

Phase II Environmental Investigation Report

*Elmwood Avenue & Amherst Street Parcels
Buffalo, NY*

July 2019

T0105-019-004

Prepared For:

BENDERSON
DEVELOPMENT



Prepared By:



2558 Hamburg Turnpike, Suite 300, Buffalo, New York | phone: (716) 856-0635 | fax: (716) 856-0583

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

**ELMWOOD AVENUE AND AMHERST STREET PARCELS
BUFFALO, NEW YORK**

July 2019

T0105-019-004

Prepared for:



**Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York, 14202**

Prepared by:



**TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218**

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BUFFALO, NEW YORK

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1.0 INTRODUCTION

1.1 Background and Site Description

TurnKey Environmental Restoration, LLC (TurnKey) performed a Phase II Environmental Investigation on behalf of Benderson Development Company, LLC at Elmwood and Amherst Street Parcels in the City of Buffalo, Erie County, New York (Site).

The Site is located in a highly developed residential, commercial and industrial area of the City of Buffalo (see Figure 1). The Site is supplied with and has access to municipal sanitary sewer, electric, natural-gas and public water.

As shown on Figure 2, the Site includes 9 buildings and consists of 11 tax parcels that were broken down by TurnKey into three distinct properties, as follows:

- Property 1 includes one structure (Building 1) currently occupied by CVS Pharmacy. Property 1 consists of one parcel totaling approximately 0.75-acres and is supplied with municipal sanitary sewer, electric, natural-gas and public water.
- Property 2 includes five structures (Buildings 2 through 6). Building 2 is a bowling alley, Building 3 is a sign shop, Building 4 is a residence, Building 5 is an automotive repair shop, Building 6 is a residence. Property 2 consists of seven parcels totaling approximately 1.59-acres and is supplied with municipal sanitary sewer, electric, natural-gas and public water.
- Property 3 includes three structures (Buildings 7 through 9). Building 7 is used for storage, Building 8 is used for storage of materials for theatre productions, and Building 9 is a residence. Property 3 consists of three parcels totaling approximately 1.45-acres and is supplied with municipal sanitary sewer, electric, natural-gas and public water.

The Site totaling approximately 3.8-acres are further described in the table below:

Property ID	Number	Street	Tax ID No.	Current Owner	Current Use
Property 1	1609	Elmwood Avenue	89.21-3-21	Voelker Edward W Trust	CVS Pharmacy
Property 2	680	Amherst Street	89.21-7-8	Am-Elm Realty, Inc.	Bowling Alley
	1624	Elmwood Avenue	89.21-7-7	Mark E Voelker	Vacant land/ parking lot
	1628	Elmwood Avenue	89.21-7-6.2	Labrador Building Systems, Inc.	NAS Sign Company
	1634	Elmwood Avenue	89.21-7-6.1	Labrador Building Systems, Inc.	Vacant Residential
	155	Marion Street	89.21-7-5	Labrador Building Systems, Inc.	Auto Repair
	670	Amherst Street	89.21-7-9	Labrador Building Systems, Inc.	Vacant land/ parking lot
	668	Amherst Street	89.21-7-10	Labrador Building Systems, Inc./ Voelker Bowling Inc.	Vacant residential
Property 3	141	Marion Street	89.21-7-4	Labrador Building Systems, Inc.	Commercial Storage
	111	Marion Street	89.21-7-1.1	Mark E Voelker	Storage
	666	Amherst Street	89.21-7-11	Labrador Building Systems, Inc.	Vacant residential

1.2 Previous Study

TurnKey completed a Phase I Environmental Site Assessment (ESA) for the Site dated May 2019. The following provides a summary of historic Site uses identified through TurnKey's review of historic Sanborn maps, city directories, regulatory documents and municipal records.

Approximate Years	Reported or Suspected Use	Owner/Occupant
1916 to current	The Site has a history of mixed uses for residential, commercial and industrial purposes.	Past owners/occupants include: Property 1 – Thorough Dry Cleaners Property 2 – John Fliss Garage, Joseph Vallone auto repair, Yanik Bros Trucking, Joes Auto painting and collision, Michaels Dental Lab, M & K Precision Manufacturing, Wash & White Laundromat, Phil's Auto Service Property 3 – JQ Clark Coal Company, Bear Ridge Coal Co., D J Stickney Coal Co Current Owners/ occupants: Property 1 – CVS Pharmacy, 1826 Elmwood, LLC Property 2 – Voelker's Bowling Center, NAS Sign Company, Malek's Collision, Labrador Building Systems, Inc. Property 3 – Mark E Voelker, Labrador Building Systems

TurnKey's assessment revealed the following recognized environmental conditions (RECs) in connection with the Site:

Property 1

- Thorough Dry Cleaners, a presumed dry cleaning operation, occupied a former building on the southern portion of Property 1 (current asphalt parking lot area) from at least 1935 through at least 1955.

Property 2

- Current operations include automotive repair with the storage and use of hazardous/regulated materials. Historic operations have included automotive repair and/or a collision shop, a trucking company, an electrical equipment company, tool manufacturing, a machine shop, refrigeration service and laundry/laundromat facilities with the potential for dry cleaning. In addition, a portion of a railroad spur was formerly located on-Site.

- Floor drains located within current repair areas and a paint room in Building 5 reportedly discharge into the municipal sanitary sewer system.
- Black staining/spillage was noted to concrete ground surfaces proximate to a floor drain within Building 5.
- Additional black staining was noted to concrete ground surfaces proximate to fuel oil aboveground storage tanks (ASTs) within the basement of Building 2. Some of the staining was noted proximate to cracks in the concrete floor. In addition, a floor drain was noted proximate to the staining.
- A petroleum odor was noted within the basement of Building 2 proximate to the fuel oil ASTs.
- Municipal records indicate installation of presumed underground storage tanks (USTs) at Property 2 in unknown locations. Specifically, one 1,000-gallon gas tank was installed in 1946 and an additional 1,000-gallon tank was installed in 1955.
- An unknown concrete pit was noted within Building 5. No concerns (staining, odors, etc.) were noted within the concrete pit.

Note that exterior observations of Property 2 were hindered at the time of the Phase I site reconnaissance due to the presence of parked vehicles and stored materials. During this Phase II investigation, when parked vehicles/stored materials were no longer present, TurnKey noted the presence of a vent pipe and fill port located on the northeastern side of Building 5.

Property 3

- Historic operations included coal companies with coal silos and warehousing. A railroad spur bisected Property 3 in at least 1950.
- Municipal records indicate presumed USTs at Property 3. Specifically, one 500-gallon gasoline tank was installed in 1929, one 550-gallon gasoline tanks was installed in 1937, a 2,000-gallon gasoline UST was used in 1954 and one 1,000-gallon UST was removed in 1965.
- Two suspect fill ports and two proximate suspect vent pipes presumed by TurnKey to be associated with two existing USTs were noted east of Building 8 in the current gravel parking lot.

- Two fuel oil ASTs were noted within the basement of Building 8. The presence of miscellaneous debris proximate to the ASTs hindered observations of ground surfaces proximate to the tanks. Two suspect vent pipes and two suspect fill pipes were noted protruding from east wall of Building 8; TurnKey suspects that these vent/fill pipes are associated with the basement ASTs.
- TurnKey observed evidence of fill materials in the area of railroad tracks on-Site at the time of the Site reconnaissance. In addition, the current tenant of Building 7 indicated that this area of the Site contains coal fill materials from former coal storage. Round concrete areas observed by TurnKey on the northwestern portion of the Site are believed by TurnKey to be associated with the former coal silos.

In consideration of the RECs detailed above, this Phase II was completed to further assess subsurface soil/fill and groundwater conditions at the Site.

TurnKey also recommended proper removal of inactive/abandoned USTs and ASTs as New York State Department of Environmental Conservation (NYSDEC) regulations require their removal.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Soil Boring Investigation

On June 19 and 20, 2019, TurnKey's subcontractor, TREC Environmental, Inc. (TREC), mobilized a 54LT Geoprobe direct-push drill rig equipped with a two-inch diameter, 48-inch long macro-core sampler to the Site to assess subsurface conditions on exterior portions of Property 1 and Property 2. In addition, one soil boring was completed on Property 3 in an asphalt/concrete covered area; the remainder of investigation activities completed at Property 3 consisted of exploratory test pits with an excavator in non-hardscape areas (see Section 2.2 below for additional information on test pits). As shown on Figure 2, five soil borings designated as P1SB-1 through P1SB-5 were completed on Property 1, P2SB-6 through P2SB-13 were completed at Property 2, and P3SB-1 was completed at Property 3. As further described in Section 2.3, six soil borings were converted into temporary one-inch diameter monitoring wells. The soil borings were advanced to depths ranging between 7.8 feet below ground surface (fbgs, equipment refusal at P1SB-3) and 24 fbgs.

The sample cores were retrieved from the boring locations in clear PVC sleeves to allow for field characterization of the subsurface lithology and collection of soil samples by TurnKey's Environmental Scientist. The physical characteristics of all soil borings were classified using the ASTM D2488 Visual-Manual Procedure Description. Soils from each boring were screened via headspace screening using a MiniRae 3000 photoionization detector (PID). Visual and/or olfactory observations, if any, were noted. All field observations, including lithology, depths, PID scan results, etc., at each investigation location are summarized in the Soil Boring Log sheets provided in Appendix A.

A total of ten soil/fill samples were selected for laboratory analysis for Target Compound List (TCL) plus NYSDEC Commissioner Policy-51 (CP-51) volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and/or polychlorinated biphenyls (PCBs).

The soil/fill samples collected as part of the investigation were transported under chain-of custody command for analysis to Alpha Analytical (Alpha) in Westborough, MA. Samples were collected in laboratory provided sample jars and cooled to 4 C° prior to transport.

2.2 Test Pit Investigation

On June 18, 2019, TurnKey mobilized a track-mounted excavator to assess subsurface conditions on exterior portions of Property 3. As shown on Figure 2, seven test pits designated as P3TP-1 through P3TP-7 were completed at Property 3. The test pits were advanced to depths ranging between 3 fbs or the maximum reach of the excavator at approximately 8 fbs.

The physical characteristics of all test pits were classified using the ASTM D2488 Visual-Manual Procedure Description. Soil/fill from each test pit was screened via headspace screening using a MiniRae 3000 PID. Visual and/or olfactory observations, if any, were noted. All field observations, including lithology, depths, PID scan results, etc., at each investigation location are summarized on Table 1. Photographs taken during the work are included in Appendix B.

A total of five soil/fill samples were selected for laboratory analysis for TCL plus CP-51 VOCs, PAHs, RCRA metals and/or PCBs. The soil samples collected as part of the investigation were transported under chain-of custody command for analysis to Alpha. Samples were collected in laboratory provided sample jars and cooled to 4 C° prior to transport.

2.3 Groundwater Sampling

Six soil borings, P1SB-1/1W, P1SB-2/2W, P1SB-4/4W, P2SB-6/6W, P2SB-7/7W, and P2SB-11/11W, were converted into temporary one-inch diameter monitoring wells. The temporary wells were installed using one-inch diameter Schedule 40 PVC well screen and riser. Groundwater grab samples were collected from the temporary wells using a dedicated and disposable 0.5” polyethylene bailer. Temporary wells P1SB-1/1W and P1SB-2/2W were dry at the time of sampling thus these wells could not be sampled. Sufficient volumes of groundwater for sampling were present in the remaining wells. The temporary wells were manually decommissioned (pulled) following groundwater sampling activities or confirmation of an insufficient volume of groundwater for sampling. The resulting open annulus was backfilled with Site soils.

Four groundwater samples were placed in pre-cleaned laboratory provided sample bottles, cooled to 4 °C in the field, and transported under chain-of-custody to Alpha for analysis of TCL plus CP-51 VOCs.

3.0 INVESTIGATION FINDINGS

3.1 Site Geology/Hydrogeology

The overburden geology observed during the test pit and soil boring investigations is generally described as non-native fill materials at depths ranging in thickness between 0.5 fbgs and 8 fbgs overlying native soils consisting of sandy lean clay and/or sand with silt and gravel to a depth of at least 24 fbgs (see the investigation logs provided in Appendix A). Fill materials encountered during the investigation were generally black and consisted of cinders, coal, ash and/or fragments of brick, glass and metal ranging in thickness between approximately 0.5 fbgs and 8 fbgs at soil borings and between 1 fbgs and 8 fbgs at test pits. Intermingled slag was noted at certain investigation locations at P1SB-4, P2SB-10, P2SB-11, P2SB-12, P2SB-13, P3SB-1, P3TP-1, P3TP-2, P3TP-3, P3TP-5, P3TP-7. In addition, slag cobbles were noted at P3TP-3.

Groundwater was encountered during the fieldwork at certain investigation locations at depths ranging from near surface at approximately 2 fbgs to 9 fbgs.

Groundwater flow is likely to the south toward the Scajaquada Creek. Local groundwater flow, however, may be influenced by subsurface features, such as excavations, utilities, and localized fill-conditions.

3.2 Field Observations

Soil samples from the test pit and soil boring investigation were observed and scanned via headspace screening for volatile organics using a PID. A description of the field observations during the soil boring and test pit investigations are presented below and included in Table 1 and Appendix A.

Investigation Location ID	Environmental Concern Assessed	Highest PID reading (parts per million, ppm) and depth (fbgs)	Other Observations
PROPERTY 1 - SOIL BORING INVESTIGATION			
P1SB-1/1W	Former dry cleaner	0	Fill to 4 fbgs.
P1SB-2/2W		0	None
P1SB-3		0	Fill to refusal at 7.8 fbgs.
P1SB-4/4W		795 ppm- 2 fbgs.	Elevated PID readings, strong solvent-like odors and black staining noted to 4 fbgs. Fill to 8 fbgs.
P1SB-5		0	None

Investigation Location ID	Environmental Concern Assessed	Highest PID reading (parts per million, ppm) and depth (fbgs)	Other Observations
PROPERTY 2 - SOIL BORING INVESTIGATION -			
P2SB-6/6W	Former laundry/laundromat facility, machine shop, manufacturing, electrical equipment company and refrigeration service	0	None
P2SB-7/7W		0	None
P2SB-8		0	Fill to 1 fbgs.
P2SB-9	Auto repair, USTs of unknown disposition	0	Fill to 1 fbgs.
P2SB-10		0	Fill to 3 fbgs.
P2SB-11/11W	Existing UST, auto repair	0	Fill to 4 fbgs.
P2SB-12	Auto repair, USTs of unknown disposition	0	Fill to 2 fbgs.
P2SB-13		0	Fill to 1 fbgs.
PROPERTY 3 - SOIL BORING INVESTIGATION			
P3SB-1	Former UST	0	Fill to 2 fbgs.
PROPERTY 3 - TEST PIT INVESTIGATION			
P3TP-1	Railroad and fill materials	0	Fill to 3 fbgs.
P3TP-2	Suspect AST vent and fill ports	0	Fill to 1 fbgs.
P3TP-3	Two suspect existing USTs.	175 ppm-7 fbgs.	Petroleum-like odors and black staining on sand fill 1fbgs to 8 fbgs. Apparent tank-related piping observed. In addition, cobble slag fill material noted.
P3TP-4		0	Encountered orphan UST strap, moved 5 feet out of tank area.
P3TP-5	Railroad and fill materials	0	Fill to 3 fbgs.
P3TP-6	Former coal silos	0	Fill to 3 fbgs.
P3TP-7		0	Fill to 3 fbgs.

3.3 Soil Analytical Results

Table 1 presents a summary of the laboratory analytical results. For comparative purposes, Table 2 includes 6NYCRR Part 375 Unrestricted Soil Cleanup Objectives (USCOs) and Commercial SCOs (CSCOs). Due to the history of petroleum USTs at the Site, analytical results were also compared to NYSDEC CP-51 SCLs, which applies to petroleum sites.

As summarized on Table 1, VOCs were either not detected at concentrations above laboratory detection limits or concentrations were below CP-51 SCLs and USCOs.

Individual PAHs were identified at concentrations exceeding CP-51 SCLs proximate to the two suspect existing USTs at P3TP-3 (0-2 fbgs). Individual PAHs exceeded CP-51 SCLs, USCOs and/or CSCOs at P2SB-12 (0.5 fbgs - 2 fbgs), P3TP-1 (0-2 fbgs) and P3TP-5 (1 fbgs - 2 fbgs).

Regarding metals, lead exceeds its USCO, but not its CSCO, at P1SB-4/4W (1fbgs – 2 fbgs), P2SB-10 (0.5 fbgs – 2 fbgs), P3TP-1 (0-2 fbgs) and P3TP-5 (1 fbgs – 2 fbgs). Arsenic slightly exceeded its CSCO at P3TP-1 and P3TP-5.

A summary of impacts and environmental concerns at the Site is provided as Figure 3.

3.4 Groundwater Analytical Results

Groundwater sample results are summarized on Table 2 with comparison to Class GA Groundwater Quality Standards (GWQS) per NYSDEC Technical and Operational Guidance Series (TOGS 1.1.1). A copy of the complete laboratory analytical data package is included in Appendix C.

As summarized on Table 2, VOCs were either not detected at concentrations above laboratory detection limits or concentrations were below their respective Class GA GWQS except for acetone (64 micrograms per liter, ug/l) at P2SB-7/7W, which slightly exceeds its GWQS (50 ug/l). Acetone is a common laboratory contaminant; therefore, TurnKey suspects that acetone at P2SB-7/7W is likely not indicative of Site conditions.

4.0 FINDINGS SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The following summarizes TurnKey's findings during the Phase II Environmental Investigation completed at the Site:

- The purpose of this Phase II was to assess RECs identified for each property within a Phase I ESA prepared by TurnKey in May 2019. Specifically, RECs included a history of dry cleaning at Property 1 and historic operations and tanks identified for Properties 2 and 3. One set of suspect vent/fill ports for one presumed existing UST were observed east of Building 5 at Property 2. In addition, two sets of suspect vent/fill ports for two presumed existing USTs were noted in the gravel parking area east of Building 8 on Property 3.
- Fill materials encountered during investigation activities were generally black and consisted of cinders, coal, ash and/or fragments of brick, glass and metal ranging in thickness between approximately 0.5 fbgs and 8 fbgs. Intermingled slag was noted at certain investigation locations at P1SB-4, P2SB-10, P2SB-11, P2SB-12, P2SB-13, P3SB-1, P3TP-1, P3TP-2, P3TP-3, P3TP-5, P3TP-7. In addition, slag cobbles were noted at P3TP-3.
- The highest PID readings identified during the work were 795 ppm at Property 1 (P1SB-4/4W) proximate to the former dry cleaner and 175 ppm at Property 3 (P3TP-3) south of the two existing USTs. In addition, solvent-like odors and black staining were noted at P1SB-4/4W and black staining and petroleum-like odors were noted at P3TP-3. No PID readings above background (0.0 ppm) were identified at Property 2.
- Analytical results for soil/fill and groundwater samples collected across the Site indicate the following:
 - Soil/Fill - Individual PAHs were identified at concentrations exceeding CP-51 SCLs in the upper fill material proximate to the two suspect existing USTs at P3TP-3 (0-2 fbgs). No VOC or PAH exceedances were identified at P3-TP-3 in the deeper impacted interval (6 fbgs – 7 fbgs) indicating weathered petroleum impacts. Individual PAHs exceeding CP-51 SCLs, USCOs and/or CSCOs were identified at P2SB-12 (0.5 fbgs - 2 fbgs), P3TP-1 (0-2 fbgs) and P3TP-5 (1 fbgs - 2 fbgs). Regarding metals, lead exceeds its USCO, but not its CSCO, at P1SB-4/4W (1fbgs – 2 fbgs), P2SB-10 (0.5 fbgs – 2 fbgs), P3TP-1 (0-2 fbgs) and P3TP-5 (1 fbgs – 2 fbgs). Arsenic slightly exceeded its CSCO at P3TP-1 and P3TP-5. VOCs in the remaining soil/fill samples were either not detected at concentrations above laboratory detection limits or concentrations were below CP-51 SCLs and USCOs.
 - Groundwater - VOCs were either not detected at concentrations above laboratory detection limits or concentrations were below their respective Class GA GWQS except for acetone (64 micrograms per liter, ug/l) at P2SB-7/7W,

which slightly exceeds its GWQS (50 ug/l). Acetone is a common laboratory contaminant; therefore, TurnKey suspects that acetone at P2SB-7/7W is likely not indicative of Site conditions.

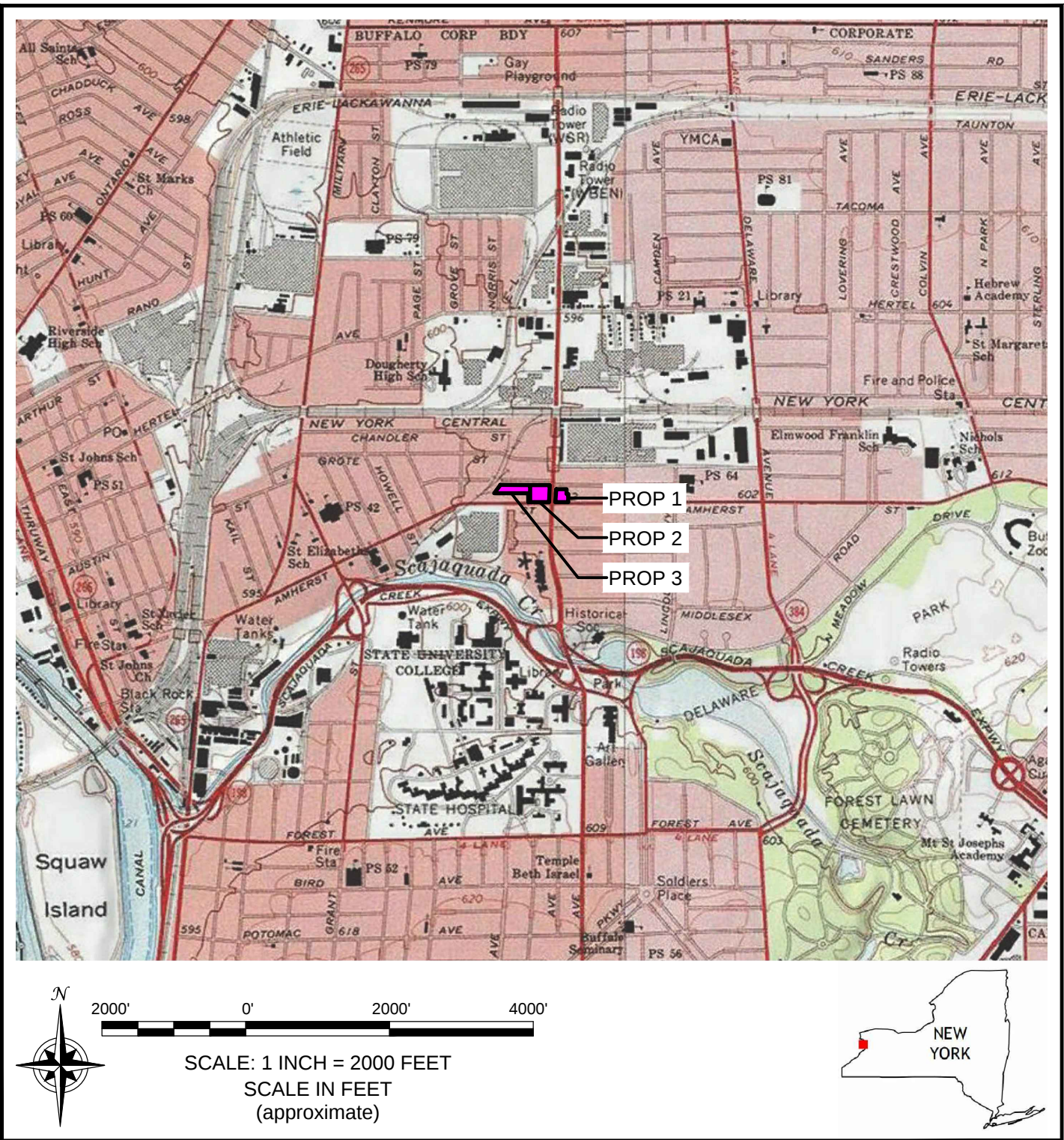
- TurnKey offers the following conclusions and recommendations:
 - On-Site fill materials (i.e., urban fill containing significant amounts of non-soil debris) identified across the Site would be considered solid waste under current NYSDEC solid waste regulations if removed from the property and would therefore need to be properly disposed of if removed from the Site for geotechnical or other redevelopment purposes.
 - The P1SB-4/4W area at Property 1 proximate to the former dry cleaner where solvent-like odors and elevated PID readings were identified should be properly addressed via remedial excavation during construction activities. Due to the history of dry cleaning at Property 1 with field evidence of solvent-like impacts identified, if Building 1 is to remain, a Soil Vapor Intrusion Assessment should be completed within Building 1 to assess the potential for impacted breathing air within the building. Installation of an active subslab depressurization (ASD) system would be required to address VOC-impacted air within the existing or future buildings at Property 1.
 - NYSDEC regulations require proper removal of the existing UST at Property 2, the two existing USTs at Property 3 and any orphan USTs encountered during the redevelopment project; the USTs and any impacted soil, groundwater or other materials encountered during the work should be removed in accordance with applicable local, state and federal regulations. Based on field observations (i.e., elevated PID readings, petroleum-like odors and staining) proximate to the tanks at Property 3, the presence of impacted soil should be expected during the tank removal project.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Benderson Development Company, LLC. The contents of this report are limited to information available at the time of the Site investigation activities and to data referenced herein, and assume all referenced historic information sources to be true and accurate. The findings herein may be relied upon only at the discretion of Benderson Development Company, LLC. Use of or reliance on this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

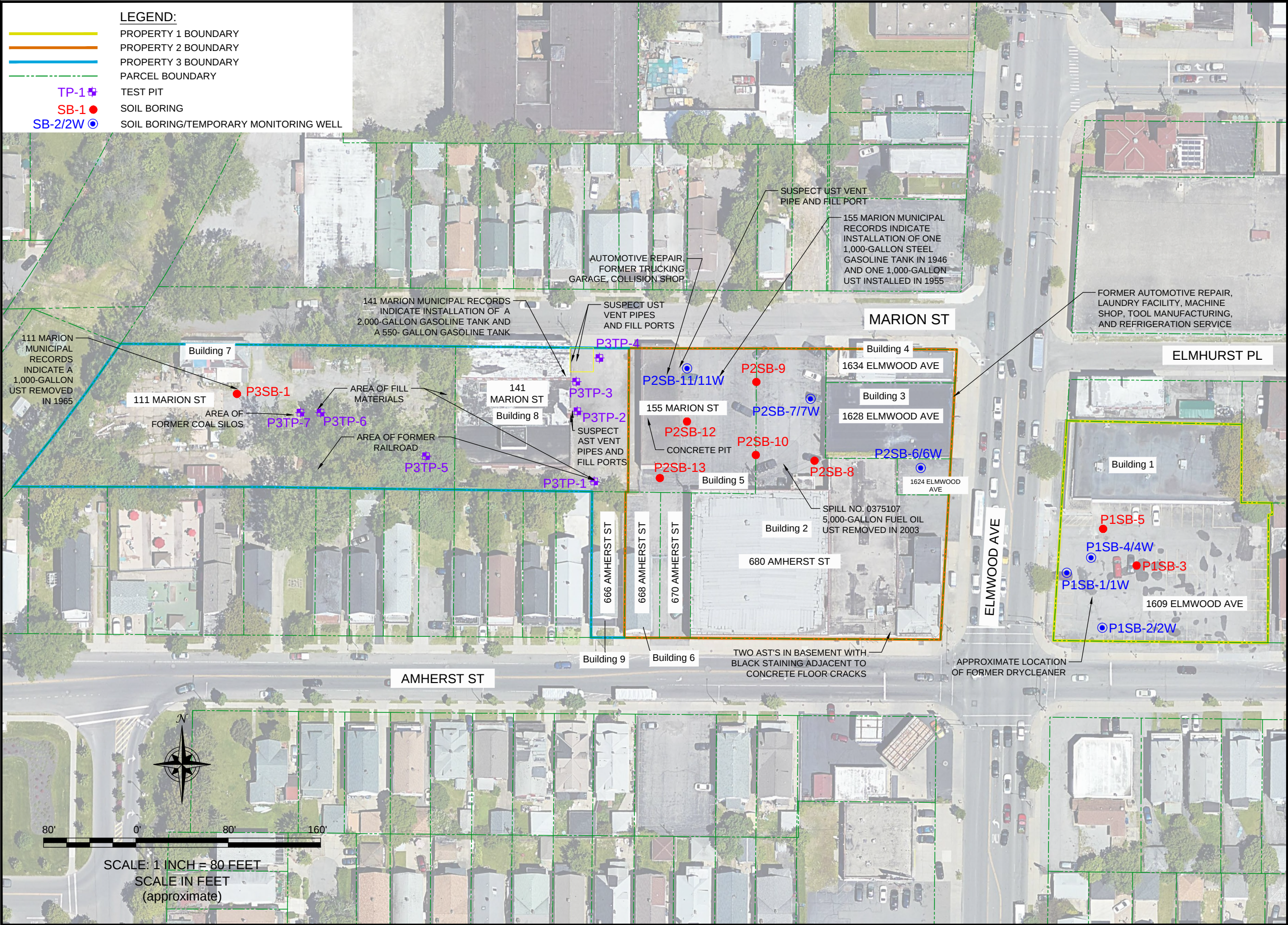
FIGURES

FIGURE 1



	2558 HAMBURG TURNPIKE SUITE 300 BUFFALO, NY 14218 (716) 856-0635	SITE LOCATION AND VICINITY MAP			
PHASE II ENVIRONMENTAL INVESTIGATION					
ELMWOOD & AMHERST PARCELS BUFFALO, NEW YORK					
PREPARED FOR BENDERSON DEVELOPMENT COMPANY					
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INVESTIGATION LOCATIONS

PHASE II ENVIRONMENTAL INVESTIGATION
ELMWOOD & AMHERST PARCELS
BUFFALO, NEW YORK

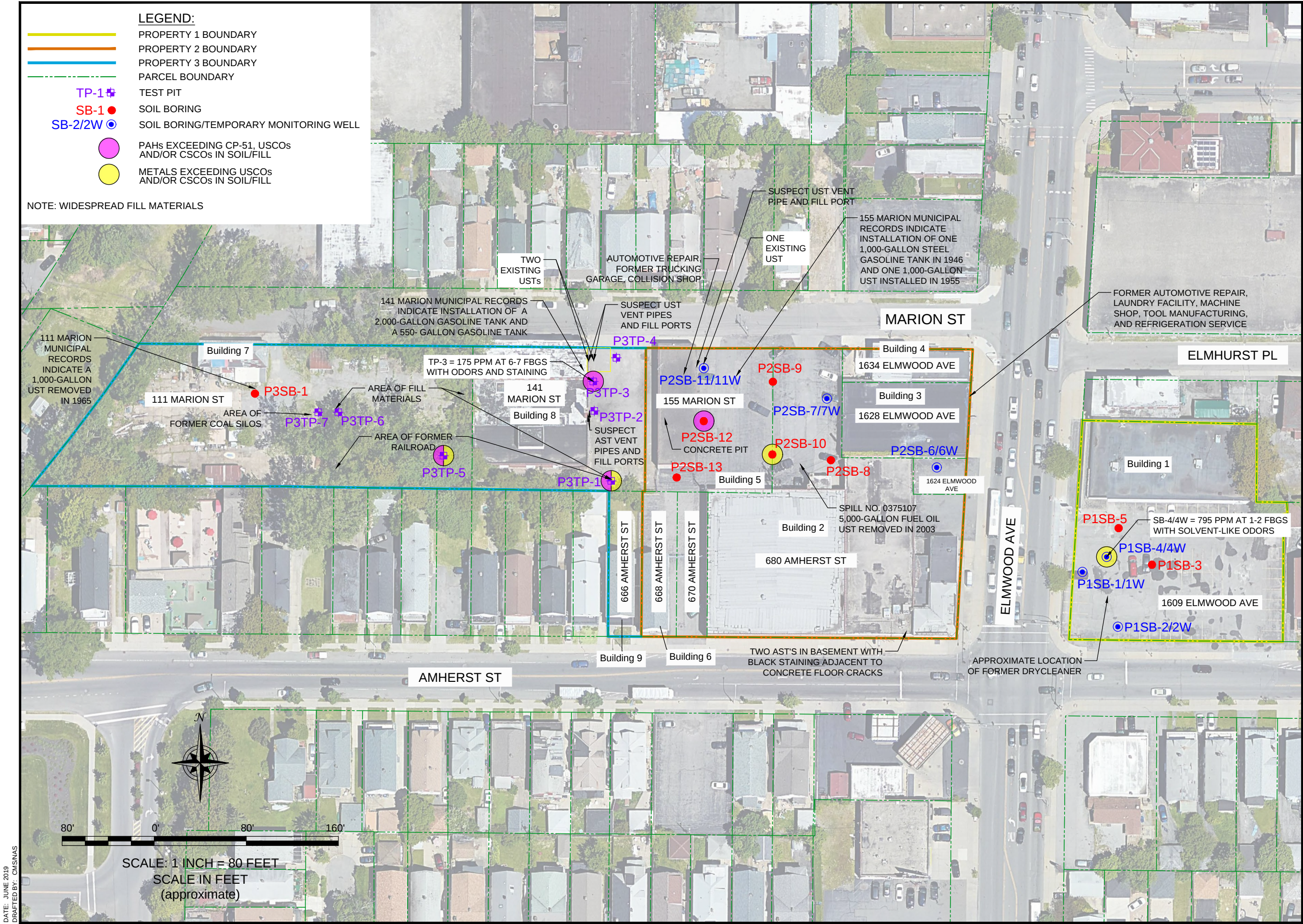
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SUITE 300
BUFFALO, NY 14218
(716) 856-0835



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FIGURE 2



AREAS OF CONCERN

PHASE II ENVIRONMENTAL INVESTIGATION
ELMWOOD & AMHERST PARCELS
BUFFALO, NEW YORK

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SUITE 300
BUFFALO, NY 14218
(716) 856-0835

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FIGURE 3

TABLES



TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
PHASE II ENVIRONMENTAL INVESTIGATION REPORT
ELMWOOD AVENUE AND AMHERST STREET PARCELS
BUFFALO, NEW YORK

PARAMETER ¹	CP-51 SCLs ²	Unrestricted Use SCOs ³	Commercial Use SCOs ³	Property 1 - Sample Location (Depth - ft)				Property 2 - Sample Location (Depth - ft)					Property 3 - Sample Location (Depth - ft)					
				P1SB-2 (1-2)	P1SB-3 (2-4)	P1SB-4 (1-2)	P1SB-4 (4-5)	P2SB-7 (0.5-1.5)	P2SB-8 (0.5 - 1.5)	P2SB-10 (0.5-2)	P2SB-11 (8-10)	P2SB-12 (0.5-2)	P3SB-1 (0-2)	P3TP-1 (0-2)	P3TP-3 (0-2)	P3TP-3 (6-7)	P3TP-5 (1-2)	P3TP-7 (1-2)
				6/19/2019				6/20/2019					6/20/2019					
Volatile Organic Compounds (VOCs) - mg/Kg ⁴																		
1,2,4-Trimethylbenzene	3.6	3.6	190	ND	ND	1.6	ND	--	--	--	ND	--	--	--	--	0.69	--	--
1,3,5-Trimethylbenzene	8.4	8.4	190	ND	ND	5.3	ND	--	--	--	ND	--	--	--	--	0.23	--	--
2-Butanone (MEK)	--	0.12	500	0.0029 J	ND	ND	ND	--	--	--	ND	--	--	--	--	ND	--	--
Acetone	--	0.05	500	0.027	0.025	ND	0.012	--	--	--	0.028	--	--	--	--	ND	--	--
Bromomethane (Methyl bromide)	--	--	--	ND	ND	--	ND	--	--	--	ND	--	--	--	--	0.038 J	--	--
cis-1,2-Dichloroethene	--	0.25	500	ND	ND	0.15 J	ND	--	--	--	ND	--	--	--	--	ND	--	--
Cyclohexane	--	--	--	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.56 J	--	--
Ethylbenzene	1	1	390	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.032 J	--	--
Isopropylbenzene (Cumene)	2.3	--	--	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.025 J	--	--
Methyl acetate	--	--	--	ND	0.014	ND	0.0011 J	--	--	--	ND	--	--	--	--	ND	--	--
Methyl tert butyl ether (MTBE)	0.93	0.93	500	ND	ND	ND	ND	--	--	--	0.00028 J	--	--	--	--	ND	--	--
Methylcyclohexane	--	--	--	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	2.4	--	--
n-Butylbenzene	12	12	500	ND	ND	1.2	ND	--	--	--	ND	--	--	--	--	0.11	--	--
n-Propylbenzene	3.9	3.9	500	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.099	--	--
p-Isopropyltoluene	--	--	--	ND	ND	4.5	ND	--	--	--	ND	--	--	--	--	0.049 J	--	--
sec-Butylbenzene	11	11	500	ND	ND	2.8	ND	--	--	--	ND	--	--	--	--	0.044 J	--	--
Tetrachloroethene	1.3	1.3	150	ND	ND	0.19 J	ND	--	--	--	ND	--	--	--	--	ND	--	--
m&p-Xylene	0.26	0.26	500	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.11 J	--	--
o-Xylenes	0.26	0.26	500	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.039 J	--	--
Total Xylenes	0.26	0.26	500	ND	ND	ND	ND	--	--	--	ND	--	--	--	--	0.149 J	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) - mg/Kg ⁴																		
Acenaphthene	20	20	500	--	--	ND	--	--	0.23	0.052 J	ND	2.2 J	ND	7.7	0.2	0.045 J	0.62	ND
Acenaphthylene	100	100	500	--	--	ND	--	--	ND	0.089 J	ND	3.9 J	ND	ND	0.32	ND	1.2	ND
Anthracene	100	100	500	--	--	0.044 J	--	--	0.42	0.18	ND	14	ND	17	0.88	0.053 J	1.4	ND
Benzo(a)anthracene	1	1	5.6	--	--	0.15	--	--	0.82	0.66	0.029 J	44	0.034 J	42	2.5	0.15	2.9	ND
Benzo(a)pyrene	1	1	1	--	--	0.15 J	--	--	0.73	0.76	ND	44	ND	39	2.6	0.18	2.4	ND
Benzo(b)fluoranthene	1	1	5.6	--	--	0.18	--	--	0.89	0.92	0.037 J	49	0.036 J	52	3.4	0.25	5.9	ND
Benzo(ghi)perylene	100	100	500	--	--	0.085 J	--	--	0.39	0.58	ND	20	ND	20	1.5	0.11 J	2.1	ND
Benzo(k)fluoranthene	0.8	0.8	56	--	--	0.06 J	--	--	0.29	0.32	ND	16	ND	18	1	0.088 J	1.7	ND
Chrysene	1	1	56	--	--	0.13	--	--	0.86	0.67	0.028 J	40	0.047 J	36	2.2	0.13	3.6	ND
Dibenzo(a,h)anthracene	0.33	0.33	0.56	--	--	ND	--	--	0.091 J	0.098 J	ND	4.8	ND	5.5	0.41	0.028 J	0.59	ND
Fluoranthene	100	100	500	--	--	0.29	--	--	1.9	1.3	0.062 J	89	0.041 J	85	4.5	0.26	6.5	0.024 J
Fluorene	30	30	500	--	--	ND	--	--	0.23	0.06 J	--	4.4 J	ND	7.2	0.32	0.051 J	0.38	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	--	--	0.093 J	--	--	0.42	0.48	ND	22	ND	24	1.6	0.16	2.2	ND
Naphthalene	12	12	500	--	--	--	--	--	0.26	0.059 J	ND	3.1 J	0.37	5.4 J	0.24	0.06 J	2.5	0.032 J
Phenanthrene	100	100	500	--	--	0.15	--	--	2.2	0.68	0.036 J	51	0.17	60	2.8	0.21	3.8	0.058 J
Pyrene	100	100	500	--	--	0.25	--	--	1.8	1.2	0.055 J	81	0.049 J	66	3.9	0.25	5.8	0.024 J
Total PAHs	--	--	--	--	--	1.582 J	--	--	11.531 J	8.108 J	0.247 J	484 J	0.747 J	477.6 J	28.05 J	1.974 J	43.21	0.138 J
RCRA Metals - mg/Kg																		
Arsenic	--	13	16	--	--	5.66	--	--	8.98	9.34	--	5.3	4.37	20.2	5.01	--	17.8	4.29
Barium	--	350	400	--	--	154	--	--	96.5	152	--	49.8	28.6	126	120	--	39.2	15.4
Cadmium	--	2.5	9.3	--	--	1	--	--	1.08	0.775	--	0.511 J	0.463	1.92	0.553	--	2.46	0.757
Chromium	--	30	1500	--	--	18.5	--	--	8.52	15.1	--	13.3	4.6	22.2	16.5	--	18.2	4.46
Lead	--	63	1000	--	--	349	--	--	47.5	266	--	39.7	9.91	352	51.3	--	113	16.6
Mercury	--	0.18	2.8	--	--	ND	--	--	0.073	0.132	--	ND	0.062 J	0.174	ND	--	ND	ND
Selenium	--	3.9	1500	--	--	1.37	--	--	1.32	0.968 J	--	0.676 J	0.653 J	1.3	1.27	--	2.73	0.931 J
Silver	--	2	1500	--	--	0.646	--	--	ND	0.192 J	--	ND	ND	0.629	0.152 J	--	0.166 J	ND
Polychlorinated biphenyls (PCBs) - mg/Kg																		
Total PCBs	0.1	0.1	1	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.
2. Values per NYSDEC CP-51 Soil Cleanup Levels (SCLs) for gasoline/fuel oil impacted sites.
3. Values per NYSDEC Part 375 Unrestricted Soil Cleanup Objectives (SCOs).
4. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs.

Definitions:
ND = Parameter not detected above laboratory detection limit.
"--" = No value available for the parameter; Parameter not analyzed for.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
Analyte exceeds its CP-51 SCL and/or Part 375 USCO.
Analyte exceeds its Part 375 CSCO.



TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
 PHASE II ENVIRONMENTAL INVESTIGATION
 ELMWOOD AVENUE AND AMHERST STREET PARCELS
 BUFFALO, NEW YORK

PARAMETER ¹	GWQS ²	Sample ID			
		Property 1 SB-4W	Property 2 SB-6W	Property 2 SB-7W	Property 2 SB-11W
		6/20/2019	6/21/2019		
Volatile Organic Compounds (VOCs) - ug/L					
1,3,5-Trimethylbenzene	5	2 J	ND	ND	ND
2-Butanone (MEK)	50	ND	2.1 J	ND	2 J
Acetone	50	ND	22	64	25
Cyclohexane	--	ND	ND	0.29 J	ND
n-Butylbenzene	5	0.88 J	ND	ND	ND
p-Isopropyltoluene	5	1.2 J	ND	ND	ND
sec-Butylbenzene	5	0.8 J	ND	ND	ND
Tetrachloroethene	5	0.56	ND	ND	ND

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.
- Regulatory limits are NYSDEC Class "GA" Groundwater Quality Standards (GWQS) and Guidance Values and Groundwater Effluent Limitations.

Definitions:

ND = Parameter not detected above laboratory detection limit.
 "--" = No value available for the parameter.
 J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Bold = Result exceeds NYSDEC Groundwater Quality Standards.

APPENDIX A

SOIL BORING LOGS



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P1SB-1	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/19/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 4'- estimated on poor recovery			TOTAL LENGTH: 2"
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt	
0		0	0	Fill- Black, moist, mostly asphalt and gravel, some silty sand, little subrounded gravel, no odors	
1					
2		0	0		
3					
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
5					
6		0	0		
7					
8			0		
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P1SB-2	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/19/19	TOTAL DEPTH: 20'
DEPTH OF FILL: 6"no fill just subbase		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt	
0		0	0	Gravel subbase	
1				Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
2		0	0		
3					
4		0	0	As Above	
5					
6		0	0		
7					
8		0	0	As Above	
9					
10		0	0		
11					
12		0	0	As Above	
13					
14		0	0		
15					
16		0	0		
17					
18		0	0		
19					



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P1SB-3	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/19/19	TOTAL DEPTH: 7.8'
DEPTH OF FILL: 7.8'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: 2'	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (ft)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other SURFACE COVER Asphalt	
0		0	0	Gravel subbase	Refusal at 7.8'
1					
2		0	0	Fill- Brown/ orange, wet, Mostly brick, some well graded sand, little metal, loose when disturbed, no odors	
3					
4		0	0		
5					
6		0	0		
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P1SB-4	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/19/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 5'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: 4'	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	
				SURFACE COVER Asphalt	
0		0	14	Fill- Black, moist, mostly asphalt and gravel, some silty sand, little subrounded gravel, no odors	
1			18	Sandy Lean Clay with Fill and staining- Black stained, mostly medium plasticity fines, some fine sand, little fill (gravel, slag), Strong solvent-like odors	
			375		
2		0	795		
			54		
3			42	As above, wet, no odors or staining	
			29		
4		0	0		
5					
6		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
7					
8			0		
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P1SB-5	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/19/19	TOTAL DEPTH: 24'
DEPTH OF FILL: 1' no fill just subbase		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt	
0		0	0	Asphalt	
				Gravel subbase	
1				Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
2		0	0		
3					
4		0	0	As Above	
5					
6		0	0		
7					
8		0	0	As Above	
9					
10		0	0		
11					
12		0	0	As Above	
13					
14		0	0		
15					
16		0	0	As Above	
17					
18		0	0		
19					



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue				Log of SB No.: P1SB-5			
BORING LOCATION: Buffalo, NY				ELEVATION AND DATUM:			
CONTRACTOR: TurnKey Environmental Restoration, LLC				DATE COMPLETED: 06/19/19		TOTAL DEPTH: 24'	
DEPTH OF FILL: 1' no fill just subbase						TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A				DEPTH TO WATER:	FIRST: N/A	COMPL.:	TOTAL WIDTH: 2"
SAMPLE TAKEN:				LOGGED BY: NAS			
WEATHER: 70 degrees sunny				BACKGROUND PID (PPM) 0			
20		0	0	As Above			
21							
22		0	0				
				As Above			
23							
24		0	0				
Project No:				☐ ☐ TurnKey Environmental Restoration, LLC			Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-6	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 6" gravel subbase only		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other SURFACE COVER Asphalt	
0		0	0	Subangular gravel subbase	
1				Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors	
2		0	0		
3				Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
4		0	0		
5					
6		0	0		
7					
8			0	As above	
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-7	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 9" gravel subbase only		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: 9	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
	Analytical Sample	FIELD PID (PPM)			
	USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other				
SURFACE COVER Asphalt					
0		0	0	Subangular gravel subbase	
1				Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors	
2		0	0		
3					
4		0	0		
5				Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
6		0	0		
7					
8			0		
9				As above, Wet	
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:

☐ ☐ TurnKey Environmental Restoration, LLC

Figure

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-8	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 1'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A		DEPTH TO WATER:	FIRST: N/A COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt	
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some fill (brick, glass, cinders, concrete), no odors	
1				Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors	
2		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
3					
4		0	0		
5					
6		0	0		
7					
8			0	As above	
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-9	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 1.3'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
	Analytical Sample	FIELD PID (PPM)		<u>USCS Classification</u> : Color , Moisture Condition , Primary Soil Type , Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing , Odor , Fill Materials (if present), Other		
				SURFACE COVER Asphalt		
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some fill (brick, glass, cinders, concrete) no odors		
1				Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors		
2		0	0			
3						
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
5						
6		0	0			
7						
8			0	As above		
9						
10			0			
11						
12			0			
13						
14						
15						
16						
17						
Project No:				☐ ☐ TurnKey Environmental Restoration, LLC		Figure

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-10	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 2.5'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other SURFACE COVER Asphalt	
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some silty sand, some fill (brick, slag, wood, cinders) no odors	
1					
2		0	0		
3				Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
4		0	0		
5					
6		0	0		
7					
8			0	As above increase moisture	
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-11	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 4' estimated based on poor recovery			TOTAL LENGTH: 2"
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
	Analytical Sample	FIELD PID (PPM)		<u>USCS Classification</u> : Color , Moisture Condition , Primary Soil Type , Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing , Odor , Fill Materials (if present), Other		
				SURFACE COVER Asphalt		
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some silty sand, some fill (brick, slag, wood, cinders) no odors		
1						
2		0	0			
3						
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
5						
6		0	0			
7						
8		0	0	As above, wet		
9						
10		0	0			
11						
12		0	0	As above, wet		
13						
14		0	0			
15						
16		0	0			
17						

Project No:

☐ ☐ TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-12	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 2'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
	Analytical Sample	FIELD PID (PPM)		USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other		
				SURFACE COVER Asphalt		
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some fill (slag, cinders, metal) no odors		
1						
2		0	0	Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors		
3						
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
5						
6		0	0			
7						
8			0	As above, Wet		
9						
10			0			
11						
12			0			
13						
14						
15						
16						
17						
Project No:				☐ ☐ TurnKey Environmental Restoration, LLC		Figure

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 1609 Elmwood Avenue		Log of SB No.: P2SB-13	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/20/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 1'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A		DEPTH TO WATER:	FIRST: N/A COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 60 degrees rain		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	
				SURFACE COVER Asphalt	
0		0	0	Fill- Black/grey, moist, mostly subangular gravel, some fill (slag, cinders, wood) no odors	
1				Silty sand- Tan, moist, mostly fine sand, little medium plasticity fines, no odors	
2		0	0		
3					
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
5					
6		0	0		
7					
8			0	As above	
9					
10			0		
11					
12			0		
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



SOIL BORING LOG

PROJECT: 111-141 Marion Street Site		Log of SB No.: P3SB-1	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/18/19	TOTAL DEPTH: 12'
DEPTH OF FILL: 2'		TOTAL LENGTH: 2"	
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2"
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
	Analytical Sample	FIELD PID (PPM)		<u>USCS Classification</u> : Color , Moisture Condition , Primary Soil Type , Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing , Odor , Fill Materials (if present) , Other		
				SURFACE COVER Asphalt on top of concrete		
0		0	0	Fill- Black, moist, mostly cinders and coal, some slag, metal, brick, some well graded sand, little subrounded gravel, no odors		
1						
2		0	0	Silty Sand- Tan, moist, mostly silt, some fine sand, little subrounded gravel, no odors		
3						
4		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
5						
6		0	0			
7						
8			0			
9						
10			0			
11						
12			0			
13						
14						
15						
16						
17						
Project No:				☐ ☐ TurnKey Environmental Restoration, LLC		Figure

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site		Log of Test Pit No.: P3TP-1	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/18/19	TOTAL DEPTH: 5'
DEPTH OF FILL: 3'		TOTAL LENGTH: 6'	
OBSTRUCTIONS: Railroad		DEPTH TO WATER:	FIRST: N/A COMPL.: TOTAL WIDTH: 2'
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (ft/gs)	Analytical Sample		HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488) <u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u> , <u>Odor</u> , <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt on top of concrete	REMARKS
	FIELD PID (PPM)				
1	0	0		Fill- Black, Moist, mostly black fines, some fill (coal, slag, cinders, wood, railroad ties, metal, brick) no odors	
2	0	0			
3					
4	0	0		Silty Sand- Tan, moist, mostly silt, some fine sand, little subrounded gravel, no odors	
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site		Log of Test Pit No.: P3TP-2	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/18/19	TOTAL DEPTH: 7.5'
DEPTH OF FILL: 1.5'		TOTAL LENGTH: 6'	
OBSTRUCTIONS: N/A		DEPTH TO WATER:	FIRST: N/A COMPL.: TOTAL WIDTH: 2'
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (ft)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt on top of concrete	
1		0	0	Fill- Black, Moist, mostly black fines, little fill (glass, cinders), no odors	
2		0	0	Fill- Tan, moist, mostly fine sand, little fill (brick, metal, slag, wood) no odors	
3					
4		0	0	Silty Sand- Tan, moist, mostly silt, some fine sand, little subrounded gravel, no odors	
5					
6		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors	
7					
8		0	0		
9					
10					
11					
12					
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site	Log of Test Pit No.: P3TP-3		
BORING LOCATION: Buffalo, NY	ELEVATION AND DATUM:		
CONTRACTOR: TurnKey Environmental Restoration, LLC	DATE COMPLETED: 06/18/19	TOTAL DEPTH: 8'	
DEPTH OF FILL: 8'			TOTAL LENGTH: 6'
OBSTRUCTIONS: N/A	DEPTH TO WATER:	FIRST: 2'	COMPL.: TOTAL WIDTH: 2'
SAMPLE TAKEN:	LOGGED BY: NAS		
WEATHER: 70 degrees sunny	BACKGROUND PID (PPM) 0		

Depth (ft)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials (if present)</u>, <u>Other</u> SURFACE COVER Asphalt on top of concrete	
		0	0	Fill- Slag cobbles	
1				Fill- Tan, moist, mostly fine sand, trace fill (brick, metal, Slag,) no odors	
2		50	50	Sandy Lean Clay with fill- Grey, moist/ wet (water rushing in pit), Mostly medium plasticity fines, some well graded sands, black staining on sands from tank pit, petroleum-like odors	
3		65	65		
4		68	68		
5		75	75		
6		150	150		
7		175	175		
8		25	25		
9					
10					
11					
12					
13					
14					
15					
16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site				Log of Test Pit No.: P3TP-4			
BORING LOCATION: Buffalo, NY				ELEVATION AND DATUM:			
CONTRACTOR: TurnKey Environmental Restoration, LLC				DATE COMPLETED: 06/18/19		TOTAL DEPTH: 8'	
DEPTH OF FILL: 1.5'						TOTAL LENGTH: 6'	
OBSTRUCTIONS: N/A				DEPTH TO WATER:	FIRST: N/A	COMPL.:	TOTAL WIDTH: 2'
SAMPLE TAKEN:				LOGGED BY: NAS			
WEATHER: 70 degrees sunny				BACKGROUND PID (PPM) 0			

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other SURFACE COVER Asphalt on top of concrete		
		0	0	Fill- Black, Moist, mostly black fines, little fill (glass, cinders), no odors		
1		0	0			
2		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
3						
4		0	0			
5		0	0			
6		0	0			
7						
8		0	0			
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Project No:	☐ ☐ TurnKey Environmental Restoration, LLC	Figure
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TEST PIT LOG

PROJECT: 111-141 Marion Street Site		Log of Test Pit No.: P3TP-5	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/18/19	TOTAL DEPTH: 2'
DEPTH OF FILL: 2'		TOTAL LENGTH: 6'	
OBSTRUCTIONS: Railroad	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2'
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u> , <u>Odor</u> , <u>Fill Materials</u> (if present), <u>Other</u>		
		0	0	SURFACE COVER Asphalt on top of concrete		
1				Fill- Black, Moist, mostly black fines, some fill (coal, slag, cinders, wood, railroad ties, metal, brick) no odors		
2		0	0			
3						
4						
5						
6						
7						
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15						
16						
17						

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site		Log of Test Pit No.: P3TP-6	
BORING LOCATION: Buffalo, NY		ELEVATION AND DATUM:	
CONTRACTOR: TurnKey Environmental Restoration, LLC		DATE COMPLETED: 06/18/19	TOTAL DEPTH: 3'
DEPTH OF FILL: 3'		TOTAL LENGTH: 6'	
OBSTRUCTIONS: Concrete at 3'	DEPTH TO WATER:	FIRST: N/A	COMPL.: TOTAL WIDTH: 2'
SAMPLE TAKEN:		LOGGED BY: NAS	
WEATHER: 70 degrees sunny		BACKGROUND PID (PPM) 0	

Depth (ft/gs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
				<u>USCS Classification:</u> Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), <u>Structure</u> (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), <u>Consistency/Density</u> (Standard Penetration Test, SPT), <u>Weathering/Fracturing</u>, <u>Odor</u>, <u>Fill Materials</u> (if present), <u>Other</u> SURFACE COVER Asphalt on top of concrete	
1		0	0	Fill- Grey, moist, mostly fine sand, little subrounded gravel, little fill (coal, cinders, glass), no odors	Concrete refusal
2		0	0	Fill- Black, moist, mostly black fines, some fill (coal, glass, fine sand, wood), slight organic odor	
3					
4					
5					
6					
7					
8					
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16					
17					

Project No:



TurnKey Environmental Restoration, LLC

Figure



TEST PIT LOG

PROJECT: 111-141 Marion Street Site				Log of Test Pit No.: P3TP-7			
BORING LOCATION: Buffalo, NY				ELEVATION AND DATUM:			
CONTRACTOR: TurnKey Environmental Restoration, LLC				DATE COMPLETED: 06/18/19		TOTAL DEPTH: 6'	
DEPTH OF FILL: 3'						TOTAL LENGTH: 6'	
OBSTRUCTIONS: N/A				DEPTH TO WATER:	FIRST: N/A	COMPL.:	TOTAL WIDTH: 2'
SAMPLE TAKEN:				LOGGED BY: NAS			
WEATHER: 70 degrees sunny				BACKGROUND PID (PPM) 0			

Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)		REMARKS
				USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	SURFACE COVER Asphalt on top of concrete	
1		0	0	Fill- Black, moist, mostly cinders and coal, some slag, metal, brick, glass, ash, no odors		
2		0	0			
3				Silty Sand- Tan, moist, mostly silt, some fine sand, little subrounded gravel, no odors		
4		0	0			
5		0	0	Sandy Lean Clay- Reddish brown, moist, mostly medium plasticity fines, some fine sand, little subrounded gravel, stiff, massive, no odors		
6		0	0			
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Project No:	☐ ☐ TurnKey Environmental Restoration, LLC	Figure
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APPENDIX B

PHOTO LOG

PROPERTY 3 - SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: View of the excavation of TP-4, note suspect tank strap encountered prior to moving location.

Photo 2: View of a typical test pit at the Site.

Photo 3: View of the cobble slag material encountered in TP-3.

Photo 4: View of the tank-related piping at TP-3.

Elmwood and Amherst

Photo Date: June 18-20, 2019



PROPERTY 3 - SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:



Photo 8:



Photo 5, 6, 7, 8: View of the fill materials noted within test pits across Property 3.

Elmwood and Amherst

Photo Date: June 18-20, 2019



PROPERTIES 1 AND 2 - SITE PHOTOGRAPHS

Photo 9:



Photo 10:



Photo 11:



Photo 12:



Photo 9: View of the drilling of P1SB-3.

Photo 10: View of the drilling of P2SB-11.

Photo 11: View of the Drilling of P1SB-1.

Photo 12: View of the typical soils encountered at the Site.

Elmwood and Amherst

Photo Date: June 18-20, 2019



PROPERTIES 2 AND 3 - SITE PHOTOGRAPHS

Photo 13:



Photo 14:



Photo 15:



Photo 16:



Photo 13: View of the drilling of P3SB-1.

Photo 14: View of the drilling of P2SB-6.

Photo 15, 16: View of the sandy lean clay soils encountered at the Site.

Elmwood and Amherst

Photo Date: June 18-20, 2019



PROPERTY 2 - SITE PHOTOGRAPHS

Photo 17:



Photo 18:



Photo 17: View of the suspect vent pipe noted on Property 2 during the Phase II.

Photo 18: View of the fill port noted on Property 2 during the Phase II.

Elmwood and Amherst

Photo Date: June 18-20, 2019



APPENDIX C

LABORATORY ANALYTICAL DATA SUMMARY PACKAGE



ANALYTICAL REPORT

Lab Number:	L1927796
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	1609 ELMWOOD AVENUE
Project Number:	T0105-010-004-002
Report Date:	07/01/19

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

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



Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1927796-01	P2 SB-7(.5-1.5FT)	SOIL	BUFFALO, NY	06/20/19 09:00	06/21/19
L1927796-02	P2 SB-8(.5-1.5FT)	SOIL	BUFFALO, NY	06/20/19 10:00	06/21/19
L1927796-03	P2 SB-10(.5-2FT)	SOIL	BUFFALO, NY	06/20/19 11:30	06/21/19
L1927796-04	P2 SB-11(8-10FT)	SOIL	BUFFALO, NY	06/20/19 13:00	06/21/19
L1927796-05	P3 SB-12(.5-2FT)	SOIL	BUFFALO, NY	06/20/19 14:00	06/21/19
L1927796-06	SB-6W	WATER	BUFFALO, NY	06/21/19 11:00	06/21/19
L1927796-07	SB-7W	WATER	BUFFALO, NY	06/20/19 12:30	06/21/19
L1927796-08	SB-11W	WATER	BUFFALO, NY	06/21/19 13:00	06/21/19

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Case Narrative

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

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

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

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

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

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

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Case Narrative (continued)

Report Submission

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

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Semivolatile Organics

L1927796-05: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1927796-05: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

The WG1254058-3 MS recovery, performed on L1927796-02, is outside the acceptance criteria for barium (69%). A post digestion spike was performed and yielded an unacceptable recovery of 78%. The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

The WG1254058-3 MS recoveries, performed on L1927796-02, are outside the acceptance criteria for chromium (69%) and lead (52%). A post digestion spike was performed and yielded unacceptable recoveries for chromium (69%) and lead (68%). The serial dilution recoveries were not applicable; therefore, these elements fail the matrix test and the results reported in the native sample should be considered estimated.

The WG1254236-3 MS recovery, performed on L1927796-02, is outside the acceptance criteria for mercury (68%). A post digestion spike was performed and was within acceptance criteria.

The WG1254058-4 Laboratory Duplicate RPDs for arsenic (32%), barium (42%), and lead (36%), performed on L1927796-02, are outside the acceptance criteria. The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature:



Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/01/19

ORGANICS

VOLATILES

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-04
 Client ID: P2 SB-11(8-10FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/20/19 13:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 13:49
 Analyst: MKS
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.81	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-04
 Client ID: P2 SB-11(8-10FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/20/19 13:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	0.28	J	ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	28		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
Methyl Acetate	ND		ug/kg	4.7	1.1	1
Cyclohexane	ND		ug/kg	12	0.63	1
1,4-Dioxane	ND		ug/kg	93	41.	1
Freon-113	ND		ug/kg	4.7	0.81	1
Methyl cyclohexane	ND		ug/kg	4.7	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	103		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-06
 Client ID: SB-6W
 Sample Location: BUFFALO, NY

Date Collected: 06/21/19 11:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 06/26/19 14:19
 Analyst: NLK

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

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-06**Date Collected:** 06/21/19 11:00**Client ID:** SB-6W**Date Received:** 06/21/19**Sample Location:** BUFFALO, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	22		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.1	J	ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	97		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-07
 Client ID: SB-7W
 Sample Location: BUFFALO, NY

Date Collected: 06/20/19 12:30
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 06/26/19 14:55
 Analyst: NLK

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

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-07**Date Collected:** 06/20/19 12:30**Client ID:** SB-7W**Date Received:** 06/21/19**Sample Location:** BUFFALO, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	64		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.29	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	95		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-08
 Client ID: SB-11W
 Sample Location: BUFFALO, NY

Date Collected: 06/21/19 13:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 06/26/19 15:31
 Analyst: NLK

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

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-08**Date Collected:** 06/21/19 13:00**Client ID:** SB-11W**Date Received:** 06/21/19**Sample Location:** BUFFALO, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	25		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.0	J	ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/26/19 08:55
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-08 Batch: WG1253251-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 06/26/19 08:55

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-08 Batch: WG1253251-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/26/19 08:55
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-08 Batch: WG1253251-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	98		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:10
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1254102-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:10
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1254102-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 1609 ELMWOOD AVENUE
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Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:10
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1254102-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-08 Batch: WG1253251-3 WG1253251-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	97		97		70-130	0		20
Chloroform	94		95		70-130	1		20
Carbon tetrachloride	96		94		63-132	2		20
1,2-Dichloropropane	98		99		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	77		77		62-150	0		20
1,2-Dichloroethane	90		92		70-130	2		20
1,1,1-Trichloroethane	93		92		67-130	1		20
Bromodichloromethane	93		94		67-130	1		20
trans-1,3-Dichloropropene	110		100		70-130	10		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	94		94		54-136	0		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	95		97		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	62	Q	67		64-130	8		20
Bromomethane	45		40		39-139	12		20
Vinyl chloride	90		91		55-140	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-08 Batch: WG1253251-3 WG1253251-4								
Chloroethane	98		99		55-138	1		20
1,1-Dichloroethene	90		91		61-145	1		20
trans-1,2-Dichloroethene	94		94		70-130	0		20
Trichloroethene	94		95		70-130	1		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	99		100		63-130	1		20
p/m-Xylene	115		110		70-130	4		20
o-Xylene	115		115		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	81		79		36-147	3		20
Acetone	91		93		58-148	2		20
Carbon disulfide	94		95		51-130	1		20
2-Butanone	110		100		63-138	10		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	110		110		57-130	0		20
Bromochloromethane	100		110		70-130	10		20
1,2-Dibromoethane	110		110		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	110		110		41-144	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-08 Batch: WG1253251-3 WG1253251-4								
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	120		120		70-130	0		20
1,2,4-Trichlorobenzene	120		120		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
Methyl Acetate	98		96		70-130	2		20
Cyclohexane	89		86		70-130	3		20
1,4-Dioxane	110		116		56-162	5		20
Freon-113	89		86		70-130	3		20
Methyl cyclohexane	91		88		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	105		104		70-130
4-Bromofluorobenzene	92		95		70-130
Dibromofluoromethane	98		98		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927796

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1254102-3 WG1254102-4								
Methylene chloride	90		98		70-130	9		30
1,1-Dichloroethane	99		108		70-130	9		30
Chloroform	91		104		70-130	13		30
Carbon tetrachloride	83		92		70-130	10		30
1,2-Dichloropropane	98		105		70-130	7		30
Dibromochloromethane	92		96		70-130	4		30
1,1,2-Trichloroethane	101		104		70-130	3		30
Tetrachloroethene	88		98		70-130	11		30
Chlorobenzene	91		99		70-130	8		30
Trichlorofluoromethane	76		86		70-139	12		30
1,2-Dichloroethane	97		102		70-130	5		30
1,1,1-Trichloroethane	91		101		70-130	10		30
Bromodichloromethane	91		99		70-130	8		30
trans-1,3-Dichloropropene	100		105		70-130	5		30
cis-1,3-Dichloropropene	93		100		70-130	7		30
Bromoform	89		92		70-130	3		30
1,1,2,2-Tetrachloroethane	104		107		70-130	3		30
Benzene	92		101		70-130	9		30
Toluene	94		103		70-130	9		30
Ethylbenzene	95		104		70-130	9		30
Chloromethane	113		121		52-130	7		30
Bromomethane	77		86		57-147	11		30
Vinyl chloride	95		107		67-130	12		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1254102-3 WG1254102-4								
Chloroethane	88		100		50-151	13		30
1,1-Dichloroethene	95		105		65-135	10		30
trans-1,2-Dichloroethene	91		102		70-130	11		30
Trichloroethene	89		98		70-130	10		30
1,2-Dichlorobenzene	90		97		70-130	7		30
1,3-Dichlorobenzene	91		98		70-130	7		30
1,4-Dichlorobenzene	90		98		70-130	9		30
Methyl tert butyl ether	97		101		66-130	4		30
p/m-Xylene	91		99		70-130	8		30
o-Xylene	90		97		70-130	7		30
cis-1,2-Dichloroethene	90		98		70-130	9		30
Styrene	89		97		70-130	9		30
Dichlorodifluoromethane	90		100		30-146	11		30
Acetone	120		110		54-140	9		30
Carbon disulfide	89		101		59-130	13		30
2-Butanone	114		107		70-130	6		30
4-Methyl-2-pentanone	107		104		70-130	3		30
2-Hexanone	112		108		70-130	4		30
Bromochloromethane	89		94		70-130	5		30
1,2-Dibromoethane	95		98		70-130	3		30
n-Butylbenzene	98		109		70-130	11		30
sec-Butylbenzene	95		105		70-130	10		30
1,2-Dibromo-3-chloropropane	86		83		68-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927796

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1254102-3 WG1254102-4								
Isopropylbenzene	95		105		70-130	10		30
p-Isopropyltoluene	93		103		70-130	10		30
n-Propylbenzene	98		108		70-130	10		30
1,2,3-Trichlorobenzene	91		94		70-130	3		30
1,2,4-Trichlorobenzene	89		93		70-130	4		30
1,3,5-Trimethylbenzene	93		104		70-130	11		30
1,2,4-Trimethylbenzene	94		103		70-130	9		30
Methyl Acetate	116		110		51-146	5		30
Cyclohexane	98		109		59-142	11		30
1,4-Dioxane	96		92		65-136	4		30
Freon-113	89		102		50-139	14		30
Methyl cyclohexane	85		96		70-130	12		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		104		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	106		105		70-130
Dibromofluoromethane	98		98		70-130

SEMIVOLATILES

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927796-02
Client ID: P2 SB-8(.5-1.5FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 10:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/29/19 09:03
Analyst: JG
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	230		ug/kg	150	19.	1
Fluoranthene	1900		ug/kg	110	21.	1
Naphthalene	260		ug/kg	180	23.	1
Benzo(a)anthracene	820		ug/kg	110	21.	1
Benzo(a)pyrene	730		ug/kg	150	45.	1
Benzo(b)fluoranthene	890		ug/kg	110	31.	1
Benzo(k)fluoranthene	290		ug/kg	110	30.	1
Chrysene	860		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	420		ug/kg	110	36.	1
Benzo(ghi)perylene	390		ug/kg	150	22.	1
Fluorene	230		ug/kg	180	18.	1
Phenanthrene	2200		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	91	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	420		ug/kg	150	26.	1
Pyrene	1800		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	58		30-120
4-Terphenyl-d14	59		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927796-03
Client ID: P2 SB-10(.5-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 11:30
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/29/19 10:19
Analyst: JG
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	52	J	ug/kg	180	23.	1
Fluoranthene	1300		ug/kg	130	26.	1
Naphthalene	59	J	ug/kg	220	27.	1
Benzo(a)anthracene	660		ug/kg	130	25.	1
Benzo(a)pyrene	760		ug/kg	180	54.	1
Benzo(b)fluoranthene	920		ug/kg	130	38.	1
Benzo(k)fluoranthene	320		ug/kg	130	36.	1
Chrysene	670		ug/kg	130	23.	1
Acenaphthylene	89	J	ug/kg	180	34.	1
Anthracene	180		ug/kg	130	44.	1
Benzo(ghi)perylene	580		ug/kg	180	26.	1
Fluorene	60	J	ug/kg	220	22.	1
Phenanthrene	680		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	98	J	ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	480		ug/kg	180	31.	1
Pyrene	1200		ug/kg	130	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	47		30-120
4-Terphenyl-d14	41		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927796-04
Client ID: P2 SB-11(8-10FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 13:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/29/19 09:54
Analyst: JG
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
Fluoranthene	62	J	ug/kg	120	22.	1
Naphthalene	ND		ug/kg	200	24.	1
Benzo(a)anthracene	29	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	37	J	ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	28	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	36	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	55	J	ug/kg	120	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	78		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927796-05 D
Client ID: P3 SB-12(.5-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 14:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 02:50
Analyst: ALS
Percent Solids: 76%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	2200	J	ug/kg	4300	560	25
Fluoranthene	89000		ug/kg	3300	620	25
Naphthalene	3100	J	ug/kg	5400	660	25
Benzo(a)anthracene	44000		ug/kg	3300	610	25
Benzo(a)pyrene	44000		ug/kg	4300	1300	25
Benzo(b)fluoranthene	49000		ug/kg	3300	920	25
Benzo(k)fluoranthene	16000		ug/kg	3300	870	25
Chrysene	40000		ug/kg	3300	560	25
Acenaphthylene	3900	J	ug/kg	4300	840	25
Anthracene	14000		ug/kg	3300	1000	25
Benzo(ghi)perylene	20000		ug/kg	4300	640	25
Fluorene	4400	J	ug/kg	5400	530	25
Phenanthrene	51000		ug/kg	3300	660	25
Dibenzo(a,h)anthracene	4800		ug/kg	3300	630	25
Indeno(1,2,3-cd)pyrene	22000		ug/kg	4300	760	25
Pyrene	81000		ug/kg	3300	540	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/29/19 00:23
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/28/19 06:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-05 Batch: WG1254269-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	73		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927796

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-05 Batch: WG1254269-2 WG1254269-3								
Acenaphthene	56		73		31-137	26		50
Fluoranthene	56		74		40-140	28		50
Naphthalene	56		75		40-140	29		50
Benzo(a)anthracene	53		69		40-140	26		50
Benzo(a)pyrene	56		72		40-140	25		50
Benzo(b)fluoranthene	50		69		40-140	32		50
Benzo(k)fluoranthene	62		78		40-140	23		50
Chrysene	59		78		40-140	28		50
Acenaphthylene	60		80		40-140	29		50
Anthracene	56		73		40-140	26		50
Benzo(ghi)perylene	56		74		40-140	28		50
Fluorene	57		77		40-140	30		50
Phenanthrene	54		70		40-140	26		50
Dibenzo(a,h)anthracene	55		73		40-140	28		50
Indeno(1,2,3-cd)pyrene	50		68		40-140	31		50
Pyrene	56		73		35-142	26		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	56		82		23-120
2-Fluorobiphenyl	58		79		30-120
4-Terphenyl-d14	54		73		18-120

PCBS

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927796-01
Client ID: P2 SB-7(.5-1.5FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 09:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 06/29/19 17:53
Analyst: WR
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 13:18
Cleanup Method: EPA 3665A
Cleanup Date: 06/29/19
Cleanup Method: EPA 3660B
Cleanup Date: 06/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.7	3.62	1	A
Aroclor 1221	ND		ug/kg	40.7	4.08	1	A
Aroclor 1232	ND		ug/kg	40.7	8.64	1	A
Aroclor 1242	ND		ug/kg	40.7	5.49	1	A
Aroclor 1248	ND		ug/kg	40.7	6.11	1	A
Aroclor 1254	ND		ug/kg	40.7	4.46	1	A
Aroclor 1260	ND		ug/kg	40.7	7.53	1	A
Aroclor 1262	ND		ug/kg	40.7	5.17	1	A
Aroclor 1268	ND		ug/kg	40.7	4.22	1	A
PCBs, Total	ND		ug/kg	40.7	3.62	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	58		30-150	B

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 06/28/19 16:09
 Analyst: JM

Extraction Method: EPA 3546
 Extraction Date: 06/28/19 09:06
 Cleanup Method: EPA 3665A
 Cleanup Date: 06/28/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 06/28/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1254385-1						
Aroclor 1016	ND		ug/kg	32.1	2.85	A
Aroclor 1221	ND		ug/kg	32.1	3.22	A
Aroclor 1232	ND		ug/kg	32.1	6.81	A
Aroclor 1242	ND		ug/kg	32.1	4.33	A
Aroclor 1248	ND		ug/kg	32.1	4.82	A
Aroclor 1254	ND		ug/kg	32.1	3.52	A
Aroclor 1260	ND		ug/kg	32.1	5.94	A
Aroclor 1262	ND		ug/kg	32.1	4.08	A
Aroclor 1268	ND		ug/kg	32.1	3.33	A
PCBs, Total	ND		ug/kg	32.1	2.85	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	58		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1254385-2 WG1254385-3									
Aroclor 1016	79		76		40-140	4		50	A
Aroclor 1260	74		72		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		72		30-150	A
Decachlorobiphenyl	61		60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		70		30-150	B
Decachlorobiphenyl	68		68		30-150	B

METALS

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-02

Date Collected: 06/20/19 10:00

Client ID: P2 SB-8(.5-1.5FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	8.98		mg/kg	0.443	0.092	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Barium, Total	96.5		mg/kg	0.443	0.077	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Cadmium, Total	1.08		mg/kg	0.443	0.044	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Chromium, Total	8.52		mg/kg	0.443	0.043	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Lead, Total	47.5		mg/kg	2.22	0.119	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Mercury, Total	0.073		mg/kg	0.072	0.047	1	06/28/19 05:30	06/28/19 13:22	EPA 7471B	1,7471B	GD
Selenium, Total	1.32		mg/kg	0.887	0.114	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.443	0.126	1	06/27/19 18:12	06/27/19 21:38	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-03

Date Collected: 06/20/19 11:30

Client ID: P2 SB-10(.5-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	9.34		mg/kg	0.507	0.105	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Barium, Total	152		mg/kg	0.507	0.088	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Cadmium, Total	0.775		mg/kg	0.507	0.050	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Chromium, Total	15.1		mg/kg	0.507	0.049	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Lead, Total	266		mg/kg	2.53	0.136	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Mercury, Total	0.132		mg/kg	0.086	0.056	1	06/28/19 05:30	06/28/19 16:21	EPA 7471B	1,7471B	GD
Selenium, Total	0.968	J	mg/kg	1.01	0.131	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB
Silver, Total	0.192	J	mg/kg	0.507	0.143	1	06/27/19 18:12	06/27/19 23:34	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927796-05

Date Collected: 06/20/19 14:00

Client ID: P3 SB-12(.5-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 76%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.30		mg/kg	0.516	0.107	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Barium, Total	49.8		mg/kg	0.516	0.090	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Cadmium, Total	0.511	J	mg/kg	0.516	0.051	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Chromium, Total	13.3		mg/kg	0.516	0.050	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Lead, Total	39.7		mg/kg	2.58	0.138	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/28/19 05:30	06/28/19 16:23	EPA 7471B	1,7471B	GD
Selenium, Total	0.676	J	mg/kg	1.03	0.133	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.516	0.146	1	06/27/19 18:12	06/27/19 23:40	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02-03,05 Batch: WG1254058-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Chromium, Total	0.056	J	mg/kg	0.400	0.038	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02-03,05 Batch: WG1254236-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/28/19 05:30	06/28/19 13:18	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927796

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 Batch: WG1254058-2 SRM Lot Number: D105-540								
Arsenic, Total	97		-		70-130	-		
Barium, Total	88		-		75-125	-		
Cadmium, Total	99		-		75-125	-		
Chromium, Total	90		-		70-130	-		
Lead, Total	90		-		71-128	-		
Selenium, Total	96		-		63-137	-		
Silver, Total	89		-		69-131	-		
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 Batch: WG1254236-2 SRM Lot Number: D105-540								
Mercury, Total	98		-		60-141	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927796

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 QC Batch ID: WG1254058-3 QC Sample: L1927796-02 Client ID: P2 SB-8(.5-1.5FT)												
Arsenic, Total	8.98	10.8	19.1	93		-	-		75-125	-		20
Barium, Total	96.5	181	221	69	Q	-	-		75-125	-		20
Cadmium, Total	1.08	4.6	4.62	77		-	-		75-125	-		20
Chromium, Total	8.52	18.1	21.0	69	Q	-	-		75-125	-		20
Lead, Total	47.5	46	71.5	52	Q	-	-		75-125	-		20
Selenium, Total	1.32	10.8	12.1	99		-	-		75-125	-		20
Silver, Total	ND	27.1	26.5	98		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 QC Batch ID: WG1254236-3 QC Sample: L1927796-02 Client ID: P2 SB-8(.5-1.5FT)												
Mercury, Total	0.073	0.144	0.171	68	Q	-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927796

Report Date: 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 QC Batch ID: WG1254058-4 QC Sample: L1927796-02 Client ID: P2 SB-8(.5-1.5FT)						
Arsenic, Total	8.98	12.4	mg/kg	32	Q	20
Barium, Total	96.5	63.2	mg/kg	42	Q	20
Cadmium, Total	1.08	1.31	mg/kg	19		20
Chromium, Total	8.52	9.02	mg/kg	6		20
Lead, Total	47.5	33.1	mg/kg	36	Q	20
Selenium, Total	1.32	1.32	mg/kg	0		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 02-03,05 QC Batch ID: WG1254236-4 QC Sample: L1927796-02 Client ID: P2 SB-8(.5-1.5FT)						
Mercury, Total	0.073	0.054J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-01**Client ID:** P2 SB-7(.5-1.5FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 09:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-02**Client ID:** P2 SB-8(.5-1.5FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 10:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.4		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-03**Client ID:** P2 SB-10(.5-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 11:30**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.2		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-04**Client ID:** P2 SB-11(8-10FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 13:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.6		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927796-05**Client ID:** P3 SB-12(.5-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 14:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.8		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Lab Duplicate Analysis
*Batch Quality Control***Project Name:** 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927796**Report Date:** 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1252631-1 QC Sample: L1927359-03 Client ID: DUP Sample						
Solids, Total	77.8	75.5	%	3		20

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Serial_No:07011917:30
Lab Number: L1927796
Report Date: 07/01/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1927796-01A	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		TS(7),NYTCL-8082(14)
L1927796-02A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927796-02B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927796-03A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927796-03B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927796-04A	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYCP51-PAH(14),NYTCL-8260-R2(14),TS(7)
L1927796-04X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-04Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 12:04	NYTCL-8260-R2(14)
L1927796-04Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 12:04	NYTCL-8260-R2(14)
L1927796-05A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927796-05B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927796-06A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-06B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-06C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-07A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-07B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-07C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-08A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-08B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927796-08C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927796**Project Number:** T0105-010-004-002**Report Date:** 07/01/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

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

Terms

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

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

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

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

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

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927796
Report Date: 07/01/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate. **EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

L1927796 JM 6/25/19

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105 <i>CRAMER</i>		Page 2 of 3		Date Rec'd in Lab 6/22/19		ALPHA Job # L1927796	
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <i>2556 HAMPSHIRE PIKE, BURLINGTON, VT</i> Project Location: <i>BURLINGTON, VT + ELMWOOD + AMHERST</i> Project # <i>70105-018-004-002-004</i> (Use Project name as Project #) ☐ Project Manager: <i>BRIGGS MCHILL</i> ALPHAQuote #: _____ Turn-Around Time Standard ☒ Due Date: _____ Rush (only if pre approved) ☐ # of Days: _____		Deliverables ☐ ASP-A ☒ ASP-B ☒ EQulS (1 File) ☐ EQulS (4 File) ☐ Other		Billing Information ☐ Same as Client Info PO # _____	
Client Information Client: <i>101 AKEN ENU REL + GARY</i> Address: <i>2556 HAMPSHIRE PIKE, BURLINGTON, VT</i> Phone: <i>716-713-3437</i> Fax: _____ Email: <i>BRIGGS MCHILL</i>		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____					
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: _____ Please specify Metals or TAL. _____		ANALYSIS TL+CP-51w/LS PAH TOC/ANALYSIS XPCD'S		Sample Filtration ☐ Done ☐ Lab to do ☐ Lab to do (Please Specify below) Sample Specific Comments					
ALPHA Lab ID (Lab Use Only) 27796-01 Sample ID		Collection Date Time		Sample Matrix Sampler's Initials		Total Bottles			
02 07 P2 SB-7 (0.5-1.5 FT) 6/20/14 4:00 Soil MCH		03 08 P2 SB-8 (0.5-1.5 FT) 6/20/14 10:00		04 09 P2 SB-10 (0.5-2 FT) 6/20/14 11:30		05 10 P2 SB-12 (0.5-2 FT) 6/20/14 14:00			
06 11 P2 SB-6W 6/20/14 11:00		07 12 P2 SB-7W 6/20/14 12:30		08 13 P2 SB-11W 6/20/14 13:00		1/31 6/14			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative			
Relinquished By: <i>JM AL AAL</i>		Date/Time: <i>6/21/19 14:30</i>		Received By: <i>JM AL AAL</i>		Date/Time: <i>6/21/19 15:55</i>			
Relinquished By: <i>JM AL AAL</i>		Date/Time: <i>6/21/19 16:35</i>		Received By: <i>JM AL AAL</i>		Date/Time: <i>6/22/19 01:05</i>			

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



ANALYTICAL REPORT

Lab Number:	L1927359
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	1609 ELMWOOD AVENUE
Project Number:	T0105-010-004-002
Report Date:	07/01/19

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

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



Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1927359-01	P15B-2(1-2FT)	SOIL	BUFFALO, NY	06/19/19 11:00	06/21/19
L1927359-02	P15B-3(2-4FT)	SOIL	BUFFALO, NY	06/19/19 12:00	06/21/19
L1927359-03	P15B-4(1-2FT)	SOIL	BUFFALO, NY	06/19/19 13:30	06/21/19
L1927359-04	SB-4W	WATER	BUFFALO, NY	06/20/19 15:00	06/21/19
L1927359-05	P15B-4(4-5FT)	SOIL	BUFFALO, NY	06/19/19 14:00	06/21/19

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Case Narrative

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

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

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

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

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

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

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Case Narrative (continued)

Report Submission

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

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L1927359-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1927359-03: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (192%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

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

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 07/01/19

ORGANICS

VOLATILES

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-01
 Client ID: P15B-2(1-2FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 11:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 11:52
 Analyst: PK
 Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.19	1
Benzene	ND		ug/kg	0.59	0.19	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-01
 Client ID: P15B-2(1-2FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 11:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.24	1
p/m-Xylene	ND		ug/kg	2.3	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	27		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	2.9	J	ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
Methyl Acetate	ND		ug/kg	4.7	1.1	1
Cyclohexane	ND		ug/kg	12	0.64	1
1,4-Dioxane	ND		ug/kg	94	41.	1
Freon-113	ND		ug/kg	4.7	0.81	1
Methyl cyclohexane	ND		ug/kg	4.7	0.71	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	98		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-02
 Client ID: P15B-3(2-4FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 12:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 12:43
 Analyst: PK
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.81	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.20	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-02
 Client ID: P15B-3(2-4FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 12:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	25		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
Methyl Acetate	14		ug/kg	4.7	1.1	1
Cyclohexane	ND		ug/kg	12	0.64	1
1,4-Dioxane	ND		ug/kg	94	41.	1
Freon-113	ND		ug/kg	4.7	0.81	1
Methyl cyclohexane	ND		ug/kg	4.7	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	95		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-03 D

Date Collected: 06/19/19 13:30

Client ID: P15B-4(1-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 06/27/19 13:08

Analyst: PK

Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	3700	1700	10
1,1-Dichloroethane	ND		ug/kg	740	110	10
Chloroform	ND		ug/kg	1100	100	10
Carbon tetrachloride	ND		ug/kg	740	170	10
1,2-Dichloropropane	ND		ug/kg	740	92.	10
Dibromochloromethane	ND		ug/kg	740	100	10
1,1,2-Trichloroethane	ND		ug/kg	740	200	10
Tetrachloroethene	190	J	ug/kg	370	140	10
Chlorobenzene	ND		ug/kg	370	94.	10
Trichlorofluoromethane	ND		ug/kg	3000	510	10
1,2-Dichloroethane	ND		ug/kg	740	190	10
1,1,1-Trichloroethane	ND		ug/kg	370	120	10
Bromodichloromethane	ND		ug/kg	370	81.	10
trans-1,3-Dichloropropene	ND		ug/kg	740	200	10
cis-1,3-Dichloropropene	ND		ug/kg	370	120	10
Bromoform	ND		ug/kg	3000	180	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	370	120	10
Benzene	ND		ug/kg	370	120	10
Toluene	ND		ug/kg	740	400	10
Ethylbenzene	ND		ug/kg	740	100	10
Chloromethane	ND		ug/kg	3000	690	10
Bromomethane	ND		ug/kg	1500	430	10
Vinyl chloride	ND		ug/kg	740	250	10
Chloroethane	ND		ug/kg	1500	330	10
1,1-Dichloroethene	ND		ug/kg	740	180	10
trans-1,2-Dichloroethene	ND		ug/kg	1100	100	10
Trichloroethene	ND		ug/kg	370	100	10
1,2-Dichlorobenzene	ND		ug/kg	1500	110	10

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-03 D

Date Collected: 06/19/19 13:30

Client ID: P15B-4(1-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1500	110	10
1,4-Dichlorobenzene	ND		ug/kg	1500	130	10
Methyl tert butyl ether	ND		ug/kg	1500	150	10
p/m-Xylene	ND		ug/kg	1500	410	10
o-Xylene	ND		ug/kg	740	220	10
cis-1,2-Dichloroethene	150	J	ug/kg	740	130	10
Styrene	ND		ug/kg	740	140	10
Dichlorodifluoromethane	ND		ug/kg	7400	680	10
Acetone	ND		ug/kg	7400	3600	10
Carbon disulfide	ND		ug/kg	7400	3400	10
2-Butanone	ND		ug/kg	7400	1600	10
4-Methyl-2-pentanone	ND		ug/kg	7400	950	10
2-Hexanone	ND		ug/kg	7400	870	10
Bromochloromethane	ND		ug/kg	1500	150	10
1,2-Dibromoethane	ND		ug/kg	740	210	10
n-Butylbenzene	1200		ug/kg	740	120	10
sec-Butylbenzene	2800		ug/kg	740	110	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	2200	740	10
Isopropylbenzene	ND		ug/kg	740	81.	10
p-Isopropyltoluene	4500		ug/kg	740	81.	10
n-Propylbenzene	ND		ug/kg	740	130	10
1,2,3-Trichlorobenzene	ND		ug/kg	1500	240	10
1,2,4-Trichlorobenzene	ND		ug/kg	1500	200	10
1,3,5-Trimethylbenzene	5300		ug/kg	1500	140	10
1,2,4-Trimethylbenzene	1600		ug/kg	1500	250	10
Methyl Acetate	ND		ug/kg	3000	700	10
Cyclohexane	ND		ug/kg	7400	400	10
1,4-Dioxane	ND		ug/kg	59000	26000	10
Freon-113	ND		ug/kg	3000	510	10
Methyl cyclohexane	ND		ug/kg	3000	450	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	192	Q	70-130
Dibromofluoromethane	95		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-04
 Client ID: SB-4W
 Sample Location: BUFFALO, NY

Date Collected: 06/20/19 15:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 06/26/19 13:43
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.56		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927359-04**Date Collected:** 06/20/19 15:00**Client ID:** SB-4W**Date Received:** 06/21/19**Sample Location:** BUFFALO, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	67		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	0.88	J	ug/l	2.5	0.70	1
sec-Butylbenzene	0.80	J	ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	1.2	J	ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	2.0	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	98		70-130

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-05
 Client ID: P15B-4(4-5FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 14:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 12:17
 Analyst: PK
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.19	1
Benzene	ND		ug/kg	0.59	0.19	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-05
 Client ID: P15B-4(4-5FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/19/19 14:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.24	1
p/m-Xylene	ND		ug/kg	2.3	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	12		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
Methyl Acetate	1.1	J	ug/kg	4.7	1.1	1
Cyclohexane	ND		ug/kg	12	0.64	1
1,4-Dioxane	ND		ug/kg	94	41.	1
Freon-113	ND		ug/kg	4.7	0.81	1
Methyl cyclohexane	ND		ug/kg	4.7	0.71	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	97		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/26/19 08:55
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1253251-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/26/19 08:55
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1253251-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/26/19 08:55
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1253251-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	98		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,05 Batch: WG1254098-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	1.1	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,05 Batch: WG1254098-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 08:04
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,05 Batch: WG1254098-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	93		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	54	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 08:04
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1253251-3 WG1253251-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	97		97		70-130	0		20
Chloroform	94		95		70-130	1		20
Carbon tetrachloride	96		94		63-132	2		20
1,2-Dichloropropane	98		99		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	77		77		62-150	0		20
1,2-Dichloroethane	90		92		70-130	2		20
1,1,1-Trichloroethane	93		92		67-130	1		20
Bromodichloromethane	93		94		67-130	1		20
trans-1,3-Dichloropropene	110		100		70-130	10		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	94		94		54-136	0		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	95		97		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	62	Q	67		64-130	8		20
Bromomethane	45		40		39-139	12		20
Vinyl chloride	90		91		55-140	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1253251-3 WG1253251-4								
Chloroethane	98		99		55-138	1		20
1,1-Dichloroethene	90		91		61-145	1		20
trans-1,2-Dichloroethene	94		94		70-130	0		20
Trichloroethene	94		95		70-130	1		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	99		100		63-130	1		20
p/m-Xylene	115		110		70-130	4		20
o-Xylene	115		115		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	81		79		36-147	3		20
Acetone	91		93		58-148	2		20
Carbon disulfide	94		95		51-130	1		20
2-Butanone	110		100		63-138	10		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	110		110		57-130	0		20
Bromochloromethane	100		110		70-130	10		20
1,2-Dibromoethane	110		110		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	110		110		41-144	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1253251-3 WG1253251-4								
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	120		120		70-130	0		20
1,2,4-Trichlorobenzene	120		120		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
Methyl Acetate	98		96		70-130	2		20
Cyclohexane	89		86		70-130	3		20
1,4-Dioxane	110		116		56-162	5		20
Freon-113	89		86		70-130	3		20
Methyl cyclohexane	91		88		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		94		70-130
Toluene-d8	105		104		70-130
4-Bromofluorobenzene	92		95		70-130
Dibromofluoromethane	98		98		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,05 Batch: WG1254098-3 WG1254098-4								
Methylene chloride	87		87		70-130	0		30
1,1-Dichloroethane	100		99		70-130	1		30
Chloroform	99		99		70-130	0		30
Carbon tetrachloride	98		97		70-130	1		30
1,2-Dichloropropane	98		98		70-130	0		30
Dibromochloromethane	92		93		70-130	1		30
1,1,2-Trichloroethane	91		91		70-130	0		30
Tetrachloroethene	92		94		70-130	2		30
Chlorobenzene	92		93		70-130	1		30
Trichlorofluoromethane	95		92		70-139	3		30
1,2-Dichloroethane	98		97		70-130	1		30
1,1,1-Trichloroethane	101		102		70-130	1		30
Bromodichloromethane	100		101		70-130	1		30
trans-1,3-Dichloropropene	97		97		70-130	0		30
cis-1,3-Dichloropropene	103		103		70-130	0		30
Bromoform	84		81		70-130	4		30
1,1,2,2-Tetrachloroethane	92		92		70-130	0		30
Benzene	99		99		70-130	0		30
Toluene	91		92		70-130	1		30
Ethylbenzene	93		94		70-130	1		30
Chloromethane	98		96		52-130	2		30
Bromomethane	95		94		57-147	1		30
Vinyl chloride	94		92		67-130	2		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,05 Batch: WG1254098-3 WG1254098-4								
Chloroethane	85		86		50-151	1		30
1,1-Dichloroethene	97		97		65-135	0		30
trans-1,2-Dichloroethene	98		97		70-130	1		30
Trichloroethene	100		99		70-130	1		30
1,2-Dichlorobenzene	91		89		70-130	2		30
1,3-Dichlorobenzene	92		91		70-130	1		30
1,4-Dichlorobenzene	92		91		70-130	1		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	94		95		70-130	1		30
o-Xylene	93		93		70-130	0		30
cis-1,2-Dichloroethene	98		97		70-130	1		30
Styrene	93		93		70-130	0		30
Dichlorodifluoromethane	96		93		30-146	3		30
Acetone	101		101		54-140	0		30
Carbon disulfide	95		95		59-130	0		30
2-Butanone	87		90		70-130	3		30
4-Methyl-2-pentanone	88		90		70-130	2		30
2-Hexanone	87		90		70-130	3		30
Bromochloromethane	99		97		70-130	2		30
1,2-Dibromoethane	94		93		70-130	1		30
n-Butylbenzene	96		95		70-130	1		30
sec-Butylbenzene	94		93		70-130	1		30
1,2-Dibromo-3-chloropropane	85		86		68-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,05 Batch: WG1254098-3 WG1254098-4								
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	94		93		70-130	1		30
n-Propylbenzene	94		94		70-130	0		30
1,2,3-Trichlorobenzene	93		90		70-130	3		30
1,2,4-Trichlorobenzene	95		93		70-130	2		30
1,3,5-Trimethylbenzene	93		93		70-130	0		30
1,2,4-Trimethylbenzene	94		93		70-130	1		30
Methyl Acetate	96		98		51-146	2		30
Cyclohexane	100		97		59-142	3		30
1,4-Dioxane	97		97		65-136	0		30
Freon-113	100		97		50-139	3		30
Methyl cyclohexane	99		95		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		98		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	98		99		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Methylene chloride	87		87		70-130	0		30
1,1-Dichloroethane	100		99		70-130	1		30
Chloroform	99		99		70-130	0		30
Carbon tetrachloride	98		97		70-130	1		30
1,2-Dichloropropane	98		98		70-130	0		30
Dibromochloromethane	92		93		70-130	1		30
1,1,2-Trichloroethane	91		91		70-130	0		30
Tetrachloroethene	92		94		70-130	2		30
Chlorobenzene	92		93		70-130	1		30
Trichlorofluoromethane	95		92		70-139	3		30
1,2-Dichloroethane	98		97		70-130	1		30
1,1,1-Trichloroethane	101		102		70-130	1		30
Bromodichloromethane	100		101		70-130	1		30
trans-1,3-Dichloropropene	97		97		70-130	0		30
cis-1,3-Dichloropropene	103		103		70-130	0		30
Bromoform	84		81		70-130	4		30
1,1,2,2-Tetrachloroethane	92		92		70-130	0		30
Benzene	99		99		70-130	0		30
Toluene	91		92		70-130	1		30
Ethylbenzene	93		94		70-130	1		30
Chloromethane	98		96		52-130	2		30
Bromomethane	95		94		57-147	1		30
Vinyl chloride	94		92		67-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Chloroethane	85		86		50-151	1		30
1,1-Dichloroethene	97		97		65-135	0		30
trans-1,2-Dichloroethene	98		97		70-130	1		30
Trichloroethene	100		99		70-130	1		30
1,2-Dichlorobenzene	91		89		70-130	2		30
1,3-Dichlorobenzene	92		91		70-130	1		30
1,4-Dichlorobenzene	92		91		70-130	1		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	94		95		70-130	1		30
o-Xylene	93		93		70-130	0		30
cis-1,2-Dichloroethene	98		97		70-130	1		30
Styrene	93		93		70-130	0		30
Dichlorodifluoromethane	96		93		30-146	3		30
Acetone	101		101		54-140	0		30
Carbon disulfide	95		95		59-130	0		30
2-Butanone	87		90		70-130	3		30
4-Methyl-2-pentanone	88		90		70-130	2		30
2-Hexanone	87		90		70-130	3		30
Bromochloromethane	99		97		70-130	2		30
1,2-Dibromoethane	94		93		70-130	1		30
n-Butylbenzene	96		95		70-130	1		30
sec-Butylbenzene	94		93		70-130	1		30
1,2-Dibromo-3-chloropropane	85		86		68-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	94		93		70-130	1		30
n-Propylbenzene	94		94		70-130	0		30
1,2,3-Trichlorobenzene	93		90		70-130	3		30
1,2,4-Trichlorobenzene	95		93		70-130	2		30
1,3,5-Trimethylbenzene	93		93		70-130	0		30
1,2,4-Trimethylbenzene	94		93		70-130	1		30
Methyl Acetate	96		98		51-146	2		30
Cyclohexane	100		97		59-142	3		30
1,4-Dioxane	97		97		65-136	0		30
Freon-113	100		97		50-139	3		30
Methyl cyclohexane	99		95		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		98		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	98		99		70-130

SEMIVOLATILES

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927359-03
Client ID: P15B-4(1-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/19/19 13:30
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/29/19 09:29
Analyst: EK
Percent Solids: 78%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
Fluoranthene	290		ug/kg	130	24.	1
Naphthalene	ND		ug/kg	210	26.	1
Benzo(a)anthracene	150		ug/kg	130	24.	1
Benzo(a)pyrene	150	J	ug/kg	170	51.	1
Benzo(b)fluoranthene	180		ug/kg	130	35.	1
Benzo(k)fluoranthene	60	J	ug/kg	130	34.	1
Chrysene	130		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	44	J	ug/kg	130	41.	1
Benzo(ghi)perylene	85	J	ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	150		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	24.	1
Indeno(1,2,3-cd)pyrene	93	J	ug/kg	170	29.	1
Pyrene	250		ug/kg	130	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	65		30-120
4-Terphenyl-d14	69		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/29/19 00:23
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/28/19 06:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254269-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	73		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254269-2 WG1254269-3								
Acenaphthene	56		73		31-137	26		50
Fluoranthene	56		74		40-140	28		50
Naphthalene	56		75		40-140	29		50
Benzo(a)anthracene	53		69		40-140	26		50
Benzo(a)pyrene	56		72		40-140	25		50
Benzo(b)fluoranthene	50		69		40-140	32		50
Benzo(k)fluoranthene	62		78		40-140	23		50
Chrysene	59		78		40-140	28		50
Acenaphthylene	60		80		40-140	29		50
Anthracene	56		73		40-140	26		50
Benzo(ghi)perylene	56		74		40-140	28		50
Fluorene	57		77		40-140	30		50
Phenanthrene	54		70		40-140	26		50
Dibenzo(a,h)anthracene	55		73		40-140	28		50
Indeno(1,2,3-cd)pyrene	50		68		40-140	31		50
Pyrene	56		73		35-142	26		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	56		82		23-120
2-Fluorobiphenyl	58		79		30-120
4-Terphenyl-d14	54		73		18-120

METALS

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927359-03

Date Collected: 06/19/19 13:30

Client ID: P15B-4(1-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.66		mg/kg	0.489	0.102	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Barium, Total	154		mg/kg	0.489	0.085	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Cadmium, Total	1.00		mg/kg	0.489	0.048	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Chromium, Total	18.5		mg/kg	0.489	0.047	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Lead, Total	349		mg/kg	2.45	0.131	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.082	0.053	1	06/28/19 08:20	06/28/19 14:35	EPA 7471B	1,7471B	GD
Selenium, Total	1.37		mg/kg	0.979	0.126	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB
Silver, Total	0.646		mg/kg	0.489	0.138	1	06/27/19 18:12	06/27/19 23:29	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927359

Project Number: T0105-010-004-002

Report Date: 07/01/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1254058-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Chromium, Total	0.056	J	mg/kg	0.400	0.038	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1254311-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/28/19 08:20	06/28/19 11:39	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1254058-2 SRM Lot Number: D105-540								
Arsenic, Total	97		-		70-130	-		
Barium, Total	88		-		75-125	-		
Cadmium, Total	99		-		75-125	-		
Chromium, Total	90		-		70-130	-		
Lead, Total	90		-		71-128	-		
Selenium, Total	96		-		63-137	-		
Silver, Total	89		-		69-131	-		
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1254311-2 SRM Lot Number: D105-540								
Mercury, Total	103		-		60-141	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1254058-3 QC Sample: L1927796-02 Client ID: MS Sample												
Arsenic, Total	8.98	10.8	19.1	93		-	-		75-125	-		20
Barium, Total	96.5	181	221	69	Q	-	-		75-125	-		20
Cadmium, Total	1.08	4.6	4.62	77		-	-		75-125	-		20
Chromium, Total	8.52	18.1	21.0	69	Q	-	-		75-125	-		20
Lead, Total	47.5	46	71.5	52	Q	-	-		75-125	-		20
Selenium, Total	1.32	10.8	12.1	99		-	-		75-125	-		20
Silver, Total	ND	27.1	26.5	98		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1254311-3 QC Sample: L1926308-01 Client ID: MS Sample												
Mercury, Total	0.082	0.16	0.218	85		-	-		80-120	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1254058-4 QC Sample: L1927796-02 Client ID: DUP Sample						
Arsenic, Total	8.98	12.4	mg/kg	32	Q	20
Barium, Total	96.5	63.2	mg/kg	42	Q	20
Cadmium, Total	1.08	1.31	mg/kg	19		20
Chromium, Total	8.52	9.02	mg/kg	6		20
Lead, Total	47.5	33.1	mg/kg	36	Q	20
Selenium, Total	1.32	1.32	mg/kg	0		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1254311-4 QC Sample: L1926308-01 Client ID: DUP Sample						
Mercury, Total	0.082	0.062J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927359**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927359-01**Client ID:** P15B-2(1-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/19/19 11:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.2		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927359**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927359-02**Client ID:** P15B-3(2-4FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/19/19 12:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.7		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927359**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927359-03**Client ID:** P15B-4(1-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/19/19 13:30**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.8		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927359**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927359-05**Client ID:** P15B-4(4-5FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/19/19 14:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.7		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Lab Duplicate Analysis *Batch Quality Control*

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927359

Report Date: 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03,05-10,14-19 QC Batch ID: WG1252631-1 QC Sample: L1927359-03 Client ID: P15B-4(1-2FT)						
Solids, Total	77.8	75.5	%	3		20

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Serial_No:07011915:52
Lab Number: L1927359
Report Date: 07/01/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1927359-01A	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14),TS(7)
L1927359-01X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-01Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-01Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-02A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-02B	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		TS(7)
L1927359-02X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-02Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-02Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-03A	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-03B	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927359-03C	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927359-03X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-03Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-03Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-04A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-04B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-04C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-05A	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14),TS(7)
L1927359-05X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927359-05Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)
L1927359-05Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 05:54	NYTCL-8260-R2(14)

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1927359-06A	Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-07A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-07B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-08A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-08B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-09A	Vial Large Septa unpreserved (4oz)	A	NA		2.9	Y	Absent		-
L1927359-10A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-10B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-11A	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-11B	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-11C	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-12A	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-12B	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-12C	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-13A	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-13B	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-13C	Vial HCl preserved	A	NA		2.9	Y	Absent		-
L1927359-14A	Glass 60ml unpreserved split	A	NA		2.9	Y	Absent		-
L1927359-14B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-15A	Glass 60ml unpreserved split	A	NA		2.9	Y	Absent		-
L1927359-15B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-16A	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-16B	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-17A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-17B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-18A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-18B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		-
L1927359-19A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		-

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Serial_No:07011915:52
Lab Number: L1927359
Report Date: 07/01/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1927359-19B	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		-

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927359**Project Number:** T0105-010-004-002**Report Date:** 07/01/19

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

Terms

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

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

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

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

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

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927359
Report Date: 07/01/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

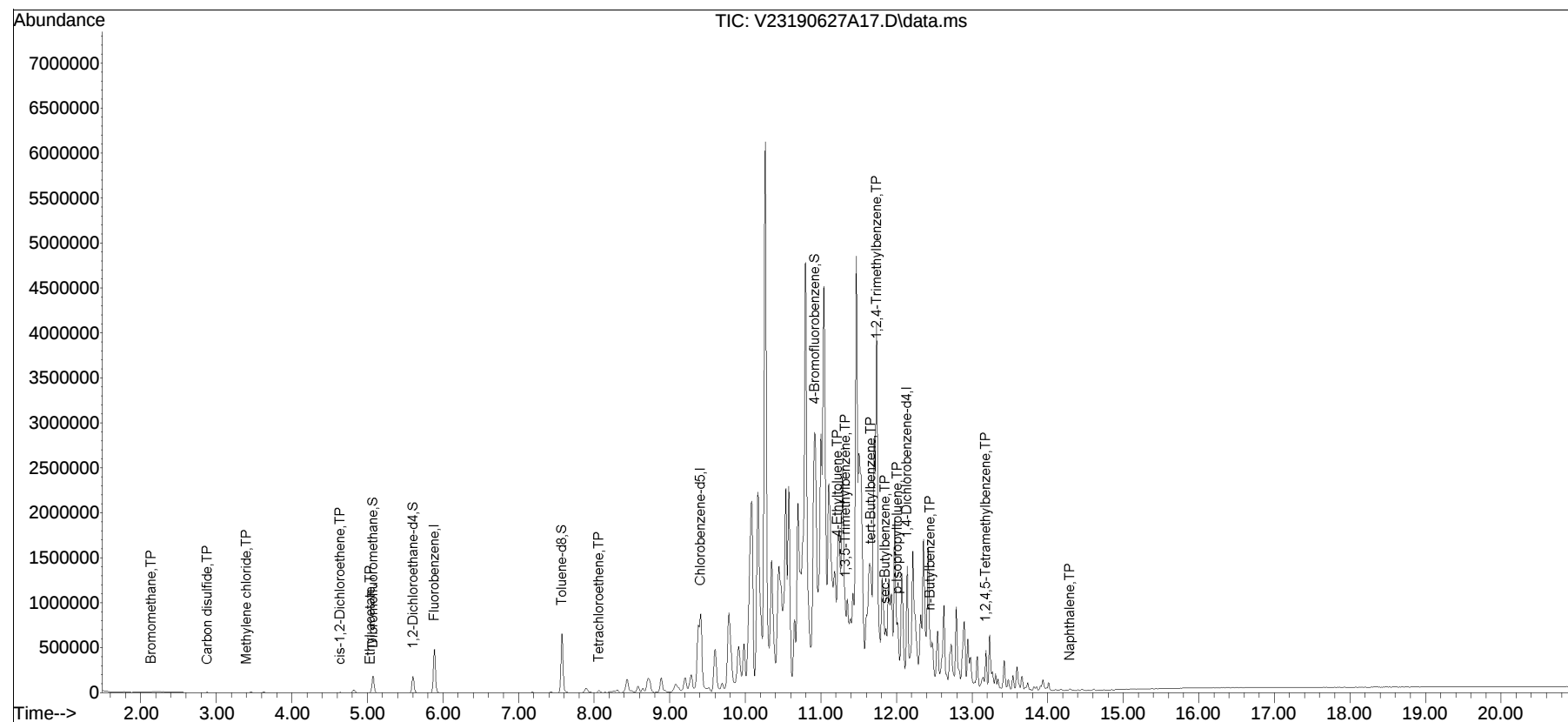
[illegible]

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA123\2019\190627A\
Data File : V23190627A17.D
Acq On : 27 Jun 2019 01:08 pm
Operator : VOA123:PK
Sample : 11927359-03D,31H,5.38,5,0.010,,x
Misc : WG1254105,ICAL15898
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 27 16:52:33 2019
Quant Method : I:\VOLATILES\VOA123\2019\190627A\V123_190621_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jun 25 09:48:51 2019
Response via : Initial Calibration

Sub List : 8260-CurveSoil - Megamix plus Diox7A\V23190627A01.D•





ANALYTICAL REPORT

Lab Number:	L1927807
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	1609 ELMWOOD AVENUE
Project Number:	T0105-010-004-002
Report Date:	07/01/19

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

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

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



Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927807

Report Date: 07/01/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1927807-01	P3 TP-1(0-2FT)	SOIL	BUFFALO, NY	06/18/19 09:00	06/21/19
L1927807-02	P3 TP-3(0-2FT)	SOIL	BUFFALO, NY	06/18/19 10:00	06/21/19
L1927807-03	P3 TP-3(6-7FT)	SOIL	BUFFALO, NY	06/18/19 11:00	06/21/19
L1927807-04	P3 TP-5(1-2FT)	SOIL	BUFFALO, NY	06/18/19 12:00	06/21/19
L1927807-05	P3 TP-7(1-2FT)	SOIL	BUFFALO, NY	06/18/19 14:00	06/21/19
L1927807-06	P3 SB-1(0-2FT)	SOIL	BUFFALO, NY	06/20/19 16:00	06/21/19

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Case Narrative

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

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

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

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

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

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

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Case Narrative (continued)

Report Submission

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

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Semivolatile Organics

L1927807-01: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1927807-01: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/01/19

ORGANICS

VOLATILES

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-03
 Client ID: P3 TP-3(6-7FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/18/19 11:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 06/27/19 13:34
 Analyst: PK
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	310	140	1
1,1-Dichloroethane	ND		ug/kg	62	9.0	1
Chloroform	ND		ug/kg	93	8.7	1
Carbon tetrachloride	ND		ug/kg	62	14.	1
1,2-Dichloropropane	ND		ug/kg	62	7.7	1
Dibromochloromethane	ND		ug/kg	62	8.7	1
1,1,2-Trichloroethane	ND		ug/kg	62	16.	1
Tetrachloroethene	ND		ug/kg	31	12.	1
Chlorobenzene	ND		ug/kg	31	7.9	1
Trichlorofluoromethane	ND		ug/kg	250	43.	1
1,2-Dichloroethane	ND		ug/kg	62	16.	1
1,1,1-Trichloroethane	ND		ug/kg	31	10.	1
Bromodichloromethane	ND		ug/kg	31	6.8	1
trans-1,3-Dichloropropene	ND		ug/kg	62	17.	1
cis-1,3-Dichloropropene	ND		ug/kg	31	9.8	1
Bromoform	ND		ug/kg	250	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	10.	1
Benzene	ND		ug/kg	31	10.	1
Toluene	ND		ug/kg	62	34.	1
Ethylbenzene	32	J	ug/kg	62	8.7	1
Chloromethane	ND		ug/kg	250	58.	1
Bromomethane	38	J	ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	62	21.	1
Chloroethane	ND		ug/kg	120	28.	1
1,1-Dichloroethene	ND		ug/kg	62	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1
Trichloroethene	ND		ug/kg	31	8.5	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.9	1

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-03
 Client ID: P3 TP-3(6-7FT)
 Sample Location: BUFFALO, NY

Date Collected: 06/18/19 11:00
 Date Received: 06/21/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	120	9.2	1
1,4-Dichlorobenzene	ND		ug/kg	120	10.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	110	J	ug/kg	120	35.	1
o-Xylene	39	J	ug/kg	62	18.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	11.	1
Styrene	ND		ug/kg	62	12.	1
Dichlorodifluoromethane	ND		ug/kg	620	57.	1
Acetone	ND		ug/kg	620	300	1
Carbon disulfide	ND		ug/kg	620	280	1
2-Butanone	ND		ug/kg	620	140	1
4-Methyl-2-pentanone	ND		ug/kg	620	79.	1
2-Hexanone	ND		ug/kg	620	73.	1
Bromochloromethane	ND		ug/kg	120	13.	1
1,2-Dibromoethane	ND		ug/kg	62	17.	1
n-Butylbenzene	110		ug/kg	62	10.	1
sec-Butylbenzene	44	J	ug/kg	62	9.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	62.	1
Isopropylbenzene	25	J	ug/kg	62	6.8	1
p-Isopropyltoluene	49	J	ug/kg	62	6.8	1
n-Propylbenzene	99		ug/kg	62	10.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	17.	1
1,3,5-Trimethylbenzene	230		ug/kg	120	12.	1
1,2,4-Trimethylbenzene	690		ug/kg	120	21.	1
Methyl Acetate	ND		ug/kg	250	59.	1
Cyclohexane	560	J	ug/kg	620	34.	1
1,4-Dioxane	ND		ug/kg	5000	2200	1
Freon-113	ND		ug/kg	250	43.	1
Methyl cyclohexane	2400		ug/kg	250	37.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	93		70-130

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	54	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 06/27/19 08:04
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/27/19 08:04
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1254105-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	93		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Methylene chloride	87		87		70-130	0		30
1,1-Dichloroethane	100		99		70-130	1		30
Chloroform	99		99		70-130	0		30
Carbon tetrachloride	98		97		70-130	1		30
1,2-Dichloropropane	98		98		70-130	0		30
Dibromochloromethane	92		93		70-130	1		30
1,1,2-Trichloroethane	91		91		70-130	0		30
Tetrachloroethene	92		94		70-130	2		30
Chlorobenzene	92		93		70-130	1		30
Trichlorofluoromethane	95		92		70-139	3		30
1,2-Dichloroethane	98		97		70-130	1		30
1,1,1-Trichloroethane	101		102		70-130	1		30
Bromodichloromethane	100		101		70-130	1		30
trans-1,3-Dichloropropene	97		97		70-130	0		30
cis-1,3-Dichloropropene	103		103		70-130	0		30
Bromoform	84		81		70-130	4		30
1,1,2,2-Tetrachloroethane	92		92		70-130	0		30
Benzene	99		99		70-130	0		30
Toluene	91		92		70-130	1		30
Ethylbenzene	93		94		70-130	1		30
Chloromethane	98		96		52-130	2		30
Bromomethane	95		94		57-147	1		30
Vinyl chloride	94		92		67-130	2		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Chloroethane	85		86		50-151	1		30
1,1-Dichloroethene	97		97		65-135	0		30
trans-1,2-Dichloroethene	98		97		70-130	1		30
Trichloroethene	100		99		70-130	1		30
1,2-Dichlorobenzene	91		89		70-130	2		30
1,3-Dichlorobenzene	92		91		70-130	1		30
1,4-Dichlorobenzene	92		91		70-130	1		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	94		95		70-130	1		30
o-Xylene	93		93		70-130	0		30
cis-1,2-Dichloroethene	98		97		70-130	1		30
Styrene	93		93		70-130	0		30
Dichlorodifluoromethane	96		93		30-146	3		30
Acetone	101		101		54-140	0		30
Carbon disulfide	95		95		59-130	0		30
2-Butanone	87		90		70-130	3		30
4-Methyl-2-pentanone	88		90		70-130	2		30
2-Hexanone	87		90		70-130	3		30
Bromochloromethane	99		97		70-130	2		30
1,2-Dibromoethane	94		93		70-130	1		30
n-Butylbenzene	96		95		70-130	1		30
sec-Butylbenzene	94		93		70-130	1		30
1,2-Dibromo-3-chloropropane	85		86		68-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1254105-3 WG1254105-4								
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	94		93		70-130	1		30
n-Propylbenzene	94		94		70-130	0		30
1,2,3-Trichlorobenzene	93		90		70-130	3		30
1,2,4-Trichlorobenzene	95		93		70-130	2		30
1,3,5-Trimethylbenzene	93		93		70-130	0		30
1,2,4-Trimethylbenzene	94		93		70-130	1		30
Methyl Acetate	96		98		51-146	2		30
Cyclohexane	100		97		59-142	3		30
1,4-Dioxane	97		97		65-136	0		30
Freon-113	100		97		50-139	3		30
Methyl cyclohexane	99		95		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		98		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	98		99		70-130

SEMIVOLATILES

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-01 D
Client ID: P3 TP-1(0-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 09:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 03:15
Analyst: ALS
Percent Solids: 66%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	7700		ug/kg	5000	640	25
Fluoranthene	85000		ug/kg	3700	710	25
Naphthalene	5400	J	ug/kg	6200	760	25
Benzo(a)anthracene	42000		ug/kg	3700	700	25
Benzo(a)pyrene	39000		ug/kg	5000	1500	25
Benzo(b)fluoranthene	52000		ug/kg	3700	1000	25
Benzo(k)fluoranthene	18000		ug/kg	3700	990	25
Chrysene	36000		ug/kg	3700	650	25
Acenaphthylene	ND		ug/kg	5000	960	25
Anthracene	17000		ug/kg	3700	1200	25
Benzo(ghi)perylene	20000		ug/kg	5000	730	25
Fluorene	7200		ug/kg	6200	600	25
Phenanthrene	60000		ug/kg	3700	760	25
Dibenzo(a,h)anthracene	5500		ug/kg	3700	720	25
Indeno(1,2,3-cd)pyrene	24000		ug/kg	5000	860	25
Pyrene	66000		ug/kg	3700	620	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-02
Client ID: P3 TP-3(0-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 10:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 08:21
Analyst: SZ
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	200		ug/kg	160	21.	1
Fluoranthene	4500		ug/kg	120	24.	1
Naphthalene	240		ug/kg	210	25.	1
Benzo(a)anthracene	2500		ug/kg	120	23.	1
Benzo(a)pyrene	2600		ug/kg	160	50.	1
Benzo(b)fluoranthene	3400		ug/kg	120	35.	1
Benzo(k)fluoranthene	1000		ug/kg	120	33.	1
Chrysene	2200		ug/kg	120	22.	1
Acenaphthylene	320		ug/kg	160	32.	1
Anthracene	880		ug/kg	120	40.	1
Benzo(ghi)perylene	1500		ug/kg	160	24.	1
Fluorene	320		ug/kg	210	20.	1
Phenanthrene	2800		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	410		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	1600		ug/kg	160	29.	1
Pyrene	3900		ug/kg	120	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	62		30-120
4-Terphenyl-d14	51		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-03
Client ID: P3 TP-3(6-7FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 11:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 04:09
Analyst: SZ
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	45	J	ug/kg	160	20.	1
Fluoranthene	260		ug/kg	120	23.	1
Naphthalene	60	J	ug/kg	200	24.	1
Benzo(a)anthracene	150		ug/kg	120	22.	1
Benzo(a)pyrene	180		ug/kg	160	48.	1
Benzo(b)fluoranthene	250		ug/kg	120	33.	1
Benzo(k)fluoranthene	88	J	ug/kg	120	32.	1
Chrysene	130		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	53	J	ug/kg	120	38.	1
Benzo(ghi)perylene	110	J	ug/kg	160	23.	1
Fluorene	51	J	ug/kg	200	19.	1
Phenanthrene	210		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	28	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	160		ug/kg	160	28.	1
Pyrene	250		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	52		30-120
4-Terphenyl-d14	41		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-04
Client ID: P3 TP-5(1-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 12:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 08:46
Analyst: SZ
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	620		ug/kg	150	20.	1
Fluoranthene	6500		ug/kg	120	22.	1
Naphthalene	2500		ug/kg	190	24.	1
Benzo(a)anthracene	2900		ug/kg	120	22.	1
Benzo(a)pyrene	2400		ug/kg	150	47.	1
Benzo(b)fluoranthene	5900		ug/kg	120	32.	1
Benzo(k)fluoranthene	1700		ug/kg	120	31.	1
Chrysene	3600		ug/kg	120	20.	1
Acenaphthylene	1200		ug/kg	150	30.	1
Anthracene	1400		ug/kg	120	38.	1
Benzo(ghi)perylene	2100		ug/kg	150	23.	1
Fluorene	380		ug/kg	190	19.	1
Phenanthrene	3800		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	590		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	2200		ug/kg	150	27.	1
Pyrene	5800		ug/kg	120	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	70		30-120
4-Terphenyl-d14	63		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-05
Client ID: P3 TP-7(1-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 14:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 06:15
Analyst: SZ
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	24	J	ug/kg	120	23.	1
Naphthalene	32	J	ug/kg	200	24.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	58	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	24	J	ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	48		30-120
4-Terphenyl-d14	42		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-06
Client ID: P3 SB-1(0-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/20/19 16:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/30/19 04:34
Analyst: SZ
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 10:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Fluoranthene	41	J	ug/kg	120	22.	1
Naphthalene	370		ug/kg	190	23.	1
Benzo(a)anthracene	34	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	36	J	ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	47	J	ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	170		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	49	J	ug/kg	120	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	72		30-120
4-Terphenyl-d14	62		18-120

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/29/19 00:23
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 06/28/19 06:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1254269-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	98	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	73		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1254269-2 WG1254269-3								
Acenaphthene	56		73		31-137	26		50
Fluoranthene	56		74		40-140	28		50
Naphthalene	56		75		40-140	29		50
Benzo(a)anthracene	53		69		40-140	26		50
Benzo(a)pyrene	56		72		40-140	25		50
Benzo(b)fluoranthene	50		69		40-140	32		50
Benzo(k)fluoranthene	62		78		40-140	23		50
Chrysene	59		78		40-140	28		50
Acenaphthylene	60		80		40-140	29		50
Anthracene	56		73		40-140	26		50
Benzo(ghi)perylene	56		74		40-140	28		50
Fluorene	57		77		40-140	30		50
Phenanthrene	54		70		40-140	26		50
Dibenzo(a,h)anthracene	55		73		40-140	28		50
Indeno(1,2,3-cd)pyrene	50		68		40-140	31		50
Pyrene	56		73		35-142	26		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	56		82		23-120
2-Fluorobiphenyl	58		79		30-120
4-Terphenyl-d14	54		73		18-120

PCBS

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

SAMPLE RESULTS

Lab ID: L1927807-05
Client ID: P3 TP-7(1-2FT)
Sample Location: BUFFALO, NY

Date Collected: 06/18/19 14:00
Date Received: 06/21/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 06/29/19 18:06
Analyst: WR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 06/28/19 13:18
Cleanup Method: EPA 3665A
Cleanup Date: 06/29/19
Cleanup Method: EPA 3660B
Cleanup Date: 06/29/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.1	3.39	1	A
Aroclor 1221	ND		ug/kg	38.1	3.82	1	A
Aroclor 1232	ND		ug/kg	38.1	8.08	1	A
Aroclor 1242	ND		ug/kg	38.1	5.14	1	A
Aroclor 1248	ND		ug/kg	38.1	5.72	1	A
Aroclor 1254	ND		ug/kg	38.1	4.17	1	A
Aroclor 1260	ND		ug/kg	38.1	7.05	1	A
Aroclor 1262	ND		ug/kg	38.1	4.84	1	A
Aroclor 1268	ND		ug/kg	38.1	3.95	1	A
PCBs, Total	ND		ug/kg	38.1	3.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	44		30-150	B
Decachlorobiphenyl	55		30-150	B

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 06/28/19 16:09
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 06/28/19 09:06
Cleanup Method: EPA 3665A
Cleanup Date: 06/28/19
Cleanup Method: EPA 3660B
Cleanup Date: 06/28/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 05 Batch: WG1254385-1						
Aroclor 1016	ND		ug/kg	32.1	2.85	A
Aroclor 1221	ND		ug/kg	32.1	3.22	A
Aroclor 1232	ND		ug/kg	32.1	6.81	A
Aroclor 1242	ND		ug/kg	32.1	4.33	A
Aroclor 1248	ND		ug/kg	32.1	4.82	A
Aroclor 1254	ND		ug/kg	32.1	3.52	A
Aroclor 1260	ND		ug/kg	32.1	5.94	A
Aroclor 1262	ND		ug/kg	32.1	4.08	A
Aroclor 1268	ND		ug/kg	32.1	3.33	A
PCBs, Total	ND		ug/kg	32.1	2.85	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	58		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 05 Batch: WG1254385-2 WG1254385-3									
Aroclor 1016	79		76		40-140	4		50	A
Aroclor 1260	74		72		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		72		30-150	A
Decachlorobiphenyl	61		60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		70		30-150	B
Decachlorobiphenyl	68		68		30-150	B

METALS

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-01

Date Collected: 06/18/19 09:00

Client ID: P3 TP-1(0-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	20.2		mg/kg	0.594	0.124	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Barium, Total	126		mg/kg	0.594	0.103	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Cadmium, Total	1.92		mg/kg	0.594	0.058	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Chromium, Total	22.2		mg/kg	0.594	0.057	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Lead, Total	352		mg/kg	2.97	0.159	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Mercury, Total	0.174		mg/kg	0.095	0.062	1	06/28/19 05:30	06/28/19 16:25	EPA 7471B	1,7471B	GD
Selenium, Total	1.30		mg/kg	1.19	0.153	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB
Silver, Total	0.629		mg/kg	0.594	0.168	1	06/27/19 18:12	06/27/19 23:44	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-02

Date Collected: 06/18/19 10:00

Client ID: P3 TP-3(0-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.01		mg/kg	0.489	0.102	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Barium, Total	120		mg/kg	0.489	0.085	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Cadmium, Total	0.553		mg/kg	0.489	0.048	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Chromium, Total	16.5		mg/kg	0.489	0.047	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Lead, Total	51.3		mg/kg	2.45	0.131	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.080	0.052	1	06/28/19 05:30	06/28/19 16:26	EPA 7471B	1,7471B	GD
Selenium, Total	1.27		mg/kg	0.979	0.126	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB
Silver, Total	0.152	J	mg/kg	0.489	0.138	1	06/27/19 18:12	06/27/19 23:49	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-04

Date Collected: 06/18/19 12:00

Client ID: P3 TP-5(1-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	17.8		mg/kg	0.460	0.096	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Barium, Total	39.2		mg/kg	0.460	0.080	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Cadmium, Total	2.46		mg/kg	0.460	0.045	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Chromium, Total	18.2		mg/kg	0.460	0.044	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Lead, Total	113		mg/kg	2.30	0.123	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.073	0.048	1	06/28/19 05:30	06/28/19 16:28	EPA 7471B	1,7471B	GD
Selenium, Total	2.73		mg/kg	0.920	0.119	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB
Silver, Total	0.166	J	mg/kg	0.460	0.130	1	06/27/19 18:12	06/27/19 23:55	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-05

Date Collected: 06/18/19 14:00

Client ID: P3 TP-7(1-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.29		mg/kg	0.470	0.098	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Barium, Total	15.4		mg/kg	0.470	0.082	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Cadmium, Total	0.757		mg/kg	0.470	0.046	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Chromium, Total	4.46		mg/kg	0.470	0.045	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Lead, Total	16.6		mg/kg	2.35	0.126	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.075	0.049	1	06/28/19 05:30	06/28/19 16:30	EPA 7471B	1,7471B	GD
Selenium, Total	0.931	J	mg/kg	0.940	0.121	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.470	0.133	1	06/27/19 18:12	06/28/19 00:00	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19**SAMPLE RESULTS**

Lab ID: L1927807-06

Date Collected: 06/20/19 16:00

Client ID: P3 SB-1(0-2FT)

Date Received: 06/21/19

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.37		mg/kg	0.463	0.096	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Barium, Total	28.6		mg/kg	0.463	0.081	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Cadmium, Total	0.463		mg/kg	0.463	0.045	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Chromium, Total	4.60		mg/kg	0.463	0.045	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Lead, Total	9.91		mg/kg	2.32	0.124	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Mercury, Total	0.062	J	mg/kg	0.073	0.048	1	06/28/19 05:30	06/28/19 16:36	EPA 7471B	1,7471B	GD
Selenium, Total	0.653	J	mg/kg	0.926	0.120	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.463	0.131	1	06/27/19 18:12	06/28/19 00:04	EPA 3050B	1,6010D	AB



Project Name: 1609 ELMWOOD AVENUE

Lab Number: L1927807

Project Number: T0105-010-004-002

Report Date: 07/01/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-06 Batch: WG1254058-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Chromium, Total	0.056	J	mg/kg	0.400	0.038	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	06/27/19 18:12	06/27/19 21:29	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-06 Batch: WG1254236-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	06/28/19 05:30	06/28/19 13:18	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 1609 ELMWOOD AVENUE

Project Number: T0105-010-004-002

Lab Number: L1927807

Report Date: 07/01/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 Batch: WG1254058-2 SRM Lot Number: D105-540								
Arsenic, Total	97		-		70-130	-		
Barium, Total	88		-		75-125	-		
Cadmium, Total	99		-		75-125	-		
Chromium, Total	90		-		70-130	-		
Lead, Total	90		-		71-128	-		
Selenium, Total	96		-		63-137	-		
Silver, Total	89		-		69-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 Batch: WG1254236-2 SRM Lot Number: D105-540								
Mercury, Total	98		-		60-141	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 QC Batch ID: WG1254058-3 QC Sample: L1927796-02 Client ID: MS Sample												
Arsenic, Total	8.98	10.8	19.1	93		-	-		75-125	-		20
Barium, Total	96.5	181	221	69	Q	-	-		75-125	-		20
Cadmium, Total	1.08	4.6	4.62	77		-	-		75-125	-		20
Chromium, Total	8.52	18.1	21.0	69	Q	-	-		75-125	-		20
Lead, Total	47.5	46	71.5	52	Q	-	-		75-125	-		20
Selenium, Total	1.32	10.8	12.1	99		-	-		75-125	-		20
Silver, Total	ND	27.1	26.5	98		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 QC Batch ID: WG1254236-3 QC Sample: L1927796-02 Client ID: MS Sample												
Mercury, Total	0.073	0.144	0.171	68	Q	-	-		80-120	-		20

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1927807
Report Date: 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 QC Batch ID: WG1254058-4 QC Sample: L1927796-02 Client ID: DUP Sample						
Arsenic, Total	8.98	12.4	mg/kg	32	Q	20
Barium, Total	96.5	63.2	mg/kg	42	Q	20
Cadmium, Total	1.08	1.31	mg/kg	19		20
Chromium, Total	8.52	9.02	mg/kg	6		20
Lead, Total	47.5	33.1	mg/kg	36	Q	20
Selenium, Total	1.32	1.32	mg/kg	0		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-06 QC Batch ID: WG1254236-4 QC Sample: L1927796-02 Client ID: DUP Sample						
Mercury, Total	0.073	0.054J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-01**Client ID:** P3 TP-1(0-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/18/19 09:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66.3		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-02**Client ID:** P3 TP-3(0-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/18/19 10:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.7		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-03**Client ID:** P3 TP-3(6-7FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/18/19 11:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.1		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-04**Client ID:** P3 TP-5(1-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/18/19 12:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.0		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-05**Client ID:** P3 TP-7(1-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/18/19 14:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.4		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Project Name: 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19**SAMPLE RESULTS****Lab ID:** L1927807-06**Client ID:** P3 SB-1(0-2FT)**Sample Location:** BUFFALO, NY**Date Collected:** 06/20/19 16:00**Date Received:** 06/21/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.0		%	0.100	NA	1	-	06/25/19 08:18	121,2540G	RI



Lab Duplicate Analysis
*Batch Quality Control***Project Name:** 1609 ELMWOOD AVENUE**Project Number:** T0105-010-004-002**Lab Number:** L1927807**Report Date:** 07/01/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1252631-1 QC Sample: L1927359-03 Client ID: DUP Sample						
Solids, Total	77.8	75.5	%	3		20

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Serial_No:07011916:18
Lab Number: L1927807
Report Date: 07/01/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1927807-01A	Glass 60ml unpreserved split	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927807-01B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927807-02A	Glass 60ml unpreserved split	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927807-02B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927807-03A	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927807-03B	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927807-03X	Vial MeOH preserved split	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L1927807-03Y	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 12:04	NYTCL-8260-R2(14)
L1927807-03Z	Vial Water preserved split	A	NA		2.9	Y	Absent	26-JUN-19 12:04	NYTCL-8260-R2(14)
L1927807-04A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927807-04B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)
L1927807-05A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927807-05B	Glass 250ml/8oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(14)
L1927807-06A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.9	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1927807-06B	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		NYCP51-PAH(14),TS(7)

Project Name: 1609 ELMWOOD AVENUE**Lab Number:** L1927807**Project Number:** T0105-010-004-002**Report Date:** 07/01/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

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

Terms

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

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

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

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

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

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 1609 ELMWOOD AVENUE
Project Number: T0105-010-004-002

Lab Number: L1927807
Report Date: 07/01/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

L1927807 JM 6/25/19

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 3 of 3		Date Rec'd In Lab 6/22/19		ALPHA Job # L1927359																																																																										
		Project Information Project Name: 111-141 Marlin Street Project Location: Buffalo, NY Project # 70105-019-004-002-004 (Use Project name as Project #) ☐ Project Manager: Brian Mayhew ALPHAQuote #: _____ Turn-Around Time Standard ☒ Rush (only if pre approved) ☐ Due Date: _____ # of Days: _____		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other		Billing Information ☐ Same as Client Info PO # _____																																																																												
Client Information Client: TUNICKS ENV. RESTORING Address: 2558 Hamburg Trc Buffalo, NY Phone: 716-713-2927 Fax: _____ Email: Brian.Mahew@Tunicks Inc. Co.		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____																																																																														
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: _____ Please specify Metals or TAL. _____		ANALYSIS TLH (P-5) 10/1/19 PAH's 10/1/19 PCB's 10/1/19 PCB's 10/1/19 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ALPHA Lab ID (Lab Use Only)</th> <th>Sample ID</th> <th>Collection Date</th> <th>Time</th> <th>Sample Matrix</th> <th>Sampler's Initials</th> <th>TLH (P-5)</th> <th>PAH's</th> <th>PCB's</th> <th>PCB's</th> <th>Sample Specific Comments</th> </tr> </thead> <tbody> <tr> <td>27359</td> <td>P3 TP-1 (0-2 Ft)</td> <td>6/18/19</td> <td>9:00</td> <td>Soil</td> <td>JH</td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>02</td> <td>P3 TP-3 (0-2 Ft)</td> <td></td> <td>10:00</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>03</td> <td>P3 TP-3 (0-7 Ft)</td> <td></td> <td>11:00</td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>04</td> <td>P3 TP-5 (1-2 Ft)</td> <td></td> <td>12:00</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>05</td> <td>P3 TP-7 (1-2 Ft)</td> <td></td> <td>14:00</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>06</td> <td>P3 SB-1 (0-2 Ft)</td> <td>6/20/19</td> <td>16:00</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	TLH (P-5)	PAH's	PCB's	PCB's	Sample Specific Comments	27359	P3 TP-1 (0-2 Ft)	6/18/19	9:00	Soil	JH		X	X			02	P3 TP-3 (0-2 Ft)		10:00				X	X			03	P3 TP-3 (0-7 Ft)		11:00			X	X				04	P3 TP-5 (1-2 Ft)		12:00				X	X			05	P3 TP-7 (1-2 Ft)		14:00				X	X	X		06	P3 SB-1 (0-2 Ft)	6/20/19	16:00				X	X			Sample Filtration ☐ Done ☐ Lab to do ☐ Lab to do (Please Specify below) _____	
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Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																										
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