Direct Contact	101	0.40	78	0.5	mg/Kg
CC11479	CD-SM	Cadmium	NY / 375-6.8 Metals / Commercial	101	0.40	9.3	9.3	mg/Kg
CC11479	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	101	0.40	2.5	2.5	mg/Kg
CC11479	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	6610	400	400	1	mg/Kg
CC11479	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	6610	400	1000	1000	mg/Kg
CC11479	PB-SM	Lead	NY / 375-6.8 Metals / Residential	6610	400	400	400	mg/Kg
CC11479	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	8.21	0.10	5	5	mg/L
CC11479	ZN-SM	Zinc	NJ / Soil Remediation Standard / Res. Direct Contact	201000	8100	23000	6	mg/Kg
CC11479	ZN-SM	Zinc	NY / 375-6.8 Metals / Commercial	201000	8100	10000	10000	mg/Kg
CC11479	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	201000	8100	2200	2200	mg/Kg
CC11482	$PCB_SMR	PCB-1254	NJ / Soil Remediation Standard / Res. Direct Contact	220	190	200	30	ug/Kg
CC11482	AS-SM	Arsenic	NJ / Soil Remediation Standard / Res. Direct Contact	33.1	0.82	19	1	mg/Kg
CC11482	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	33.1	0.82	16	16	mg/Kg
CC11482	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential	33.1	0.82	16	16	mg/Kg
CC11482	CD-SM	Cadmium	NY / 375-6.8 Metals / Commercial	43.7	0.41	9.3	9.3	mg/Kg
CC11482	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	43.7	0.41	2.5	2.5	mg/Kg
CC11482	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	3470	410	400	1	mg/Kg
CC11482	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	3470	410	1000	1000	mg/Kg
CC11482	PB-SM	Lead	NY / 375-6.8 Metals / Residential	3470	410	400	400	mg/Kg
CC11482	ZN-SM	Zinc	NJ / Soil Remediation Standard / Res. Direct Contact	139000	820	23000	6	mg/Kg
CC11482	ZN-SM	Zinc	NY / 375-6.8 Metals / Commercial	139000	820	10000	10000	mg/Kg
CC11482	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	139000	820	2200	2200	mg/Kg
CC11486	$PCB_SMR	PCB-1254	NJ / Soil Remediation Standard / Res. Direct Contact	220	85	200	30	ug/Kg
CC11486	AS-SM	Arsenic	NJ / Soil Remediation Standard / Res. Direct Contact	32.7	0.80	19	1	mg/Kg
CC11486	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	32.7	0.80	16	16	mg/Kg
CC11486	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential	32.7	0.80	16	16	mg/Kg
CC11486	CD-SM	Cadmium	NY / 375-6.8 Metals / Commercial	15.7	0.40	9.3	9.3	mg/Kg

Wednesday, December 19, 2018

Criteria: NJ: RC; NY: 375NR, 375RS, CP51S

State: NY

Sample Criteria Exceedances Report

GCC11477 - RCAGROUP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC11486	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	15.7	0.40	2.5	2.5	mg/Kg
CC11486	CU-SM	Copper	NY / 375-6.8 Metals / Commercial	273	8.0	270	270	mg/kg
CC11486	CU-SM	Copper	NY / 375-6.8 Metals / Residential	273	8.0	270	270	mg/kg
CC11486	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	2870	400	400	1	mg/Kg
CC11486	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	2870	400	1000	1000	mg/Kg
CC11486	PB-SM	Lead	NY / 375-6.8 Metals / Residential	2870	400	400	400	mg/Kg
CC11486	ZN-SM	Zinc	NJ / Soil Remediation Standard / Res. Direct Contact	51100	800	23000	6	mg/Kg
CC11486	ZN-SM	Zinc	NY / 375-6.8 Metals / Commercial	51100	800	10000	10000	mg/Kg
CC11486	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	51100	800	2200	2200	mg/Kg
CC11488	AS-SM	Arsenic	NJ / Soil Remediation Standard / Res. Direct Contact	32.3	0.85	19	1	mg/Kg
CC11488	AS-SM	Arsenic	NY / 375-6.8 Metals / Commercial	32.3	0.85	16	16	mg/Kg
CC11488	AS-SM	Arsenic	NY / 375-6.8 Metals / Residential	32.3	0.85	16	16	mg/Kg
CC11488	CD-SM	Cadmium	NY / 375-6.8 Metals / Commercial	11.8	0.42	9.3	9.3	mg/Kg
CC11488	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	11.8	0.42	2.5	2.5	mg/Kg
CC11488	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	1110	420	400	1	mg/Kg
CC11488	PB-SM	Lead	NY / 375-6.8 Metals / Commercial	1110	420	1000	1000	mg/Kg
CC11488	PB-SM	Lead	NY / 375-6.8 Metals / Residential	1110	420	400	400	mg/Kg
CC11488	ZN-SM	Zinc	NJ / Soil Remediation Standard / Res. Direct Contact	35600	850	23000	6	mg/Kg
CC11488	ZN-SM	Zinc	NY / 375-6.8 Metals / Commercial	35600	850	10000	10000	mg/Kg
CC11488	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	35600	850	2200	2200	mg/Kg
CC11490	CD-SM	Cadmium	NY / 375-6.8 Metals / Commercial	29.1	0.40	9.3	9.3	mg/Kg
CC11490	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	29.1	0.40	2.5	2.5	mg/Kg
CC11492	$8260_TCL_SM	Total Xylenes	NY / CP-51 Soil Cleanup / Gas & Fuel Oil Criteria	ND	1200	260	260	ug/kg
CC11492	$8260_TCL_SM	1,2-Dibromoethane	NJ / Soil Remediation Standard / Res. Direct Contact	ND	120	8	5	ug/kg
CC11492	$8260_TCL_SM	1,2-Dibromo-3-chloropropane	NJ / Soil Remediation Standard / Res. Direct Contact	ND	240	80	5	ug/kg
CC11494	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	3.65	0.40	2.5	2.5	mg/Kg
CC11494	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	7620	80	2200	2200	mg/Kg
CC11499	CD-SM	Cadmium	NY / 375-6.8 Metals / Residential	5.55	0.40	2.5	2.5	mg/Kg
CC11499	PB-SM	Lead	NJ / Soil Remediation Standard / Res. Direct Contact	707	40	400	1	mg/Kg
CC11499	PB-SM	Lead	NY / 375-6.8 Metals / Residential	707	40	400	400	mg/Kg
CC11499	ZN-SM	Zinc	NY / 375-6.8 Metals / Residential	6040	81	2200	2200	mg/Kg
CC11500	$8260_TCL_SM	Total Xylenes	NY / CP-51 Soil Cleanup / Gas & Fuel Oil Criteria	ND	320	260	260	ug/kg
CC11500	$8260_TCL_SM	1,2-Dibromoethane	NJ / Soil Remediation Standard / Res. Direct Contact	ND	32	8	5	ug/kg

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

December 19, 2018 SDG I.D.: GCC11477

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

EPH Narration

AU-FID7 12/12/18-1: CC11479, CC11483, CC11488, CC11491, CC11494, CC11495

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC11479, CC11494
Preceding CC D12A052 - None.
Succeeding CC D12A064 - >C28-C40 Timed Group 26%L (25%)
Samples:
Preceding CC D12B026 - C9-C28 Timed Range 43%H (25%), C9-C40 (Cat2) 31%H (25%)
Succeeding CC - None.

Herbicide Narration

AU-ECD12 12/12/18-1: CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC11478, CC11479, CC11482
Preceding CC D12B015 - None.
Succeeding CC D12B027 - Dalapon (1) 16%H (15%)
Samples:
Preceding CC D12B027 - Dalapon (1) 16%H (15%)
Succeeding CC - None.

AU-ECD12 12/13/18-1: CC12941

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC12941
Preceding CC D13B024 - Dalapon (1) 19%H (15%)
Succeeding CC D13B036 - Dalapon (1) 24%H (15%)

PEST Narration

AU-ECD4 12/12/18-1: CC11479, CC11486, CC11490, CC11491, CC11493, CC11494, CC11495, CC11499

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NY # 11301

Analysis Comments

December 19, 2018 SDG I.D.: GCC11477

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC11479, CC11490
Preceding CC D12B021 - % DCBP 36%L (20%), 4,4'-DDT 26%L (20%), a-BHC 27%L (20%), Endosulfan sulfate 25%L (20%), Endrin aldehyde 25%L (20%)
Succeeding CC D12B034 - % DCBP 42%L (20%), 4,4'-DDT 32%L (20%), a-BHC 31%L (20%), a-Chlordane 24%L (20%), Aldrin 24%L (20%), d-BHC 23%L (20%), Endosulfan II 22%L (20%), Endosulfan sulfate 29%L (20%), Endrin aldehyde 29%L (20%), Endrin Ketone 28%L (20%), Methoxychlor 25%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.
Samples: CC11486, CC11491, CC11493, CC11494
Preceding CC D12B034 - % DCBP 42%L (20%), 4,4'-DDT 32%L (20%), a-BHC 31%L (20%), a-Chlordane 24%L (20%), Aldrin 24%L (20%), d-BHC 23%L (20%), Endosulfan II 22%L (20%), Endosulfan sulfate 29%L (20%), Endrin aldehyde 29%L (20%), Endrin Ketone 28%L (20%), Methoxychlor 25%L (20%)
Succeeding CC D12B048 - % DCBP 52%L (20%), 4,4'-DDD 21%L (20%), 4,4'-DDE 27%L (20%), 4,4'-DDT 45%L (20%), a-BHC 41%L (20%), a-Chlordane 33%L (20%), Aldrin 34%L (20%), d-BHC 35%L (20%), Dieldrin 26%L (20%), Endosulfan I 22%L (20%), Endosulfan II 28%L (20%), Endosulfan sulfate 38%L (20%), Endrin 25%L (20%), Endrin aldehyde 36%L (20%), Endrin Ketone 30%L (20%), g-Chlordane 34%L (20%), Heptachlor 25%L (20%), Heptachlor epoxide 29%L (20%), Methoxychlor 33%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.
Samples: CC11495, CC11499
Preceding CC D12B048 - % DCBP 52%L (20%), 4,4'-DDD 21%L (20%), 4,4'-DDE 27%L (20%), 4,4'-DDT 45%L (20%), a-BHC 41%L (20%), a-Chlordane 33%L (20%), Aldrin 34%L (20%), d-BHC 35%L (20%), Dieldrin 26%L (20%), Endosulfan I 22%L (20%), Endosulfan II 28%L (20%), Endosulfan sulfate 38%L (20%), Endrin 25%L (20%), Endrin aldehyde 36%L (20%), Endrin Ketone 30%L (20%), g-Chlordane 34%L (20%), Heptachlor 25%L (20%), Heptachlor epoxide 29%L (20%), Methoxychlor 33%L (20%)
Succeeding CC D12B060 - % DCBP 44%L (20%), 4,4'-DDE 22%L (20%), 4,4'-DDT 44%L (20%), a-BHC 41%L (20%), a-Chlordane 33%L (20%), Aldrin 33%L (20%), Dieldrin 23%L (20%), Endosulfan II 21%L (20%), Endosulfan sulfate 30%L (20%), Endrin 30%L (20%), Endrin aldehyde 24%L (20%), Endrin Ketone 24%L (20%), g-Chlordane 27%L (20%), Heptachlor epoxide 23%L (20%), Methoxychlor 39%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

AU-ECD7 12/13/18-1: CC11478, CC11483, CC11488

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: CC11478, CC11483, CC11488
Preceding CC D13A005 - Methoxychlor 25%H (20%)
Succeeding CC D13A021 - 4,4'-DDD 23%H (20%)

SVOA Narration

CHEM07 12/13/18-1: CC11495

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 25% (20%), 4,6-Dinitro-2-methylphenol 26% (20%), Benzaldehyde 21% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.073 (0.1), Hexachlorobenzene 0.073 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.094 (0.1), Hexachlorobenzene 0.074 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM19 12/13/18-1: CC12941

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

December 19, 2018 SDG I.D.: GCC11477

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 26% (20%), 4,6-Dinitro-2-methylphenol 22% (20%), Benzaldehyde 22% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.054 (0.1), Hexachlorobenzene 0.090 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: Benzaldehyde 33%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.
The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.052 (0.1), Hexachlorobenzene 0.087 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM29 12/11/18-2: CC11478, CC11479, CC11482, CC11483, CC11486, CC11488, CC11490, CC11491, CC11493, CC11494, CC11499

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 22% (20%), 4,6-Dinitro-2-methylphenol 24% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.085 (0.1), Hexachlorobenzene 0.087 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.082 (0.1), Hexachlorobenzene 0.085 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM03 12/13/18-2: CC12942

The following Initial Calibration compounds did not meet RSD% criteria: 1,2,3-Trichlorobenzene 25% (20%), Acetone 36% (20%), Methyl ethyl ketone 21% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM14 12/12/18-3: CC11480, CC11481, CC11484, CC11485, CC11487, CC11489

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 39% (20%), Bromoform 25% (20%), Chloroethane 27% (20%), Dibromochloromethane 21% (20%), Methylacetate 22% (20%), Methylene chloride 22% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Bromoform 0.091 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: Acetone 32%L (30%), Methyl t-butyl ether (MTBE) 35%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM18 12/11/18-1: CC11477, CC11481, CC11485, CC11489, CC11492, CC11496, CC11497, CC11500

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

December 19, 2018 SDG I.D.: GCC11477

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 30% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Bromoform 0.080 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Bromoform 0.092 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM18 12/13/18-1: CC11496, CC11498

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 30% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: Bromoform 0.080 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: Acetone 31%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: None.
The following Continuing Calibration compounds did not meet recommended response factors: Bromoform 0.093 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

December 19, 2018

SDG I.D.: GCC11477

The samples in this delivery group were received at 1.0°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐

Temp 10° C Pg 1 of 3

PHOENIX
Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

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

Phone # (917) 620-5287
QUOTE#
Email: jamescervino@gmail.com

Customer: Restoration &Conservation Advisement Grp
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino

Project: OLD Nelson Foundry
11-03 33rd Ave
Long Island City Queens NY

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: 12/10/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (3) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL NAOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
11477	1A VOC	S	12/10/18	8AM		✓									3										Bag
11478	1A Comp+VOC	S			✓		✓			✓					3										1
11479	2A Comp+VOC	S			✓		✓			✓					3										1
11480	2A VOC	S				✓									3										
11481	2B VOC	S				✓									3										
11482	2B Comp+VOC	S			✓		✓			✓															1
11483	3A Underslab +VOC	S																							1
11484	3A VOC	S				✓																			.
11485	3B VOC	S				✓																			
11486	3B Comp+VOC	S			✓		✓			✓					↓										1
11487	4A+B VOC	S	↓		~~✓~~	✓									3										1

Relinquished by:	Accepted by:	Date:	Time:
	Aaron Bell	12/10/18	830
		12/10/18	16:21

Comments, Special Requirements or Regulations:

Turnaround:
- ☐ 1 Day*
- ☐ 2 Days*
- ☐ 3 Days*
- ☒ 5 Days
- ☐ 10 Days
- ☐ Other

* SURCHARGE APPLIES

NJ
- ☒ Res. Criteria
- ☐ Non-Res. Criteria
- ☐ Impact to GW Soil Cleanup Criteria
- ☐ Impact to GW soil screen Criteria
- ☐ GW Criteria

NY
- ☐ TOGS GW
- ☒ CP-51 SOIL
- ☐ 375SCO Unrestricted Soil
- ☒ 375SCO Residential Soil
- ☐ 375SCO Residential
- ☐ 375SCO Commercial Soil
- ☐ 375SCO Industrial Soil
- ☐ Subpart 5 DW

Data Format
- ☒ Phoenix Std Report
- ☒ Excel
- ☒ PDF
- ☐ GIS/Key
- ☐ EQuIS
- ☐ NJ Hazsite EDD
- ☐ NY EZ EDD (ASP)
- ☐ Other

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

What State were samples collected? NYC

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ No ☐
Temp 10 °C Pg 2 of 3

PHOENIX
Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

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

Phone # (917) 620-5287
QUOTE#
Email: jamescervino@gmail.com

Customer: Restoration &Conservation Advisement Grp
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino

Project: OLD Nelson Foundry
11-03 33rd Ave
Long Island City
Queens NY

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: 12/10/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( )oz	GL Soil container ( )oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NAOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
	4A+B+VOC Comp (Combined Grid)	S	12/10/18																							
11488		S			✓		✓			✓																
11489	5A VOC	S				✓																				
11490	5A Centeroil+VOC	S			✓		✓			✓																
11491	5B+VOC Comp	S			✓		✓			✓																
11492	5B VOC	S				✓																				
11493	6A Oil+VOC	S			✓		✓			✓																
11494	6B Comp+VOC	S			✓		✓			✓																
H495	7A+B Comp+VOC	S			✓		✓			✓																
	#8 A+B Comp+VOC	S																								

Relinquished by:	Accepted by:	Date:	Time:
		12/10/18	830
		12/10/18	1621

Comments, Special Requirements or Regulations:
Grid #1 - PID VOC = 200ppm
grid # 2 PID VOC = 170-175 ppm
GRID # 3 PID VOC = 90-120 ppm
GRID # 4 PID VOC = 25-50 ppm
Grid # 5 - Oil = 200 ppm

* not Rec'd (TSB)

Turnaround:
- ☐ 1 Day*
- ☐ 2 Days*
- ☐ 3 Days*
- ☒ 5 Days
- ☐ 10 Days
- ☐ Other

* SURCHARGE APPLIES

NJ
- ☒ Res. Criteria
- ☐ Non-Res. Criteria
- ☐ Impact to GW Soil Cleanup Criteria
- ☐ Impact to GW soil screen Criteria
- ☐ GW Criteria

What State were samples collected? NYC

NY
- ☐ TOGS GW
- ☒ CP-51 SOIL
- ☐ 375SCO Unrestricted Soil
- ☒ 375SCO Residential Soil
- ☐ 375SCO Residential
- ☐ 375SCO Commercial Soil
- ☐ 375SCO Industrial Soil
- ☐ Subpart 5 DW

Data Format
- ☒ Phoenix Std Report
- ☒ Excel
- ☒ PDF
- ☐ GIS/Key
- ☐ EQuIS
- ☐ NJ Hazsite EDD
- ☐ NY EZ EDD (ASP)
- ☐ Other

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

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 4°C Pg 3 of 3

PHOENIX
Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

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

Phone # (917) 620-5287
QUOTE#
Email: jamescervino@gmail.com

Customer: Restoration &Conservation Advisement Grp
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino

Project: Same as page 1 of 2

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: _____

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NAOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
11496	6 A VOC	S	12/10/15			✓																			
11497	6 B VOC	S				✓																			
11498	7 A+B VOC	S			✓			✓			✓														
11499	1 B Comp+VOC	S			✓			✓			✓														
11500	1 B VOC	S	↓			✓																			
12941	8 A Comp																								
12942	8 A Grab																								
12943	8 B Comp																								
12944	8 B Grab																								

Relinquished by:	Accepted by:	Date:	Time:
		8:30	12:10
		16:21	↓

Comments, Special Requirements or Regulations:
GRID #6 - 200 ppm PID VOC
GRID# 7 - ND ppm
GRID# 8 - ND ppm

Turnaround:
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [X] 5 Days
- [ ] 10 Days
- [ ] Other

* SURCHARGE APPLIES

NJ
- [X] Res. Criteria
- [ ] Non-Res. Criteria
- [ ] Impact to GW Soil Cleanup Criteria
- [ ] Impact to GW soil screen Criteria
- [ ] GW Criteria

What State were samples collected? NYC

NY
- [ ] TOGS GW
- [X] CP-51 SOIL
- [ ] 375SCO Unrestricted Soil
- [X] 375SCO Residential Soil
- [ ] 375SCO Residential
- [ ] 375SCO Commercial Soil
- [ ] 375SCO Industrial Soil
- [ ] Subpart 5 DW

Data Format
- [X] Phoenix Std Report
- [X] Excel
- [X] PDF
- [ ] GIS/Key
- [ ] EQuIS
- [ ] NJ Hazsite EDD
- [ ] NY EZ EDD (ASP)
- [ ] Other

Data Package
- [ ] NJ Reduced Deliv. *
- [ ] NY Enhanced (ASP B) *
- [ ] Other

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp 1.0 °C Pg of

PHOENIX
Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

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

QUOTE#

Customer: Restoration & Conservation Advisement Group
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino (917) 620-5287
jamescervino@gmail.com

Project: 1103 33rd AVE
Long Island City
Queens New York
Old Nelson Foundry

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 12/10/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (2) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NaOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is	B95
1A+B VOC	11477		12/10/18	8AM	X	X		X			X			X3													
1A&B+VOC	11478																										1
2A+VOC	11479					2A	TB	VOC			11480			3			(2)										M
2B+VOC	11482					2B	VOC				11487			3													1
3A UNDERSLAB+VOC	11483					3A	VOC				11484			3													M
3B+VOC	11486					3B	VOC				11485			3													M
4A+B VOC	11487													3													
4A&B+VOC (COMBINED GRID)	11488																										1
5A CENTER OIL+VOC	11490						5A	VOC			11489					1											1
5B+VOC	11491																										1
5B VOC	11492													3													

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12/10/18	830
[signature]	[signature]	12/10/18	16:21

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ 5 Days
☐ 10 Days
☐ Other
* SURCHARGE APPLIES

NJ
☒ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

NY
☐ TOGS GW
☒ CP-51 SOIL
☐ 375SCO Unrestricted Soil
☒ 375SCO Residential Soil
☐ 375SCO Residential Restricted Soil
☐ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

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

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

What State were samples collected? NYC

Comments, Special Requirements or Regulations:

TERRA-CORE
GRID#1 - PID VOC = 200ppm
GRID#2 PID VOC = 170-175ppm
GRID#3 PID VOC = 90-120 ppm
GRID#4 PID VOC = 25-50 ppm
GRID#5 - OIL = 2000 ppm

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

NY/NJ CHAIN OF CUSTODY RECORD

Temp 1.0 C Pg of

PHOENIX *Environmental Laboratories, Inc.*

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Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

QUOTE#

Customer: Restoration & Conservation Advisement Group
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino **(917) 620-5287**
jamescervino@gmail.com

Project: 11-03 33rd AVE
LONG ISLAND City
QUEENS NY
"OLD NELSON FOUNDRY"

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature [signature] Date: 12/10/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container [ ] oz	GL Soil container (2) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NaOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is	BAS
6A OIL + VOC	11493		12/10/18		X	X		X			X				V											1
6B + VOC	11494																									1
7A&B + VOC	11495																									1
*8A&B + VOC																										
6A VOC	11496														3											
6B VOC	11497															1										
7A+B VOC	11498														3											
1B	11499																									11
1B VOC	11500															1										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12/10/18	8PM
[signature]	[signature]	12/10/18	16:21

Turnaround:
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [X] 5 Days
- [ ] 10 Days
- [ ] Other

* SURCHARGE APPLIES

NJ
- [X] Res. Criteria
- [ ] Non-Res. Criteria
- [ ] Impact to GW Soil Cleanup Criteria
- [ ] Impact to GW soil screen Criteria
- [ ] GW Criteria

NY
- [ ] TOGS GW
- [X] CP-51 SOIL
- [ ] 375SCO Unrestricted Soil
- [X] 375SCO Residential Soil
- [ ] 375SCO Residential Restricted Soil
- [ ] 375SCO Commercial Soil
- [ ] 375SCO Industrial Soil
- [ ] Subpart 5 DW

Data Format
- [X] Phoenix Std Report
- [X] Excel
- [X] PDF
- [ ] GIS/Key
- [ ] EQuIS
- [ ] NJ Hazsite EDD
- [ ] NY EZ EDD (ASP)
- [ ] Other

Data Package
- [ ] NJ Reduced Deliv. *
- [ ] NY Enhanced (ASP B) *
- [ ] Other

What State were samples collected? NYC

Comments, Special Requirements or Regulations:

TENA CORE
GRID 6 - 200PPM PID-VOC
GRID 7 - NDPPM
GRID 8 - NDPPM *Not Rcv'd (TSB)

GCC11477

Tara Banning

From: Tara Banning
Sent: Monday, December 10, 2018 8:56 PM
To: 'jamescervino@gmail.com'
Subject: 11-03 33RD AVE

Hello,
For the above mentioned project we did not receive a sample set for 8 A+B+voc. Please let me know if you have any questions.

Thank you,

Tara Banning
Phoenix Environmental Labs

GCC 11477

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ No ☐
Temp 4 °C Pg of

PHOENIX *Environmental Laboratories, Inc.*

NY/NJ CHAIN OF CUSTODY RECORD

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

QUOTE#

Customer: Restoration & Conservation Advisement Group
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino (917) 620-5287
jamescervino@gmail.com

Project: OLD NELSON FOUNDRY
11-03 33rd AVE
LONG ISLAND CITY
QUEENS NEW YORK

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature [signature] Date: 12-10-18

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

Analysis Request: Bayshore Parameters, VOC, P Park Parameters, Waste Class Metals TCLP RCRA 8, Part 375 Parameters, TCLP Lead, NJ EPH, DRO, GRO, RCRA Characteristics, GL Amber 8 oz. w/H3PO4, Soil VOA Vials [ ] methanol [ ] H2O, GL Soil container ( ) oz, GL Soil container ( ) oz, 40 ml VOA Vial [ ] As is [ ] HCl, GL Amber 1000ml [ ] As is [ ] H2SO4, PL As is [ ] 250ml [ ] 500ml [ ] 1000ml, PL H2SO4 [ ] 250ml [ ] 500ml, PL NAOH 250ml, PL HNO3 250ml, Bacteria Bottle w/thio, Bacteria Bottle as is

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8
	5A CENTER OIL		12/10/18		✓	✓		✓
	5B VOC				✓	✓		✓
	6A VOC				✓	✓		✓
	6B VOC				✓	✓		✓
	7 A+B VOC				✓	✓		✓
✓	8 A+B VOC				✓	✓		✓
	1B comp				✓	✓		✓
	1B VOC				✓	✓		✓

8A Comp 12941
8A Grab 12942
8B Comp 12943
8B Grab 12944

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12-10-18	1216
[signature]	[signature]	12-12-18	1540

Turnaround: ☐ 1 Day* ☐ 2 Days* ☐ 3 Days* ☒ 5 Days ☐ 10 Days ☐ Other
* SURCHARGE APPLIES

NJ: ☒ Res. Criteria ☐ Non-Res. Criteria ☐ Impact to GW Soil Cleanup Criteria ☐ Impact to GW soil screen Criteria ☐ GW Criteria

NY: ☐ TOGS GW ☐ CP-51 SOIL ☐ 375SCO Unrestricted Soil ☐ 375SCO Residential Soil ☐ 375SCO Residential Restricted Soil ☐ 375SCO Commercial Soil ☐ 375SCO Industrial Soil ☐ Subpart 5 DW

Data Format: ☒ Phoenix Std Report ☒ Excel ☒ PDF ☐ GIS/Key ☐ EQuIS ☐ NJ Hazsite EDD ☐ NY EZ EDD (ASP) ☐ Other

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

What State were samples collected? NY

Comments, Special Requirements or Regulations:
PID-VOC DATA
5A GRID = 240 PPM
5B GRID = 225 PPM
6B GRID = 145 PPM
✓ Sample recieved 12/12/18

Monday, December 17, 2018

Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Project ID: 11-03 33RD AVE
Sample ID#s: CC11474 - CC11476

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

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

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

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

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

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

NY # 11301

SDG Comments

December 17, 2018

SDG I.D.: GCC11474

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

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	
Location Code:	RCAGROUP	Received by:	B	12/10/18	16:21
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11474
Phoenix ID: CC11474

Project ID: 11-03 33RD AVE
Client ID: GREEN #1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.38	0.38	mg/Kg	1	12/12/18	EK	SW6010C	
Arsenic	7.45	0.75	mg/Kg	1	12/12/18	EK	SW6010C	
Barium	81.1	0.38	mg/Kg	1	12/12/18	EK	SW6010C	
Cadmium	2.43	0.38	mg/Kg	1	12/12/18	EK	SW6010C	
Chromium	21.0	0.38	mg/Kg	1	12/12/18	EK	SW6010C	
Mercury	0.13	0.07	mg/Kg	1	12/12/18	RS	SW7471B	
Lead	308	3.8	mg/Kg	10	12/13/18	EK	SW6010C	
Selenium	< 1.5	1.5	mg/Kg	1	12/12/18	EK	SW6010C	
TCLP Silver	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Barium	0.27	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Chromium	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/13/18	rs	SW7470A	
TCLP Lead	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Selenium	< 0.10	0.10	mg/L	1	12/13/18	CPP	SW6010C	
TCLP Metals Digestion	Completed				12/13/18	EV/EV	SW3010A	
Percent Solid	91		%		12/10/18	AK	SW846-%Solid	
pH at 25C - Soil	6.47	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	485		mV	1	12/10/18	O	SM2580B-09	1
Mercury Digestion	Completed				12/12/18	EV/EV	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
TCLP Digestion Mercury	Completed				12/13/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/12/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	55	mg/kg	1	12/12/18	JRB	NJEPH 10-08 R3	1

Ver 1

Project ID: 11-03 33RD AVE
Client ID: GREEN #1

Phoenix I.D.: CC11474

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
C9-C28	ND	55	mg/kg	1	12/12/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	55	mg/kg	1	12/12/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	86		%	1	12/12/18	JRB	40 - 140 %	
% Terphenyl (surr)	79		%	1	12/12/18	JRB	40 - 140 %	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

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

TCLP Non-Volatile Extraction:
Sample weight was < 100 grams (the minimum requirement of the method to insure homogeneity).

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

If there are any questions regarding this data, please call Phoenix Client Services.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	
Location Code:	RCAGROUP	Received by:	B	12/10/18	16:21
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11474
Phoenix ID: CC11475

Project ID: 11-03 33RD AVE
Client ID: 5 CENTER SANDY

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.39	0.39	mg/Kg	1	12/12/18	EK	SW6010C	
Arsenic	1.87	0.79	mg/Kg	1	12/12/18	EK	SW6010C	
Barium	70.9	0.39	mg/Kg	1	12/12/18	EK	SW6010C	
Cadmium	1.08	0.39	mg/Kg	1	12/12/18	EK	SW6010C	
Chromium	24.1	0.39	mg/Kg	1	12/12/18	EK	SW6010C	
Mercury	< 0.03	0.03	mg/Kg	1	12/12/18	RS	SW7471B	
Lead	30.0	0.39	mg/Kg	1	12/12/18	EK	SW6010C	
Selenium	< 1.6	1.6	mg/Kg	1	12/12/18	EK	SW6010C	
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Barium	0.51	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	TH	SW6010C	
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A	
TCLP Lead	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A	
Percent Solid	87		%		12/10/18	AK	SW846-%Solid	
Chromium, Hex. (SW3060 digestion)	< 0.43	0.43	mg/Kg	1	12/13/18	KMH	SW7196A	
pH at 25C - Soil	6.01	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	268		mV	1	12/10/18	O	SM2580B-09	1
Mercury Digestion	Completed				12/12/18	EV/EV	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 5 CENTER SANDY

Phoenix I.D.: CC11475

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	56	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	ND	56	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	ND	56	mg/kg	1	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	80		%	1	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	80		%	1	12/13/18	JRB	40 - 140 %	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

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

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Dr. James M. Cervino
Restoration &Conservation Advisement Grp
9-22 119 Street
College Point, NY 11356

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/10/18	
Location Code:	RCAGROUP	Received by:	B	12/10/18	16:21
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC11474
Phoenix ID: CC11476

Project ID: 11-03 33RD AVE
Client ID: 4 12FT YELLOW

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	0.47	0.44	mg/Kg	1	12/12/18	EK	SW6010C	
Arsenic	2.13	0.88	mg/Kg	1	12/12/18	EK	SW6010C	
Barium	153	0.44	mg/Kg	1	12/12/18	EK	SW6010C	
Cadmium	0.67	0.44	mg/Kg	1	12/12/18	EK	SW6010C	
Chromium	14.9	0.44	mg/Kg	1	12/12/18	EK	SW6010C	
Mercury	0.45	0.08	mg/Kg	1	12/12/18	RS	SW7471B	
Lead	271	4.4	mg/Kg	10	12/13/18	EK	SW6010C	
Selenium	< 1.8	1.8	mg/Kg	1	12/12/18	EK	SW6010C	
TCLP Silver	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Arsenic	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Barium	0.16	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Cadmium	< 0.050	0.050	mg/L	1	12/12/18	TH	SW6010C	
TCLP Chromium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Mercury	< 0.0002	0.0002	mg/L	1	12/12/18	RS	SW7470A	
TCLP Lead	0.44	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Selenium	< 0.10	0.10	mg/L	1	12/12/18	TH	SW6010C	
TCLP Metals Digestion	Completed				12/12/18	Q/Q	SW3010A	
Percent Solid	80		%		12/10/18	AK	SW846-%Solid	
Chromium, Hex. (SW3060 digestion)	0.73	0.46	mg/Kg	1	12/13/18	KMH	SW7196A	
pH at 25C - Soil	4.53	1.00	pH Units	1	12/10/18 21:57	O	SW9045	1
Redox Potential	223		mV	1	12/10/18	O	SM2580B-09	1
Mercury Digestion	Completed				12/12/18	EV/EV	SW7471B	
EPH Extraction	Completed				12/11/18	MB/CK	NJDEP 10-08 R3	
TCLP Digestion Mercury	Completed				12/12/18	EV/EV	SW7470A	
TCLP Extraction for Metals	Completed				12/11/18	Q	SW1311	
Total Metals Digest	Completed				12/11/18	M/AG	SW3050B	

Ver 1

Project ID: 11-03 33RD AVE
Client ID: 4 12FT YELLOW

Phoenix I.D.: CC11476

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
NJ EPH Category 1 (Fuel #2/Diesel)								
>C28-C40	ND	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
C9-C28	2900	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
Total EPH	2900	310	mg/kg	5	12/13/18	JRB	NJEPH 10-08 R3	1
QA/QC Surrogates								
% COD (surr)	Diluted Out		%	5	12/13/18	JRB	40 - 140 %	
% Terphenyl (surr)	Diluted Out		%	5	12/13/18	JRB	40 - 140 %	

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

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

Hexavalent Chromium:
This sample is in a reducing state.

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

If there are any questions regarding this data, please call Phoenix Client Services.
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Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

December 17, 2018

QA/QC Data

SDG I.D.: GCC11474

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 459748 (mg/kg), QC Sample No: CC12354 40X (CC11475, CC11476)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.41	<0.40	NC	98.2						85 - 115	30	
Chromium, Hexavalent (Ins)						101			101			85 - 115	30	
Chromium, Hexavalent (Sol)						96.2			89.3			85 - 115	30	
QA/QC Batch 459424 (mg/kg), QC Sample No: CC10013 (CC11474, CC11475, CC11476)														
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	98.0	96.1	2.0	91.0			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 459533 (mg/L), QC Sample No: CC11558 (CC11475, CC11476)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	101			80.9			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 459737 (mg/L), QC Sample No: CC12415 (CC11474)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	95.5			83.2			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 459456 (mg/kg), QC Sample No: CC11754 (CC11474, CC11475, CC11476)														
ICP Metals - Soil														
Arsenic	BRL	0.64	1.67	1.59	NC	113			103			75 - 125	30	
Barium	BRL	0.32	45.5	44.2	2.90	112			108			75 - 125	30	
Cadmium	BRL	0.32	0.43	0.51	NC	108			102			75 - 125	30	
Chromium	BRL	0.32	10.6	28.5	91.6	108			105			75 - 125	30	r
Lead	BRL	1.2	19.6	22.8	15.1	106			103			75 - 125	30	
Selenium	BRL	1.3	<1.4	<1.5	NC	97.9			94.9			75 - 125	30	
Silver	BRL	0.32	<0.36	<0.38	NC	101			97.3			75 - 125	30	
QA/QC Batch 459546 (mg/L), QC Sample No: CC11754 (CC11475, CC11476)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.01	<0.01	<0.01	NC	114			105			75 - 125	20	
Barium	BRL	0.01	0.38	0.38	0	108			94.8			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	108			99.5			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	103			100			75 - 125	20	
Lead	BRL	0.010	0.054	0.052	3.80	106			99.8			75 - 125	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	113			104			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	101			104			75 - 125	20	
QA/QC Batch 459742 (mg/L), QC Sample No: CC12444 (CC11474)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.01	<0.01	<0.01	NC	111			102			75 - 125	20	
Barium	BRL	0.01	0.68	0.68	0	102			93.7			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	106			97.3			75 - 125	20	

QA/QC Data

SDG I.D.: GCC11474

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chromium	BRL	0.010	<0.010	<0.010	NC	100			93.8			75 - 125	20
Lead	BRL	0.010	0.044	0.046	NC	102			94.1			75 - 125	20
Selenium	BRL	0.01	<0.01	<0.01	NC	110			99.7			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	98.6			93.7			75 - 125	20

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

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

NY # 11301

QA/QC Report

December 17, 2018

QA/QC Data

SDG I.D.: GCC11474

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 459446 (mg/kg), QC Sample No: CC11933 (CC11474, CC11475, CC11476)											
Extractable Petroleum Hydrocarbons - Soil											
C9-C28	ND	50	113	80	34.2	65	72	10.2	40 - 140	30	r
>C28-C40	ND	50							40 - 140	30	
% Terphenyl (surr)	70	%	115	96	18.0	85	101	17.2	40 - 140	30	
% COD (surr)	71	%	73	75	2.7	84	74	12.7	40 - 140	30	

Comment:

Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%

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

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

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

Phyllis Shiller, Laboratory Director
December 17, 2018

Monday, December 17, 2018

Criteria: NJ: RC; NY: 375, 375NR, 375RS, CP51S

State: NY

Sample Criteria Exceedances Report

GCC11474 - RCAGROUP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC11474	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	308	3.8	63	63	mg/Kg
CC11476	HG-SM	Mercury	NY / 375-6.8 Metals / Unrestricted Use Soil	0.45	0.08	0.18	0.18	mg/Kg
CC11476	PB-SM	Lead	NY / 375-6.8 Metals / Unrestricted Use Soil	271	4.4	63	63	mg/Kg

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

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

December 17, 2018 SDG I.D.: GCC11474

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

EPH Narration

AU-FID7 12/12/18-1: CC11474, CC11475, CC11476

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples:
Preceding CC D12B026 - C9-C28 Timed Range 43%H (25%), C9-C40 (Cat2) 31%H (25%)
Succeeding CC - None.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

December 17, 2018

SDG I.D.: GCC11474

The samples in this delivery group were received at 1.0°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [1] No [ ]
Coolant: IPK [1] ICE [ ] No [ ]
Temp 1.0 C Pg of

NY/NJ CHAIN OF CUSTODY RECORD

PHOENIX *Environmental Laboratories, Inc.*

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

QUOTE#

Customer: Restoration & Conservation Advisement Group
Address: 9-22 119th Street
College Point, NY 11356
Dr James Cervino **(917) 620-5287**
jamescervino@gmail.com

Project: 11-03 33rd Ave
Long Is City Queens
OLD NELSON FOUNDRY

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature Date: 12/10/18

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (2) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NaOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
	GREEN #1	11474						X			X															
	SCENTER SANDY +	11475																								
	4 PT YELLOW	11476																								

+ HEXCHROM

Relinquished by:	Accepted by:	Date:	Time:
		12/10/18	8:30
Emily	Matthew	12/10/18	16:21

Comments, Special Requirements or Regulations:

Turnaround:
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [X] 5 Days
- [ ] 10 Days
- [ ] Other

* SURCHARGE APPLIES

NJ
- [X] Res. Criteria
- [ ] Non-Res. Criteria
- [ ] Impact to GW Soil Cleanup Criteria
- [ ] Impact to GW soil screen Criteria
- [ ] GW Criteria

What State were samples collected? NYC

NY
- [ ] TOGS GW
- [X] CP-51 SOIL
- [X] 375SCO Unrestricted Soil
- [X] 375SCO Residential Soil
- [ ] 375SCO Residential Restricted Soil
- [ ] 375SCO Commercial Soil
- [ ] 375SCO Industrial Soil
- [ ] Subpart 5 DW

Data Format
- [X] Phoenix Std Report
- [X] Excel
- [X] PDF
- [ ] GIS/Key
- [ ] EQuIS
- [ ] NJ Hazsite EDD
- [ ] NY EZ EDD (ASP)
- [ ] Other

Data Package
- [ ] NJ Reduced Deliv. *
- [ ] NY Enhanced (ASP B) *
- [ ] Other

Cooler: Yes [1] No [ ]
Coolant: IPK [ ] ICE [1] No [ ]

PHOENIX
Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

Temp 1.0 °C Pg of

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Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Bayshore Parameters	VOC	P Park Parameters	Waste Class Metals TCLP RCRA 8 + Total RCRA 8	Part 375 Parameters	TCLP Lead	NJ EPH	DRO	GRO	RCRA Characteristics	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (2) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL NaOH 250ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
	GREEN #1		11474				X				X														
	SCENTER SAND +		11475				↓				+ HEXCHROM														
	4 12FT YELLOW		11476																						

Relinquished by:	Accepted by:	Date:	Time:
		12/10/18	8:30
	Malina	12/10/18	16:21

Comments, Special Requirements or Regulations:
add Total RCRA 8 per James
12/12/18 SD

Turnaround:
- [ ] 1 Day*
- [ ] 2 Days*
- [ ] 3 Days*
- [X] 5 Days
- [ ] 10 Days
- [ ] Other

* SURCHARGE APPLIES

NJ
- [X] Res. Criteria
- [ ] Non-Res. Criteria
- [ ] Impact to GW Soil Cleanup Criteria
- [ ] Impact to GW soil screen Criteria
- [ ] GW Criteria

What State were samples collected? NYC

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- [ ] TOGS GW
- [X] CP-51 SOIL
- [X] 375SCO Unrestricted Soil
- [X] 375SCO Residential Soil
- [ ] 375SCO Residential Restricted Soil
- [ ] 375SCO Commercial Soil
- [ ] 375SCO Industrial Soil
- [ ] Subpart 5 DW

Data Format
- [X] Phoenix Std Report
- [X] Excel
- [X] PDF
- [ ] GIS/Key
- [ ] EQuIS
- [ ] NJ Hazsite EDD
- [ ] NY EZ EDD (ASP)
- [ ] Other

Data Package
- [ ] NJ Reduced Deliv. *
- [ ] NY Enhanced (ASP B) *
- [ ] Other

Bobbi Aloisa

From: Bobbi Aloisa
Sent: Thursday, December 13, 2018 12:16 PM
To: jamescervino@gmail.com
Cc: Sarah Bell; Bobbi Aloisa
Subject: RE: No sample left for Hex cr

James
That applies to only sample Green #1

Bobbi Aloisa
Vice President
Director of Client Services
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 860-645-8728

-----Original Message-----
From: Bobbi Aloisa
Sent: Thursday, December 13, 2018 12:15 PM
To: jamescervino@gmail.com
Cc: Sarah Bell; Bobbi Aloisa
Subject: No sample left for Hex cr

Hi James,
On the attached chain, you added on Hex Cr to the sample, we do not have any sample volume left to run this test.

Bobbi

Bobbi Aloisa
Vice President
Director of Client Services
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040
Ph: 860-645-8728