

Phase II Environmental Investigation

*515 6th Street and 620-626 Ferry Avenue
Niagara Falls, New York*

December 2021

B0474-021-001

Prepared For:

Mount St Marys LLC



Prepared By:



PHASE II ENVIRONMENTAL INVESTIGATION REPORT

**515 6th Street and 620-626 Ferry Avenue Site
Niagara Falls, New York**

December 2021

B0474-021-001

Prepared for:

Mount St Marys LLC

Prepared by:



**Benchmark Civil/Environmental Engineering & Geology, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, New York 14218**

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

515 6th Street and 620-626 Ferry Avenue Site
Niagara Falls, New York

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Background and Site Description	1
1.2	Previous Study	2
2.0	SITE INVESTIGATION ACTIVITIES.....	4
2.1	Soil Boring Investigation	4
2.2	Groundwater Sampling	5
3.0	INVESTIGATION FINDINGS.....	6
3.1	Site Geology/Hydrogeology	6
3.2	Field Observations	6
3.3	Soil Analytical Results.....	7
4.0	CONCLUSIONS AND RECOMMENDATIONS.....	9
5.0	LIMITATIONS	11

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

515 6th Street and 620-626 Ferry Avenue Site
Niagara Falls, New York

LIST OF TABLES

Table 1	Summary of Soil Analytical Results
---------	------------------------------------

LIST OF FIGURES

Figure 1	Site Location and Vicinity Map
Figure 2	Investigation Locations
Figure 3	Part 375 SCO Exceedances in Soil/Fill

APPENDICES

Appendix A	Soil Boring Logs
Appendix B	Photo Log
Appendix C	Laboratory Analytical Data Summary Package

1.0 INTRODUCTION

1.1 Background and Site Description

Benchmark Civil/Environmental Engineering & Geology, PLLC (Benchmark) performed a Phase II Environmental Investigation on behalf of Mount St Marys LLC at 515 6th Street and 620-626 Ferry Avenue, City of Niagara Falls, New York (Site). We understand that the Site is slated for repurposing into multi-family affordable housing/apartment units.

As shown on Figure 2, the Site includes four parcels (Parcels 1 through 4) and two existing structures. Building 1 is a former hospital and nursing home, is currently vacant, and located on Parcel 1. Building 1 is divided into three sections and includes an attached boiler room at the north end of the building. Building 2 is a vacant residential garage located on the northern portions of Parcel 2 and Parcel 3.

The Site consisting of four parcels totals approximately 1.59-acres and is supplied with or has access to municipal sanitary sewer, electric, natural-gas and public water. Specific information relative to each parcel is provided below:

Parcel ID*	Number	Street	Size (acres)	Tax ID No.	Current Owner	Current Use
Parcel 1	515	6 th Street	1.214	159.30-1-1	Niagara County IDA re: Metropolis Properties Management LLC	Vacant – former hospital/nursing home (Building 1)
Parcel 2	620	Ferry Avenue	0.103	159.30-1-12		Parking lot and a portion of a vacant residential garage (Building 2)
Parcel 3	624		0.174	159.30-1-11		
Parcel 4	626		0.100	159.30-1-10		Vacant – greenspace

Multiple former buildings were identified across the Site which have previously been removed. The scope of work for the Phase II investigation was devised to investigate recognized environmental conditions (RECs) identified for the Site by Benchmark through completion of a Phase I Environmental Site Assessment, dated November 2021; see Section 1.2 below for additional information.

1.2 Previous Study

Benchmark's Phase I Environmental Site Assessment (ESA) identified the following Site history:

Approximate Years	Reported or Suspected Use	Owner/Occupant
At least 1892 to 1914	Residential – Numerous former individual residential structures were located on the various parcels related to the Site.	Owner/Occupant: Unknown
1914 to at least 1985	<p>Parcel 1: Hospital and/or nursing home with laundry operations from at least 1914 through at least 1985 and a laboratory in at least 1985. Original portions of St. Mary's Hospital/Manor are listed as being built in 1914 as per historic Sanborn maps. In addition, a temporary hospital building was formerly located on the south portion of Parcel 1 in at least 1914.</p> <p>Parcels 2 through 4: Individual former residential structures appear to be present until at least 1955 as shown on historical Sanborn maps. The residential structure at Parcel 2 appears to be removed in at least 1969 with the remaining garage (Building 2) shown on historical Sanborn maps.</p>	<p>Parcel 1: Owner/Occupants: St. Mary's Hospital/Manor</p> <p>Parcels 2 through 4: multiple individual tenants</p>
1985 to 2003	<p>Parcel 1: St. Mary's Hospital/Manor remains in operation until it was closed in 2003 as indicated in a previous Phase I ESA by others.</p> <p>Parcels 2 through 4: Based on aerial photographs, residential structures appear to be removed at Parcel 2 and Parcel 3 to create the existing parking lot which is currently present. The residential structure at Parcel 4 appears to be shown on aerial photographs in 1995.</p>	<p>Parcel 1: Owner/Occupants: St. Mary's Hospital/Manor, numerous individual sisters</p> <p>Parcels 2 through 4: multiple individual tenants</p>
2003 to present	<p>Parcel 1: Vacant former hospital/nursing home.</p> <p>Parcels 2 through 4: The residential structure remaining in 1995 is no longer shown on the 2008 historic aerial photographs. These parcels now consist of a commercial parking lot (Parcel 2 and Parcel 3) and vacant greenspace (Parcel 4).</p>	<p>Parcel 1: Current Owner: Niagara County IDA re: Metropolis Properties Management LLC Former Owners/Occupants: Catholic Charities of..., Jose and Raquel DoVale, Granite Realty Group Inc., London Land Company LLC, Orchard Development, Nylola LLC, Dulzura Inc., Metropolis Properties, Niagara County IDA</p> <p>Parcels 2 through 4: Current Owner: Niagara County IDA re: Metropolis Properties Management LLC Former Owners/Occupants: multiple individual tenants.</p>

Benchmark's investigation revealed the following RECs in connection with the Site:

- The Site has history of use as a hospital/nursing home with the reasonably anticipated use of hazardous/regulated materials from former medical, laundry, and laboratory operations.
- There is the potential for polychlorinated biphenyls (PCBs) at the Site in connection with five inactive/disconnected transformer carcasses (minor staining was observed on their exteriors), electrical equipment, and lighting/ballasts.
- Remaining containers, equipment/machinery, etc. within Building 1 is considered a REC as such will be required to be characterized and properly handled during the redevelopment project.
- Black staining was observed in Building 1 in a room adjacent to the current transformer carcass area and proximate to the boiler room.
- There is the potential for impacted urban fill materials at each parcel due to the urban location of the Site and former buildings that could have been backfilled with unknown fill materials.
- Prior to being redeveloped, the adjacent property to the north of Parcel 1 had a history of automotive repair and underground storage tanks (USTs). During redevelopment, remediation of naturally occurring radioactive material was reportedly completed at the north adjacent property. Based on this information, due to the proximity of the adjacent property to the Site and its location in the City of Niagara Falls, there is the potential for fill materials (i.e., slag) with elevated gamma concentrations at the Site.

In consideration of the RECs identified above, this Phase II Environmental Investigation was completed to assess subsurface conditions.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Soil Boring Investigation

On November 3 and 4, 2021, Benchmark's subcontractor, TREC Environmental, Inc. (TREC), mobilized a track-mounted Geoprobe 54 LT drill rig equipped with a 1.5-inch diameter, 48 inch long macro-core sampler to the Site to assess subsurface conditions at the Site. As shown on Figure 2, eleven soil borings designated as SB-1 through SB-11 were completed at the Site. As further described in Section 2.2, three soil borings were converted into temporary one-inch diameter monitoring wells (SB-3/3W, SB-4/4W, and SB-6/6W); however, the temporary monitoring wells were noted as dry during multiple Site checks by Benchmark. All soil borings were advanced to equipment refusal (suspected top of bedrock) encountered between 4 feet below ground surface (fbgs) and 7 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 Benchmark'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 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. Photographs taken during the work are included in Appendix B.

Ten soil/fill samples, consisting of six samples from Parcel 1, two from Parcel 2, one from Parcel 3, and one from Parcel 4, were selected for laboratory analysis were transported under chain-of custody command to Alpha Analytical (Alpha) in Westborough, Massachusetts for analysis of Target Compound List (TCL) plus New York State Department of Environmental Conservation (NYSDEC) Commissioners Policy 51 (CP-51) List volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and/or PCBs. All samples were collected in laboratory provided sample bottles and were cooled to 4⁰ C prior to transport.

2.2 Groundwater Sampling

Three soil borings, SB-3, SB-4, and SB-6, were converted into a temporary one-inch diameter monitoring wells designated by TurnKey as SB-3W, SB-4W, and SB-6W, respectively. Each temporary monitoring well was installed using one-inch diameter Schedule 40 PVC well screen and riser. At the time of this investigation, after multiple trips to the Site, the wells remained dry thus no groundwater samples could be collected.

3.0 INVESTIGATION FINDINGS

3.1 Site Geology/Hydrogeology

The overburden geology observed during the soil boring investigation is generally described as apparent non-native fill materials mainly consisting of sand with gravel or reworked clay intermingled with fragments of coal and brick to depths ranging between 1.3 fbgs and 5.7 fbgs overlaying lean clay, silty sand or combinations of silt and gravel to the bottom of each boring. Equipment refusal (suspected bedrock) was encountered at all soil boring locations at depths ranging between 4 fbgs and 7 fbgs (see Soil Boring Logs in Appendix A). Equipment refusal was generally encountered between 6 fbgs and 7 fbgs on Parcel 1 with the deepest location at SB-6 at 7 fbgs (southern portion of Parcel 1); shallower refusal at around 4 fbgs was encountered on Parcels 2-4. Based on this information, bedrock is anticipated to slope in a southerly or southwesterly direction. Wet soil/fill, indicating possible groundwater was observed at certain borings; however, as indicated above, no groundwater sampling was completed as the monitoring wells did not produce a sufficient volume of groundwater for sampling.

Groundwater flow is likely to the south or west toward Niagara River or consistent with topography in the area of the Site. 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 soil boring investigation were observed and scanned via headspace screening for volatile organics using a PID. A brief description of the field observations during the boring investigation is presented below:

Investigation Location ID	Environmental Concern Assessed	Highest PID reading (parts per million, ppm) and depth (fbgs)	Other Observations
Parcel 1			
SB-1	Former building locations and down-gradient of former hospital laundry and laboratory areas.	0.0 ppm throughout borings.	Fill to 1.3 fbgs. Black sand with coals and brick from 0.7 to 1.3 fbgs.
SB-2			Fill to 1.8 fbgs. Black sand with coals and brick from 0.8 to 1.2 fbgs.
SB-3/3W			Fill to 1.3 fbgs. Black sand with coals and brick from 0.7 to 1.3 fbgs.
SB-4/4W			Fill to 4 fbgs. Reddish brown clay with some coal from 0.7 to 1 fbgs.
SB-5	Former building locations and south of the existing hospital/nursing home building.		Fill to 5.7 fbgs.
SB-6/6W			Fill to 5.3 fbgs. Brown sand with white powdery material from 1.3 to 5.3 fbgs.
Parcels 2-4			
SB-7	Former building/general Site locations on	0.0 ppm throughout boring.	Fill to 4.8 fbgs.
SB-8		3.8 ppm at 3.8 fbgs.	Fill to 4.4 fbgs. Faint unknown odors from 3.5 to 4 fbgs.
SB-9		0.0 ppm throughout boring.	Fill to 1.6 fbgs.
SB-10		2.4 ppm at 1.6 fbgs.	Fill to 1.6 fbgs.
SB-11		0.0 ppm throughout boring.	Fill to 4.3 fbgs. Brown sand with pockets of black granular material from 2.4 to 4.3 fbgs.

3.3 Soil Analytical Results

Table 1 presents the summary of the analytical results from the ten soil/fill samples that were analyzed. For comparative purposes, Table 1 includes the 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (USCOs), Residential Use SCOs (RSCOs), Restricted Residential Use SCOs (RRSCOs), Commercial Use SCOs (CSCOs) and Industrial Use SCOs (ISCOs). Part 375 SCOs are specific to the intended reuse of the Site and are typically employed for comparison at other remediation sites with NYSDEC oversight, such as Brownfield sites. Based upon the anticipated future use of the Site in a multi-family affordable housing/apartments capacity the RRSCOs were considered applicable comparative criteria. Part 375 SCO exceedances are summarized on Figure 3 and a copy of the laboratory analytical data package is included in Appendix C.

As summarized in Table 1, numerous individual PAHs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and/or indeno(1,2,3-cd)pyrene, were detected at concentrations exceeding USCOs, RSCOs, RRSCOs, CSCOs, and ISCOs at four sample locations (SB-3, SB-7, SB-9, and SB-11) with PAH exceedances in one sample from each parcel (Parcels 1 through 4).

Metals arsenic, barium, lead, mercury, and silver were identified at concentrations exceeding SCOs. Specifically, arsenic exceeded its respective ISCO at SB-1 (30.2 milligrams per kilogram, mg/kg), SB-2 (81.4 mg/kg) and SB-3 (19.4 mg/kg). Mercury exceeded its respective RRSCO at SB-4 and barium and lead exceeded their respective CSCOs at SB-6.

Total PCBs were either non-detect or at concentrations below regulatory criteria except for a PCB concentration of 0.275 at SB-9 that exceeds its USCO, but not its RSCO.

Laboratory analysis of the soil/fill sample from SB-8 (3.5-5') was expanded to include VOCs due to an elevated PID reading and unknown odors; VOCs were either non-detect or at concentrations below their respective USCOs. Of note, trichloroethene (TCE) was detected above laboratory detection limits at a concentration below its respective USCO.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the Phase II Environmental Investigation at the Site, Benchmark offers the following conclusions and recommendations:

- The Site is a vacant and underutilized property with a history of use as a hospital/nursing home with the reasonably anticipated use of hazardous/regulated materials from former medical, laundry, and laboratory operations. In addition, the Site was formerly developed with numerous buildings.
- Benchmark noted the presence of fill materials across the Site, including areas of former buildings. There is the potential for elevated radiological concentrations at the Site based on the location of the Site in the City of Niagara Falls and as radiological remediation was completed at the north adjacent property; however, as no slag was observed during the on-Site investigation by Benchmark, a gamma walkover was not completed at the Site.
- Equipment refusal (suspected bedrock) was encountered at all soil boring locations at depths ranging between 4 fbs and 7 fbs.
- Three overburden temporary one-inch diameter monitoring wells installed at the Site (Parcel 1) did not produce a sufficient volume of groundwater for sampling.
- The highest PID reading identified during the work was 3.8 ppm in fill material at SB-8 (3.8 fbs) where an unknown odor was also noted; TCE was identified at this location; however, the concentration does not exceed its respective USCO. Additional information relative to soil/fill analytical results is provided below.
- One or more individual PAHs were detected exceeding RRSCOs (the applicable SCO for the Site), CSCOs, and ISCOs in four soil/fill samples consisting of one soil/fill sample from each of the four subject parcels (Parcels 1 through 4). Additional soil/fill samples collected from the Site yielded concentrations of arsenic, barium, lead, and mercury at concentrations exceeding RRSCOs, CSCOs and/or ISCOs. Most notably, arsenic exceeded its respective ISCO of 16 mg/kg at SB-1 (30.2 mg/kg), SB-2 (81.4 mg/kg) and SB-3 (19.4 mg/kg). In addition, mercury exceeded its respective RRSCO at SB-4 and barium and lead exceeded their respective CSCOs at SB-6. Part 375 SCO exceedances are summarized on Figure 3.
- We understand that the Site is being considered for redevelopment. Based on the findings detailed above, the Site is a potential candidate for the New York Brownfield Cleanup Program (BCP). Regardless of whether the BCP is pursued, impacted fill present across the Site will require exposure control, remediation

and/or proper soil management either prior to or during the redevelopment project. Further, inactive/discarded equipment and materials within Building 1, especially electrical equipment/transformers and staining, should be properly characterized and disposed of off-site.

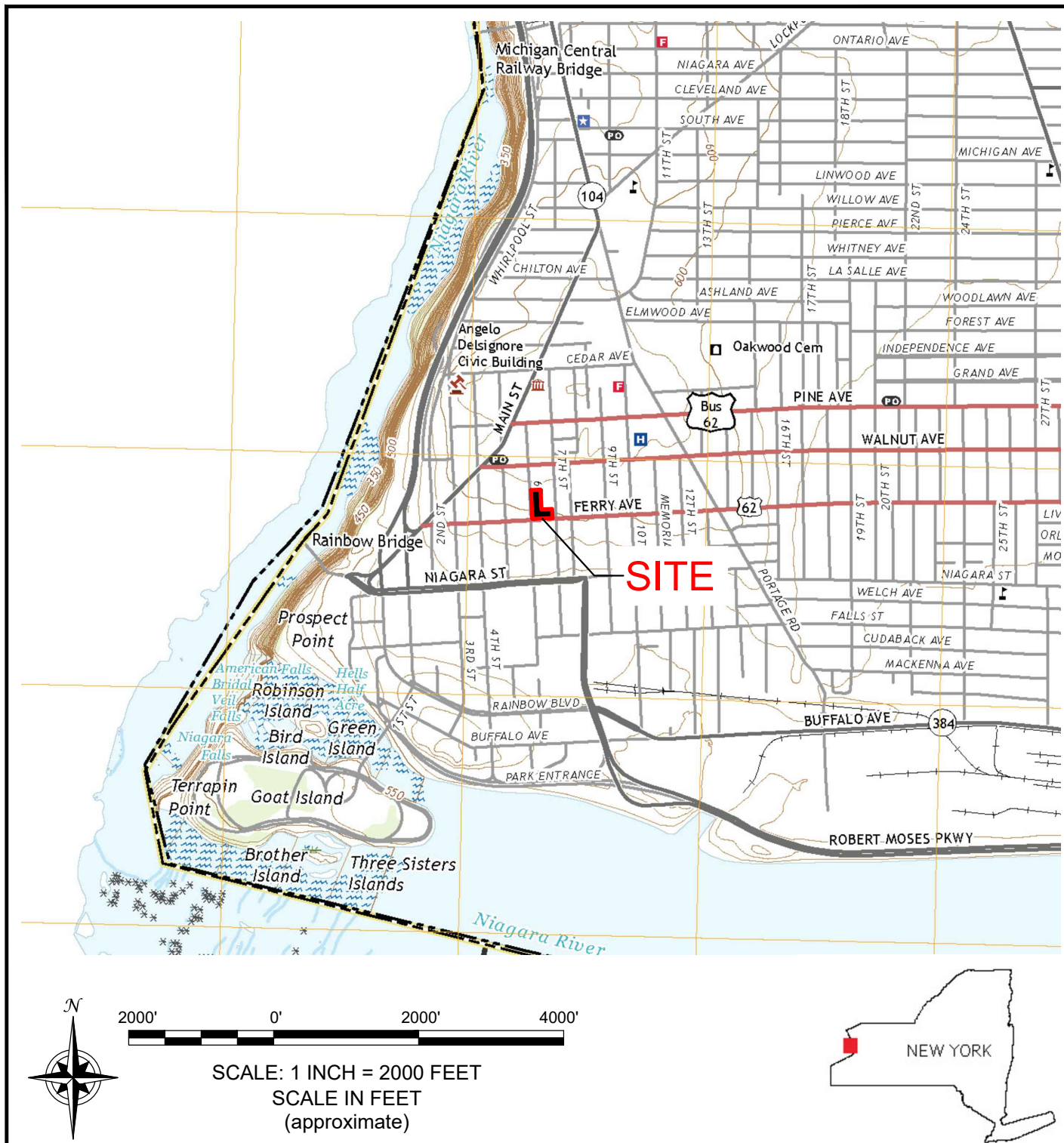
5.0 LIMITATIONS

This report has been prepared for the exclusive use of Mount St Marys 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 Mount St Marys LLC. Use of or reliance on this report or its findings by any other person or entity is prohibited without written permission of Benchmark Civil/Environmental Engineering & Geology, PLLC.

FIGURES

FIGURE 1

F:\CAD\Benchmark\Generation Development Group\515 6th Street\Phase II\Figure 1: Site Location and Vicinity Map.dwg



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0474-021-001

DATE: NOVEMBER 2021

DRAFTED BY: CMS

SITE LOCATION AND VICINITY MAP

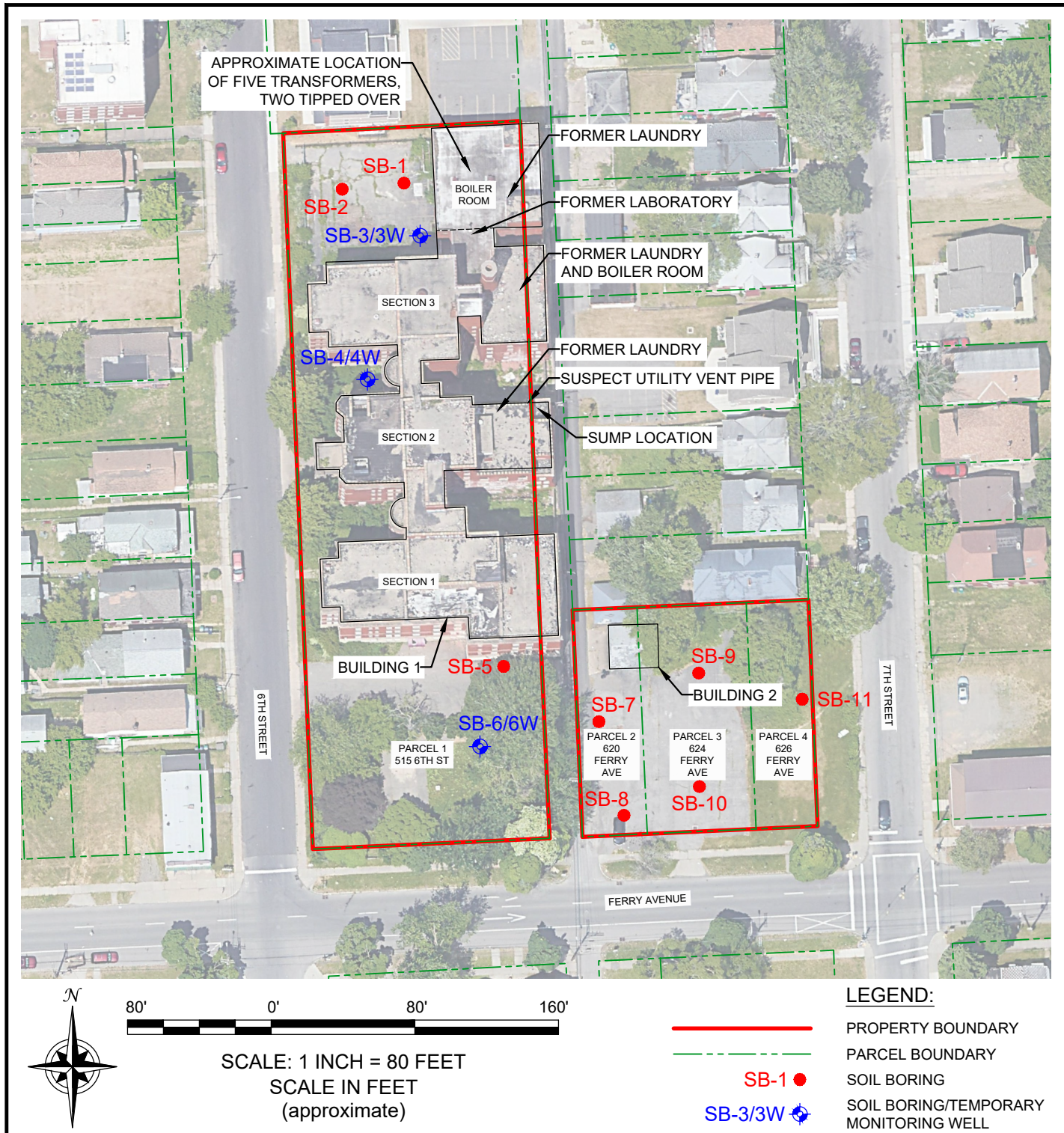
PHASE II ENVIRONMENTAL SITE INVESTIGATION

515 6TH STREET AND 620-626 FERRY AVENUE
NIAGARA FALLS, NEW YORK

PREPARED FOR
Mount St Marys LLC

DISCLAIMER:
PROPERTY OF BENCHMARK CIVIL/ENVIRONMENTAL ENGINEERING & GEOLOGY, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC.

FIGURE 2



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0474-021-001

DATE: NOVEMBER 2021

DRAFTED BY: CMS

INVESTIGATION LOCATIONS

PHASE II ENVIRONMENTAL SITE INVESTIGATION

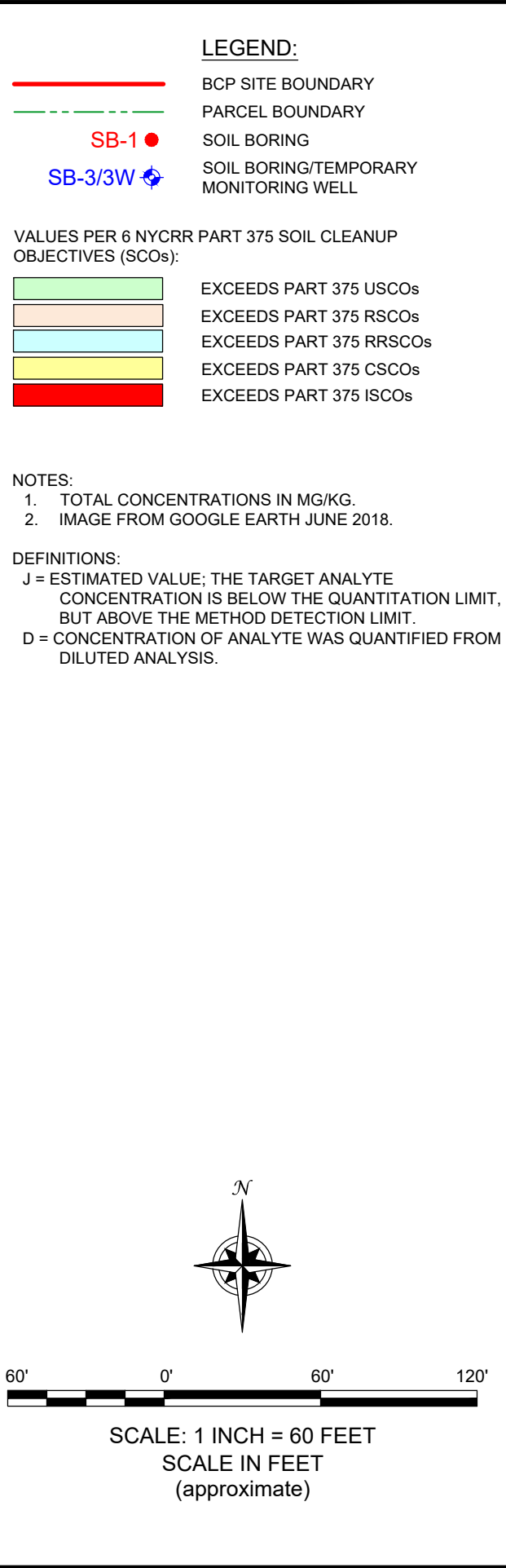
515 6TH STREET AND 620-626 FERRY AVENUE
NIAGARA FALLS, NEW YORK

PREPARED FOR
Mount St Marys LLC

DISCLAIMER:
PROPERTY OF BENCHMARK CIVIL/ENVIRONMENTAL ENGINEERING & GEOLOGY, PLLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC.

F:\CAD\Benchmark\Generation Development Group\515 6th Street\Phase II\Figure 3: Investigation Locations and Areas of Concern.dwg

DATE: DECEMBER 2021
DRAFTED BY: CMS



TABLE



TABLE 1

SUMMARY OF SUBSURFACE SOIL/FILL SAMPLE ANALYTICAL RESULTS
PHASE II ENVIRONMENTAL INVESTIGATION REPORT
515 6th STREET & 620-626 FERRY AVENUE
NIAGARA FALLS, NEW YORK

PARAMETER ¹	Unrestricted Use SCOs ²	Residential Use SCO's ²	Restricted Residential Use SCOs ²	Commercial Use SCOs ²	Industrial Use SCOs ²	Sample Location (Depth - F1)										
						SB-1 (1-2 FT)	SB-2 (1-2 FT)	SB-3 (1-2 FT)	SB-4 (1-3 FT)	SB-5 (1-4 FT)	SB-6 (2-5 FT)	SB-7 (3-4.5 FT)	SB-8 (3.5-5 FT)	SB-9 (1-2 FT)	SB-11 (2.5-4.5 FT)	
						11/3/2021					11/4/2021					
Volatile Organic Compounds (VOCs) - mg/Kg³																
Styrene	--	--	--	--	--	--	--	--	--	--	--	--	0.0007 J	--	--	--
Trichloroethene	0.47	10	21	200	400	--	--	--	--	--	--	--	0.00015 J	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) - mg/Kg³																
Acenaphthene	20	100	100	500	1000	0.022 J	ND	0.2	ND	ND	ND	ND	0.056 J	3	0.022 J	0.022 J
Acenaphthylene	100	100	100	500	1000	ND	ND	0.07 J	ND	ND	0.058 J	0.6	0.05 J	1.3 J	0.26	0.26
Anthracene	100	100	100	500	1000	0.065 J	ND	0.52	ND	ND	0.048 J	0.83	0.14	8	0.32	0.32
Benzo(a)anthracene	1	1	1	5.6	11	0.26	0.049 J	2.6	0.036 J	ND	0.27	4	0.52	17	1.5	1.5
Benzo(a)pyrene	1	1	1	1	1.1	0.21	ND	2.3	ND	ND	0.22	2.8	0.4	12	1.3	1.3
Benzo(b)fluoranthene	1	1	1	5.6	11	0.3	0.056 J	3.1	0.051 J	ND	0.3	4.1	0.67	16	1.7	1.7
Benzo(ghi)perylene	100	100	100	500	1000	0.12 J	0.032 J	1.2	0.031 J	ND	0.13 J	1.4	0.25	7.8	0.69	0.69
Benzo(k)fluoranthene	0.8	1	3.9	56	110	0.08 J	ND	0.94	ND	ND	0.1 J	1.2	0.19	5.4	0.53	0.53
Chrysene	1	1	3.9	56	110	0.31	0.041 J	2.2	0.036 J	ND	0.22	3.5	0.53	16	1.2	1.2
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	1.1	0.034 J	ND	0.37	ND	ND	0.034 J	0.45	0.071 J	1.9	0.17	0.17
Fluoranthene	100	100	100	500	1000	0.46	0.06 J	2.7	0.048 J	ND	0.49	5.4	1.2	34	3	3
Fluorene	30	100	100	500	1000	0.054 J	ND	0.19 J	ND	ND	ND	0.053 J	0.052 J	4	0.048 J	0.048 J
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	11	0.13 J	0.031 J	1.4	0.029 J	ND	0.15 J	1.8	0.29	8.6	0.79	0.79
Naphthalene	12	100	100	500	1000	2.3	0.41	1.8	ND	ND	ND	0.26	0.043 J	0.74 J	0.31	0.31
Phenanthrene	100	100	100	500	1000	1	0.13	2.4	0.028 J	ND	0.21	2	0.68	35	1.2	1.2
Pyrene	100	100	100	500	1000	0.42	0.057 J	2.4	0.047 J	ND	0.38	5.7	0.89	29	2.5	2.5
Total PAHs	--	100	--	--	--	5.765 J	0.866 J	24.39 J	0.306 J	ND	2.61 J	34.093 J	6.032 J	199.74 J	15.54 J	15.54 J
Metals - mg/Kg																
Arsenic	13	16	16	16	16	30.2	81.4	19.4	5.49	3.16	5.68	5.48	3.34	5.87	5.44	5.44
Barium	350	350	400	400	10000	61.3	107	58.1	99.1	54	800	173	35.9	180	58.8	58.8
Cadmium	2.5	2.5	4.3	9.3	60	0.491	0.643	0.953	0.75	0.315 J	1.91	0.47 J	0.266 J	0.675	0.392 J	0.392 J
Chromium	30	36	180	1500	6800	8.11	12.4	8.87	17.7	13.9	6.36	22.8	7.62	26.8	8.73	8.73
Lead	63	400	400	1000	3900	74.8	34.1	102	102	5.43	2030	18.2	53.5	190	54.2	54.2
Mercury	0.18	0.81	0.81	2.8	5.7	0.141	0.084 J	0.294	0.962	ND	0.724	ND	ND	0.451	0.186	0.186
Selenium	3.9	36	180	1500	6800	1.34	0.342 J	1.01	0.18 J	ND	0.561 J	1.1 J	0.18 J	0.613 J	0.383 J	0.383 J
Silver	2	36	180	1500	6800	0.525	ND	0.46 J	ND	ND	ND	ND	ND	5.39	ND	ND
Polychlorinated biphenyls (PCBs) - mg/Kg³																
Aroclor 1248	See Total PCBs					ND	ND	--	ND	--	ND	--	ND	0.079	0.0292 J	0.0292 J
Aroclor 1254	See Total PCBs					ND	ND	--	ND	--	ND	--	ND	0.196	0.057	0.057
Total PCBs	0.1	1	1	1	25	ND	ND	--	ND	--	ND	--	ND	0.275	0.0862 J	0.0862 J

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.
- Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
- 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. The target analyte concentration is below the quantitation limit, but above the method detection limit.

Bold	= Result exceeds Unrestricted Use SCOs.
Bold	= Result exceeds Residential Use SCOs.
Bold	= Result exceeds Restricted Residential Use SCOs.
Bold	= Result exceeds Commercial Use SCOs.
Bold	= Result exceeds Industrial Use SCOs.

APPENDIX A

SOIL BORING LOGS

Project No: B0474-021-001

Borehole Number: SB-1

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0	Ground Surface							
	0.0	Asphalt and Subbase							
	-0.4								
	0.4	Sandy Fill							
	-0.7	Brown, moist, mostly fine sand, some silt, no odor.							
	0.7	Sandy Fill							
		Black, moist, mostly fine sand with coals and fragments of yellow brick, no odor.					0.0		
	-1.3								
	1.3	Lean Clay							
	-1.7	Dark brown, some black, moist, mostly medium plastic fines, trace fine sand, dense, medium toughness, no odor.					0.0		
	1.7	Lean Clay							
		Reddish brown, moist to wet at 5.5 fbgs, mostly medium plastic fines, trace fine sand, dense, tough, no odor.	1		100%		0.0		
							0.0		
		Equipment refusal at 6.3 fbgs.					0.0		
							0.0		
							0.0		
5.0			2		100%		0.0		
							0.0		
							0.0		
	-6.3						0.0		
	6.3	End of Borehole					0.0		

Observed water level

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:
Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-2

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0	Ground Surface							
	0.0	Asphalt and Subbase							
	-0.8								
	0.8	Sandy Fill Black, moist, mostly fine sand, some coals and yellow brick, no odor.					0.0		
	-1.2								
	1.2	Sandy Fill Reddish brown, moist, mostly fine sand, no odor.							
	-1.8								
	1.8	Lean Clay Reddish brown, moist, mostly medium plastic fines, trace fine sand, dense, medium toughness, no odor.	1		60%		0.0		
	-3.6								
	3.6	Sandy Lean Clay Reddish brown, moist to wet at 5.5 fbgs, mostly medium plastic fines, some fine sand, dense, tough, no odor.					0.0		
	-5.0								
	5.0	Equipment refusal at 6 fbgs.	2		100%		0.0		
	-6.0								
	6.0	End of Borehole					0.0		

Observed water level

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:
Sheet: 1 of 1

Borehole Number: SB-3

A.K.A.: SB-3W

Logged By: CMS

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

[illegible]

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-4

Project: Phase II

A.K.A.: SB-4W

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface							
		Topsoil							
	-0.7 0.7	Lean Clay Fill Reddish brown, moist, mostly medium plastic fines, trace fine sand, dense, medium toughness, some sandy pockets, some coal from 0.7-1.0 fbgs, no odor.	1		75%		0.0 0.0 0.0	Sample Location	
	-4.0 4.0	Silty Sand Brown, mostly fine sand, some silt, some angular gravel, large gravel and concrete fragments at 4-4.5 fbgs, no odor, apparent bedrock at bottom.	2		100%		0.0 0.0 0.0		
5.0		Equipment refusal at 6.4 fbgs.							
	-6.4 6.4	End of Borehole					0.0 0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:
Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-5

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface Asphalt and Subbase Some red brick at end of interval.							
	-0.9 0.9	Lean Clay Fill Reddish brown, moist, mostly medium plastic fines, trace fine sand, very dense, tough, red brick lens from 1.9 to 2.1 fbgs, no odor.	1		88%		0.0 0.0 0.0 0.0		
5.0			2		63%		0.0 0.0		
	-5.7 5.7	Bedrock Large fragments of apparent bedrock. Equipment refusal at 5.8 fbgs. End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-6

Project: Phase II

A.K.A.: SB-6W

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface							
		Topsoil							
	-1.3 1.3	Sandy Fill Brown, moist, mostly fine sand, some white powdery material, some red brick, trace angular gravel, red brick lens from 2.7 to 2.9 and 4.1 to 4.3 fbgs, no odor.	1		63%				
5.0	-5.3 5.3	Lean Clay Reddish brown, moist, mostly medium plastic fines, trace fine sand, trace angular gravel, dense, medium toughness, no odor.	2		63%				
	-6.0 6.0	Silt with Gravel Brown, moist, mostly fine silt, some angular gravel.							
		Equipment refusal at 7 fbgs.							
	-7.0 7.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-7

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface Asphalt/Subbase/Crusher Run					0.0		
							0.0		
	-1.8 1.8	Lean Clay Fill Brown, moist, mostly medium plastic fines, trace fine sand, dense, tough, no odor.	1		50%		0.0		
							0.0		
	-3.2 3.2	Sandy Fill Reddish brown, moist, mostly fine sand, some red brick, no odor.					0.0		
		Equipment refusal at 4.8 fbgs.					0.0		
	-4.8 4.8	End of Borehole	2		100%		0.0		
5.0							0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:
Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-8

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface							
		Asphalt and Subbase							
	-1.1 1.1	Sandy Fill with Gravel Brown, moist, mostly fine sand and angular gravel, no odor.	1		46%				
	-2.9 2.9	Red Brick Reddish brown, moist, mostly fine sand, some red brick, no odor.							
	-3.6 3.6	Equipment refusal at 4.8 fbgs.							
		Sandy Fill Brown, moist, mostly fine sand, black sand pocket from 3.7 to 3.9 fbgs, some redbrick, some angular gravel, faint odor.							
	-4.4 4.4	Fine Sand Light brown, moist, mostly fine sand, some large angular gravel fragments.	2		100%				
	-4.8 4.8	Equipment refusal at 4.8 fbgs.							
5.0		End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:
Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-9

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface Sand and Gravel Fill Brown, moist, mostly fine sand and angular gravel, some red brick, thin layer of asphalt and subbase from 0 to 0.1 fbgs, no odor.					0.0		
-1.3	1.3	Sand and Gravel Fill Black, moist, mostly fine sand and angular gravel, no odor.					0.0		
-1.6	1.6	Sandy Lean Clay Reddish brown, moist, mostly medium plastic fines, some fine sand, massive, dense, medium toughness, no odor.	1		100%		0.0	Sample location	
-2.7	2.7	Silty Sand Reddish brown, moist, mostly fine sand and silt, no odor. Equipment refusal at 4 fbgs.					0.0		
-4.0	4.0	End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-10

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0 0.0	Ground Surface							
		Asphalt and Subbase							
	-0.5 0.5	Sandy Fill Brown, moist, mostly fine sand, some red brick, some large concrete fragments, no odor.							
	-1.6 1.6	Lean Clay Reddish brown, moist, mostly medium plastic fines, trace fine sand, dense, medium toughness, no odor.							
		Equipment refusal at 4 fbgs.	1		63%				
	-4.0 4.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0474-021-001

Borehole Number: SB-11

Project: Phase II

A.K.A.:

Client: St Marys Redevelopment LLC

Logged By: CMS

Site Location: 515 6th St & 620-626 Ferry Ave

Checked By: BWM



Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0599

SUBSURFACE PROFILE			SAMPLE				PID VOCs ppm 12.5 25	Lab Sample	Well Completion Details or Remarks
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol			
0.0	0.0	Ground Surface							
	0.0	Topsoil							
	-0.3								
	0.3	Red Brick							
	-1.2						0.0		
	1.2	Concrete Mostly broken concrete fragments, some brown fine sand, no odor.							
			1		56%		0.0		
	-2.4								
	2.4	Silty Sand Fill Brown, moist, mostly fine sand and silt, pockets of black granulars, layer of white styrofoam at 4 fbgs, no odor. Some brown sand appears to have aggregated and solidified.					0.0		
	-4.3						0.0		
	4.3	Lean Clay Reddish brown, moist, mostly medium plastic fines, some fine sand, dense, medium toughness, no odor.	2		100%				
	-4.6						0.0		
	4.6								
5.0		Equipment refusal at 4.6 fbgs. End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54DT
Drill Method: Direct push geoprobe
Comments:
Drill Date(s): 11/3/21 and 11/4/21

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

APPENDIX B

PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:



Photo 2:



Photo 3:



Photo 4:



Photo 1: View of the location of SB-1 – facing northeast

Photo 2: View of the typical fill material encountered at SB-1.

Photo 3: View of the location of SB-2 – facing northwest

Photo 4: View of the typical fill material encountered at SB-2.

515 6th Street and 620-626 Ferry Avenue

Photo Date: November 3 & 4, 2021



SITE PHOTOGRAPHS

Photo 5:



Photo 6:



Photo 7:



Photo 8:



Photo 5: View of the location of SB-3/3W – facing southeast

Photo 6: View of the typical fill material encountered at SB-3/3W.

Photo 7: View of the location of SB-4/4W – facing east

Photo 8: View of the typical fill material encountered at SB-4/4W.

515 6th Street and 620-626 Ferry Avenue

Photo Date: November 3 & 4, 2021



SITE PHOTOGRAPHS

Photo 9:



Photo 10:



Photo 11:



Photo 12:



Photo 9: View of the location of SB-6/6W – facing northeast

Photo 10: View of the typical fill material encountered at SB-6/6W.

Photo 11: View of the location of SB-11 – facing east

Photo 12: View of the typical fill material encountered at SB-11.

515 6th Street and 620-626 Ferry Avenue

Photo Date: November 3 & 4, 2021



SITE PHOTOGRAPHS

Photo 13:



Photo 13: View of the location of SB-9 – facing northeast

515 6th Street and 620-626 Ferry Avenue

Photo Date: November 3 & 4, 2021



APPENDIX C

LABORATORY ANALYTICAL DATA SUMMARY PACKAGE



ANALYTICAL REPORT

Lab Number:	L2161088
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	515 6TH ST
Project Number:	B0474-021-001
Report Date:	11/14/21

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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2161088-01	SB-1 1-2FT	SOIL	NIAGARA FALLS, NY	11/03/21 09:00	11/05/21
L2161088-02	SB-2 1-2FT	SOIL	NIAGARA FALLS, NY	11/03/21 09:30	11/05/21
L2161088-03	SB-3 1-2FT	SOIL	NIAGARA FALLS, NY	11/03/21 10:00	11/05/21
L2161088-04	SB-4 1-3FT	SOIL	NIAGARA FALLS, NY	11/03/21 10:30	11/05/21
L2161088-05	SB-5 1-4FT	SOIL	NIAGARA FALLS, NY	11/03/21 11:00	11/05/21
L2161088-06	SB-6 2-5FT	SOIL	NIAGARA FALLS, NY	11/03/21 11:30	11/05/21

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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.

Total Metals

The WG1568995-3 MS recoveries, performed on L2161088-01, are outside the acceptance criteria for barium (74%) and selenium (74%). A post digestion spike was performed and was within acceptance criteria.

The WG1568995-3 MS recoveries, performed on L2161088-01, are outside the acceptance criteria for cadmium (72%) and lead (41%). A post digestion spike was performed and yielded unacceptable recoveries for cadmium (72%) and lead (62%). The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

The WG1568995-3 MS recovery, performed on L2161088-01, is outside the acceptance criteria for arsenic (0%). A post digestion spike was performed and yielded an unacceptable recoveries for arsenic (73%). The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

The WG1568995-4 Laboratory Duplicate RPD for selenium (36%), performed on L2161088-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

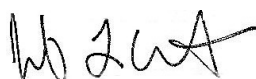
The WG1568995-6 serial dilution analysis, associated with L2161088-01, had a %D above the acceptance criteria for lead (31%).

The WG1568996-3 MS recovery, performed on L2161088-01, is outside the acceptance criteria for mercury (182%). A post digestion spike was performed and was within acceptance criteria.

The WG1568996-4 Laboratory Duplicate RPD for mercury (53%), performed on L2161088-01, is outside the acceptance criteria. The elevated RPD has 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:



Jennifer L Clements

Title: Technical Director/Representative

Date: 11/14/21

ORGANICS

SEMIVOLATILES

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-01
Client ID: SB-1 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 14:45
Analyst: JG
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	22	J	ug/kg	160	21.	1
Fluoranthene	460		ug/kg	120	23.	1
Naphthalene	2300		ug/kg	200	24.	1
Benzo(a)anthracene	260		ug/kg	120	22.	1
Benzo(a)pyrene	210		ug/kg	160	48.	1
Benzo(b)fluoranthene	300		ug/kg	120	34.	1
Benzo(k)fluoranthene	80	J	ug/kg	120	32.	1
Chrysene	310		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	65	J	ug/kg	120	39.	1
Benzo(ghi)perylene	120	J	ug/kg	160	23.	1
Fluorene	54	J	ug/kg	200	19.	1
Phenanthrene	1000		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	34	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	130	J	ug/kg	160	28.	1
Pyrene	420		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	94		30-120
4-Terphenyl-d14	89		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-02
Client ID: SB-2 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 15:08
Analyst: JG
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1
Fluoranthene	60	J	ug/kg	130	26.	1
Naphthalene	410		ug/kg	220	27.	1
Benzo(a)anthracene	49	J	ug/kg	130	25.	1
Benzo(a)pyrene	ND		ug/kg	180	54.	1
Benzo(b)fluoranthene	56	J	ug/kg	130	38.	1
Benzo(k)fluoranthene	ND		ug/kg	130	36.	1
Chrysene	41	J	ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	ND		ug/kg	130	44.	1
Benzo(ghi)perylene	32	J	ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	130		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	31	J	ug/kg	180	31.	1
Pyrene	57	J	ug/kg	130	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	87		30-120
4-Terphenyl-d14	77		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-03
Client ID: SB-3 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/13/21 05:36
Analyst: JG
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 05:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	200		ug/kg	160	21.	1
Fluoranthene	2700		ug/kg	120	23.	1
Naphthalene	1800		ug/kg	200	24.	1
Benzo(a)anthracene	2600		ug/kg	120	22.	1
Benzo(a)pyrene	2300		ug/kg	160	49.	1
Benzo(b)fluoranthene	3100		ug/kg	120	34.	1
Benzo(k)fluoranthene	940		ug/kg	120	32.	1
Chrysene	2200		ug/kg	120	21.	1
Acenaphthylene	70	J	ug/kg	160	31.	1
Anthracene	520		ug/kg	120	39.	1
Benzo(ghi)perylene	1200		ug/kg	160	24.	1
Fluorene	190	J	ug/kg	200	20.	1
Phenanthrene	2400		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	370		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	1400		ug/kg	160	28.	1
Pyrene	2400		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	62		30-120
4-Terphenyl-d14	60		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-04
Client ID: SB-4 1-3FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 15:32
Analyst: JG
Percent Solids: 80%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	48	J	ug/kg	120	24.	1
Naphthalene	ND		ug/kg	200	25.	1
Benzo(a)anthracene	36	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	51	J	ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	36	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	31	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	28	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	29	J	ug/kg	160	28.	1
Pyrene	47	J	ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	90		30-120
4-Terphenyl-d14	80		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-05
Client ID: SB-5 1-4FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 15:55
Analyst: JG
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	ND		ug/kg	120	23.	1
Naphthalene	ND		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	ND		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	ND		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	97		30-120
4-Terphenyl-d14	85		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-06
Client ID: SB-6 2-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 16:19
Analyst: JG
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	490		ug/kg	120	23.	1
Naphthalene	ND		ug/kg	200	25.	1
Benzo(a)anthracene	270		ug/kg	120	23.	1
Benzo(a)pyrene	220		ug/kg	160	50.	1
Benzo(b)fluoranthene	300		ug/kg	120	34.	1
Benzo(k)fluoranthene	100	J	ug/kg	120	32.	1
Chrysene	220		ug/kg	120	21.	1
Acenaphthylene	58	J	ug/kg	160	31.	1
Anthracene	48	J	ug/kg	120	40.	1
Benzo(ghi)perylene	130	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	210		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	34	J	ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	150	J	ug/kg	160	28.	1
Pyrene	380		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	90		30-120
4-Terphenyl-d14	81		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/12/21 09:20
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-06 Batch: WG1570413-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	72		10-136
4-Terphenyl-d14	77		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/12/21 20:43
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 11/12/21 05:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1570470-1					
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	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	74		10-136
4-Terphenyl-d14	86		18-120

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1570413-2 WG1570413-3								
Acenaphthene	79		80		31-137	1		50
Fluoranthene	83		80		40-140	4		50
Naphthalene	70		78		40-140	11		50
Benzo(a)anthracene	83		78		40-140	6		50
Benzo(a)pyrene	82		78		40-140	5		50
Benzo(b)fluoranthene	78		73		40-140	7		50
Benzo(k)fluoranthene	92		82		40-140	11		50
Chrysene	87		85		40-140	2		50
Acenaphthylene	82		84		40-140	2		50
Anthracene	85		81		40-140	5		50
Benzo(ghi)perylene	81		79		40-140	3		50
Fluorene	81		80		40-140	1		50
Phenanthrene	81		79		40-140	3		50
Dibenzo(a,h)anthracene	79		77		40-140	3		50
Indeno(1,2,3-cd)pyrene	77		76		40-140	1		50
Pyrene	83		80		35-142	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-06 Batch: WG1570413-2 WG1570413-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		79		25-120
Phenol-d6	78		84		10-120
Nitrobenzene-d5	72		81		23-120
2-Fluorobiphenyl	77		79		30-120
2,4,6-Tribromophenol	82		80		10-136
4-Terphenyl-d14	82		78		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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: WG1570470-2 WG1570470-3								
Acenaphthene	98		98		31-137	0		50
Fluoranthene	104		100		40-140	4		50
Naphthalene	91		88		40-140	3		50
Benzo(a)anthracene	109		107		40-140	2		50
Benzo(a)pyrene	105		100		40-140	5		50
Benzo(b)fluoranthene	108		103		40-140	5		50
Benzo(k)fluoranthene	102		99		40-140	3		50
Chrysene	106		100		40-140	6		50
Acenaphthylene	92		89		40-140	3		50
Anthracene	102		99		40-140	3		50
Benzo(ghi)perylene	108		105		40-140	3		50
Fluorene	100		100		40-140	0		50
Phenanthrene	101		98		40-140	3		50
Dibenzo(a,h)anthracene	106		103		40-140	3		50
Indeno(1,2,3-cd)pyrene	108		104		40-140	4		50
Pyrene	102		100		35-142	2		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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: WG1570470-2 WG1570470-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	108		104		25-120
Phenol-d6	112		104		10-120
Nitrobenzene-d5	106		102		23-120
2-Fluorobiphenyl	85		82		30-120
2,4,6-Tribromophenol	95		93		10-136
4-Terphenyl-d14	102		96		18-120

PCBS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-01
Client ID: SB-1 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 18:59
Analyst: AD
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.8	3.62	1	A
Aroclor 1221	ND		ug/kg	40.8	4.09	1	A
Aroclor 1232	ND		ug/kg	40.8	8.65	1	A
Aroclor 1242	ND		ug/kg	40.8	5.50	1	A
Aroclor 1248	ND		ug/kg	40.8	6.12	1	A
Aroclor 1254	ND		ug/kg	40.8	4.46	1	A
Aroclor 1260	ND		ug/kg	40.8	7.54	1	A
Aroclor 1262	ND		ug/kg	40.8	5.18	1	A
Aroclor 1268	ND		ug/kg	40.8	4.22	1	A
PCBs, Total	ND		ug/kg	40.8	3.62	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-02
Client ID: SB-2 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:07
Analyst: AD
Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	44.0	3.90	1	A
Aroclor 1221	ND		ug/kg	44.0	4.40	1	A
Aroclor 1232	ND		ug/kg	44.0	9.32	1	A
Aroclor 1242	ND		ug/kg	44.0	5.92	1	A
Aroclor 1248	ND		ug/kg	44.0	6.59	1	A
Aroclor 1254	ND		ug/kg	44.0	4.81	1	A
Aroclor 1260	ND		ug/kg	44.0	8.12	1	A
Aroclor 1262	ND		ug/kg	44.0	5.58	1	A
Aroclor 1268	ND		ug/kg	44.0	4.55	1	A
PCBs, Total	ND		ug/kg	44.0	3.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-04
Client ID: SB-4 1-3FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:15
Analyst: AD
Percent Solids: 80%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

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	51		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	46		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-06
Client ID: SB-6 2-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:23
Analyst: AD
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.6	3.52	1	A
Aroclor 1221	ND		ug/kg	39.6	3.97	1	A
Aroclor 1232	ND		ug/kg	39.6	8.40	1	A
Aroclor 1242	ND		ug/kg	39.6	5.34	1	A
Aroclor 1248	ND		ug/kg	39.6	5.95	1	A
Aroclor 1254	ND		ug/kg	39.6	4.34	1	A
Aroclor 1260	ND		ug/kg	39.6	7.32	1	A
Aroclor 1262	ND		ug/kg	39.6	5.03	1	A
Aroclor 1268	ND		ug/kg	39.6	4.11	1	A
PCBs, Total	ND		ug/kg	39.6	3.52	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/12/21 18:35
Analyst: AD

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02,04,06 Batch: WG1570418-1						
Aroclor 1016	ND		ug/kg	33.0	2.93	A
Aroclor 1221	ND		ug/kg	33.0	3.31	A
Aroclor 1232	ND		ug/kg	33.0	7.00	A
Aroclor 1242	ND		ug/kg	33.0	4.45	A
Aroclor 1248	ND		ug/kg	33.0	4.95	A
Aroclor 1254	ND		ug/kg	33.0	3.61	A
Aroclor 1260	ND		ug/kg	33.0	6.10	A
Aroclor 1262	ND		ug/kg	33.0	4.19	A
Aroclor 1268	ND		ug/kg	33.0	3.42	A
PCBs, Total	ND		ug/kg	33.0	2.93	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	62		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02,04,06 Batch: WG1570418-2 WG1570418-3									
Aroclor 1016	88		87		40-140	1		50	A
Aroclor 1260	83		83		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		76		30-150	A
Decachlorobiphenyl	74		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		80		30-150	B
Decachlorobiphenyl	68		69		30-150	B

METALS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-01
 Client ID: SB-1 1-2FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:00
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	30.2		mg/kg	0.477	0.099	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Barium, Total	61.3		mg/kg	0.477	0.083	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Cadmium, Total	0.491		mg/kg	0.477	0.047	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Chromium, Total	8.11		mg/kg	0.477	0.046	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Lead, Total	74.8		mg/kg	2.38	0.128	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Mercury, Total	0.141		mg/kg	0.089	0.058	1	11/10/21 00:07	11/10/21 07:39	EPA 7471B	1,7471B	AC
Selenium, Total	1.34		mg/kg	0.954	0.123	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL
Silver, Total	0.525		mg/kg	0.477	0.135	1	11/09/21 23:01	11/10/21 16:04	EPA 3050B	1,6010D	DL



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-02
Client ID: SB-2 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:30
Date Received: 11/05/21
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	81.4		mg/kg	0.527	0.110	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Barium, Total	107		mg/kg	0.527	0.092	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Cadmium, Total	0.643		mg/kg	0.527	0.052	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Chromium, Total	12.4		mg/kg	0.527	0.051	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Lead, Total	34.1		mg/kg	2.64	0.141	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Mercury, Total	0.084	J	mg/kg	0.107	0.070	1	11/10/21 00:07	11/10/21 07:52	EPA 7471B	1,7471B	AC
Selenium, Total	0.342	J	mg/kg	1.05	0.136	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	0.527	0.149	1	11/09/21 23:01	11/10/21 15:54	EPA 3050B	1,6010D	GD



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-03
 Client ID: SB-3 1-2FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:00
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	19.4		mg/kg	0.470	0.098	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Barium, Total	58.1		mg/kg	0.470	0.082	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Cadmium, Total	0.953		mg/kg	0.470	0.046	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Chromium, Total	8.87		mg/kg	0.470	0.045	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Lead, Total	102		mg/kg	2.35	0.126	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Mercury, Total	0.294		mg/kg	0.094	0.062	1	11/10/21 00:07	11/10/21 07:56	EPA 7471B	1,7471B	AC
Selenium, Total	1.01		mg/kg	0.939	0.121	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD
Silver, Total	0.460	J	mg/kg	0.470	0.133	1	11/09/21 23:01	11/10/21 15:59	EPA 3050B	1,6010D	GD



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-04
 Client ID: SB-4 1-3FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:30
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.49		mg/kg	0.475	0.099	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Barium, Total	99.1		mg/kg	0.475	0.083	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Cadmium, Total	0.750		mg/kg	0.475	0.047	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Chromium, Total	17.7		mg/kg	0.475	0.046	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Lead, Total	102		mg/kg	2.37	0.127	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Mercury, Total	0.962		mg/kg	0.093	0.060	1	11/10/21 00:07	11/10/21 07:59	EPA 7471B	1,7471B	AC
Selenium, Total	0.180	J	mg/kg	0.950	0.122	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL
Silver, Total	ND		mg/kg	0.475	0.134	1	11/09/21 23:01	11/10/21 17:41	EPA 3050B	1,6010D	DL



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-05
 Client ID: SB-5 1-4FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:00
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.16		mg/kg	0.471	0.098	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Barium, Total	54.0		mg/kg	0.471	0.082	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Cadmium, Total	0.315	J	mg/kg	0.471	0.046	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Chromium, Total	13.9		mg/kg	0.471	0.045	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Lead, Total	5.43		mg/kg	2.35	0.126	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Mercury, Total	ND		mg/kg	0.098	0.064	1	11/10/21 00:07	11/10/21 08:02	EPA 7471B	1,7471B	AC
Selenium, Total	ND		mg/kg	0.941	0.121	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL
Silver, Total	ND		mg/kg	0.471	0.133	1	11/09/21 23:01	11/10/21 17:46	EPA 3050B	1,6010D	DL



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-06
 Client ID: SB-6 2-5FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:30
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.68		mg/kg	0.472	0.098	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL
Barium, Total	800		mg/kg	4.72	0.821	10	11/09/21 23:01	11/10/21 22:45	EPA 3050B	1,6010D	DL
Cadmium, Total	1.91		mg/kg	0.472	0.046	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL
Chromium, Total	6.36		mg/kg	0.472	0.045	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL
Lead, Total	2030		mg/kg	2.36	0.126	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL
Mercury, Total	0.724		mg/kg	0.096	0.063	1	11/10/21 00:07	11/10/21 08:12	EPA 7471B	1,7471B	AC
Selenium, Total	0.561	J	mg/kg	0.943	0.122	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL
Silver, Total	ND		mg/kg	0.472	0.133	1	11/09/21 23:01	11/10/21 17:51	EPA 3050B	1,6010D	DL



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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): 01-06 Batch: WG1568995-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Barium, Total	ND		mg/kg	0.400	0.070	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Lead, Total	ND		mg/kg	2.00	0.107	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD
Silver, Total	ND		mg/kg	0.400	0.113	1	11/09/21 23:01	11/10/21 15:40	1,6010D	GD

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): 01-06 Batch: WG1568996-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/10/21 00:07	11/10/21 07:32	1,7471B	AC

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1568995-2 SRM Lot Number: D109-540								
Arsenic, Total	97		-		70-130	-		
Barium, Total	86		-		75-125	-		
Cadmium, Total	93		-		75-125	-		
Chromium, Total	86		-		70-130	-		
Lead, Total	93		-		72-128	-		
Selenium, Total	93		-		68-132	-		
Silver, Total	92		-		68-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1568996-2 SRM Lot Number: D109-540								
Mercury, Total	109		-		60-140	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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): 01-06 QC Batch ID: WG1568995-3 QC Sample: L2161088-01 Client ID: SB-1 1-2FT												
Arsenic, Total	30.2	11.5	28.7	0	Q	-	-		75-125	-		20
Barium, Total	61.3	191	202	74	Q	-	-		75-125	-		20
Cadmium, Total	0.491	5.07	4.16	72	Q	-	-		75-125	-		20
Chromium, Total	8.11	19.1	25.7	92		-	-		75-125	-		20
Lead, Total	74.8	50.7	95.7	41	Q	-	-		75-125	-		20
Selenium, Total	1.34	11.5	9.85	74	Q	-	-		75-125	-		20
Silver, Total	0.525	28.7	23.5	80		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1568996-3 QC Sample: L2161088-01 Client ID: SB-1 1-2FT												
Mercury, Total	0.141	0.197	0.501	182	Q	-	-		80-120	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1568995-4 QC Sample: L2161088-01 Client ID: SB-1 1-2FT						
Arsenic, Total	30.2	25.7	mg/kg	16		20
Barium, Total	61.3	61.2	mg/kg	0		20
Cadmium, Total	0.491	0.437J	mg/kg	NC		20
Chromium, Total	8.11	8.35	mg/kg	3		20
Lead, Total	74.8	62.9	mg/kg	17		20
Selenium, Total	1.34	0.930	mg/kg	36	Q	20
Silver, Total	0.525	0.400J	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1568996-4 QC Sample: L2161088-01 Client ID: SB-1 1-2FT						
Mercury, Total	0.141	0.243	mg/kg	53	Q	20

Project Name: 515 6TH ST
Project Number: B0474-021-001

**Lab Serial Dilution
Analysis**
Batch Quality Control

Lab Number: L2161088
Report Date: 11/14/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1568995-6 QC Sample: L2161088-01 Client ID: SB-1 1-2FT						
Arsenic, Total	30.2	34.6	mg/kg	15		20
Lead, Total	74.8	98.2	mg/kg	31	Q	20

INORGANICS & MISCELLANEOUS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-01
Client ID: SB-1 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.5		%	0.100	NA	1	-	11/10/21 10:21	121,2540G	RI



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-02
Client ID: SB-2 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 09:30
Date Received: 11/05/21
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	74.0		%	0.100	NA	1	-	11/10/21 10:21	121,2540G	RI



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-03
Client ID: SB-3 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:00
Date Received: 11/05/21
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	82.1		%	0.100	NA	1	-	11/10/21 10:21	121,2540G	RI



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-04
Client ID: SB-4 1-3FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 10:30
Date Received: 11/05/21
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	80.2		%	0.100	NA	1	-	11/10/21 10:21	121,2540G	RI



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-05
Client ID: SB-5 1-4FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:00
Date Received: 11/05/21
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	82.1		%	0.100	NA	1	-	11/10/21 10:21	121,2540G	RI



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

SAMPLE RESULTS

Lab ID: L2161088-06
Client ID: SB-6 2-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/03/21 11:30
Date Received: 11/05/21
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	-	11/10/21 10:21	121,2540G	RI



Lab Duplicate Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1569439-1 QC Sample: L2161283-01 Client ID: DUP Sample						
Solids, Total	95.6	95.8	%	0		20

Project Name: 515 6TH ST
Project Number: B0474-021-001

Serial_No:11142116:15
Lab Number: L2161088
Report Date: 11/14/21

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(*)
L2161088-01A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161088-01B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-01C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-02A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161088-02B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-02C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-03A	Glass 120ml/4oz unpreserved	A	NA		3.1	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)
L2161088-03B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7)
L2161088-04A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161088-04B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-04C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-05A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161088-05B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7)
L2161088-06A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L2161088-06B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161088-06C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Footnotes

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

Terms

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

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

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

Data Qualifiers

- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161088
Report Date: 11/14/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 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**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

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, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****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, EPA 537.1.****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.

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

of

11/6/21

U2161088

<input checked="" type="checkbox"/>	Same as Client Info
PO #	

Please identify below location of applicable disposal facilities.

☐ NJ ☒ NY
☐ Other:

☐ Done
☐ Lab to do
Preservation
☐ Lab to do

Sample Specific Comments
<p>1. The sample is a 100% pure substance, as indicated by the single sharp peak in the mass spectrum.</p> <p>2. The molecular ion peak is observed at m/z 100, which is consistent with the molecular formula C₈H₈.</p> <p>3. The base peak is at m/z 77, which is characteristic of the phenyl cation (C₆H₅⁺).</p> <p>4. The fragmentation pattern is consistent with the structure of toluene (C₆H₅CH₃).</p>

Sample Specific Comments
<p>1. The sample is a 100% pure substance, as indicated by the single sharp peak in the mass spectrum.</p> <p>2. The molecular ion peak is observed at m/z 100, which is consistent with the molecular formula C₈H₈.</p> <p>3. The base peak is at m/z 77, which is characteristic of the phenyl cation (C₆H₅⁺).</p> <p>4. The fragmentation pattern is consistent with the structure of toluene (C₆H₅CH₃).</p>

[illegible][illegible]

--	--

[illegible]

--	--

[illegible]

11/5/21 1542

Page 52 of 52



ANALYTICAL REPORT

Lab Number:	L2161096
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	515 6TH ST
Project Number:	B0474-021-001
Report Date:	11/24/21

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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2161096-01	SB-8 3.5-5FT	SOIL	NIAGARA FALLS, NY	11/04/21 09:00	11/05/21
L2161096-02	SB-9 1-2FT	SOIL	NIAGARA FALLS, NY	11/04/21 09:30	11/05/21
L2161096-03	SB-11 2.5-4.5FT	SOIL	NIAGARA FALLS, NY	11/04/21 10:00	11/05/21
L2161096-04	SB-7 3.4-5FT	SOIL	NIAGARA FALLS, NY	11/04/21 08:30	11/05/21
L2161096-05	SB-10 1-2FT	SOIL	NIAGARA FALLS, NY	11/04/21 09:45	11/05/21

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Case Narrative (continued)

Report Revision

November 24, 2021: At the client's request, the analyses of Semivolatile Organics and Total Metals were performed on L2161096-04.

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

L2161096-02D: The sample has elevated detection limits due to the dilution required by the sample matrix.

Total Metals

L2161096-04: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1569119-3 MS recoveries, performed on L2161096-01, are outside the acceptance criteria for arsenic (72%), cadmium (64%), chromium (55%), lead (201%), selenium (72%), and silver (73%). A post digestion spike was performed and yielded unacceptable recoveries for arsenic (69%), cadmium (64%), chromium (59%), lead (50%), selenium (72%), and silver (74%). 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 WG1569119-3 MS recovery, performed on L2161096-01, is outside the acceptance criteria for barium (67%). A post digestion spike was performed and yielded an unacceptable recovery for barium (72%). The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Case Narrative (continued)

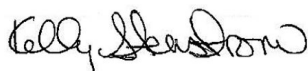
The WG1569120-3 MS recovery, performed on L2161096-01, is outside the acceptance criteria for mercury (125%). A post digestion spike was performed and was within acceptance criteria.

The WG1572676-3 MS recovery, performed on L2161096-04, is outside the acceptance criteria for mercury (126%). A post digestion spike was performed and was within acceptance criteria.

The WG1569119-4 Laboratory Duplicate RPD for lead (59%), performed on L2161096-01, is outside the acceptance criteria. The elevated RPD has 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: 11/24/21

ORGANICS

VOLATILES

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
Client ID: SB-8 3.5-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 11/12/21 10:52
Analyst: MKS
Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.6	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.77	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.19	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.18	1
Benzene	ND		ug/kg	0.56	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1
Trichloroethene	0.15	J	ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
Client ID: SB-8 3.5-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
Date Received: 11/05/21
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	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.62	1
o-Xylene	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
Styrene	0.70	J	ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.4	1
Carbon disulfide	ND		ug/kg	11	5.1	1
2-Butanone	ND		ug/kg	11	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
Methyl Acetate	ND		ug/kg	4.4	1.0	1
Cyclohexane	ND		ug/kg	11	0.61	1
1,4-Dioxane	ND		ug/kg	89	39.	1
Freon-113	ND		ug/kg	4.4	0.77	1
Methyl cyclohexane	ND		ug/kg	4.4	0.67	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	106		70-130



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/12/21 07:08
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1570667-5					
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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/12/21 07:08
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1570667-5					
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	0.69	J	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: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/12/21 07:08
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1570667-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	105		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1570667-3 WG1570667-4								
Methylene chloride	89		88		70-130	1		30
1,1-Dichloroethane	96		93		70-130	3		30
Chloroform	94		92		70-130	2		30
Carbon tetrachloride	105		102		70-130	3		30
1,2-Dichloropropane	95		93		70-130	2		30
Dibromochloromethane	98		98		70-130	0		30
1,1,2-Trichloroethane	100		98		70-130	2		30
Tetrachloroethene	104		101		70-130	3		30
Chlorobenzene	106		103		70-130	3		30
Trichlorofluoromethane	88		86		70-139	2		30
1,2-Dichloroethane	89		90		70-130	1		30
1,1,1-Trichloroethane	105		101		70-130	4		30
Bromodichloromethane	99		100		70-130	1		30
trans-1,3-Dichloropropene	108		105		70-130	3		30
cis-1,3-Dichloropropene	101		101		70-130	0		30
Bromoform	97		102		70-130	5		30
1,1,2,2-Tetrachloroethane	104		106		70-130	2		30
Benzene	100		96		70-130	4		30
Toluene	105		100		70-130	5		30
Ethylbenzene	105		101		70-130	4		30
Chloromethane	93		88		52-130	6		30
Bromomethane	97		91		57-147	6		30
Vinyl chloride	90		86		67-130	5		30

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1570667-3 WG1570667-4								
Chloroethane	96		90		50-151	6		30
1,1-Dichloroethene	98		95		65-135	3		30
trans-1,2-Dichloroethene	100		97		70-130	3		30
Trichloroethene	103		99		70-130	4		30
1,2-Dichlorobenzene	104		103		70-130	1		30
1,3-Dichlorobenzene	106		103		70-130	3		30
1,4-Dichlorobenzene	105		103		70-130	2		30
Methyl tert butyl ether	89		92		66-130	3		30
p/m-Xylene	109		105		70-130	4		30
o-Xylene	108		104		70-130	4		30
cis-1,2-Dichloroethene	98		96		70-130	2		30
Styrene	95		93		70-130	2		30
Dichlorodifluoromethane	84		81		30-146	4		30
Acetone	98		101		54-140	3		30
Carbon disulfide	88		84		59-130	5		30
2-Butanone	92		99		70-130	7		30
4-Methyl-2-pentanone	95		99		70-130	4		30
2-Hexanone	92		98		70-130	6		30
Bromochloromethane	98		96		70-130	2		30
1,2-Dibromoethane	103		106		70-130	3		30
n-Butylbenzene	114		108		70-130	5		30
sec-Butylbenzene	112		108		70-130	4		30
1,2-Dibromo-3-chloropropane	104		112		68-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1570667-3 WG1570667-4								
Isopropylbenzene	107		105		70-130	2		30
p-Isopropyltoluene	113		109		70-130	4		30
n-Propylbenzene	108		105		70-130	3		30
1,2,3-Trichlorobenzene	99		98		70-130	1		30
1,2,4-Trichlorobenzene	103		102		70-130	1		30
1,3,5-Trimethylbenzene	108		104		70-130	4		30
1,2,4-Trimethylbenzene	106		103		70-130	3		30
Methyl Acetate	88		95		51-146	8		30
Cyclohexane	95		92		59-142	3		30
1,4-Dioxane	94		102		65-136	8		30
Freon-113	102		99		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		96		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	97		101		70-130
Dibromofluoromethane	101		104		70-130

SEMIVOLATILES

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
Client ID: SB-8 3.5-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 17:29
Analyst: JG
Percent Solids: 89%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	56	J	ug/kg	140	19.	1
Fluoranthene	1200		ug/kg	110	21.	1
Naphthalene	43	J	ug/kg	180	22.	1
Benzo(a)anthracene	520		ug/kg	110	20.	1
Benzo(a)pyrene	400		ug/kg	140	44.	1
Benzo(b)fluoranthene	670		ug/kg	110	31.	1
Benzo(k)fluoranthene	190		ug/kg	110	29.	1
Chrysene	530		ug/kg	110	19.	1
Acenaphthylene	50	J	ug/kg	140	28.	1
Anthracene	140		ug/kg	110	36.	1
Benzo(ghi)perylene	250		ug/kg	140	21.	1
Fluorene	52	J	ug/kg	180	18.	1
Phenanthrene	680		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	71	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	290		ug/kg	140	25.	1
Pyrene	890		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	87		30-120
4-Terphenyl-d14	82		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-02 D
Client ID: SB-9 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/15/21 03:53
Analyst: SZ
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	3000		ug/kg	1500	190	10
Fluoranthene	34000		ug/kg	1100	210	10
Naphthalene	740	J	ug/kg	1800	230	10
Benzo(a)anthracene	17000		ug/kg	1100	210	10
Benzo(a)pyrene	12000		ug/kg	1500	450	10
Benzo(b)fluoranthene	16000		ug/kg	1100	310	10
Benzo(k)fluoranthene	5400		ug/kg	1100	300	10
Chrysene	16000		ug/kg	1100	190	10
Acenaphthylene	1300	J	ug/kg	1500	290	10
Anthracene	8000		ug/kg	1100	360	10
Benzo(ghi)perylene	7800		ug/kg	1500	220	10
Fluorene	4000		ug/kg	1800	180	10
Phenanthrene	35000		ug/kg	1100	220	10
Dibenzo(a,h)anthracene	1900		ug/kg	1100	210	10
Indeno(1,2,3-cd)pyrene	8600		ug/kg	1500	260	10
Pyrene	29000		ug/kg	1100	180	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	100		23-120
2-Fluorobiphenyl	82		30-120
4-Terphenyl-d14	91		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-03
Client ID: SB-11 2.5-4.5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 10:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/12/21 18:16
Analyst: JG
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	22	J	ug/kg	160	20.	1
Fluoranthene	3000		ug/kg	120	23.	1
Naphthalene	310		ug/kg	200	24.	1
Benzo(a)anthracene	1500		ug/kg	120	22.	1
Benzo(a)pyrene	1300		ug/kg	160	48.	1
Benzo(b)fluoranthene	1700		ug/kg	120	33.	1
Benzo(k)fluoranthene	530		ug/kg	120	32.	1
Chrysene	1200		ug/kg	120	21.	1
Acenaphthylene	260		ug/kg	160	31.	1
Anthracene	320		ug/kg	120	39.	1
Benzo(ghi)perylene	690		ug/kg	160	23.	1
Fluorene	48	J	ug/kg	200	19.	1
Phenanthrene	1200		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	170		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	790		ug/kg	160	28.	1
Pyrene	2500		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	97		30-120
4-Terphenyl-d14	86		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-04
Client ID: SB-7 3.4-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 08:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 11/18/21 20:40
Analyst: CMM
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 11/18/21 03:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Fluoranthene	7700	E	ug/kg	110	22.	1
Naphthalene	260		ug/kg	190	23.	1
Benzo(a)anthracene	4000		ug/kg	110	21.	1
Benzo(a)pyrene	2800		ug/kg	150	46.	1
Benzo(b)fluoranthene	4100		ug/kg	110	32.	1
Benzo(k)fluoranthene	1200		ug/kg	110	30.	1
Chrysene	3500		ug/kg	110	20.	1
Acenaphthylene	600		ug/kg	150	29.	1
Anthracene	830		ug/kg	110	37.	1
Benzo(ghi)perylene	1400		ug/kg	150	22.	1
Fluorene	53	J	ug/kg	190	18.	1
Phenanthrene	2000		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	450		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	1800		ug/kg	150	26.	1
Pyrene	5700		ug/kg	110	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	60		30-120
4-Terphenyl-d14	60		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-04 D
 Client ID: SB-7 3.4-5FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 08:30
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 11/24/21 00:26
 Analyst: CMM
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 11/18/21 03:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Semivolatile Organics by GC/MS - Westborough Lab

Fluoranthene	5400		ug/kg	230	44.	2
--------------	------	--	-------	-----	-----	---

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/12/21 09:20
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/12/21 00:12

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1570413-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	18.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	72		10-136
4-Terphenyl-d14	77		18-120

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 11/18/21 10:34
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 11/18/21 03:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1572857-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	97		25-120
Phenol-d6	100		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	98		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	98		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1570413-2 WG1570413-3								
Acenaphthene	79		80		31-137	1		50
Fluoranthene	83		80		40-140	4		50
Naphthalene	70		78		40-140	11		50
Benzo(a)anthracene	83		78		40-140	6		50
Benzo(a)pyrene	82		78		40-140	5		50
Benzo(b)fluoranthene	78		73		40-140	7		50
Benzo(k)fluoranthene	92		82		40-140	11		50
Chrysene	87		85		40-140	2		50
Acenaphthylene	82		84		40-140	2		50
Anthracene	85		81		40-140	5		50
Benzo(ghi)perylene	81		79		40-140	3		50
Fluorene	81		80		40-140	1		50
Phenanthrene	81		79		40-140	3		50
Dibenzo(a,h)anthracene	79		77		40-140	3		50
Indeno(1,2,3-cd)pyrene	77		76		40-140	1		50
Pyrene	83		80		35-142	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1570413-2 WG1570413-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		79		25-120
Phenol-d6	78		84		10-120
Nitrobenzene-d5	72		81		23-120
2-Fluorobiphenyl	77		79		30-120
2,4,6-Tribromophenol	82		80		10-136
4-Terphenyl-d14	82		78		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1572857-2 WG1572857-3								
Acenaphthene	56		77		31-137	32		50
Fluoranthene	61		86		40-140	34		50
Naphthalene	59		77		40-140	26		50
Benzo(a)anthracene	56		78		40-140	33		50
Benzo(a)pyrene	66		90		40-140	31		50
Benzo(b)fluoranthene	62		84		40-140	30		50
Benzo(k)fluoranthene	64		88		40-140	32		50
Chrysene	58		80		40-140	32		50
Acenaphthylene	62		84		40-140	30		50
Anthracene	59		82		40-140	33		50
Benzo(ghi)perylene	63		89		40-140	34		50
Fluorene	59		81		40-140	31		50
Phenanthrene	56		79		40-140	34		50
Dibenzo(a,h)anthracene	64		89		40-140	33		50
Indeno(1,2,3-cd)pyrene	62		88		40-140	35		50
Pyrene	60		85		35-142	34		50

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1572857-2 WG1572857-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	57		74		25-120
Phenol-d6	59		76		10-120
Nitrobenzene-d5	56		73		23-120
2-Fluorobiphenyl	58		79		30-120
2,4,6-Tribromophenol	61		85		10-136
4-Terphenyl-d14	58		84		18-120

PCBS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
Client ID: SB-8 3.5-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:31
Analyst: AD
Percent Solids: 89%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.3	3.23	1	A
Aroclor 1221	ND		ug/kg	36.3	3.64	1	A
Aroclor 1232	ND		ug/kg	36.3	7.70	1	A
Aroclor 1242	ND		ug/kg	36.3	4.90	1	A
Aroclor 1248	ND		ug/kg	36.3	5.45	1	A
Aroclor 1254	ND		ug/kg	36.3	3.97	1	A
Aroclor 1260	ND		ug/kg	36.3	6.71	1	A
Aroclor 1262	ND		ug/kg	36.3	4.61	1	A
Aroclor 1268	ND		ug/kg	36.3	3.76	1	A
PCBs, Total	ND		ug/kg	36.3	3.23	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-02
Client ID: SB-9 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:39
Analyst: AD
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.9	3.19	1	A
Aroclor 1221	ND		ug/kg	35.9	3.60	1	A
Aroclor 1232	ND		ug/kg	35.9	7.61	1	A
Aroclor 1242	ND		ug/kg	35.9	4.84	1	A
Aroclor 1248	79.0		ug/kg	35.9	5.39	1	A
Aroclor 1254	196		ug/kg	35.9	3.93	1	B
Aroclor 1260	ND		ug/kg	35.9	6.64	1	A
Aroclor 1262	ND		ug/kg	35.9	4.56	1	A
Aroclor 1268	ND		ug/kg	35.9	3.72	1	A
PCBs, Total	275		ug/kg	35.9	3.19	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-03
Client ID: SB-11 2.5-4.5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 10:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 11/12/21 19:47
Analyst: AD
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.8	3.36	1	A
Aroclor 1221	ND		ug/kg	37.8	3.79	1	A
Aroclor 1232	ND		ug/kg	37.8	8.01	1	A
Aroclor 1242	ND		ug/kg	37.8	5.09	1	A
Aroclor 1248	29.2	J	ug/kg	37.8	5.67	1	B
Aroclor 1254	57.0		ug/kg	37.8	4.13	1	B
Aroclor 1260	ND		ug/kg	37.8	6.98	1	A
Aroclor 1262	ND		ug/kg	37.8	4.80	1	A
Aroclor 1268	ND		ug/kg	37.8	3.92	1	A
PCBs, Total	86.2	J	ug/kg	37.8	3.36	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 11/12/21 18:35
Analyst: AD

Extraction Method: EPA 3546
Extraction Date: 11/12/21 01:08
Cleanup Method: EPA 3665A
Cleanup Date: 11/12/21
Cleanup Method: EPA 3660B
Cleanup Date: 11/12/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-03 Batch: WG1570418-1						
Aroclor 1016	ND		ug/kg	33.0	2.93	A
Aroclor 1221	ND		ug/kg	33.0	3.31	A
Aroclor 1232	ND		ug/kg	33.0	7.00	A
Aroclor 1242	ND		ug/kg	33.0	4.45	A
Aroclor 1248	ND		ug/kg	33.0	4.95	A
Aroclor 1254	ND		ug/kg	33.0	3.61	A
Aroclor 1260	ND		ug/kg	33.0	6.10	A
Aroclor 1262	ND		ug/kg	33.0	4.19	A
Aroclor 1268	ND		ug/kg	33.0	3.42	A
PCBs, Total	ND		ug/kg	33.0	2.93	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	62		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG1570418-2 WG1570418-3									
Aroclor 1016	88		87		40-140	1		50	A
Aroclor 1260	83		83		40-140	0		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		76		30-150	A
Decachlorobiphenyl	74		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		80		30-150	B
Decachlorobiphenyl	68		69		30-150	B

METALS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
 Client ID: SB-8 3.5-5FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.34		mg/kg	0.430	0.089	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Barium, Total	35.9		mg/kg	0.430	0.075	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Cadmium, Total	0.266	J	mg/kg	0.430	0.042	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Chromium, Total	7.62		mg/kg	0.430	0.041	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Lead, Total	53.5		mg/kg	2.15	0.115	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Mercury, Total	ND		mg/kg	0.072	0.047	1	11/10/21 10:40	11/10/21 13:44	EPA 7471B	1,7471B	AC
Selenium, Total	0.180	J	mg/kg	0.859	0.111	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	0.430	0.122	1	11/10/21 09:20	11/10/21 14:11	EPA 3050B	1,6010D	GD



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-02
 Client ID: SB-9 1-2FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:30
 Date Received: 11/05/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.87		mg/kg	0.438	0.091	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Barium, Total	180		mg/kg	0.438	0.076	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Cadmium, Total	0.675		mg/kg	0.438	0.043	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Chromium, Total	26.8		mg/kg	0.438	0.042	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Lead, Total	190		mg/kg	2.19	0.117	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Mercury, Total	0.451		mg/kg	0.072	0.047	1	11/10/21 10:40	11/10/21 14:04	EPA 7471B	1,7471B	AC
Selenium, Total	0.613	J	mg/kg	0.876	0.113	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD
Silver, Total	5.39		mg/kg	0.438	0.124	1	11/10/21 09:20	11/10/21 14:54	EPA 3050B	1,6010D	GD



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-03
 Client ID: SB-11 2.5-4.5FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 10:00
 Date Received: 11/05/21
 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	5.44		mg/kg	0.456	0.095	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Barium, Total	58.8		mg/kg	0.456	0.079	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Cadmium, Total	0.392	J	mg/kg	0.456	0.045	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Chromium, Total	8.73		mg/kg	0.456	0.044	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Lead, Total	54.2		mg/kg	2.28	0.122	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Mercury, Total	0.186		mg/kg	0.076	0.050	1	11/10/21 10:40	11/10/21 14:07	EPA 7471B	1,7471B	AC
Selenium, Total	0.383	J	mg/kg	0.912	0.118	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	0.456	0.129	1	11/10/21 09:20	11/10/21 14:59	EPA 3050B	1,6010D	GD



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-04
 Client ID: SB-7 3.4-5FT
 Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 08:30
 Date Received: 11/05/21
 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	5.48		mg/kg	2.24	0.465	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Barium, Total	173		mg/kg	2.24	0.389	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Cadmium, Total	0.470	J	mg/kg	2.24	0.219	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Chromium, Total	22.8		mg/kg	2.24	0.215	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Lead, Total	18.2		mg/kg	11.2	0.599	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Mercury, Total	ND		mg/kg	0.092	0.060	1	11/17/21 22:31	11/18/21 16:05	EPA 7471B	1,7471B	AC
Selenium, Total	1.10	J	mg/kg	4.47	0.577	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV
Silver, Total	ND		mg/kg	2.24	0.633	5	11/17/21 21:57	11/23/21 11:36	EPA 3050B	1,6010D	SV



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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): 01-03 Batch: WG1569119-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Barium, Total	ND		mg/kg	0.400	0.070	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Lead, Total	ND		mg/kg	2.00	0.107	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD
Silver, Total	ND		mg/kg	0.400	0.113	1	11/10/21 09:20	11/10/21 14:45	1,6010D	GD

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): 01-03 Batch: WG1569120-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/10/21 10:40	11/10/21 13:38	1,7471B	AC

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 04 Batch: WG1572675-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Barium, Total	ND		mg/kg	0.400	0.070	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Cadmium, Total	ND		mg/kg	0.400	0.039	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Chromium, Total	ND		mg/kg	0.400	0.038	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Lead, Total	ND		mg/kg	2.00	0.107	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Selenium, Total	ND		mg/kg	0.800	0.103	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV
Silver, Total	ND		mg/kg	0.400	0.113	1	11/17/21 21:57	11/22/21 13:19	1,6010D	SV

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Method Blank Analysis Batch Quality Control

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): 04 Batch: WG1572676-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	11/17/21 22:31	11/18/21 15:59	1,7471B	AC

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1569119-2 SRM Lot Number: D109-540								
Arsenic, Total	101		-		70-130	-		
Barium, Total	92		-		75-125	-		
Cadmium, Total	95		-		75-125	-		
Chromium, Total	91		-		70-130	-		
Lead, Total	93		-		72-128	-		
Selenium, Total	101		-		68-132	-		
Silver, Total	93		-		68-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1569120-2 SRM Lot Number: D109-540								
Mercury, Total	94		-		60-140	-		
Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG1572675-2 SRM Lot Number: D109-540								
Arsenic, Total	93		-		70-130	-		
Barium, Total	90		-		75-125	-		
Cadmium, Total	105		-		75-125	-		
Chromium, Total	94		-		70-130	-		
Lead, Total	86		-		72-128	-		
Selenium, Total	96		-		68-132	-		
Silver, Total	89		-		68-131	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 04 Batch: WG1572676-2 SRM Lot Number: D109-540					
Mercury, Total	90	-	60-140	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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): 01-03 QC Batch ID: WG1569119-3 QC Sample: L2161096-01 Client ID: SB-8 3.5-5FT												
Arsenic, Total	3.34	10.2	10.7	72	Q	-	-		75-125	-		20
Barium, Total	35.9	170	149	67	Q	-	-		75-125	-		20
Cadmium, Total	0.266J	4.49	2.88	64	Q	-	-		75-125	-		20
Chromium, Total	7.62	17	17.0	55	Q	-	-		75-125	-		20
Lead, Total	53.5	44.9	144	201	Q	-	-		75-125	-		20
Selenium, Total	0.180J	10.2	7.28	72	Q	-	-		75-125	-		20
Silver, Total	ND	25.4	18.5	73	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1569120-3 QC Sample: L2161096-01 Client ID: SB-8 3.5-5FT												
Mercury, Total	ND	0.142	0.177	125	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1572675-3 QC Sample: L2162210-01 Client ID: MS Sample												
Arsenic, Total	1.80	10.6	11.8	82		-	-		75-125	-		20
Barium, Total	568	176	477	0	Q	-	-		75-125	-		20
Cadmium, Total	0.337J	4.66	4.44	95		-	-		75-125	-		20
Chromium, Total	22.4	17.6	45.5	71	Q	-	-		75-125	-		20
Lead, Total	95.3	46.6	951	1830	Q	-	-		75-125	-		20
Selenium, Total	ND	10.6	9.37	89		-	-		75-125	-		20
Silver, Total	ND	26.4	21.7	82		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1572676-3 QC Sample: L2161096-04 Client ID: SB-7 3.4-5FT												
Mercury, Total	ND	0.16	0.202	126	Q	-	-		80-120	-		20

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2161096
Report Date: 11/24/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1569119-4 QC Sample: L2161096-01 Client ID: SB-8 3.5-5FT						
Arsenic, Total	3.34	3.43	mg/kg	3		20
Barium, Total	35.9	36.7	mg/kg	2		20
Cadmium, Total	0.266J	0.265J	mg/kg	NC		20
Chromium, Total	7.62	6.29	mg/kg	19		20
Lead, Total	53.5	98.3	mg/kg	59	Q	20
Selenium, Total	0.180J	0.172J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1569120-4 QC Sample: L2161096-01 Client ID: SB-8 3.5-5FT						
Mercury, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1572675-4 QC Sample: L2162210-01 Client ID: DUP Sample						
Lead, Total	95.3	148	mg/kg	43	Q	20
Total Metals - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1572676-4 QC Sample: L2161096-04 Client ID: SB-7 3.4-5FT						
Mercury, Total	ND	ND	mg/kg	NC		20

**Lab Serial Dilution
Analysis**
Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1569119-6 QC Sample: L2161096-01 Client ID: SB-8 3.5-5FT						
Barium, Total	35.9	32.4	mg/kg	10		20



INORGANICS & MISCELLANEOUS

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-01
Client ID: SB-8 3.5-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:00
Date Received: 11/05/21
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	88.5		%	0.100	NA	1	-	11/09/21 19:20	121,2540G	TR



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-02
Client ID: SB-9 1-2FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 09:30
Date Received: 11/05/21
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	88.0		%	0.100	NA	1	-	11/09/21 19:20	121,2540G	TR



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-03
Client ID: SB-11 2.5-4.5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 10:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.1		%	0.100	NA	1	-	11/09/21 19:20	121,2540G	TR



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

SAMPLE RESULTS

Lab ID: L2161096-04
Client ID: SB-7 3.4-5FT
Sample Location: NIAGARA FALLS, NY

Date Collected: 11/04/21 08:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.6		%	0.100	NA	1	-	11/18/21 07:38	121,2540G	RI



Lab Duplicate Analysis

Batch Quality Control

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1569254-1 QC Sample: L2161066-01 Client ID: DUP Sample						
Solids, Total	88.7	87.6	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 04 QC Batch ID: WG1572903-1 QC Sample: L2163283-01 Client ID: DUP Sample						
Solids, Total	92.0	91.8	%	0		20

Project Name: 515 6TH ST
Project Number: B0474-021-001

Serial_No: 11242115:59
Lab Number: L2161096
Report Date: 11/24/21

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(*)
L2161096-01A	Vial Large Septa unpreserved (4oz)	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2161096-01B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161096-01C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-01D	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-01X	Vial MeOH preserved split	A	NA		3.1	Y	Absent		NYTCL-8260-R2(14)
L2161096-01Y	Vial Water preserved split	A	NA		3.1	Y	Absent	10-NOV-21 06:43	NYTCL-8260-R2(14)
L2161096-01Z	Vial Water preserved split	A	NA		3.1	Y	Absent	10-NOV-21 06:43	NYTCL-8260-R2(14)
L2161096-02A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),SE-TI(180),PB-TI(180),HG-T(28),CD-TI(180)
L2161096-02B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-02C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-03A	Vial Large Septa unpreserved (4oz)	A	NA		3.1	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)
L2161096-03B	Vial Large Septa unpreserved (4oz)	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-03C	Vial Large Septa unpreserved (4oz)	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7),NYTCL-8082(365)
L2161096-04A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L2161096-04B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7)
L2161096-04C	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14),TS(7)
L2161096-05A	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		HOLD-METAL(180)
L2161096-05B	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		HOLD-WETCHEM(),HOLD-8270(14)

Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Footnotes

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

Terms

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

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

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

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

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

Data Qualifiers

- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



Project Name: 515 6TH ST
Project Number: B0474-021-001

Lab Number: L2161096
Report Date: 11/24/21

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 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**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

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, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****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, EPA 537.1.****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]