PHASE II ENVIRONMENTAL SITE ASSESSMENT

2929-2939 MAIN STREET

CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared for:

DFFusion Investments
1425 N. University Avenue
Provo, UT 84604

Prepared by:

Panamerican Environmental, Inc./BE3
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January 2017

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January 2017

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1.0 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION AND PURPOSE

Panamerican Environmental, Inc. (PEI)/BE3 performed a focused Phase II Environmental Site Assessment for 2929-2939 Main Street property located in the City of Buffalo, New York (refer to Figure 1). Currently the property is occupied and owned by the Keystone Corp. an electroplating company. Past uses of portions of the property include auto/truck manufacturing, gasoline pump manufacturing, cereal manufacturing, dairy equipment manufacturing, paint manufacturing, auto repair and plating.

The scope of work for this Phase II ESA was based on the findings of a Phase I ESA completed on the property *("Phase I Environmental Site Assessment Keystone Corporation, 2929 and 2939 Main St. Buffalo, NY" Completed by Hazard Evaluations for* Keystone Corporation *in December 2014*) and the findings of a limited Phase II ESA ("*Preliminary Environmental Assessment Phase II Report, Marlette National Corporation";* Prepared for Marlette National Company and Keystone Corporation; Prepared by Hazard Evaluations, Inc. February 1990). The purpose of the scope was to complete due diligence for the property and to collect additional data for application into the NYSDEC Brownfield Cleanup Program (BCP).

1.2 SCOPE

The scope of work included the following tasks:

- Detailed review of historical information to finalize the specific Phase II tasks;
- Complete subsurface soil assessment;
- Confirm depth to bedrock across the property; and
- Preparation of an assessment (Phase II ESA) report

1.3 BACKGROUND

The two parcel 2929-2939 Main Street property is located in the City of Buffalo at the east side of the corner of Main Street and Hertel Avenue. The 2929 Main Street parcel is approximately 0.5-acres and the 2939 Main Street parcel is approximately 4.4-acres. There are 4 buildings on the property and an old vacant former oil house that is deteriorating and overgrown with trees. A summary of the structures is as follows:

- Building 1 (office Building): This is a 2-story approximately 4,300 square foot structure. This building is used as Keystone Office
- Building 2 (Rental Building) This is a 2-story approximately 15,900 square foot structure this building is used for storage and was previously office space and warehouse
- Building 3 (Main Plating Building): This is a 2/3-story building approximately 50,

THIS DRAWING IS FOR ILLUSTRATIVE AND INFORMATIONAL PURPOSES ONLY
AND WAS ADAPTED FROM USGS, BUFFALO NE, NEW YORK 2013 QUADRANGLE.

Figure: Property Location

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700 square feet. The building is occupied by Keystone Corporation and includes the electroplating operation. Much of the second/third floors are currently vacant. The wastewater treatment system, plating tanks, storage and other operations are mostly contained on the first floor.

- Building 4: This is a 1-srory approximately 9,300 square foot building. This building is used for storage of raw and finished products.

All these buildings had other operations historically. The Phase I ESA identified the following environmental issues:

- The subject property has been the location for various manufacturing or electroplating operations since 1910. These operations have used various hazardous materials and petroleum products and produced organic and inorganic chemical and petroleum wastes as well as metal wastes. Past practices concerning operations and waste handling varied and are unknown for the most part.
- A previous Phase II ESA in 1990 confirmed petroleum and chemical impacts to soil and although some very specific hot spot remediation was completed, the potential for soil and groundwater impacts were identified as possibly still being present.
- Potential releases from past operations including tin shop, paint manufacturing, and auto repair may have added to potential releases and impacts.
- Several underground storage tanks (USTs) and aboveground storage tanks (ASTs) were associated with the property and these may have impacted soils and groundwater.
- A pit/sump was located in the southeast corner of Building 3. This pit was reportedly associated with the use of degreasers including trichloroethene (TCE). This may have impacted soil and groundwater and may represent a vapor intrusion issue.
- The former oil pump house has several pipes protruding from the building/ground. These may represent either associated USTs or oil lines that fed through and were pumped from this location. Previous surface soil samples in this area indicated petroleum impacts.
- Several rail road spurs are located on the property (south and eastern portion). The Phase I ESA speculated that spills of petroleum or hazardous materials along these spurs may have occurred or may be present from rail ballasts.
- Debris and mounding was observed in the eastern and southeastern areas of the property. The Phase I ESA observed fill of unknown origin, brick, concrete, rusted/empty 55-gallon drums, 5-gallon containers, roofing shingles, tires, and wood.
- Transformers were located in near building 3 and on the roof of Building 4. No information concerning the PCB content.
- Various pits and trenches are located with the electroplating operations and are used to transport various plating liquid waste to the wastewater treatment plant. These pits/trenches were excavated to bedrock.
- The precious metal room located on the second floor of Building 3 has a wood floor

and extensive buildup of residue from general dripping during operations.
- Adjacent Monroe Muffler was historically a gasoline service station that contained multiple USTs

The Phase II ESA completed in 1990 was very limited especially with respect to the type of analysis and samples collected. The analytical data was limited and mainly included Toxicity Characteristic Leaching Procedure (TCLP) metals. Some of the Total Petroleum Hydrocarbon (TPH) results in areas that had aboveground storage tanks were very high indicating petroleum impacts were present. There was also one area that had a high lead TCLP result. These areas were reportedly remediated. The test pit data indicated bedrock is very shallow across the site (3' to 5' bgs).

Currently the property is occupied and owned by the Keystone Corporation which is an electroplating company and occupies the four buildings. The Keystone Corporation provides industrial metal finishing and metal plating. Plating include cadmium, copper and nickel including electrolysis nickel plating, gold, silver, tin, tin/lead solder plate, zinc, phosphate, manganese phosphate, zinc phosphate and tin alloy plating. The Keystone Corporation has been associated with the property since at least the 1990s. A previous plating company was associated with the property since at least the 1970s. Past uses of portions of the property include auto/truck manufacturing, gasoline pump manufacturing, cereal manufacturing, dairy equipment manufacturing, paint manufacturing, auto repair and plating. Contaminates potentially include polycyclic aromatic hydrocarbons (PAHs), metals and volatiles including petroleum and solvents as well as acids and bases. Various media including surface and subsurface soil, groundwater and air (vapor intrusion) would be potentially affected. Areas of the building may be impacted with petroleum, solvents, acids and bases and plating waste.

More detailed information of the history of the properties is contained in the separate Phase I ESA report identified in Section 1.1.

2.0 FIELD INVESTIGATIONS

The purpose of the limited Phase II ESA is to assess the potential for environmental impacts indicated by historical use at/adjacent to the subject property. The objective of this assessment was to perform a field verification concerning subsurface conditions relative to the potential recognized environmental conditions identified in the Phase I ESA and previous limited Phase II ESA as summarized in Section 1.1. The data collected is intended to be used for Brownfield redevelopment.

Field work was completed at the property on December 20, 2016. Weather conditions included cold temperatures, with mostly clear skies. A summary of the field investigation methodology and findings is presented below.

2.1 DETAILED ASSESSMENT OF HISTORICAL INFORMATION

PEI completed a detailed review of historical information compiled in the Phase I and II ESAs as described in Section 1.3 including a review of historic Sanborn maps, aerial photographs other records and filed data. Based on this information, a subsurface soil investigation was developed to collect soil data across the property.

2.2 SUBSURFACE SOIL/SOIL GAS ASSESSMENT

PEI completed a soil screening to investigate subsurface conditions at the 2929-2939 Main Street property. A total of sixteen (16) borings were advanced to a depth of between two and eight feet (2-8 feet) below ground surface (bgs) using Geoprobe® direct push technology. The sixteen (16) soil borings were installed by PEI and SJB Empire Geo Services over a one day period on December 20, 2016. Continuous soil sampling was conducted using the Geoprobe® with a two-inch diameter sampler. The majority of the borings were advanced to refusal/bedrock – a depth of just less than two (2) to just less than eight (8) bgs. Continuous soil sampling was performed using Macro Core soil samplers measuring 44 inches in length and 1½ inches in diameter with acetate liners. Each of the samplers used were fitted with a new acetate liner prior to use.

Boring locations are shown on the attached figures that show the relative boring locations on aerial photographs. Additionally, a photographic record of boring locations and or core samples is provided in Appendix A.

Borings were located across the property in areas of known fill materials or adjacent to manufacturing operations/former petroleum tanks. A field technician/geologist performed visual, and field screening of all soil cores for volatile organic compound (VOC) concentrations using a photoionization detector (PID) and to summarize the geology. Since a separate geotechnical study is being performed on these properties, the focus of this assessment was directed at assessing environmental impact and not geology. Soil samples were retained for laboratory analysis based on field screening PID results or on visual observations (see Section 2.3.1 below).

All soil borings were advanced at a minimum distance of 2.5 feet away from marked utilities, where present, to reduce the possibility of accidentally damaging an underground line. All probe holes were filled with indigenous soil or clean sand prior to leaving the location. Stratification of material in the borings and observations were noted on boring logs (refer to Appendix C). All sampling tools were cleaned with Alconox, double rinsed with tap water and rinsed with distilled water between sample collection points.

2.2.1 Boring/Sample Summary

A total of ten (10) soil samples were collected for laboratory analysis from the 16 borings. Sample analysis included analysis for the Brownfield list of parameters - NYSDEC Part 375 brownfield list – metals, volatile and semi-volatile organic compounds (VOCs & SVOCs), pesticides and PCBs.

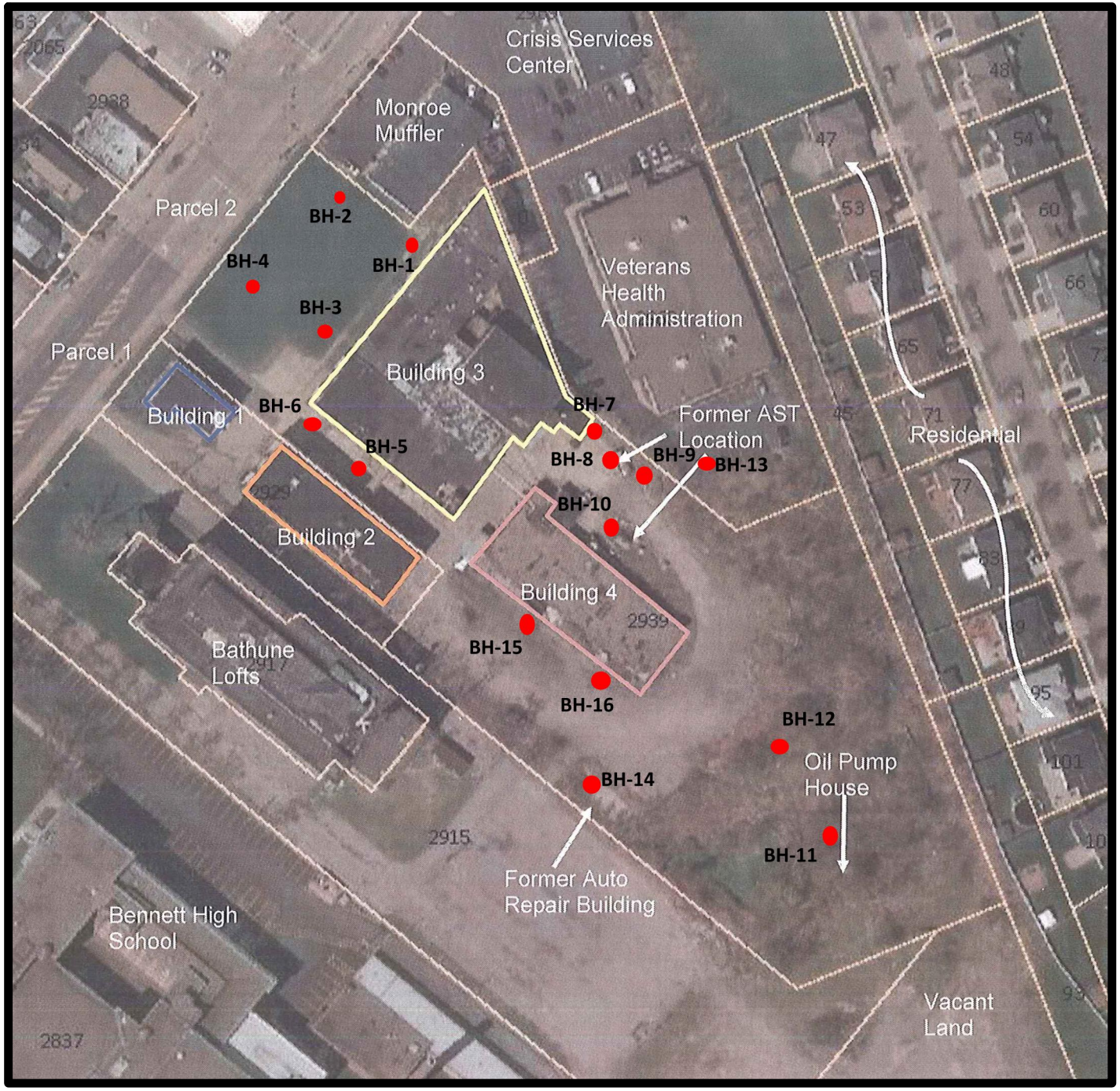

FIGURE: PHASE II BORING LOCATIONS

SOURCE: HAZARDS EVALUATIONS INC., PHASE I/II AUDITS-SITE INVESTIGATIONS FACILITY, INSPECTIONS REPORTS 12/14

COMMERCIAL PROPERTY
2929 & 2939 MAIN STREET
BUFFALO, NEW YORK

Panamerican Environmental, Inc.
2390 Clinton Street, Buffalo, NY 14227
W-716-821-1650 C-716-308-8220

DATE:12/28/16

SCALE: N/A

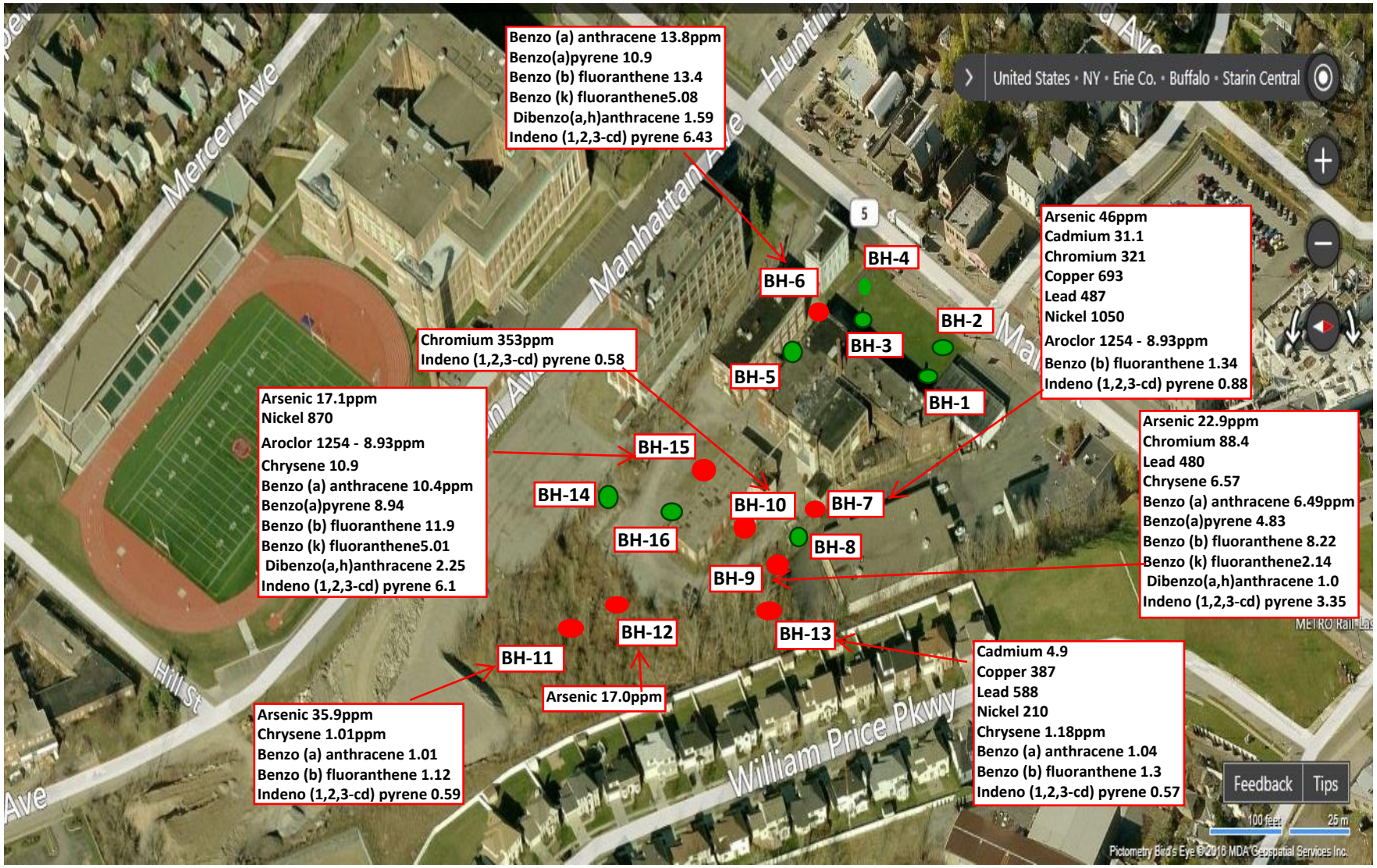

Figure: Phase II Boring Locations with results
Source: Bing Maps
Annotated Sample Results with concentrations above Residential/Restricted Residential. Samples Collected on 12-20-2016

Boreholes that had results in excess of residential/restricted residential NYSDEC Brownfields 375 SCOs.

Boreholes not sampled or with results less than residential/restricted residential NYSDEC Brownfields 375 SCOs

2.2.2 PID SCREENING AND FIELD OBSERVATION RESULTS

Soil cores from boreholes were screened for total VOCs using a MiniRAE 3000 Photoionization Detector (PID) with a 10.6 electron volt (eV) lamp. A PID is used mostly to detect VOCs in soil, sediment, air and water; and is often used to detect contaminants in ambient air and soil during drilling activities and during spills to identify potential problems. A PID is a portable vapor and gas detector that detects a variety of organic compounds. A PID contains a lamp that is rated to a specific ionization potential measured in electron volts (eV) such as 9.8 eV, 10.6 eV, and 11.7 eV. When the lamp ignites and a gas molecule passes through the light emitted from it, the molecule is ionized if the ionization potential of the molecule is less than the ionization potential of the lamp or nothing happens if the molecule's ionization potential is above that of the lamp. Once ionized, positive and negative ions are collected on electrodes, which produce a signal that is directly proportional to the amount of ions present at the electrodes. The signal is then displayed in parts per million on the instrument display. A PID with a 10.6 eV lamp was used on this project.

Elevated PID readings were only observed at one boring; BH-10 at a depth of 3-5 feet bgs. The soil at this depth consisted of wet silty sand with clay and bedrock was encountered at 5 feet bgs. The PID levels were around 50 ppm and a petroleum odor was noted in the field at this depth. This location corresponded to an area where an aboveground petroleum tank was formerly stored.

Based on the borings, most of the property contains fill material which includes silty gravelly soil and shallow bedrock. Some locations, particularly along the east, south and southeast had fill material with brick, cement, some ash and gravel. The bedrock ranged from 1.4 feet bgs to 7.8 feet bgs with most borings reaching bedrock between 4-5 feet bgs. The areas of deeper bedrock corresponded to thicker fill layers in the south and east portions of the property. A description of soil and bedrock is contained in boring logs in Appendix C.

A number of old 55-gallon drums that appeared “pooched” (distorted possibly due to expansion) were observed around the old Oil House in the south-southeast corner of the property.

2.2.3 LABORATORY ANALYTICAL RESULTS

The analytical results from the sample collection are summarized in Table 1, which presents all ten samples sent for analyses. The table compares the results with NYS standards, specifically, the restricted and unrestricted NYSDEC Soil Cleanup Objectives (SCOs) as presented in 6 NYCRR Part 375-6.8 (b). The complete set of analytical data is provided in Appendix B. A summary review of the results follows:

TABLE 1 - 2929-2939 MAIN STREET - KEYSTONE SITE - SOIL SAMPLE ANALTICAL RESULTS SUMMARY												
Sampling Program	**PHASE 2 SOIL BORING PROGRAM**											
Sample No.	**BH-1**	**BH-3**	**BH-6**	**BH-7**	**BH-9**	**BH-10**	**BH-11**	**BH-12**	**BH-13**	**BH-15**	**NYSDEC**	**NYSDEC**
Sample Date	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**12/20/2016**	**PART 375**	**PART 375**
Sample Depth Feet (bgs)	**0-2**	**0.5-2**	**0-2.5**	**2-4.5**	**0-2**	**2-4.5**	**2-4.0**	**0-7**	**0-5**	**2-4.0**	**Residential**	**Res Residential**
Compounds	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
Metals											**(a)**	**(b)**
Arsenic	7.9	11.9	3.4	**46 (a)(b)**	**22.9 (a)(b)**	15.5	**35.9 (a)(b)**	**17 (a)(b)**	10.1	**17.1 (a)(b)**	16	16
Barium	107	79.7	42.7	184	166	150	128	236	167	73.2	350	400
Beryllium	ND	0.65	0.26	0.95	0.7	0.58	0.59	0.87	0.7	0.81	14	72
Cadmium	0.63	0.75	ND	**31.1 (a)(b)**	7.7	ND	2.9	0.59	**4.9 (a)(b)**	1.7	2.5	4.3
Chromium											36	180
Copper	43.7	88.8	33.6	**693 (a)(b)**	238	42	61.5	67.1	**387 (a)(b)**	137	270	270
Lead	72	80.1	86.7	**487 (a)(b)**	**480 (a)(b)**	62.6	138	165	**588 (a)(b)**	84.4	400	400
Manganese	830	548	221	1240	430	246	490	583	339	514	2000	2000
Mercury	0.2	0.17	0.06	0.72	0.39	0.2	0.2	0.15	0.4	0.15	0.81	0.81
Nickel	26.9	38.5	9.4	**1050 (a)(b)**	82.5	56.4	33.1	42.7	**210 (a)**	**870 (a)(b)**	140	310
Silver	ND	ND	ND	8.4	ND	ND	ND	ND	2.9	ND	36	180
Zinc	134	119	96.9	666	1480	114	250	139	508	233	2200	10000
Volatiles												
Acetone	ND	ND	ND	ND	ND	0.012	ND	ND	ND	ND	100	100
Benzene	ND	ND	ND	0.0003	ND	ND	ND	ND	ND	ND	2.9	4.8
cis-1,2-Dichloroethene	ND	ND	0.001	0.0005	ND	ND	ND	ND	ND	ND	59	100
Methylene chloride	0.002	0.003	0.002	ND	0.003	ND	0.002	0.002	ND	ND	51	100
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.002	ND	ND	ND	ND	47	52
1,1,1-Trichloroethane	ND	0.0004	ND	ND	0.0003	ND	ND	ND	ND	ND	100	100
Trichloroethene	0.003	0.007	0.004	0.06	0.002	ND	0.001	0.0003	0.002	0.002	10	21
Xylene (total)	ND	ND	ND	0.0008	ND	0.0003	ND	ND	0.0002	ND	100	100
PCBs												
Aroclor 1254	ND	ND	0.12	**8.93 (a)(b)**	ND	0.079	ND	ND	0.25	0.11	1	1
Pesticides												
4,4'-DDT	0.002	0.002	ND	ND	ND	ND	0.071	0.003	0.028	ND	1.7	7.9
4,4'-DDE	0.001	0.002	ND	ND	ND	ND	0.075	0.003	0.004	ND	1.8	8.9
4,4'-DDD	ND	ND	ND	ND	ND	ND	0.003	ND	ND	0.003	2.6	13
delta-BHC	ND	ND	ND	ND	ND	ND	0.012	0.0004	ND	0.001	100	100
alpha-Chlordane	ND	ND	ND	ND	ND	ND	0.071	0.009	ND	ND	0.91	4.2
Dieldrin	ND	ND	ND	ND	ND	ND	0.039	0.002	ND	ND	0.039	0.2
Lindane	ND	ND	ND	ND	0.006	ND	ND	ND	ND	0.01	0.28	1.3000
SVOCs (PAHS)												
Chrysene	0.16	0.36	12.1	0.99	**6.57 (a)(b)**	0.42	**1.01 (a)**	0.49	**1.18 (a)**	**10.9 (a)(b)**	1	3.9
Phenol	ND	ND	ND	ND	0.087	ND	ND	ND	ND	0.09	100	100
Acenaphthene	ND	0.038	3.78	0.089	0.52	0.031	0.197	0.045	0.18	2.8	100	100
Acenaphthylene	ND	0.027	0.095	0.13	0.17	0.024	0.05	0.1	0.074	0.43	100	100
Anthracene	0.036	0.107	7.53	0.34	1.23	0.093	0.511	0.16	0.37	4	100	100
Benzo (a) anthracene	0.14	0.35	**13.8 (a)(b)**	0.9	**6.49 (a)(b)**	0.45	**1.01 (a)(b)**	0.42	**1.04 (a)(b)**	**10.4 (a)(b)**	1	1
Benzo(a)pyrene	0.14	0.31	**10.9 (a)(b)**	0.9	**4.83 (a)(b)**	0.66	0.88	0.45	0.85	**8.94 (a)(b)**	1	1
Benzo (b) fluoranthene	0.21	0.42	**13.4 (a)(b)**	**1.34 (a)(b)**	**8.22 (a)(b)**	0.74	**1.12 (a)(b)**	0.59	**1.3 (a)(b)**	**11.9 (a)(b)**	1	1
Benzo (g,h,i) perylene	0.089	0.18	5.72	0.78	2.71	0.52	0.5	0.32	0.48	4.2	100	100
Benzo (k) fluoranthene	0.073	0.17	**5.08 (a)(b)**	0.44	**2.14 (a)**	0.27	0.44	0.22	0.4	**5.01 (a)(b)**	1	3.9
Dibenzo(a,h)anthracene	ND	0.054	**1.59 (a)(b)**	0.2	**1 (a)(b)**	0.14	0.14	0.086	0.16	**2.25 (a)(b)**	0.33	0.33
Fluoranthene	0.29	0.62	32.5	1.22	11.2	0.4	1.99	0.69	2.09	27.2	100	100
Fluorene	ND	0.43	3.2	0.11	0.4	0.19	0.2	0.048	0.16	1.98	100	100
Indeno (1,2,3-cd) pyrene	0.098	0.21	**6.43 (a)(b)**	**0.88 (a)(b)**	**3.35 (a)(b)**	**0.58 (a)(b)**	**0.59 (a)(b)**	0.33	**0.57 (a)(b)**	**6.1 (a)(b)**	0.5	0.5
Naphthalene	0.017	0.34	2.98	0.25	0.69	0.056	0.16	0.07	0.44	1.71	100	100
Phenanthrene	0.19	0.55	29.9	1.25	5.64	0.24	1.89	0.55	1.85	20.8	100	100
Pyrene	0.27	0.65	27.8	1.86	11.3	0.48	2.01	0.73	1.76	21.1	100	100

ND - Non-Detect NA - Not Available
Shaded Value - Exceeds Part 375 SCOs

Volatile Organic Compounds (VOCs)

No VOCs were identified in the samples above the Part 375 SCOs. However, low levels of Trichloroethene was detected in all samples except one; BH-10. Sample location BH-7 had a number of detections of petroleum based compounds well below SCOs. Some common laboratory contaminants, acetone and methylene chloride, were detected in a number of samples at concentrations well below SCOs. Sample location BH-10 did have a positive response on the field instrument of ±50 ppm and there was a distinct petroleum based odor. However, no significant VOCs were detected in the laboratory analysis of the sample from this location. This is the only location that did have tentatively identified VOCs. A total of 0.29 ppm TICs were reported in this sample. This location is in the area that historically had an aboveground petroleum storage tank.

Semi-Volatile Organic Compounds (SVOCs)

A number of SVOCs consisting primarily of polynuclear aromatic hydrocarbons (PAHs) were detected above residential/restricted residential SCOs in seven (7) of the ten (10) samples collected and analyzed. Borehole sample results and individual compound concentrations are provided on Table 1.

PAHs are a group of chemicals that are formed during incomplete burning of wood, coal, gas, garbage or other organic substances and are widely distributed in the environment and particularly in older urban environments where coal, gas, and petroleum were burned for heat and other energy uses. PAH compounds are common constituents of fill material found in urban environments, and are typically associated with both fill material, coal tar and asphalt based materials or ash.

Metals

Metals were detected in all ten (10) soil samples analyzed, and seven (7) of the ten (10) samples exceeded residential/restricted residential SCOs for several metal compounds.. The arsenic SCO was exceeded in five (5) of the ten (10) samples (borings BH-7, BH-9, BH-11, BH-12 and BH15) and in some cases at levels greater than two times the residential/restricted residential SCOs. The Chromium SCO was exceeded in five (5) of the ten (10) locations in BH-7, BH-9, BH-10, BH-13 and BH-15. However, Chromium only exceeded restricted residential SCOs in BH-7 and BH-10. Cadmium, Copper and Lead were elevated above SCOs in two sample locations (BH-7 and BH-13) and lead was also elevated in the sample from location BH-9. Nickel was elevated above restricted residential/residential SCOs in the soil sample from BH-7, BH-13 and BH-15.

PCBs/Pesticides

Low levels of pesticides were detected in a number of the soil samples well below SCOs. PCBs were detected in four (4) soil samples. The PCB concentration in BH-7 was about nine (9) times higher than residential/restricted residential SCOs.

3.0 CONCLUSIONS

The 2929-2939 Main Street property has a long history of varied commercial and industrial use which includes over forty-six (46) years up to the present as a metal and precious metal plating operation. The results of the Phase II ESA indicate that SVOCs (primarily PAHs) and metal compounds were detected throughout the site at variable levels above residential and restricted residential SCOs in the soil fill that pose a potential risk to construction workers and future residents. Additionally, results indicate that volatile compounds and PCB/Pesticides were detected in concentrations below SCOs across the property indicating potential impact from previous property operations.

This Phase II ESA was limited in the number of soil borings and samples collected. Certain areas were not assessed due to access issues or potential utility concerns such as below and or immediately adjacent to portions of the building complex and within the east-southeast treed site area. This included near the former Oil House where piping and 55-gallon drums were observed. Additional sampling and more wide-spread environmental assessment in these and other areas may result in additional compounds as well as elevated concentrations of compounds being detected.

4.0 WARRANTS AND LIMITATIONS

This report is based on information from a limited soil sampling and soil screening assessment. This report is intended exclusively for the purpose outlined herein at the site location and project indicated. The property and this site assessment are limited to the footprint of the lot.

This report is intended for the sole use of DFFusion Investments. The scope of services performed in this assessment may not be appropriate to satisfy the needs of other users and any use or re-use of this document or the findings, conclusions, or recommendations presented, is at the sole risk of the user.

The conclusions set forth in this report are based upon, and limited by, the analytical data and other information available to PEI/BE3. It should be noted that all surface and subsurface environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited data and site evaluation at a specific time. The passage of time may result in a change in environmental circumstances at this site and surrounding properties, or

hazardous materials beneath the surface may be present but undetectable during this limited subsurface assessment.

Opinions and recommendations presented herein apply to the site conditions existing at the time of the subsurface assessment and those reasonably foreseeable. They cannot necessarily apply to site changes of which PEI/BE3 is not aware and has not had the opportunity to evaluate.

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APPENDIX A

PHOTOGRAPHS

1. Location of Borehole 1 (BH-1) facing southwest along front of Building 3

2. Location BH-1 facing west at Main Street

3. Location of BH-1 facing northeast

4. BH-1 soil core

5. Location of Bore Hole BH-2 in northwest corner of property facing northeast at corner of Monroe Muffler building

6. Location of BH-2 facing west at corner of Main and Hertel Ave.

7. BH-2 soil cores

8. Location of Borehole BH-3 facing southwest

9. Location of BH-3 facing southeast at Building 3

10. BH-3 soil core

11. Location of Borehole BH-4 facing west

12. Location of BH-4 facing east towards Buildings 2+3

13. BH-4 soil core

14. Location of Borehole BH-5 facing southwest and Building 2

15. Location of BH-5 facing southeast

16. Location of BH-5 facing northwest

17. BH-5 soil core

18. Location of Borehole BH-6

19. Location of BH-6 facing northwest

20. BH-6 soil core

21. Location of Borehole BH-7 at southeast corner of Building 3

22. Location of BH-7 at southeast corner of Building 3

23. BH-7 soil cores

24. Location of Borehole BH-8 facing northeast

25. Location of BH-8 facing east

26. Location of Borehole BH-9 facing east

27. Location of BH-9 facing north-northwest at Building 3

28. Location of BH-9 facing west at Building 4

29. Location of Borehole BH-10 facing west-southwest at Building 4

30. Location of BH-10 facing Northeast at Building 3

31. View of Borehole BH-11 location facing south at oil pump house

32. View of BH-11 location facing northeast

33. Soil Core from BH-11

34. Location of Borehole BH-12 facing south

35. View of BH-12 facing north

36. Soil cores for BH-12

37. Location of Borehole BH-13 facing west towards Building 4

38. Borehole BH-13 facing north

39. Borehole BH-13 soil cores

40. View of Borehole BH-14 facing west Bathune Lofts and Bennett High School

41. Location of BH-14 facing east at southwest corner of building 4

42. Location of Borehole BH-15 facing northeast adjacent to west side of Building 4

43. Location of BH-15 facing north-northwest

44. Location of Borehole BH-16 adjacent to west side of Building 4 facing north-northwest

45. Location of BH-16 facing west

46. Soil Cores BH-16

APPENDIX B

LABORATORY DATA

e-Hardcopy 2.0
Automated Report

Technical Report for

PanAmerican Environmental, Inc.

Keystone, Main & Hertez, Buffalo, NY

SGS Accutest Job Number: JC34195

Sampling Date: 12/20/16

Report to:

PanAmerican Environmental, Inc.

jeremy.vienneau@sgs.com

ATTN: Peter Gorton

Total number of pages in report: **99**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Jeremy Vienneau 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

Jan 10, 2017

Mr. Peter Gorton
PanAmerican Environmental, Inc.
2390 Clinton Street
Buffalo, NY 14227

RE: SGS Accutest - Dayton, Job # JC34195 -Reissues

Dear Mr. Gorton:

The final report for SGS Accutest job number JC34195 has been edited to reflect changes to your data package. These edits have been incorporated into the revised report which is attached.

Specifically, the volatile Tentatively Identified compound has been added for sample JC34195 -1 through -10 above changes by Clients request on 01-09-17. This information has been retrieved and is included in this revised report.

Please contact Jeremy Vienneau at (732) 329-0200 if you need further assistance in this matter.

Sincerely,

SGS-ACCUTEST LABORATORIES

Sections: 1 2 3 4 5

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Sample Summary

PanAmerican Environmental, Inc.

Job No: JC34195

Keystone, Main & Hertez, Buffalo, NY

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC34195-1	12/20/16	08:26	PG	12/22/16	SO	Soil	BH-1
JC34195-2	12/20/16	09:15	PG	12/22/16	SO	Soil	BH-3
JC34195-3	12/20/16	10:30	PG	12/22/16	SO	Soil	BH-6
JC34195-4	12/20/16	11:10	PG	12/22/16	SO	Soil	BH-7
JC34195-5	12/20/16	12:10	PG	12/22/16	SO	Soil	BH-9
JC34195-6	12/20/16	12:55	PG	12/22/16	SO	Soil	BH-10
JC34195-7	12/20/16	13:35	PG	12/22/16	SO	Soil	BH-11
JC34195-8	12/20/16	14:00	PG	12/22/16	SO	Soil	BH-12
JC34195-9	12/20/16	14:33	PG	12/22/16	SO	Soil	BH-13
JC34195-10	12/20/16	15:15	PG	12/22/16	SO	Soil	BH-15

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	PanAmerican Environmental, Inc.	**Job No**	JC34195
Site:	Keystone, Main & Hertez, Buffalo, NY	**Report Date**	1/6/2017 4:53:37 PM

On 12/22/2016, 10 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of JC34195 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: SO **Batch ID:** V3V1307

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC34150-3MS, JC34150-9DUP, JC34150-3MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for 2-Butanone (MEK) are outside control limits for sample JC34150-9DUP. High RPD due to possible sample nonhomogeneity.
- JC34195-10: Sample prepped from intact soil.
- JC34195-8: Sample prepped from intact soil.
- JC34195-7: Sample prepped from intact soil.
- JC34195-9: Sample prepped from intact soil.
- JC34150-3MS for Tetrachloroethene: Outside the QC limits due to pentachloroethane degradation.

Matrix: SO **Batch ID:** VX7207

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34195-1MS, JC34195-2DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for Trichloroethene are outside control limits for sample JC34195-2DUP.
- JC34195-2: Sample prepped from intact soil outside 48 hours.
- JC34195-3: Sample prepped from intact soil outside 48 hours.
- JC34195-4: Sample prepped from intact soil outside 48 hours.
- JC34195-5: Sample prepped from intact soil outside 48 hours.
- JC34195-1: Sample prepped from intact soil outside 48 hours.

Matrix: SO **Batch ID:** VY7336

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC34158-4DUP, JC34158-5MS, JC34158-4DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Xylene (total) are outside control limits for sample JC34158-4DUP. High RPD due to low concentration of hit.

Extractables by GCMS By Method SW846 8270D

Matrix:	SO	Batch ID:	OP99580

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34150-8MS, JC34150-8MSD were used as the QC samples indicated.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Fluoranthene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Benzo(a)pyrene, Benzo(b)fluoranthene, Phenanthrene are outside control limits. Ouside control limits due to matrix interference.
- OP99580-MS for Phenanthrene: Outside control limits due to matrix interference.

Matrix:	SO	Batch ID:	OP99581

- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34230-1MS, JC34230-1MSD were used as the QC samples indicated.
- The following samples were extracted outside of holding time for method SW846 8270D: JC34195-10, JC34195-9 Sample extracted outside the holding time per client's request.
- JC34195-9: Sample extracted outside the holding time per client's request.
- JC34195-10: Sample extracted outside the holding time per client's request.
- JC34195-10: Sample extracted outside the holding time per client's request.

Extractables by GC By Method SW846 8081B

Matrix: SO **Batch ID:** OP99576

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34195-2MS, JC34195-2MSD, OP99576-MSMSD were used as the QC samples indicated.
- RPD(s) for MSD for beta-BHC are outside control limits for sample OP99576-MSD.
- JC34195-9: Confirmation run.
- JC34195-5: Confirmation run.
- JC34195-10: Confirmation run.
- JC34195-5 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC34195-10 for Decachlorobiphenyl: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-9 for alpha-BHC: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-9 for gamma-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-8 for delta-BHC: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-2 for 4,4'-DDT: Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only.
- JC34195-7 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-8 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-5 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC34195-10 for alpha-BHC: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-3 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC34195-5 for alpha-BHC: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-9 for 4,4'-DDT: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-4 for Decachlorobiphenyl: Outside control limits due to matrix interference.
- JC34195-10 for delta-BHC: More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-1 for 4,4'-DDT: Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only. More than 40% RPD for detected concentrations between the two GC columns.
- JC34195-10 for gamma-BHC (Lindane): More than 40 % RPD for detected concentrations between the two GC columns.
- JC34195-10 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Extractables by GC By Method SW846 8082A

Matrix: SO **Batch ID:** OP99575

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34195-1MS, JC34195-1MSD, OP99575-MSMSD were used as the QC samples indicated.
- JC34195-9 for Decachlorobiphenyl: Outside control limits due to matrix interference.

Metals By Method SW846 6010C

Matrix: SO	Batch ID: MP97899

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34195-3MS, JC34195-3MSD, JC34195-3SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Silver, Arsenic, Beryllium, Cadmium, Selenium are outside control limits for sample MP97899-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- JC34195-4 for Lead: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Manganese: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Lead: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Zinc: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Nickel: Elevated detection limit due to dilution required for high interfering element.
- JC34195-8 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-2 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-4 for Selenium: Elevated detection limit due to dilution required for high interfering element.
- JC34195-6 for Arsenic: Elevated detection limit due to dilution required for high interfering element.
- JC34195-6 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-10 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-7 for Silver: Elevated detection limit due to dilution required for high interfering element.
- JC34195-5 for Copper: Elevated detection limit due to dilution required for high interfering element.
- JC34195-3 for Silver: Elevated detection limit due to dilution required for high interfering element.

Metals By Method SW846 7471B

Matrix: SO	Batch ID: MP97890

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34204-2MS, JC34204-2MSD were used as the QC samples for metals.

Wet Chemistry By Method SM2540 G-97

Matrix: SO	Batch ID: GN57090

- The data for SM2540 G-97 meets quality control requirements.

Matrix: SO	Batch ID: GN57223

- The data for SM2540 G-97 meets quality control requirements.

Wet Chemistry By Method SW846 9012B/LACHAT

Matrix: SO **Batch ID:** GP2411

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC34195-1MS, JC34195-1DUP were used as the QC samples for Cyanide.
- RPD(s) for Duplicate for Cyanide are outside control limits for sample GP2411-D1. RPD acceptable due to low duplicate and sample concentrations.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC34195-1	**BH-1**					
Methylene chloride [a]		2.1 J	5.7	1.1	ug/kg	SW846 8260C
Trichloroethene [a]		3.0	1.1	0.22	ug/kg	SW846 8260C
Anthracene		36.1 J	40	25	ug/kg	SW846 8270D
Benzo(a)anthracene		142	40	11	ug/kg	SW846 8270D
Benzo(a)pyrene		143	40	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		213	40	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		89.4	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		72.7	40	19	ug/kg	SW846 8270D
Chrysene		159	40	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		26.3 J	40	18	ug/kg	SW846 8270D
Fluoranthene		286	40	18	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		98.2	40	19	ug/kg	SW846 8270D
Naphthalene		17.3 J	40	11	ug/kg	SW846 8270D
Phenanthrene		191	40	14	ug/kg	SW846 8270D
Pyrene		273	40	13	ug/kg	SW846 8270D
4,4'-DDE		1.3	0.81	0.42	ug/kg	SW846 8081B
4,4'-DDT [b]		1.6	0.81	0.48	ug/kg	SW846 8081B
Arsenic		7.9	2.4		mg/kg	SW846 6010C
Barium		107	24		mg/kg	SW846 6010C
Beryllium		0.87	0.24		mg/kg	SW846 6010C
Cadmium		0.63	0.60		mg/kg	SW846 6010C
Chromium		23.4	1.2		mg/kg	SW846 6010C
Copper		43.7	3.0		mg/kg	SW846 6010C
Lead		72.0	2.4		mg/kg	SW846 6010C
Manganese		830	1.8		mg/kg	SW846 6010C
Mercury		0.20	0.037		mg/kg	SW846 7471B
Nickel		26.9	4.8		mg/kg	SW846 6010C
Zinc		134	6.0		mg/kg	SW846 6010C
JC34195-2	**BH-3**					
Methylene chloride [a]		2.7 J	4.8	0.95	ug/kg	SW846 8260C
1,1,1-Trichloroethane [a]		0.43 J	1.9	0.16	ug/kg	SW846 8260C
Trichloroethene [a]		6.8	0.95	0.18	ug/kg	SW846 8260C
Acenaphthene		38.4 J	40	14	ug/kg	SW846 8270D
Acenaphthylene		27.4 J	40	20	ug/kg	SW846 8270D
Anthracene		107	40	24	ug/kg	SW846 8270D
Benzo(a)anthracene		352	40	11	ug/kg	SW846 8270D
Benzo(a)pyrene		313	40	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		421	40	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		178	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		171	40	19	ug/kg	SW846 8270D
Chrysene		355	40	13	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Dibenzo(a,h)anthracene		54.2	40	18	ug/kg	SW846 8270D
Dibenzofuran		30.6 J	80	16	ug/kg	SW846 8270D
Fluoranthene		624	40	18	ug/kg	SW846 8270D
Fluorene		42.8	40	18	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		210	40	19	ug/kg	SW846 8270D
Naphthalene		34.4 J	40	11	ug/kg	SW846 8270D
Phenanthrene		551	40	13	ug/kg	SW846 8270D
Pyrene		635	40	13	ug/kg	SW846 8270D
4,4'-DDE		1.7	0.78	0.41	ug/kg	SW846 8081B
4,4'-DDT [c]		1.9	0.78	0.47	ug/kg	SW846 8081B
Arsenic		11.9	2.3		mg/kg	SW846 6010C
Barium		79.7	23		mg/kg	SW846 6010C
Beryllium		0.65	0.23		mg/kg	SW846 6010C
Cadmium		0.75	0.58		mg/kg	SW846 6010C
Chromium		24.4	1.2		mg/kg	SW846 6010C
Copper		88.8	2.9		mg/kg	SW846 6010C
Lead		80.1	2.3		mg/kg	SW846 6010C
Manganese		548	1.7		mg/kg	SW846 6010C
Mercury		0.17	0.037		mg/kg	SW846 7471B
Nickel		38.5	4.7		mg/kg	SW846 6010C
Zinc		119	5.8		mg/kg	SW846 6010C
JC34195-3	**BH-6**					
Chloroform [a]		0.55 J	1.6	0.19	ug/kg	SW846 8260C
cis-1,2-Dichloroethene [a]		0.92	0.80	0.35	ug/kg	SW846 8260C
Methylene chloride [a]		1.6 J	4.0	0.80	ug/kg	SW846 8260C
Trichloroethene [a]		4.2	0.80	0.15	ug/kg	SW846 8260C
3&4-Methylphenol		34.5 J	70	29	ug/kg	SW846 8270D
Acenaphthene		3780	700	240	ug/kg	SW846 8270D
Acenaphthylene		94.8	35	18	ug/kg	SW846 8270D
Anthracene		7530	700	430	ug/kg	SW846 8270D
Benzo(a)anthracene		13800	700	200	ug/kg	SW846 8270D
Benzo(a)pyrene		10900	700	320	ug/kg	SW846 8270D
Benzo(b)fluoranthene		13400	700	310	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		5720	700	350	ug/kg	SW846 8270D
Benzo(k)fluoranthene		5080	700	320	ug/kg	SW846 8270D
Chrysene		12100	700	220	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1590	35	15	ug/kg	SW846 8270D
Dibenzofuran		2170	70	14	ug/kg	SW846 8270D
Fluoranthene		32500	700	310	ug/kg	SW846 8270D
Fluorene		3180	35	16	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		6430	700	330	ug/kg	SW846 8270D
Naphthalene		2980	35	9.8	ug/kg	SW846 8270D
Phenanthrene		29900	700	230	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		27800	700	220	ug/kg	SW846 8270D
Aroclor 1254		115	35	18	ug/kg	SW846 8082A
Arsenic		3.4	2.2		mg/kg	SW846 6010C
Barium		42.7	22		mg/kg	SW846 6010C
Beryllium		0.26	0.22		mg/kg	SW846 6010C
Chromium		7.0	1.1		mg/kg	SW846 6010C
Copper		33.6	2.7		mg/kg	SW846 6010C
Lead		86.7	2.2		mg/kg	SW846 6010C
Manganese		221	1.6		mg/kg	SW846 6010C
Mercury		0.064	0.036		mg/kg	SW846 7471B
Nickel		9.4	4.3		mg/kg	SW846 6010C
Zinc		96.9	5.4		mg/kg	SW846 6010C
JC34195-4	**BH-7**					
Benzene [a]		0.25 J	0.53	0.13	ug/kg	SW846 8260C
cis-1,2-Dichloroethene [a]		0.51 J	1.1	0.47	ug/kg	SW846 8260C
Methylene chloride [a]		3.3 J	5.3	1.1	ug/kg	SW846 8260C
Tetrachloroethene [a]		0.68 J	2.1	0.30	ug/kg	SW846 8260C
Toluene [a]		0.27 J	1.1	0.13	ug/kg	SW846 8260C
1,1,1-Trichloroethane [a]		0.50 J	2.1	0.18	ug/kg	SW846 8260C
Trichloroethene [a]		58.4	1.1	0.20	ug/kg	SW846 8260C
Xylene (total) [a]		0.75 J	1.1	0.21	ug/kg	SW846 8260C
3&4-Methylphenol		75.9 J	88	36	ug/kg	SW846 8270D
Acenaphthene		89.0	44	15	ug/kg	SW846 8270D
Acenaphthylene		134	44	22	ug/kg	SW846 8270D
Anthracene		342	44	27	ug/kg	SW846 8270D
Benzo(a)anthracene		901	44	12	ug/kg	SW846 8270D
Benzo(a)pyrene		920	220	100	ug/kg	SW846 8270D
Benzo(b)fluoranthene		1340	220	97	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		781	220	110	ug/kg	SW846 8270D
Benzo(k)fluoranthene		438	220	100	ug/kg	SW846 8270D
Chrysene		995	44	14	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		200 J	220	97	ug/kg	SW846 8270D
Dibenzofuran		91.3	88	18	ug/kg	SW846 8270D
Fluoranthene		1220	44	20	ug/kg	SW846 8270D
Fluorene		105	44	20	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		881	220	100	ug/kg	SW846 8270D
Naphthalene		250	44	12	ug/kg	SW846 8270D
Phenanthrene		1250	44	15	ug/kg	SW846 8270D
Pyrene		1860	44	14	ug/kg	SW846 8270D
Aroclor 1254		8930	450	230	ug/kg	SW846 8082A
Arsenic [d]		46.0	10		mg/kg	SW846 6010C
Barium		184	20		mg/kg	SW846 6010C
Beryllium		0.95	0.20		mg/kg	SW846 6010C

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Cadmium		31.1	0.50		mg/kg	SW846 6010C
Chromium		321	1.0		mg/kg	SW846 6010C
Copper [d]		693	25		mg/kg	SW846 6010C
Lead [d]		487	10		mg/kg	SW846 6010C
Manganese		1240	15		mg/kg	SW846 6010C
Mercury		0.72	0.034		mg/kg	SW846 7471B
Nickel [d]		1050	20		mg/kg	SW846 6010C
Silver [d]		8.4	5.0		mg/kg	SW846 6010C
Zinc [d]		666	25		mg/kg	SW846 6010C
JC34195-5	**BH-9**					
Methylene chloride [a]		2.9 J	5.0	1.0	ug/kg	SW846 8260C
1,1,1-Trichloroethane [a]		0.28 J	2.0	0.17	ug/kg	SW846 8260C
Trichloroethene [a]		2.2	1.0	0.19	ug/kg	SW846 8260C
3&4-Methylphenol		60.4 J	81	33	ug/kg	SW846 8270D
Phenol		87.2	81	21	ug/kg	SW846 8270D
Acenaphthene		523	40	14	ug/kg	SW846 8270D
Acenaphthylene		169	40	21	ug/kg	SW846 8270D
Anthracene		1230	40	25	ug/kg	SW846 8270D
Benzo(a)anthracene		6490	400	110	ug/kg	SW846 8270D
Benzo(a)pyrene		4830	400	180	ug/kg	SW846 8270D
Benzo(b)fluoranthene		8220	400	180	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		2710	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		2140	40	19	ug/kg	SW846 8270D
Chrysene		6570	400	130	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		1000	40	18	ug/kg	SW846 8270D
Dibenzofuran		360	81	16	ug/kg	SW846 8270D
Fluoranthene		11200	400	180	ug/kg	SW846 8270D
Fluorene		402	40	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		3350	40	19	ug/kg	SW846 8270D
Naphthalene		690	40	11	ug/kg	SW846 8270D
Phenanthrene		5640	400	140	ug/kg	SW846 8270D
Pyrene		11300	400	130	ug/kg	SW846 8270D
alpha-BHC [e]		0.81	0.77	0.42	ug/kg	SW846 8081B
gamma-BHC (Lindane)		6.2	0.77	0.34	ug/kg	SW846 8081B
Arsenic [d]		22.9	12		mg/kg	SW846 6010C
Barium		166	24		mg/kg	SW846 6010C
Beryllium		0.70	0.24		mg/kg	SW846 6010C
Cadmium		7.7	0.59		mg/kg	SW846 6010C
Chromium		88.4	1.2		mg/kg	SW846 6010C
Copper [d]		238	15		mg/kg	SW846 6010C
Lead [d]		480	12		mg/kg	SW846 6010C
Manganese [d]		430	8.9		mg/kg	SW846 6010C
Mercury		0.39	0.038		mg/kg	SW846 7471B

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Nickel		82.5	4.7		mg/kg	SW846 6010C
Zinc		1480	30		mg/kg	SW846 6010C
Cyanide		1.2	0.28		mg/kg	SW846 9012B/LACHAT
JC34195-6	**BH-10**					
Acetone		12.4	9.1	4.5	ug/kg	SW846 8260C
tert-Butylbenzene		0.72 J	1.8	0.14	ug/kg	SW846 8260C
1,2,4-Trimethylbenzene		1.8	1.8	0.16	ug/kg	SW846 8260C
1,3,5-Trimethylbenzene		0.38 J	1.8	0.15	ug/kg	SW846 8260C
Xylene (total)		0.31 J	0.91	0.18	ug/kg	SW846 8260C
Total TIC, Volatile		293 J			ug/kg	
Acenaphthene		31.3 J	38	13	ug/kg	SW846 8270D
Acenaphthylene		24.3 J	38	19	ug/kg	SW846 8270D
Anthracene		92.6	38	23	ug/kg	SW846 8270D
Benzo(a)anthracene		451	38	11	ug/kg	SW846 8270D
Benzo(a)pyrene		657	38	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene		740	38	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		517	38	19	ug/kg	SW846 8270D
Benzo(k)fluoranthene		267	38	18	ug/kg	SW846 8270D
Chrysene		419	38	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		141	38	17	ug/kg	SW846 8270D
Dibenzofuran		32.1 J	76	15	ug/kg	SW846 8270D
Fluoranthene		403	38	17	ug/kg	SW846 8270D
Fluorene		19.2 J	38	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		584	38	18	ug/kg	SW846 8270D
Naphthalene		55.6	38	11	ug/kg	SW846 8270D
Phenanthrene		240	38	13	ug/kg	SW846 8270D
Pyrene		481	38	12	ug/kg	SW846 8270D
Aroclor 1254		78.8	38	19	ug/kg	SW846 8082A
Arsenic [d]		15.5	11		mg/kg	SW846 6010C
Barium		150	22		mg/kg	SW846 6010C
Beryllium		0.58	0.22		mg/kg	SW846 6010C
Chromium		353	1.1		mg/kg	SW846 6010C
Copper		42.0	2.8		mg/kg	SW846 6010C
Lead		62.6	2.2		mg/kg	SW846 6010C
Manganese		246	1.7		mg/kg	SW846 6010C
Mercury		0.20	0.036		mg/kg	SW846 7471B
Nickel		56.4	4.4		mg/kg	SW846 6010C
Zinc		114	5.6		mg/kg	SW846 6010C
JC34195-7	**BH-11**					
Methylene chloride [f]		1.5 J	7.0	1.4	ug/kg	SW846 8260C
Trichloroethene [f]		1.1 J	1.4	0.26	ug/kg	SW846 8260C

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthene		197	40	14	ug/kg	SW846 8270D
Acenaphthylene		50.2	40	20	ug/kg	SW846 8270D
Anthracene		511	40	25	ug/kg	SW846 8270D
Benzo(a)anthracene		1010	40	11	ug/kg	SW846 8270D
Benzo(a)pyrene		884	40	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		1120	40	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		501	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		443	40	19	ug/kg	SW846 8270D
Chrysene		1010	40	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		141	40	18	ug/kg	SW846 8270D
Dibenzofuran		137	81	16	ug/kg	SW846 8270D
Fluoranthene		1990	40	18	ug/kg	SW846 8270D
Fluorene		201	40	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		590	40	19	ug/kg	SW846 8270D
Naphthalene		160	40	11	ug/kg	SW846 8270D
Phenanthrene		1890	40	14	ug/kg	SW846 8270D
Pyrene		2010	40	13	ug/kg	SW846 8270D
delta-BHC		12.2	0.85	0.38	ug/kg	SW846 8081B
alpha-Chlordane [e]		71.1	0.85	0.40	ug/kg	SW846 8081B
gamma-Chlordane		48.9	0.85	0.37	ug/kg	SW846 8081B
Dieldrin		38.5	0.85	0.42	ug/kg	SW846 8081B
4,4'-DDD		3.2	0.85	0.54	ug/kg	SW846 8081B
4,4'-DDE		75.1	0.85	0.44	ug/kg	SW846 8081B
4,4'-DDT		70.7	0.85	0.51	ug/kg	SW846 8081B
Heptachlor epoxide		13.8	0.85	0.46	ug/kg	SW846 8081B
Arsenic		35.9	2.0		mg/kg	SW846 6010C
Barium		128	20		mg/kg	SW846 6010C
Beryllium		0.59	0.20		mg/kg	SW846 6010C
Cadmium		2.9	0.51		mg/kg	SW846 6010C
Chromium		33.0	1.0		mg/kg	SW846 6010C
Copper		61.5	2.5		mg/kg	SW846 6010C
Lead		138	2.0		mg/kg	SW846 6010C
Manganese		490	1.5		mg/kg	SW846 6010C
Mercury		0.20	0.034		mg/kg	SW846 7471B
Nickel		33.1	4.1		mg/kg	SW846 6010C
Zinc		250	5.1		mg/kg	SW846 6010C
Cyanide		0.74	0.29		mg/kg	SW846 9012B/LACHAT
JC34195-8	**BH-12**					
Methylene chloride [f]		1.7 J	5.2	1.0	ug/kg	SW846 8260C
Trichloroethene [f]		0.26 J	1.0	0.20	ug/kg	SW846 8260C
Acenaphthene		44.6	42	14	ug/kg	SW846 8270D
Acenaphthylene		100	42	21	ug/kg	SW846 8270D
Anthracene		159	42	26	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Benzo(a)anthracene	420	42	12	ug/kg	SW846 8270D
Benzo(a)pyrene	450	42	19	ug/kg	SW846 8270D
Benzo(b)fluoranthene	585	42	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	324	42	21	ug/kg	SW846 8270D
Benzo(k)fluoranthene	216	42	19	ug/kg	SW846 8270D
Chrysene	490	42	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	85.6	42	18	ug/kg	SW846 8270D
Dibenzofuran	45.5 J	83	17	ug/kg	SW846 8270D
Fluoranthene	689	42	19	ug/kg	SW846 8270D
Fluorene	47.9	42	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	334	42	20	ug/kg	SW846 8270D
Naphthalene	69.8	42	12	ug/kg	SW846 8270D
Phenanthrene	552	42	14	ug/kg	SW846 8270D
Pyrene	732	42	13	ug/kg	SW846 8270D
delta-BHC [e]	0.39 J	0.79	0.36	ug/kg	SW846 8081B
alpha-Chlordane [e]	8.8	0.79	0.38	ug/kg	SW846 8081B
gamma-Chlordane	5.6	0.79	0.35	ug/kg	SW846 8081B
Dieldrin	1.7	0.79	0.40	ug/kg	SW846 8081B
4,4'-DDE	3.0	0.79	0.41	ug/kg	SW846 8081B
4,4'-DDT	2.7	0.79	0.47	ug/kg	SW846 8081B
Arsenic	17.0	2.0		mg/kg	SW846 6010C
Barium	236	20		mg/kg	SW846 6010C
Beryllium	0.87	0.20		mg/kg	SW846 6010C
Cadmium	0.59	0.50		mg/kg	SW846 6010C
Chromium	31.5	1.0		mg/kg	SW846 6010C
Copper	67.1	2.5		mg/kg	SW846 6010C
Lead	165	2.0		mg/kg	SW846 6010C
Manganese	583	1.5		mg/kg	SW846 6010C
Mercury	0.15	0.034		mg/kg	SW846 7471B
Nickel	42.7	4.0		mg/kg	SW846 6010C
Zinc	139	5.0		mg/kg	SW846 6010C
Cyanide	1.1	0.28		mg/kg	SW846 9012B/LACHAT
JC34195-9 BH-13					
Trichloroethene [f]	1.9	1.0	0.19	ug/kg	SW846 8260C
Xylene (total) [f]	0.23 J	1.0	0.21	ug/kg	SW846 8260C
Acenaphthene [g]	181	39	13	ug/kg	SW846 8270D
Acenaphthylene [g]	74.0	39	20	ug/kg	SW846 8270D
Anthracene [g]	367	39	24	ug/kg	SW846 8270D
Benzo(a)anthracene [g]	1040	39	11	ug/kg	SW846 8270D
Benzo(a)pyrene [g]	851	39	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene [g]	1300	39	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene [g]	480	39	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene [g]	398	39	18	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Chrysene [g]	1180	39	12	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [g]	156	39	17	ug/kg	SW846 8270D
Dibenzofuran [g]	250	78	16	ug/kg	SW846 8270D
Fluoranthene [g]	2090	39	17	ug/kg	SW846 8270D
Fluorene [g]	158	39	18	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene [g]	569	39	18	ug/kg	SW846 8270D
Naphthalene [g]	437	39	11	ug/kg	SW846 8270D
Phenanthrene [g]	1850	39	13	ug/kg	SW846 8270D
Pyrene [g]	1760	39	13	ug/kg	SW846 8270D
alpha-BHC [e]	0.45 J	0.78	0.42	ug/kg	SW846 8081B
gamma-Chlordane [e]	2.0	0.78	0.35	ug/kg	SW846 8081B
4,4'-DDE	3.9	0.78	0.41	ug/kg	SW846 8081B
4,4'-DDT [e]	27.5	0.78	0.47	ug/kg	SW846 8081B
Aroclor 1254	252	39	20	ug/kg	SW846 8082A
Arsenic	10.1	2.3		mg/kg	SW846 6010C
Barium	167	23		mg/kg	SW846 6010C
Beryllium	0.70	0.23		mg/kg	SW846 6010C
Cadmium	4.9	0.58		mg/kg	SW846 6010C
Chromium	50.5	1.2		mg/kg	SW846 6010C
Copper	387	2.9		mg/kg	SW846 6010C
Lead	588	2.3		mg/kg	SW846 6010C
Manganese	339	1.7		mg/kg	SW846 6010C
Mercury	0.40	0.037		mg/kg	SW846 7471B
Nickel	210	4.6		mg/kg	SW846 6010C
Silver	2.9	0.58		mg/kg	SW846 6010C
Zinc	508	5.8		mg/kg	SW846 6010C
Cyanide	0.79	0.28		mg/kg	SW846 9012B/LACHAT
JC34195-10 BH-15					
Trichloroethene [f]	2.0	1.3	0.24	ug/kg	SW846 8260C
3&4-Methylphenol [g]	144	86	35	ug/kg	SW846 8270D
Phenol [g]	89.3	86	22	ug/kg	SW846 8270D
Acenaphthene [g]	2800	43	15	ug/kg	SW846 8270D
Acenaphthylene [g]	427	43	22	ug/kg	SW846 8270D
Anthracene [g]	4000	43	26	ug/kg	SW846 8270D
Benzo(a)anthracene [g]	10400	860	240	ug/kg	SW846 8270D
Benzo(a)pyrene [g]	8940	860	390	ug/kg	SW846 8270D
Benzo(b)fluoranthene [g]	11900	860	380	ug/kg	SW846 8270D
Benzo(g,h,i)perylene [g]	4170	860	430	ug/kg	SW846 8270D
Benzo(k)fluoranthene [g]	5070	860	400	ug/kg	SW846 8270D
Chrysene [g]	10900	860	270	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene [g]	2250	43	19	ug/kg	SW846 8270D
Dibenzofuran [g]	1450	86	17	ug/kg	SW846 8270D
Fluoranthene [g]	27200	860	380	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC34195
Account: PanAmerican Environmental, Inc.
Project: Keystone, Main & Hertez, Buffalo, NY
Collected: 12/20/16

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Fluorene [g]		1980	43	20	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene [g]		6100	860	400	ug/kg	SW846 8270D
Naphthalene [g]		1710	43	12	ug/kg	SW846 8270D
Phenanthrene [g]		20800	860	290	ug/kg	SW846 8270D
Pyrene [g]		21100	860	270	ug/kg	SW846 8270D
alpha-BHC [e]		2.5	0.82	0.44	ug/kg	SW846 8081B
delta-BHC [e]		1.2	0.82	0.37	ug/kg	SW846 8081B
gamma-BHC (Lindane) [e]		9.7	0.82	0.36	ug/kg	SW846 8081B
Heptachlor epoxide		1.0	0.82	0.44	ug/kg	SW846 8081B
Aroclor 1254		108	41	20	ug/kg	SW846 8082A
Arsenic		17.1	2.0		mg/kg	SW846 6010C
Barium		73.2	20		mg/kg	SW846 6010C
Beryllium		0.81	0.20		mg/kg	SW846 6010C
Cadmium		1.7	0.51		mg/kg	SW846 6010C
Chromium		90.5	1.0		mg/kg	SW846 6010C
Copper		137	2.5		mg/kg	SW846 6010C
Lead		84.4	2.0		mg/kg	SW846 6010C
Manganese		514	1.5		mg/kg	SW846 6010C
Mercury		0.15	0.034		mg/kg	SW846 7471B
Nickel		870	8.1		mg/kg	SW846 6010C
Zinc		233	5.1		mg/kg	SW846 6010C

(a) Sample prepped from intact soil outside 48 hours.
(b) Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only. More than 40% RPD for detected concentrations between the two GC columns.
(c) Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only.
(d) Elevated detection limit due to dilution required for high interfering element.
(e) More than 40 % RPD for detected concentrations between the two GC columns.
(f) Sample prepped from intact soil.
(g) Sample extracted outside the holding time per client's request.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: BH-1
Lab Sample ID: JC34195-1
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 81.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X169300.D	1	12/31/16	TP	12/23/16 14:00	n/a	VX7207
Run #2							

	Initial Weight
Run #1	5.4 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	5.7	ug/kg	
71-43-2	Benzene	ND	0.57	0.14	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.0	ug/kg	
104-51-8	n-Butylbenzene	ND	2.3	0.17	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.3	0.17	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.3	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
67-66-3	Chloroform	ND	2.3	0.27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.17	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.21	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.17	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.18	ug/kg	
123-91-1	1,4-Dioxane	ND	140	55	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.17	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.30	ug/kg	
75-09-2	Methylene chloride	2.1	5.7	1.1	ug/kg	J
103-65-1	n-Propylbenzene	ND	2.3	0.23	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.32	ug/kg	
108-88-3	Toluene	ND	1.1	0.14	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.19	ug/kg	
79-01-6	Trichloroethene	3.0	1.1	0.22	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.3	0.20	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.3	0.19	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-1		
Lab Sample ID:	JC34195-1	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	81.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-122%
17060-07-0	1,2-Dichloroethane-D4	108%		68-124%
2037-26-5	Toluene-D8	94%		77-125%
460-00-4	4-Bromofluorobenzene	98%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil outside 48 hours.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-1
Lab Sample ID: JC34195-1
Matrix: SO - Soil
Method: SW846 8270D SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 81.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34464.D	1	01/04/17	AD	01/03/17	OP99580	E5P1730
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	80	26	ug/kg	
	3&4-Methylphenol	ND	80	33	ug/kg	
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	ND	80	21	ug/kg	
83-32-9	Acenaphthene	ND	40	14	ug/kg	
208-96-8	Acenaphthylene	ND	40	20	ug/kg	
120-12-7	Anthracene	36.1	40	25	ug/kg	J
56-55-3	Benzo(a)anthracene	142	40	11	ug/kg	
50-32-8	Benzo(a)pyrene	143	40	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	213	40	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	89.4	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	72.7	40	19	ug/kg	
218-01-9	Chrysene	159	40	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	26.3	40	18	ug/kg	J
132-64-9	Dibenzofuran	ND	80	16	ug/kg	
206-44-0	Fluoranthene	286	40	18	ug/kg	
86-73-7	Fluorene	ND	40	18	ug/kg	
118-74-1	Hexachlorobenzene	ND	80	10	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	98.2	40	19	ug/kg	
91-20-3	Naphthalene	17.3	40	11	ug/kg	J
85-01-8	Phenanthrene	191	40	14	ug/kg	
129-00-0	Pyrene	273	40	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		30-106%
4165-62-2	Phenol-d5	77%		30-106%
118-79-6	2,4,6-Tribromophenol	80%		24-140%
4165-60-0	Nitrobenzene-d5	71%		26-122%
321-60-8	2-Fluorobiphenyl	72%		36-112%
1718-51-0	Terphenyl-d14	84%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-1		
Lab Sample ID:	JC34195-1	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	81.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42840.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.81	0.39	ug/kg	
319-84-6	alpha-BHC	ND	0.81	0.43	ug/kg	
319-85-7	beta-BHC	ND	0.81	0.51	ug/kg	
319-86-8	delta-BHC	ND	0.81	0.37	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.81	0.36	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.81	0.38	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.81	0.36	ug/kg	
60-57-1	Dieldrin	ND	0.81	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	0.81	0.52	ug/kg	
72-55-9	4,4'-DDE	1.3	0.81	0.42	ug/kg	
50-29-3	4,4'-DDT [a]	1.6	0.81	0.48	ug/kg	
72-20-8	Endrin	ND	0.81	0.38	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.81	0.32	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.81	0.48	ug/kg	
959-98-8	Endosulfan-I	ND	0.81	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	0.81	0.42	ug/kg	
76-44-8	Heptachlor	ND	0.81	0.40	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.81	0.44	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.40	ug/kg	
53494-70-5	Endrin ketone	ND	0.81	0.62	ug/kg	
8001-35-2	Toxaphene	ND	20	8.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-136%
877-09-8	Tetrachloro-m-xylene	88%		24-136%
2051-24-3	Decachlorobiphenyl	112%		10-153%
2051-24-3	Decachlorobiphenyl	103%		10-153%

(a) Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only. More than 40% RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-1
Lab Sample ID: JC34195-1
Matrix: SO - Soil
Method: SW846 8082A SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 81.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202528.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	20	ug/kg	
11104-28-2	Aroclor 1221	ND	41	20	ug/kg	
11141-16-5	Aroclor 1232	ND	41	16	ug/kg	
53469-21-9	Aroclor 1242	ND	41	14	ug/kg	
12672-29-6	Aroclor 1248	ND	41	26	ug/kg	
11097-69-1	Aroclor 1254	ND	41	20	ug/kg	
11096-82-5	Aroclor 1260	ND	41	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		20-152%
877-09-8	Tetrachloro-m-xylene	101%		20-152%
2051-24-3	Decachlorobiphenyl	99%		12-157%
2051-24-3	Decachlorobiphenyl	115%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-1
Lab Sample ID: JC34195-1
Matrix: SO - Soil
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 81.2

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.9	2.4	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Barium	107	24	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.87	0.24	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Cadmium	0.63	0.60	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Chromium	23.4	1.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Copper	43.7	3.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Lead	72.0	2.4	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Manganese	830	1.8	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.20	0.037	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [3]
Nickel	26.9	4.8	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Selenium	< 2.4	2.4	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Silver	< 0.60	0.60	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Zinc	134	6.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Prep QC Batch: MP97890
(4) Prep QC Batch: MP97899

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-1		
Lab Sample ID:	JC34195-1	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	81.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.28	0.28	mg/kg	1	12/31/16 16:02	YZ	SW846 9012B/LACHAT
Solids, Percent	81.2		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-3		
Lab Sample ID:	JC34195-2	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X169301.D	1	12/31/16	TP	12/23/16 14:00	n/a	VX7207
Run #2							

	Initial Weight
Run #1	6.3 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	9.5	4.8	ug/kg	
71-43-2	Benzene	ND	0.48	0.11	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.5	1.7	ug/kg	
104-51-8	n-Butylbenzene	ND	1.9	0.14	ug/kg	
135-98-8	sec-Butylbenzene	ND	1.9	0.15	ug/kg	
98-06-6	tert-Butylbenzene	ND	1.9	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
67-66-3	Chloroform	ND	1.9	0.23	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.95	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.95	0.13	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.95	0.15	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.95	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.95	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.95	0.15	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.95	0.42	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.95	0.15	ug/kg	
123-91-1	1,4-Dioxane	ND	120	46	ug/kg	
100-41-4	Ethylbenzene	ND	0.95	0.14	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.95	0.25	ug/kg	
75-09-2	Methylene chloride	2.7	4.8	0.95	ug/kg	J
103-65-1	n-Propylbenzene	ND	1.9	0.19	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.27	ug/kg	
108-88-3	Toluene	ND	0.95	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.43	1.9	0.16	ug/kg	J
79-01-6	Trichloroethene	6.8	0.95	0.18	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	1.9	0.17	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	1.9	0.16	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	0.95	0.19	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-3		
Lab Sample ID:	JC34195-2	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-122%
17060-07-0	1,2-Dichloroethane-D4	109%		68-124%
2037-26-5	Toluene-D8	95%		77-125%
460-00-4	4-Bromofluorobenzene	98%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil outside 48 hours.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-3
Lab Sample ID: JC34195-2
Matrix: SO - Soil
Method: SW846 8270D SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 83.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34465.D	1	01/04/17	AD	01/03/17	OP99580	E5P1730
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	80	25	ug/kg	
	3&4-Methylphenol	ND	80	33	ug/kg	
87-86-5	Pentachlorophenol	ND	160	37	ug/kg	
108-95-2	Phenol	ND	80	21	ug/kg	
83-32-9	Acenaphthene	38.4	40	14	ug/kg	J
208-96-8	Acenaphthylene	27.4	40	20	ug/kg	J
120-12-7	Anthracene	107	40	24	ug/kg	
56-55-3	Benzo(a)anthracene	352	40	11	ug/kg	
50-32-8	Benzo(a)pyrene	313	40	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	421	40	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	178	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	171	40	19	ug/kg	
218-01-9	Chrysene	355	40	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	54.2	40	18	ug/kg	
132-64-9	Dibenzofuran	30.6	80	16	ug/kg	J
206-44-0	Fluoranthene	624	40	18	ug/kg	
86-73-7	Fluorene	42.8	40	18	ug/kg	
118-74-1	Hexachlorobenzene	ND	80	10	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	210	40	19	ug/kg	
91-20-3	Naphthalene	34.4	40	11	ug/kg	J
85-01-8	Phenanthrene	551	40	13	ug/kg	
129-00-0	Pyrene	635	40	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	71%		30-106%
4165-62-2	Phenol-d5	75%		30-106%
118-79-6	2,4,6-Tribromophenol	78%		24-140%
4165-60-0	Nitrobenzene-d5	71%		26-122%
321-60-8	2-Fluorobiphenyl	67%		36-112%
1718-51-0	Terphenyl-d14	79%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-3		
Lab Sample ID:	JC34195-2	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42841.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.78	0.38	ug/kg	
319-84-6	alpha-BHC	ND	0.78	0.42	ug/kg	
319-85-7	beta-BHC	ND	0.78	0.49	ug/kg	
319-86-8	delta-BHC	ND	0.78	0.35	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.78	0.35	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.78	0.37	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.78	0.35	ug/kg	
60-57-1	Dieldrin	ND	0.78	0.39	ug/kg	
72-54-8	4,4'-DDD	ND	0.78	0.50	ug/kg	
72-55-9	4,4'-DDE	1.7	0.78	0.41	ug/kg	
50-29-3	4,4'-DDT [a]	1.9	0.78	0.47	ug/kg	
72-20-8	Endrin	ND	0.78	0.37	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.78	0.31	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.78	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.78	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	0.78	0.41	ug/kg	
76-44-8	Heptachlor	ND	0.78	0.38	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.78	0.42	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.39	ug/kg	
53494-70-5	Endrin ketone	ND	0.78	0.60	ug/kg	
8001-35-2	Toxaphene	ND	20	8.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		24-136%
877-09-8	Tetrachloro-m-xylene	92%		24-136%
2051-24-3	Decachlorobiphenyl	120%		10-153%
2051-24-3	Decachlorobiphenyl	110%		10-153%

(a) Reported from 2nd signal. %D of check on 1st signal excess method criteria (20 %) so using for confirmation only.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-3
Lab Sample ID: JC34195-2
Matrix: SO - Soil
Method: SW846 8082A SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 83.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202531.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	19	ug/kg	
11104-28-2	Aroclor 1221	ND	39	19	ug/kg	
11141-16-5	Aroclor 1232	ND	39	15	ug/kg	
53469-21-9	Aroclor 1242	ND	39	14	ug/kg	
12672-29-6	Aroclor 1248	ND	39	25	ug/kg	
11097-69-1	Aroclor 1254	ND	39	20	ug/kg	
11096-82-5	Aroclor 1260	ND	39	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		20-152%
877-09-8	Tetrachloro-m-xylene	101%		20-152%
2051-24-3	Decachlorobiphenyl	100%		12-157%
2051-24-3	Decachlorobiphenyl	119%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-3		
Lab Sample ID:	JC34195-2	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	11.9	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Barium	79.7	23	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.65	0.23	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	0.75	0.58	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	24.4	1.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	88.8	2.9	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	80.1	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	548	1.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.17	0.037	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	38.5	4.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 2.3	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 2.9	2.9	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	119	5.8	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-3		
Lab Sample ID:	JC34195-2	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.26	0.26	mg/kg	1	12/31/16 16:04	YZ	SW846 9012B/LACHAT
Solids, Percent	83.3		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-6
Lab Sample ID: JC34195-3
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 90.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X169302.D	1	12/31/16	TP	12/23/16 14:00	n/a	VX7207
Run #2							

	Initial Weight
Run #1	6.9 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	8.0	4.0	ug/kg	
71-43-2	Benzene	ND	0.40	0.096	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.0	1.4	ug/kg	
104-51-8	n-Butylbenzene	ND	1.6	0.12	ug/kg	
135-98-8	sec-Butylbenzene	ND	1.6	0.12	ug/kg	
98-06-6	tert-Butylbenzene	ND	1.6	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.6	0.13	ug/kg	
108-90-7	Chlorobenzene	ND	1.6	0.13	ug/kg	
67-66-3	Chloroform	0.55	1.6	0.19	ug/kg	J
95-50-1	1,2-Dichlorobenzene	ND	0.80	0.14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.80	0.11	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.80	0.12	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.80	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.80	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.80	0.12	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.92	0.80	0.35	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.80	0.13	ug/kg	
123-91-1	1,4-Dioxane	ND	100	38	ug/kg	
100-41-4	Ethylbenzene	ND	0.80	0.12	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.80	0.21	ug/kg	
75-09-2	Methylene chloride	1.6	4.0	0.80	ug/kg	J
103-65-1	n-Propylbenzene	ND	1.6	0.16	ug/kg	
127-18-4	Tetrachloroethene	ND	1.6	0.22	ug/kg	
108-88-3	Toluene	ND	0.80	0.10	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.6	0.13	ug/kg	
79-01-6	Trichloroethene	4.2	0.80	0.15	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	1.6	0.14	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	1.6	0.13	ug/kg	
75-01-4	Vinyl chloride	ND	1.6	0.16	ug/kg	
1330-20-7	Xylene (total)	ND	0.80	0.16	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-122%
17060-07-0	1,2-Dichloroethane-D4	104%		68-124%
2037-26-5	Toluene-D8	93%		77-125%
460-00-4	4-Bromofluorobenzene	97%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil outside 48 hours.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34447.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2	5P34507.D	20	01/05/17	JJ	01/03/17	OP99580	E5P1731

	Initial Weight	Final Volume
Run #1	31.7 g	1.0 ml
Run #2	31.7 g	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	70	22	ug/kg	
	3&4-Methylphenol	34.5	70	29	ug/kg	J
87-86-5	Pentachlorophenol	ND	140	33	ug/kg	
108-95-2	Phenol	ND	70	18	ug/kg	
83-32-9	Acenaphthene	3780 [a]	700	240	ug/kg	
208-96-8	Acenaphthylene	94.8	35	18	ug/kg	
120-12-7	Anthracene	7530 [a]	700	430	ug/kg	
56-55-3	Benzo(a)anthracene	13800 [a]	700	200	ug/kg	
50-32-8	Benzo(a)pyrene	10900 [a]	700	320	ug/kg	
205-99-2	Benzo(b)fluoranthene	13400 [a]	700	310	ug/kg	
191-24-2	Benzo(g,h,i)perylene	5720 [a]	700	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	5080 [a]	700	320	ug/kg	
218-01-9	Chrysene	12100 [a]	700	220	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1590	35	15	ug/kg	
132-64-9	Dibenzofuran	2170	70	14	ug/kg	
206-44-0	Fluoranthene	32500 [a]	700	310	ug/kg	
86-73-7	Fluorene	3180	35	16	ug/kg	
118-74-1	Hexachlorobenzene	ND	70	8.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	6430 [a]	700	330	ug/kg	
91-20-3	Naphthalene	2980	35	9.8	ug/kg	
85-01-8	Phenanthrene	29900 [a]	700	230	ug/kg	
129-00-0	Pyrene	27800 [a]	700	220	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%	64%	30-106%
4165-62-2	Phenol-d5	78%	69%	30-106%
118-79-6	2,4,6-Tribromophenol	81%	74%	24-140%
4165-60-0	Nitrobenzene-d5	75%	69%	26-122%
321-60-8	2-Fluorobiphenyl	75%	64%	36-112%
1718-51-0	Terphenyl-d14	108%	72%	36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42844.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.71	0.34	ug/kg	
319-84-6	alpha-BHC	ND	0.71	0.38	ug/kg	
319-85-7	beta-BHC	ND	0.71	0.44	ug/kg	
319-86-8	delta-BHC	ND	0.71	0.32	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.71	0.31	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.71	0.34	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.71	0.31	ug/kg	
60-57-1	Dieldrin	ND	0.71	0.35	ug/kg	
72-54-8	4,4'-DDD	ND	0.71	0.45	ug/kg	
72-55-9	4,4'-DDE	ND	0.71	0.37	ug/kg	
50-29-3	4,4'-DDT	ND	0.71	0.42	ug/kg	
72-20-8	Endrin	ND	0.71	0.33	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.71	0.28	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.71	0.42	ug/kg	
959-98-8	Endosulfan-I	ND	0.71	0.37	ug/kg	
33213-65-9	Endosulfan-II	ND	0.71	0.37	ug/kg	
76-44-8	Heptachlor	ND	0.71	0.35	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.71	0.38	ug/kg	
72-43-5	Methoxychlor	ND	1.4	0.35	ug/kg	
53494-70-5	Endrin ketone	ND	0.71	0.54	ug/kg	
8001-35-2	Toxaphene	ND	18	7.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		24-136%
877-09-8	Tetrachloro-m-xylene	78%		24-136%
2051-24-3	Decachlorobiphenyl	86%		10-153%
2051-24-3	Decachlorobiphenyl	186% [a]		10-153%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-6
Lab Sample ID: JC34195-3
Matrix: SO - Soil
Method: SW846 8082A SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 90.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202532.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	17	ug/kg	
11104-28-2	Aroclor 1221	ND	35	17	ug/kg	
11141-16-5	Aroclor 1232	ND	35	14	ug/kg	
53469-21-9	Aroclor 1242	ND	35	13	ug/kg	
12672-29-6	Aroclor 1248	ND	35	22	ug/kg	
11097-69-1	Aroclor 1254	115	35	18	ug/kg	
11096-82-5	Aroclor 1260	ND	35	15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		20-152%
877-09-8	Tetrachloro-m-xylene	100%		20-152%
2051-24-3	Decachlorobiphenyl	101%		12-157%
2051-24-3	Decachlorobiphenyl	85%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.4	2.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Barium	42.7	22	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.26	0.22	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	< 0.54	0.54	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	7.0	1.1	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	33.6	2.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	86.7	2.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	221	1.6	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.064	0.036	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	9.4	4.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 2.2	2.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 2.7	2.7	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	96.9	5.4	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-6		
Lab Sample ID:	JC34195-3	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	90.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.25	0.25	mg/kg	1	12/31/16 16:05	YZ	SW846 9012B/LACHAT
Solids, Percent	90.7		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-7
Lab Sample ID: JC34195-4
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 72.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X169313.D	1	12/31/16	TP	12/23/16 14:00	n/a	VX7207
Run #2							

	Initial Weight
Run #1	6.5 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	5.3	ug/kg	
71-43-2	Benzene	0.25	0.53	0.13	ug/kg	J
78-93-3	2-Butanone (MEK)	ND	11	1.9	ug/kg	
104-51-8	n-Butylbenzene	ND	2.1	0.16	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.1	0.16	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.1	0.17	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
67-66-3	Chloroform	ND	2.1	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.18	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.16	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.16	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.51	1.1	0.47	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.17	ug/kg	
123-91-1	1,4-Dioxane	ND	130	51	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.16	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.28	ug/kg	
75-09-2	Methylene chloride	3.3	5.3	1.1	ug/kg	J
103-65-1	n-Propylbenzene	ND	2.1	0.21	ug/kg	
127-18-4	Tetrachloroethene	0.68	2.1	0.30	ug/kg	J
108-88-3	Toluene	0.27	1.1	0.13	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.50	2.1	0.18	ug/kg	J
79-01-6	Trichloroethene	58.4	1.1	0.20	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.1	0.19	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.1	0.18	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
1330-20-7	Xylene (total)	0.75	1.1	0.21	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-122%
17060-07-0	1,2-Dichloroethane-D4	108%		68-124%
2037-26-5	Toluene-D8	94%		77-125%
460-00-4	4-Bromofluorobenzene	101%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil outside 48 hours.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34448.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2	5P34511.D	5	01/05/17	JJ	01/03/17	OP99580	E5P1731

	Initial Weight	Final Volume
Run #1	31.4 g	1.0 ml
Run #2	31.4 g	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	88	28	ug/kg	
	3&4-Methylphenol	75.9	88	36	ug/kg	J
87-86-5	Pentachlorophenol	ND	180	41	ug/kg	
108-95-2	Phenol	ND	88	23	ug/kg	
83-32-9	Acenaphthene	89.0	44	15	ug/kg	
208-96-8	Acenaphthylene	134	44	22	ug/kg	
120-12-7	Anthracene	342	44	27	ug/kg	
56-55-3	Benzo(a)anthracene	901	44	12	ug/kg	
50-32-8	Benzo(a)pyrene	920 [a]	220	100	ug/kg	
205-99-2	Benzo(b)fluoranthene	1340 [a]	220	97	ug/kg	
191-24-2	Benzo(g,h,i)perylene	781 [a]	220	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	438 [a]	220	100	ug/kg	
218-01-9	Chrysene	995	44	14	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	200 [a]	220	97	ug/kg	J
132-64-9	Dibenzofuran	91.3	88	18	ug/kg	
206-44-0	Fluoranthene	1220	44	20	ug/kg	
86-73-7	Fluorene	105	44	20	ug/kg	
118-74-1	Hexachlorobenzene	ND	88	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	881 [a]	220	100	ug/kg	
91-20-3	Naphthalene	250	44	12	ug/kg	
85-01-8	Phenanthrene	1250	44	15	ug/kg	
129-00-0	Pyrene	1860	44	14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%	68%	30-106%
4165-62-2	Phenol-d5	72%	68%	30-106%
118-79-6	2,4,6-Tribromophenol	69%	76%	24-140%
4165-60-0	Nitrobenzene-d5	67%	70%	26-122%
321-60-8	2-Fluorobiphenyl	64%	65%	36-112%
1718-51-0	Terphenyl-d14	81%	74%	36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42845.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.91	0.43	ug/kg	
319-84-6	alpha-BHC	ND	0.91	0.49	ug/kg	
319-85-7	beta-BHC	ND	0.91	0.57	ug/kg	
319-86-8	delta-BHC	ND	0.91	0.41	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.91	0.40	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.91	0.43	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.91	0.40	ug/kg	
60-57-1	Dieldrin	ND	0.91	0.45	ug/kg	
72-54-8	4,4'-DDD	ND	0.91	0.58	ug/kg	
72-55-9	4,4'-DDE	ND	0.91	0.47	ug/kg	
50-29-3	4,4'-DDT	ND	0.91	0.54	ug/kg	
72-20-8	Endrin	ND	0.91	0.43	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.91	0.36	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.91	0.54	ug/kg	
959-98-8	Endosulfan-I	ND	0.91	0.48	ug/kg	
33213-65-9	Endosulfan-II	ND	0.91	0.48	ug/kg	
76-44-8	Heptachlor	ND	0.91	0.45	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.91	0.49	ug/kg	
72-43-5	Methoxychlor	ND	1.8	0.45	ug/kg	
53494-70-5	Endrin ketone	ND	0.91	0.70	ug/kg	
8001-35-2	Toxaphene	ND	23	9.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		24-136%
877-09-8	Tetrachloro-m-xylene	95%		24-136%
2051-24-3	Decachlorobiphenyl	55%		10-153%
2051-24-3	Decachlorobiphenyl	196% [a]		10-153%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202533.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2	XX202591.D	10	01/03/17	HB	12/30/16	OP99575	GXX5901

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2	15.2 g	10.0 ml

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	45	22	ug/kg	
11104-28-2	Aroclor 1221	ND	45	22	ug/kg	
11141-16-5	Aroclor 1232	ND	45	18	ug/kg	
53469-21-9	Aroclor 1242	ND	45	16	ug/kg	
12672-29-6	Aroclor 1248	ND	45	29	ug/kg	
11097-69-1	Aroclor 1254	8930 [a]	450	230	ug/kg	
11096-82-5	Aroclor 1260	ND	45	19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%	71%	20-152%
877-09-8	Tetrachloro-m-xylene	89%	97%	20-152%
2051-24-3	Decachlorobiphenyl	140%	89%	12-157%
2051-24-3	Decachlorobiphenyl	152%	144%	12-157%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	46.0	10	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Barium	184	20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Beryllium	0.95	0.20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Cadmium	31.1	0.50	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Chromium	321	1.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Copper [a]	693	25	mg/kg	10	12/30/16	01/05/17	KS	SW846 6010C [4]	SW846 3050B [6]
Lead [a]	487	10	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Manganese	1240	15	mg/kg	10	12/30/16	01/05/17	KS	SW846 6010C [4]	SW846 3050B [6]
Mercury	0.72	0.034	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [5]
Nickel [a]	1050	20	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Selenium [a]	< 20	20	mg/kg	10	12/30/16	01/05/17	KS	SW846 6010C [4]	SW846 3050B [6]
Silver [a]	8.4	5.0	mg/kg	10	12/30/16	01/05/17	KS	SW846 6010C [4]	SW846 3050B [6]
Zinc [a]	666	25	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Instrument QC Batch: MA41105
(5) Prep QC Batch: MP97890
(6) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-7		
Lab Sample ID:	JC34195-4	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	72.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.33	0.33	mg/kg	1	12/31/16 16:07	YZ	SW846 9012B/LACHAT
Solids, Percent	72.3		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-9
Lab Sample ID: JC34195-5
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 82.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X169314.D	1	12/31/16	TP	12/23/16 14:00	n/a	VX7207
Run #2							

	Initial Weight
Run #1	6.1 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/kg	
71-43-2	Benzene	ND	0.50	0.12	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	1.8	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.15	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.15	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
67-66-3	Chloroform	ND	2.0	0.24	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.14	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.15	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.15	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.44	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.16	ug/kg	
123-91-1	1,4-Dioxane	ND	120	48	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.15	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/kg	
75-09-2	Methylene chloride	2.9	5.0	1.0	ug/kg	J
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.28	ug/kg	
108-88-3	Toluene	ND	1.0	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.28	2.0	0.17	ug/kg	J
79-01-6	Trichloroethene	2.2	1.0	0.19	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.17	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.16	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.20	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-122%
17060-07-0	1,2-Dichloroethane-D4	104%		68-124%
2037-26-5	Toluene-D8	94%		77-125%
460-00-4	4-Bromofluorobenzene	100%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil outside 48 hours.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34449.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2	5P34510.D	10	01/05/17	JJ	01/03/17	OP99580	E5P1731

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2	30.1 g	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	81	26	ug/kg	
	3&4-Methylphenol	60.4	81	33	ug/kg	J
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	87.2	81	21	ug/kg	
83-32-9	Acenaphthene	523	40	14	ug/kg	
208-96-8	Acenaphthylene	169	40	21	ug/kg	
120-12-7	Anthracene	1230	40	25	ug/kg	
56-55-3	Benzo(a)anthracene	6490 [a]	400	110	ug/kg	
50-32-8	Benzo(a)pyrene	4830 [a]	400	180	ug/kg	
205-99-2	Benzo(b)fluoranthene	8220 [a]	400	180	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2710	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	2140	40	19	ug/kg	
218-01-9	Chrysene	6570 [a]	400	130	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1000	40	18	ug/kg	
132-64-9	Dibenzofuran	360	81	16	ug/kg	
206-44-0	Fluoranthene	11200 [a]	400	180	ug/kg	
86-73-7	Fluorene	402	40	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	81	10	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	3350	40	19	ug/kg	
91-20-3	Naphthalene	690	40	11	ug/kg	
85-01-8	Phenanthrene	5640 [a]	400	140	ug/kg	
129-00-0	Pyrene	11300 [a]	400	130	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%	41%	30-106%
4165-62-2	Phenol-d5	52%	47%	30-106%
118-79-6	2,4,6-Tribromophenol	48%	51%	24-140%
4165-60-0	Nitrobenzene-d5	45%	50%	26-122%
321-60-8	2-Fluorobiphenyl	72%	67%	36-112%
1718-51-0	Terphenyl-d14	86%	73%	36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42846.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2 [a]	6G42893.D	5	01/04/17	CP	12/30/16	OP99576	G6G1218

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2	15.7 g	10.0 ml

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.77	0.37	ug/kg	
319-84-6	alpha-BHC [b]	0.81	0.77	0.42	ug/kg	
319-85-7	beta-BHC	ND	0.77	0.49	ug/kg	
319-86-8	delta-BHC	ND	0.77	0.35	ug/kg	
58-89-9	gamma-BHC (Lindane)	6.2	0.77	0.34	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.77	0.37	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.77	0.34	ug/kg	
60-57-1	Dieldrin	ND	0.77	0.39	ug/kg	
72-54-8	4,4'-DDD	ND	0.77	0.50	ug/kg	
72-55-9	4,4'-DDE	ND	0.77	0.40	ug/kg	
50-29-3	4,4'-DDT	ND	0.77	0.46	ug/kg	
72-20-8	Endrin	ND	0.77	0.36	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.77	0.31	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.77	0.46	ug/kg	
959-98-8	Endosulfan-I	ND	0.77	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	0.77	0.41	ug/kg	
76-44-8	Heptachlor	ND	0.77	0.38	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.77	0.42	ug/kg	
72-43-5	Methoxychlor	ND	1.5	0.39	ug/kg	
53494-70-5	Endrin ketone	ND	0.77	0.60	ug/kg	
8001-35-2	Toxaphene	ND	19	8.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%	68%	24-136%
877-09-8	Tetrachloro-m-xylene	68%	63%	24-136%
2051-24-3	Decachlorobiphenyl	77%	36%	10-153%
2051-24-3	Decachlorobiphenyl	370% [c]	226% [c]	10-153%

(a) Confirmation run.
(b) More than 40 % RPD for detected concentrations between the two GC columns.
(c) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202539.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	19	ug/kg	
11104-28-2	Aroclor 1221	ND	39	19	ug/kg	
11141-16-5	Aroclor 1232	ND	39	15	ug/kg	
53469-21-9	Aroclor 1242	ND	39	14	ug/kg	
12672-29-6	Aroclor 1248	ND	39	24	ug/kg	
11097-69-1	Aroclor 1254	ND	39	19	ug/kg	
11096-82-5	Aroclor 1260	ND	39	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		20-152%
877-09-8	Tetrachloro-m-xylene	97%		20-152%
2051-24-3	Decachlorobiphenyl	105%		12-157%
2051-24-3	Decachlorobiphenyl	85%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-9
Lab Sample ID: JC34195-5
Matrix: SO - Soil
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 82.2

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	22.9	12	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Barium	166	24	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Beryllium	0.70	0.24	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Cadmium	7.7	0.59	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Chromium	88.4	1.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Copper [a]	238	15	mg/kg	5	12/30/16	01/05/17	KS	SW846 6010C [4]	SW846 3050B [6]
Lead [a]	480	12	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Manganese [a]	430	8.9	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Mercury	0.39	0.038	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [5]
Nickel	82.5	4.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [6]
Selenium [a]	< 12	12	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Silver [a]	< 3.0	3.0	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]
Zinc	1480	30	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [6]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Instrument QC Batch: MA41105
(5) Prep QC Batch: MP97890
(6) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-9		
Lab Sample ID:	JC34195-5	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	82.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.2	0.28	mg/kg	1	12/31/16 16:08	YZ	SW846 9012B/LACHAT
Solids, Percent	82.2		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-10
Lab Sample ID: JC34195-6
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y169102.D	1	01/03/17	PS	12/23/16 14:00	n/a	VY7336
Run #2							

	Initial Weight
Run #1	6.3 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.4	9.1	4.5	ug/kg	
71-43-2	Benzene	ND	0.45	0.11	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.1	1.6	ug/kg	
104-51-8	n-Butylbenzene	ND	1.8	0.14	ug/kg	
135-98-8	sec-Butylbenzene	ND	1.8	0.14	ug/kg	
98-06-6	tert-Butylbenzene	0.72	1.8	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	1.8	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	1.8	0.15	ug/kg	
67-66-3	Chloroform	ND	1.8	0.22	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.91	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.91	0.12	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.91	0.14	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.91	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.91	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.91	0.14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.91	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.91	0.14	ug/kg	
123-91-1	1,4-Dioxane	ND	110	43	ug/kg	
100-41-4	Ethylbenzene	ND	0.91	0.14	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.91	0.24	ug/kg	
75-09-2	Methylene chloride	ND	4.5	0.91	ug/kg	
103-65-1	n-Propylbenzene	ND	1.8	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	1.8	0.26	ug/kg	
108-88-3	Toluene	ND	0.91	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.8	0.15	ug/kg	
79-01-6	Trichloroethene	ND	0.91	0.17	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.8	1.8	0.16	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.38	1.8	0.15	ug/kg	J
75-01-4	Vinyl chloride	ND	1.8	0.18	ug/kg	
1330-20-7	Xylene (total)	0.31	0.91	0.18	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-10		
Lab Sample ID:	JC34195-6	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	87.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-122%
17060-07-0	1,2-Dichloroethane-D4	112%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	104%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-	15.05	33	ug/kg	J
	alkene	16.05	11	ug/kg	J
281-23-2	Adamantane	16.57	13	ug/kg	JN
	1H-indene-dihydro-dimethyl- isomer	17.04	17	ug/kg	J
	alkane	17.21	22	ug/kg	J
	alkane	17.27	16	ug/kg	J
	unknown	17.47	32	ug/kg	J
	alkane	17.63	21	ug/kg	J
	alkane	17.81	22	ug/kg	J
	unknown	17.86	10	ug/kg	J
	alkene	18.01	37	ug/kg	J
	unknown	18.08	19	ug/kg	J
	unknown	18.22	14	ug/kg	J
	unknown	18.39	12	ug/kg	J
	unknown	18.53	14	ug/kg	J
	Total TIC, Volatile		293	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-10
Lab Sample ID: JC34195-6
Matrix: SO - Soil
Method: SW846 8270D SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34450.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	76	24	ug/kg	
	3&4-Methylphenol	ND	76	31	ug/kg	
87-86-5	Pentachlorophenol	ND	150	36	ug/kg	
108-95-2	Phenol	ND	76	20	ug/kg	
83-32-9	Acenaphthene	31.3	38	13	ug/kg	J
208-96-8	Acenaphthylene	24.3	38	19	ug/kg	J
120-12-7	Anthracene	92.6	38	23	ug/kg	
56-55-3	Benzo(a)anthracene	451	38	11	ug/kg	
50-32-8	Benzo(a)pyrene	657	38	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	740	38	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	517	38	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	267	38	18	ug/kg	
218-01-9	Chrysene	419	38	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	141	38	17	ug/kg	
132-64-9	Dibenzofuran	32.1	76	15	ug/kg	J
206-44-0	Fluoranthene	403	38	17	ug/kg	
86-73-7	Fluorene	19.2	38	17	ug/kg	J
118-74-1	Hexachlorobenzene	ND	76	9.6	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	584	38	18	ug/kg	
91-20-3	Naphthalene	55.6	38	11	ug/kg	
85-01-8	Phenanthrene	240	38	13	ug/kg	
129-00-0	Pyrene	481	38	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	81%		30-106%
4165-62-2	Phenol-d5	79%		30-106%
118-79-6	2,4,6-Tribromophenol	83%		24-140%
4165-60-0	Nitrobenzene-d5	75%		26-122%
321-60-8	2-Fluorobiphenyl	78%		36-112%
1718-51-0	Terphenyl-d14	83%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-10
Lab Sample ID: JC34195-6
Matrix: SO - Soil
Method: SW846 8081B SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 87.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42847.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.76	0.37	ug/kg	
319-84-6	alpha-BHC	ND	0.76	0.41	ug/kg	
319-85-7	beta-BHC	ND	0.76	0.48	ug/kg	
319-86-8	delta-BHC	ND	0.76	0.35	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.76	0.34	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.76	0.36	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.76	0.34	ug/kg	
60-57-1	Dieldrin	ND	0.76	0.38	ug/kg	
72-54-8	4,4'-DDD	ND	0.76	0.49	ug/kg	
72-55-9	4,4'-DDE	ND	0.76	0.40	ug/kg	
50-29-3	4,4'-DDT	ND	0.76	0.45	ug/kg	
72-20-8	Endrin	ND	0.76	0.36	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.76	0.31	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.76	0.45	ug/kg	
959-98-8	Endosulfan-I	ND	0.76	0.40	ug/kg	
33213-65-9	Endosulfan-II	ND	0.76	0.40	ug/kg	
76-44-8	Heptachlor	ND	0.76	0.37	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.76	0.41	ug/kg	
72-43-5	Methoxychlor	ND	1.5	0.38	ug/kg	
53494-70-5	Endrin ketone	ND	0.76	0.59	ug/kg	
8001-35-2	Toxaphene	ND	19	7.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		24-136%
877-09-8	Tetrachloro-m-xylene	71%		24-136%
2051-24-3	Decachlorobiphenyl	64%		10-153%
2051-24-3	Decachlorobiphenyl	64%		10-153%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-10		
Lab Sample ID:	JC34195-6	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	87.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202540.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	19	ug/kg	
11104-28-2	Aroclor 1221	ND	38	19	ug/kg	
11141-16-5	Aroclor 1232	ND	38	15	ug/kg	
53469-21-9	Aroclor 1242	ND	38	14	ug/kg	
12672-29-6	Aroclor 1248	ND	38	24	ug/kg	
11097-69-1	Aroclor 1254	78.8	38	19	ug/kg	
11096-82-5	Aroclor 1260	ND	38	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		20-152%
877-09-8	Tetrachloro-m-xylene	102%		20-152%
2051-24-3	Decachlorobiphenyl	100%		12-157%
2051-24-3	Decachlorobiphenyl	144%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-10
Lab Sample ID: JC34195-6
Matrix: SO - Soil
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 87.3

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	15.5	11	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Barium	150	22	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.58	0.22	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	< 0.56	0.56	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	353	1.1	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	42.0	2.8	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	62.6	2.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	246	1.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.20	0.036	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	56.4	4.4	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 2.2	2.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 2.8	2.8	mg/kg	5	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	114	5.6	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-10		
Lab Sample ID:	JC34195-6	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	87.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.26	0.26	mg/kg	1	12/31/16 16:09	YZ	SW846 9012B/LACHAT
Solids, Percent	87.3		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-11
Lab Sample ID: JC34195-7
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 76.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3V32425.D	1	01/03/17	TDN	12/23/16 14:00	n/a	V3V1307
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	7.0	ug/kg	
71-43-2	Benzene	ND	0.70	0.17	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	2.4	ug/kg	
104-51-8	n-Butylbenzene	ND	2.8	0.21	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.8	0.21	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.8	0.22	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.8	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.23	ug/kg	
67-66-3	Chloroform	ND	2.8	0.33	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.4	0.24	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.4	0.19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.4	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.24	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.4	0.21	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	0.61	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	0.22	ug/kg	
123-91-1	1,4-Dioxane	ND	170	66	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.21	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.37	ug/kg	
75-09-2	Methylene chloride	1.5	7.0	1.4	ug/kg	J
103-65-1	n-Propylbenzene	ND	2.8	0.28	ug/kg	
127-18-4	Tetrachloroethene	ND	2.8	0.39	ug/kg	
108-88-3	Toluene	ND	1.4	0.17	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.23	ug/kg	
79-01-6	Trichloroethene	1.1	1.4	0.26	ug/kg	J
95-63-6	1,2,4-Trimethylbenzene	ND	2.8	0.24	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.8	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	0.28	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.28	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-122%
17060-07-0	1,2-Dichloroethane-D4	107%		68-124%
2037-26-5	Toluene-D8	100%		77-125%
460-00-4	4-Bromofluorobenzene	92%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.21	580	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34451.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2							

	Initial Weight	Final Volume
Run #1	32.4 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	81	26	ug/kg	
	3&4-Methylphenol	ND	81	33	ug/kg	
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	ND	81	21	ug/kg	
83-32-9	Acenaphthene	197	40	14	ug/kg	
208-96-8	Acenaphthylene	50.2	40	20	ug/kg	
120-12-7	Anthracene	511	40	25	ug/kg	
56-55-3	Benzo(a)anthracene	1010	40	11	ug/kg	
50-32-8	Benzo(a)pyrene	884	40	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	1120	40	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	501	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	443	40	19	ug/kg	
218-01-9	Chrysene	1010	40	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	141	40	18	ug/kg	
132-64-9	Dibenzofuran	137	81	16	ug/kg	
206-44-0	Fluoranthene	1990	40	18	ug/kg	
86-73-7	Fluorene	201	40	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	81	10	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	590	40	19	ug/kg	
91-20-3	Naphthalene	160	40	11	ug/kg	
85-01-8	Phenanthrene	1890	40	14	ug/kg	
129-00-0	Pyrene	2010	40	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	75%		30-106%
4165-62-2	Phenol-d5	75%		30-106%
118-79-6	2,4,6-Tribromophenol	72%		24-140%
4165-60-0	Nitrobenzene-d5	69%		26-122%
321-60-8	2-Fluorobiphenyl	70%		36-112%
1718-51-0	Terphenyl-d14	77%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42848.D	1	01/03/17	RK	12/30/16	OP99576	G6G1217
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.85	0.41	ug/kg	
319-84-6	alpha-BHC	ND	0.85	0.45	ug/kg	
319-85-7	beta-BHC	ND	0.85	0.53	ug/kg	
319-86-8	delta-BHC	12.2	0.85	0.38	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.85	0.38	ug/kg	
5103-71-9	alpha-Chlordane [a]	71.1	0.85	0.40	ug/kg	
5103-74-2	gamma-Chlordane	48.9	0.85	0.37	ug/kg	
60-57-1	Dieldrin	38.5	0.85	0.42	ug/kg	
72-54-8	4,4'-DDD	3.2	0.85	0.54	ug/kg	
72-55-9	4,4'-DDE	75.1	0.85	0.44	ug/kg	
50-29-3	4,4'-DDT	70.7	0.85	0.51	ug/kg	
72-20-8	Endrin	ND	0.85	0.40	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.85	0.34	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.85	0.50	ug/kg	
959-98-8	Endosulfan-I	ND	0.85	0.44	ug/kg	
33213-65-9	Endosulfan-II	ND	0.85	0.44	ug/kg	
76-44-8	Heptachlor	ND	0.85	0.42	ug/kg	
1024-57-3	Heptachlor epoxide	13.8	0.85	0.46	ug/kg	
72-43-5	Methoxychlor	ND	1.7	0.42	ug/kg	
53494-70-5	Endrin ketone	ND	0.85	0.65	ug/kg	
8001-35-2	Toxaphene	ND	21	8.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	88%		24-136%
877-09-8	Tetrachloro-m-xylene	84%		24-136%
2051-24-3	Decachlorobiphenyl	74%		10-153%
2051-24-3	Decachlorobiphenyl	108%		10-153%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202541.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.4 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	42	21	ug/kg	
11104-28-2	Aroclor 1221	ND	42	21	ug/kg	
11141-16-5	Aroclor 1232	ND	42	17	ug/kg	
53469-21-9	Aroclor 1242	ND	42	15	ug/kg	
12672-29-6	Aroclor 1248	ND	42	27	ug/kg	
11097-69-1	Aroclor 1254	ND	42	21	ug/kg	
11096-82-5	Aroclor 1260	ND	42	18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		20-152%
877-09-8	Tetrachloro-m-xylene	103%		20-152%
2051-24-3	Decachlorobiphenyl	98%		12-157%
2051-24-3	Decachlorobiphenyl	149%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	35.9	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Barium	128	20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.59	0.20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	2.9	0.51	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	33.0	1.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	61.5	2.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	138	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	490	1.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.20	0.034	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	33.1	4.1	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 2.0	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 1.0	1.0	mg/kg	2	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	250	5.1	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-11		
Lab Sample ID:	JC34195-7	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	76.5
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.74	0.29	mg/kg	1	12/31/16 16:11	YZ	SW846 9012B/LACHAT
Solids, Percent	76.5		%	1	12/27/16 17:01	SP	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-12
Lab Sample ID: JC34195-8
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 79.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3V32426.D	1	01/03/17	TDN	12/23/16 14:00	n/a	V3V1307
Run #2							

	Initial Weight
Run #1	6.0 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.2	ug/kg	
71-43-2	Benzene	ND	0.52	0.13	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	1.8	ug/kg	
104-51-8	n-Butylbenzene	ND	2.1	0.16	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.1	0.16	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.1	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
67-66-3	Chloroform	ND	2.1	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.18	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.14	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.16	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.46	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.17	ug/kg	
123-91-1	1,4-Dioxane	ND	130	50	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.16	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/kg	
75-09-2	Methylene chloride	1.7	5.2	1.0	ug/kg	J
103-65-1	n-Propylbenzene	ND	2.1	0.21	ug/kg	
127-18-4	Tetrachloroethene	ND	2.1	0.29	ug/kg	
108-88-3	Toluene	ND	1.0	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.17	ug/kg	
79-01-6	Trichloroethene	0.26	1.0	0.20	ug/kg	J
95-63-6	1,2,4-Trimethylbenzene	ND	2.1	0.18	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.1	0.17	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	100%		77-125%
460-00-4	4-Bromofluorobenzene	92%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.22	440	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5P34452.D	1	01/04/17	SB	01/03/17	OP99580	E5P1729
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	83	27	ug/kg	
	3&4-Methylphenol	ND	83	34	ug/kg	
87-86-5	Pentachlorophenol	ND	170	39	ug/kg	
108-95-2	Phenol	ND	83	22	ug/kg	
83-32-9	Acenaphthene	44.6	42	14	ug/kg	
208-96-8	Acenaphthylene	100	42	21	ug/kg	
120-12-7	Anthracene	159	42	26	ug/kg	
56-55-3	Benzo(a)anthracene	420	42	12	ug/kg	
50-32-8	Benzo(a)pyrene	450	42	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	585	42	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	324	42	21	ug/kg	
207-08-9	Benzo(k)fluoranthene	216	42	19	ug/kg	
218-01-9	Chrysene	490	42	13	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	85.6	42	18	ug/kg	
132-64-9	Dibenzofuran	45.5	83	17	ug/kg	J
206-44-0	Fluoranthene	689	42	19	ug/kg	
86-73-7	Fluorene	47.9	42	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	83	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	334	42	20	ug/kg	
91-20-3	Naphthalene	69.8	42	12	ug/kg	
85-01-8	Phenanthrene	552	42	14	ug/kg	
129-00-0	Pyrene	732	42	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%		30-106%
4165-62-2	Phenol-d5	72%		30-106%
118-79-6	2,4,6-Tribromophenol	76%		24-140%
4165-60-0	Nitrobenzene-d5	65%		26-122%
321-60-8	2-Fluorobiphenyl	70%		36-112%
1718-51-0	Terphenyl-d14	78%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42876.D	1	01/04/17	CP	12/30/16	OP99576	G6G1218
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.79	0.38	ug/kg	
319-84-6	alpha-BHC	ND	0.79	0.43	ug/kg	
319-85-7	beta-BHC	ND	0.79	0.50	ug/kg	
319-86-8	delta-BHC [a]	0.39	0.79	0.36	ug/kg	J
58-89-9	gamma-BHC (Lindane)	ND	0.79	0.35	ug/kg	
5103-71-9	alpha-Chlordane [a]	8.8	0.79	0.38	ug/kg	
5103-74-2	gamma-Chlordane	5.6	0.79	0.35	ug/kg	
60-57-1	Dieldrin	1.7	0.79	0.40	ug/kg	
72-54-8	4,4'-DDD	ND	0.79	0.51	ug/kg	
72-55-9	4,4'-DDE	3.0	0.79	0.41	ug/kg	
50-29-3	4,4'-DDT	2.7	0.79	0.47	ug/kg	
72-20-8	Endrin	ND	0.79	0.37	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.79	0.32	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.79	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.79	0.42	ug/kg	
33213-65-9	Endosulfan-II	ND	0.79	0.42	ug/kg	
76-44-8	Heptachlor	ND	0.79	0.39	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.79	0.43	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.40	ug/kg	
53494-70-5	Endrin ketone	ND	0.79	0.61	ug/kg	
8001-35-2	Toxaphene	ND	20	8.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-136%
877-09-8	Tetrachloro-m-xylene	86%		24-136%
2051-24-3	Decachlorobiphenyl	72%		10-153%
2051-24-3	Decachlorobiphenyl	89%		10-153%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202542.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	40	20	ug/kg	
11104-28-2	Aroclor 1221	ND	40	19	ug/kg	
11141-16-5	Aroclor 1232	ND	40	16	ug/kg	
53469-21-9	Aroclor 1242	ND	40	14	ug/kg	
12672-29-6	Aroclor 1248	ND	40	25	ug/kg	
11097-69-1	Aroclor 1254	ND	40	20	ug/kg	
11096-82-5	Aroclor 1260	ND	40	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	98%		20-152%
877-09-8	Tetrachloro-m-xylene	102%		20-152%
2051-24-3	Decachlorobiphenyl	90%		12-157%
2051-24-3	Decachlorobiphenyl	137%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	17.0	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Barium	236	20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.87	0.20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	0.59	0.50	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	31.5	1.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	67.1	2.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	165	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	583	1.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.15	0.034	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	42.7	4.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Selenium	< 2.0	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 1.0	1.0	mg/kg	2	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	139	5.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-12		
Lab Sample ID:	JC34195-8	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	79.7
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	1.1	0.28	mg/kg	1	12/31/16 16:12	YZ	SW846 9012B/LACHAT
Solids, Percent	79.7		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID: BH-13
Lab Sample ID: JC34195-9
Matrix: SO - Soil
Method: SW846 8260C SW846 5035
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 83.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3V32427.D	1	01/03/17	TDN	12/23/16 15:00	n/a	V3V1307
Run #2							

	Initial Weight
Run #1	5.9 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.1	ug/kg	
71-43-2	Benzene	ND	0.51	0.12	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	1.8	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.15	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.16	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.16	ug/kg	
67-66-3	Chloroform	ND	2.0	0.24	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.17	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.14	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.16	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.45	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.16	ug/kg	
123-91-1	1,4-Dioxane	ND	130	49	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.15	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.27	ug/kg	
75-09-2	Methylene chloride	ND	5.1	1.0	ug/kg	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.29	ug/kg	
108-88-3	Toluene	ND	1.0	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.17	ug/kg	
79-01-6	Trichloroethene	1.9	1.0	0.19	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.18	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.17	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.21	ug/kg	
1330-20-7	Xylene (total)	0.23	1.0	0.21	ug/kg	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-13		
Lab Sample ID:	JC34195-9	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-122%
17060-07-0	1,2-Dichloroethane-D4	112%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	94%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.22	340	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-13		
Lab Sample ID:	JC34195-9	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	M130611.D	1	01/05/17	KM	01/04/17	OP99581	EM5579
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	78	25	ug/kg	
	3&4-Methylphenol	ND	78	32	ug/kg	
87-86-5	Pentachlorophenol	ND	160	37	ug/kg	
108-95-2	Phenol	ND	78	20	ug/kg	
83-32-9	Acenaphthene	181	39	13	ug/kg	
208-96-8	Acenaphthylene	74.0	39	20	ug/kg	
120-12-7	Anthracene	367	39	24	ug/kg	
56-55-3	Benzo(a)anthracene	1040	39	11	ug/kg	
50-32-8	Benzo(a)pyrene	851	39	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	1300	39	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	480	39	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	398	39	18	ug/kg	
218-01-9	Chrysene	1180	39	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	156	39	17	ug/kg	
132-64-9	Dibenzofuran	250	78	16	ug/kg	
206-44-0	Fluoranthene	2090	39	17	ug/kg	
86-73-7	Fluorene	158	39	18	ug/kg	
118-74-1	Hexachlorobenzene	ND	78	9.9	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	569	39	18	ug/kg	
91-20-3	Naphthalene	437	39	11	ug/kg	
85-01-8	Phenanthrene	1850	39	13	ug/kg	
129-00-0	Pyrene	1760	39	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		30-106%
4165-62-2	Phenol-d5	58%		30-106%
118-79-6	2,4,6-Tribromophenol	82%		24-140%
4165-60-0	Nitrobenzene-d5	74%		26-122%
321-60-8	2-Fluorobiphenyl	81%		36-112%
1718-51-0	Terphenyl-d14	89%		36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-13		
Lab Sample ID:	JC34195-9	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Sample extracted outside the holding time per client's request.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-13
Lab Sample ID: JC34195-9
Matrix: SO - Soil
Method: SW846 8081B SW846 3546
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 83.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42877.D	1	01/04/17	CP	12/30/16	OP99576	G6G1218
Run #2 [a]	6G42895.D	5	01/04/17	CP	12/30/16	OP99576	G6G1218

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2	15.3 g	10.0 ml

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.78	0.38	ug/kg	
319-84-6	alpha-BHC [b]	0.45	0.78	0.42	ug/kg	J
319-85-7	beta-BHC	ND	0.78	0.49	ug/kg	
319-86-8	delta-BHC	ND	0.78	0.35	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.78	0.35	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.78	0.37	ug/kg	
5103-74-2	gamma-Chlordane [b]	2.0	0.78	0.35	ug/kg	
60-57-1	Dieldrin	ND	0.78	0.39	ug/kg	
72-54-8	4,4'-DDD	ND	0.78	0.50	ug/kg	
72-55-9	4,4'-DDE	3.9	0.78	0.41	ug/kg	
50-29-3	4,4'-DDT [b]	27.5	0.78	0.47	ug/kg	
72-20-8	Endrin	ND	0.78	0.37	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.78	0.31	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.78	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.78	0.41	ug/kg	
33213-65-9	Endosulfan-II	ND	0.78	0.41	ug/kg	
76-44-8	Heptachlor	ND	0.78	0.38	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.78	0.42	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.39	ug/kg	
53494-70-5	Endrin ketone	ND	0.78	0.60	ug/kg	
8001-35-2	Toxaphene	ND	20	8.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%	93%	24-136%
877-09-8	Tetrachloro-m-xylene	87%	86%	24-136%
2051-24-3	Decachlorobiphenyl	68%	84%	10-153%
2051-24-3	Decachlorobiphenyl	114%	134%	10-153%

(a) Confirmation run.
(b) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-13		
Lab Sample ID:	JC34195-9	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202543.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	39	19	ug/kg	
11104-28-2	Aroclor 1221	ND	39	19	ug/kg	
11141-16-5	Aroclor 1232	ND	39	15	ug/kg	
53469-21-9	Aroclor 1242	ND	39	14	ug/kg	
12672-29-6	Aroclor 1248	ND	39	25	ug/kg	
11097-69-1	Aroclor 1254	252	39	20	ug/kg	
11096-82-5	Aroclor 1260	ND	39	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	95%		20-152%
877-09-8	Tetrachloro-m-xylene	96%		20-152%
2051-24-3	Decachlorobiphenyl	89%		12-157%
2051-24-3	Decachlorobiphenyl	159% [a]		12-157%

(a) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BH-13
Lab Sample ID: JC34195-9
Matrix: SO - Soil
Project: Keystone, Main & Hertez, Buffalo, NY

Date Sampled: 12/20/16
Date Received: 12/22/16
Percent Solids: 83.3

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	10.1	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Barium	167	23	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Beryllium	0.70	0.23	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Cadmium	4.9	0.58	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Chromium	50.5	1.2	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Copper	387	2.9	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Lead	588	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Manganese	339	1.7	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Mercury	0.40	0.037	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [3]
Nickel	210	4.6	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Selenium	< 2.3	2.3	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Silver	2.9	0.58	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]
Zinc	508	5.8	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [4]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Prep QC Batch: MP97890
(4) Prep QC Batch: MP97899

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-13		
Lab Sample ID:	JC34195-9	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	83.3
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	0.79	0.28	mg/kg	1	12/31/16 16:13	YZ	SW846 9012B/LACHAT
Solids, Percent	83.3		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	3V32428.D	1	01/03/17	TDN	12/23/16 15:00	n/a	V3V1307
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	6.3	ug/kg	
71-43-2	Benzene	ND	0.63	0.15	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.2	ug/kg	
104-51-8	n-Butylbenzene	ND	2.5	0.19	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.5	0.19	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.5	0.20	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.21	ug/kg	
67-66-3	Chloroform	ND	2.5	0.30	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.22	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.19	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.56	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.20	ug/kg	
123-91-1	1,4-Dioxane	ND	160	61	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.19	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.34	ug/kg	
75-09-2	Methylene chloride	ND	6.3	1.3	ug/kg	
103-65-1	n-Propylbenzene	ND	2.5	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.36	ug/kg	
108-88-3	Toluene	ND	1.3	0.16	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.21	ug/kg	
79-01-6	Trichloroethene	2.0	1.3	0.24	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.22	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.21	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.26	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8260C SW846 5035	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	92%		72-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.22	730	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

(a) Sample prepped from intact soil.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	M130612.D	1	01/05/17	KM	01/04/17	OP99581	EM5579
Run #2 [a]	M130632.D	20	01/06/17	KM	01/04/17	OP99581	EM5579

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2	30.2 g	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	86	27	ug/kg	
	3&4-Methylphenol	144	86	35	ug/kg	
87-86-5	Pentachlorophenol	ND	170	40	ug/kg	
108-95-2	Phenol	89.3	86	22	ug/kg	
83-32-9	Acenaphthene	2800	43	15	ug/kg	
208-96-8	Acenaphthylene	427	43	22	ug/kg	
120-12-7	Anthracene	4000	43	26	ug/kg	
56-55-3	Benzo(a)anthracene	10400 [b]	860	240	ug/kg	
50-32-8	Benzo(a)pyrene	8940 [b]	860	390	ug/kg	
205-99-2	Benzo(b)fluoranthene	11900 [b]	860	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4170 [b]	860	430	ug/kg	
207-08-9	Benzo(k)fluoranthene	5070 [b]	860	400	ug/kg	
218-01-9	Chrysene	10900 [b]	860	270	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	2250	43	19	ug/kg	
132-64-9	Dibenzofuran	1450	86	17	ug/kg	
206-44-0	Fluoranthene	27200 [b]	860	380	ug/kg	
86-73-7	Fluorene	1980	43	20	ug/kg	
118-74-1	Hexachlorobenzene	ND	86	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	6100 [b]	860	400	ug/kg	
91-20-3	Naphthalene	1710	43	12	ug/kg	
85-01-8	Phenanthrene	20800 [b]	860	290	ug/kg	
129-00-0	Pyrene	21100 [b]	860	270	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%	42%	30-106%
4165-62-2	Phenol-d5	62%	51%	30-106%
118-79-6	2,4,6-Tribromophenol	89%	70%	24-140%
4165-60-0	Nitrobenzene-d5	76%	68%	26-122%
321-60-8	2-Fluorobiphenyl	83%	76%	36-112%
1718-51-0	Terphenyl-d14	81%	84%	36-132%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8270D SW846 3546	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Sample extracted outside the holding time per client's request.
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8081B SW846 3546	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G42878.D	1	01/04/17	CP	12/30/16	OP99576	G6G1218
Run #2 [a]	6G42896.D	5	01/04/17	CP	12/30/16	OP99576	G6G1218

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2	15.8 g	10.0 ml

Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.82	0.39	ug/kg	
319-84-6	alpha-BHC [b]	2.5	0.82	0.44	ug/kg	
319-85-7	beta-BHC	ND	0.82	0.51	ug/kg	
319-86-8	delta-BHC [b]	1.2	0.82	0.37	ug/kg	
58-89-9	gamma-BHC (Lindane) [b]	9.7	0.82	0.36	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.82	0.39	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.82	0.36	ug/kg	
60-57-1	Dieldrin	ND	0.82	0.41	ug/kg	
72-54-8	4,4'-DDD	ND	0.82	0.53	ug/kg	
72-55-9	4,4'-DDE	ND	0.82	0.43	ug/kg	
50-29-3	4,4'-DDT	ND	0.82	0.49	ug/kg	
72-20-8	Endrin	ND	0.82	0.38	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.82	0.33	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.82	0.49	ug/kg	
959-98-8	Endosulfan-I	ND	0.82	0.43	ug/kg	
33213-65-9	Endosulfan-II	ND	0.82	0.43	ug/kg	
76-44-8	Heptachlor	ND	0.82	0.40	ug/kg	
1024-57-3	Heptachlor epoxide	1.0	0.82	0.44	ug/kg	
72-43-5	Methoxychlor	ND	1.6	0.41	ug/kg	
53494-70-5	Endrin ketone	ND	0.82	0.63	ug/kg	
8001-35-2	Toxaphene	ND	20	8.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%	80%	24-136%
877-09-8	Tetrachloro-m-xylene	76%	74%	24-136%
2051-24-3	Decachlorobiphenyl	94%	63%	10-153%
2051-24-3	Decachlorobiphenyl	185% [c]	197% [b]	10-153%

(a) Confirmation run.
(b) More than 40 % RPD for detected concentrations between the two GC columns.
(c) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
Method:	SW846 8082A SW846 3546	**Percent Solids:**	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX202544.D	1	01/02/17	HB	12/30/16	OP99575	GXX5900
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	41	20	ug/kg	
11104-28-2	Aroclor 1221	ND	41	20	ug/kg	
11141-16-5	Aroclor 1232	ND	41	16	ug/kg	
53469-21-9	Aroclor 1242	ND	41	15	ug/kg	
12672-29-6	Aroclor 1248	ND	41	26	ug/kg	
11097-69-1	Aroclor 1254	108	41	20	ug/kg	
11096-82-5	Aroclor 1260	ND	41	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		20-152%
877-09-8	Tetrachloro-m-xylene	99%		20-152%
2051-24-3	Decachlorobiphenyl	113%		12-157%
2051-24-3	Decachlorobiphenyl	122%		12-157%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	17.1	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Barium	73.2	20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Beryllium	0.81	0.20	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Cadmium	1.7	0.51	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Chromium	90.5	1.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Copper	137	2.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Lead	84.4	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Manganese	514	1.5	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Mercury	0.15	0.034	mg/kg	1	12/29/16	12/29/16	JPM	SW846 7471B [1]	SW846 7471B [4]
Nickel	870	8.1	mg/kg	2	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Selenium	< 2.0	2.0	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]
Silver [a]	< 1.0	1.0	mg/kg	2	12/30/16	01/03/17	RP	SW846 6010C [3]	SW846 3050B [5]
Zinc	233	5.1	mg/kg	1	12/30/16	12/31/16	DE	SW846 6010C [2]	SW846 3050B [5]

(1) Instrument QC Batch: MA41059
(2) Instrument QC Batch: MA41082
(3) Instrument QC Batch: MA41088
(4) Prep QC Batch: MP97890
(5) Prep QC Batch: MP97899

(a) Elevated detection limit due to dilution required for high interfering element.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BH-15		
Lab Sample ID:	JC34195-10	**Date Sampled:**	12/20/16
Matrix:	SO - Soil	**Date Received:**	12/22/16
		Percent Solids:	77.2
Project:	Keystone, Main & Hertez, Buffalo, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.29	0.29	mg/kg	1	12/31/16 16:17	YZ	SW846 9012B/LACHAT
Solids, Percent	77.2		%	1	12/23/16 17:22	YR	SM2540 G-97

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS ACCUTEST (SLC)

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 1 OF 1 (PN)

FED-EX Tracking # 6780 9740 3187 | Bottle Order Control #
SGS Accutest Quote # | SGS Accutest Job # JC34195

Client / Reporting Information

Company Name: PANAMERICAN ENVIRONMENTAL
Street Address: 2390 CLINTON ST
City: BUFFALO State: NY Zip: 14227
Project Contact: PETER J. GORTON E-mail:
Phone #: 716-821-1650 Fax #:
Sampler(s) Name(s): PETE GORTON Phone #:

Project Information

Project Name: KEYSTONE
Street: MAIN + HERTEL
City: BUFFALO State: NY
Project #:
Client Purchase Order #:
Project Manager: PETE GORTON

Billing Information (if different from Report to)

Company Name: PANAMERICAN ENVIRONMENTAL
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NI Water	MECH	ENCORE	BROWNFIELD 375 VOA's	5 VOC's	METALS	PEST	HERB	CYANIDES	PCBs	VOC TICS	LAB USE ONLY
1	BH-1		12-20-16	0826		SO	2									X	X	X	X	X	X	X	X	0-2FT
2 PM	~~BH-2~~ BH-3			0915																				0.5-2FT AT DL
3	BH-6			1030																				0-2.5FT 4D5
4	BH-7			1110																				2-4.5FT 14N1
5	BH-9			1210																				0-2FT 4974
6	BH-10			1255																				2-5FT
7	BH-11			1350																				2-4FT
8	BH-12			200																				0-7FT
9	BH-13			233																				0-5FT
10	BH-15			315																				2-4FT

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available VIA Lablink

Approved by (SGS Accutest PM): / Date:

INITIAL ASESSMENT 3A TH

~~LABEL~~ VERIFICATION MJ

Data Deliverable Information

- [ ] Commercial "a" (Level 1)
- [ ] Commercial "b" *Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] *NJ Data of Known Quality Protocol Reporting*
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

FULL BROWNFIELDS PART 375 LIST MINUS SILVEX + HEX CHROM

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 PETER J. GORTON	12/20/16 6:00	1 FEDEX	2 FEDEX	12/22/16 1230	2
3		3	4		4
5		5	Custody Seal #	Intact / Not intact	Preserved where applicable: On Ice Y; Cooler Temp. 4.8°C

5.1 5

JC34195: Chain of Custody
Page 1 of 4

SGS Accutest Sample Receipt Summary

Job Number: JC34195 **Client:** Panamerican Environmental **Project:** Keystone

Date / Time Received: **Delivery Method:** FedEx **Airbill #'s:** 678097403187

Cooler Temps (Raw Measured) °C: Cooler 1: (4.8);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☐		☑
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments
1) Soil volatiles was not collected in accordance to 5035 specifications.Voa lab to prep from intact volume.
2) -1 through -5 was rec'd out of hold.
3) -6 through -10 Samples rec'd with limited time to process. Samples will be prepped out of hold.

SM089-02
Rev. Date 12/1/16

APPENDIX C

BORING LOGS

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-1**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0- 0.5			Sandy silt fill
1			
2			0.05-2ft - clayey silt fill
3			
4			2-4ft - light brown clayey silt; moist
			Bedrock at 4ft
5			
6			
7			
8			
9			
10			
11			
12			

Comments: **Collected sample at 0-2 feet**

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-2**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0- 0.5			Sandy silt fill; stone at 0.05
1			
2			0.05-2ft - clayey silt fill
			Bedrock at 2 feet
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Comments: **No sample collected**

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-3**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0- 0.5			Sandy silt fill
1			0.05-1.5ft - gravely silty clay; moist
2			
3			
4			1.5-4ft - brown silty clay; moist
			Bedrock at 4 feet
5			
6			
7			
8			
9			
10			
11			
12			

Comments: **Collected sample at 0.5-2 feet**

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-4**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			0-2ft siltyfill
3			
4			
			2-4.5ft gravely light brown silty clay. 4.5 Bedrock
5			
6			
7			
8			
9			
10			
11			
12			

Comments: No sample collected

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-5**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			0-1ft - cement and silty clay with stone
2			
3			
4			1-4.5ft - silty clay with gravel
			4.5ft bedrock
5			
6			
7			
8			
9			
10			
11			
12			

Comments: No sample collected

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-6**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			
			0-2.5ft - sand 2.5 refusal
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Sample collected 0-2.5ft

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-7**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			0-2ft - sandy silty fill with some brick
3			
4			2-4ft - Silty fill with stone, slag, glass, wood
			4-4.9ft - gravelly wet. Bedrock at 4.9ft
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Sample collected 2-4.5ft

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-8**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			
3			
			1-3.5ft Stone and dark brown sand
4			
			3.5-4.2ft - light brown clay. 4.2ft bedrock
5			
6			
7			
8			
9			
10			
11			
12			

Comments: No sample collected

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-9**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			0-2ft - Sandy silty fill - black
3			
4			2-4ft - Silty clay with stone
			4-4.8ft - silty clay Refusal at 4.8ft
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Sample collected from 0-2ft

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-10**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			0-1ft black sandy fill
2			1-2ft - Stone
3			2-3ft - Silty sand with clay - wet
4			
5			3-5ft - Silty sand with clay - wet - **Petroleum Odor - 50+ppm on PID**
			Bedrock refusal at 5 feet
6			
7			
8			
9			
10			
11			
12			

Comments: Sample collected from 2-5ft. **Petroleum Odor - 50+ppm on PID**

Bore Hole Log

Panamerican Environmental, Inc
2391 Clinton Street
Buffalo, NY 14227
(716) 821-1650

Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-11**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			0-1ft dark brown sandy silt fill
2			1-2ft - Cement
3			
4			2-4ft - Sandy silt clay with stone and brick
5			
6			
7			
			4-7.5ft - silty clayey with gravel. 7.5 Refusal at bedrock
8			
9			
10			
11			
12			

Comments: samples collected at 2-4 feet

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Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-12**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0-0.5			
1			
2			
3			
4			
5			
6			
7			0-7.8ft - fill with stone, brick, fire brick, glass and wood
			7.8 Bedrock refusal
8			
9			
10			
11			
12			

Comments: Collected sample at 0-7 feet

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Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-13**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
0-0.5			silty fill
1			
2			
3			
4			0.5-4ft - sandy, silty fill with black cert, cement, stone
5			4-5.5 ft - sandy, silty fill with black cert, cement, stone
			5.5 bedrock refusal
6			
7			
8			
9			
10			
11			
12			

Comments: Collected sample at 0-5 feet

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Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-14**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			
3			
4			0-4.4ft - silty clay fill with brick, stone
			4.4 bedrock refusal
5			
6			
7			
8			
9			
10			
11			
12			

Comments: no sample collected

Bore Hole Log

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Project: Keystone	Sheet: 1 of 1
Client: DF Fusion	Location: See Associated Figure
Contractor: SJB	Ground Elevation:
Date Started: 12-20-16	Operator:
Date Completed: 12-20-16	Geologist/Technician: Pete Gorton
Bore Hole Number: **BH-15**	Ground Water:

Depth (FT)	Sample NO	Sample TYPE	Description
1			
2			0-2ft - silty fill with gravel
3			2-3ft - cement
4			3-4ft silty clay; wet
			4ft - bedrock refusal
5			
6			
7			
8			
9			
10			
11			
12			

Comments: Collected sample at 2-4ft