
LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT

**FORMER CENTRAL DRY CLEANERS SITE
165-169 WEST UTICA STREET
BUFFALO, NEW YORK**

September 2017

0239-017-001

Prepared for:

471 Elmwood Group, LLC

Prepared By:



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

LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT

Former Central Dry Cleaners Site
165-169 West Utica Street
Buffalo, New York

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Former Central Dry Cleaners Site
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Buffalo, New York

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1.0 INTRODUCTION

1.1 Background and Site Description

TurnKey Environmental Restoration, LLC (TurnKey) performed a Limited Phase II Environmental Investigation on behalf of 471 Elmwood Group, LLC at the property located at the corner of West Utica and Atlantic Avenue, addressed as 165-169 West Utica Street, City of Buffalo, Erie County, New York (Site; see Figures 1 and 2).). Previous investigations at the Site revealed historic operations including a dry cleaning plant and the presence of multiple underground storage tanks (USTs) on Site.

The purpose of the investigation was to assess subsurface conditions related to the recognized environmental conditions (RECs) identified for the property in the due diligence Phase I Environmental Site Assessment (ESA).

1.2 Site Description

The subject property is located in a highly developed commercial and residential area of Buffalo, New York. The subject Site, addressed as 165-169 West Utica Street, is also identified as Tax ID No. 100.38-3-5.1. The Site, totaling 1.13-acres, includes a former dry cleaning operation building, asphalt parking areas and gravel covered parking areas. Surrounding properties include residential and commercial use.

This Limited Phase II Site Investigation included completion of a subsurface soil boring investigation to assess potential environmental impacts from the previous use of the Site for dry cleaning operations.

1.3 Previous Environmental Study

A Phase I Environmental Site Assessment performed by TurnKey Environmental Restoration, LLC (TurnKey) revealed the following RECs for the subject property:

- The long history of dry cleaning at the Site with documented use of various dry cleaning chemicals (petroleum and solvents) is considered a REC due to the potential for environmental impacts.
- The solvent and petroleum USTs identified in the historic records for the Site are considered RECs.

**LIMITED PHASE II ENVIRONMENTAL INVESTIGATION REPORT
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- Presumed former equipment locations/foundations within the building with floor disturbances, the distillation still system, boiler system, steam generator and floor drains are considered RECs due to the potential for environmental impacts.
- The incinerator with ash waste of unknown nature and the large brick vent stack are considered RECs due to the potential presence of impacts.

2.0 SUBSURFACE SOIL/FILL INVESTIGATION

2.1 Soil Borings

On July 19, 2017, TurnKey's drilling subcontractor, Nature's Way Environmental (Nature's Way) mobilized a direct-push drill rig to the Site. A total of 12 soil boring locations, identified as SB-1 through SB-12, were advanced in areas of suspected RECs (see Figures 2 and 3).

The direct-push soil borings were advanced using 1.5-inch diameter samplers that are 4-feet in length. Continuous four foot 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/fill samples by TurnKey's Environmental Scientist. The retrieved soil-fill samples from each boring were screened using a photoionization detector (PID) and visual and/or olfactory observations were noted. Findings of the investigation are described below in Section 3.0.

2.2 Laboratory Analysis

A total of six (6) soil-fill samples were collected from borings SB-1, SB-2, SB-5, SB-7, SB-11 and SB-12. Soil/fill samples collected were placed in pre-cleaned, laboratory provided sample bottles using dedicated stainless steel sampling tools, and cooled to 4° C in the field. The samples were transported under chain-of-custody command to NYSDOH ELAP-certified laboratory for analysis. Select soil samples were analyzed for NYSDEC CP-51 List plus Target Compound List (TCL) volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) metals. Laboratory analytical results are presented below.

3.0 INVESTIGATION FINDINGS

Table 1 presents a summary of the soil/fill sample results. Each compound that was analyzed and detected above the laboratory reporting limit is listed on the table with its associated result to provide a complete data summary. For comparison purposes, Table 1 presents soil cleanup objectives (SCOs) for each of the detected parameters as published in 6NYCRR Part 375. Laboratory analytical data packages are provided electronically in Appendix A.

3.1 Qualitative Soil-Fill Screening

Soil-fill samples were screened for VOCs using a photoionization detector (PID). Elevated PID measurements were identified and ranged from 1 ppm to 218 ppm respectively. Fill materials were generally noted within the soil borings at varying thickness across the Site, generally consisting of brick, block, concrete, cinders, glass, ash intermingled with sand and clay. Based on the subsurface conditions, soil borings were limited to the upper 12 fbgs, and no indication of water was noted during the boring investigation. All borings were completed in accessible exterior portions of the Site.

Soil/fill observed in SB-1 through SB-12 was generally described as asphalt and/or gravel surface cover with gravel-fill sub-base to approximately 1 foot below ground surface (fbgs). Subsurface soil/fill was generally described as reworked soil-fill with varying amounts of fill material, including brick, block, concrete, cinders, glass, and ash, with Sand, silt, and gravel to maximum depth of 12 fbgs. Equipment refusal was encountered at all of the investigation locations at depths ranging from 6 to 12 fbgs. No evidence of water was encountered within the soil borings during the investigation.

3.2 Analytical Results

As indicated on Table 1, the analytical data results identify elevated VOCs, primarily dry cleaner related VOCs, at concentrations exceeding Industrial Use SCOs. Elevated PAHs including certain individual and total PAHs exceeding ISCOs, and elevated metals exceeding their respective Unrestricted, Residential, Commercial, and/or Industrial Use SCOs on Site.

4.0 CONCLUSIONS AND RECOMMENDATIONS

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

- Elevated PID above background (0.0 ppm) was observed in all 12 of the soil borings completed across the Site, with highest reading of 218 ppm.
- Elevated VOCs, primarily dry cleaning related compounds, were detected on Site exceeding RSCOs, CSCOs, and ISCOs.
- Elevated PAHs exceeding ISCOs were detected in 4 of the 6 sample locations. Elevated total PAHs above the 500 ppm guidance were detected at several locations on-Site.
- Elevated metals, including arsenic and lead, were detected above their RSCO, CSOCs, and ISCOs.
- Based on the findings of this investigation, additional Site investigation and remediation appears warranted prior to Site redevelopment. We understand that 471 Elmwood Group, LLC is considering redeveloping the property; based on environmental impacts noted during this investigation, the Site may be eligible for the New York Brownfield Cleanup Program.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of 471 Elmwood Group, 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 471 Elmwood Group, LLC. Use of or reliance on this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

TABLES



TABLE 1
SUMMARY OF SUBSURFACE SOIL/FILL ANALYTICAL RESULTS
FORMER CENTRAL DRY CLEANERS FACILITY
165 WEST UTICA
BUFFALO, NEW YORK

PARAMETER ¹	Unrestricted Use SCOs ²	Residential Use SCOs ²	Commercial Use SCOs ²	Industrial Use SCOs ²	SAMPLE LOCATION (DEPTH)					
					SB-1 (4-6')	SB-2 (0.5-3')	SB-5 (0.25-2')	SB-7 (0.33-2')	SB-11 (0.25-2')	SB-12 (0.25-1')
					07/19/2017					
Volatile Organic Compounds (VOCs) - mg/Kg ³										
1,1-Dichloroethene	0.33	100	500	1,000	ND	--	--	43 D	--	--
1,2,4-Trimethylbenzene	3.6	47	190	380	0.0002	--	--	ND	--	--
1,2-Dichloroethane	0.02	2.3	30	60	ND	--	--	ND	--	--
1,3,5-Trimethylbenzene	8.4	47	190	380	ND	--	--	ND	--	--
4-Isopropyltoluene	--	--	--	--	ND	--	--	ND	--	--
Acetone	0.05	100	500	1,000	0.0033 J	--	--	ND	--	--
Benzene	0.06	2.9	44	89	ND	--	--	ND	--	--
Carbon disulfide	--	--	--	--	ND	--	--	38 J D	--	--
cis-1,2-Dichloroethene	0.25	59	500	1,000	ND	--	--	120 D	--	--
Cyclohexane	--	--	--	--	ND	--	--	ND	--	--
Ethylbenzene	1	30	390	780	ND	--	--	ND	--	--
Isopropylbenzene (Cumene)	--	--	--	--	ND	--	--	ND	--	--
Methylcyclohexane	--	--	--	--	ND	--	--	ND	--	--
Methylene chloride	0.05	51	500	1,000	0.0029 J	--	--	ND	--	--
n-Butylbenzene	12	100	500	1,000	ND	--	--	ND	--	--
n-Propylbenzene	3.9	100	500	1,000	ND	--	--	ND	--	--
sec-Butylbenzene	11	100	500	1,000	ND	--	--	ND	--	--
tert-Butylbenzene	5.9	100	500	1,000	ND	--	--	ND	--	--
Tetrachloroethene	1.3	5.5	150	300	0.0026	--	--	4500 D	--	--
Toluene	0.7	100	500	1,000	ND	--	--	ND	--	--
trans-1,2-Dichloroethene	0.19	100	500	1,000	ND	--	--	ND	--	--
Trichloroethene	0.47	10	200	400	ND	--	--	210 D	--	--
Vinyl chloride	0.02	0.21	13	27	ND	--	--	18 J D	--	--
Total Xylenes	0.26	100	500	1000	ND	--	--	ND	--	--
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg ³										
2-Methylnaphthalene	--	--	--	--	0.093 J	ND	ND	ND	ND	ND
Acenaphthene	20	100	500	1,000	0.21	63 D2	0.11 J	ND	0.47 J D	140 D2
Acenaphthylene	100	100	500	1,000	0.38	1.8 D	ND	ND	4.8 D	5.8 D
Anthracene	100	100	500	1,000	0.73	84 D2	0.2	ND	3.8 D	180 D2
Benzo(a)anthracene	1	1	5.6	11	3.4	150 D2	0.44	ND	22 D	300 D2
Benzo(a)pyrene	1	1	1	1	3.1	150 D2	0.39	ND	23 D	300 D2
Benzo(b)fluoranthene	1	1	5.6	11	4.5	200 D2	0.49	ND	28 D	380 D2
Benzo(ghi)perylene	100	100	500	1,000	2.2	90 D2	0.23	ND	13 D	170 D2
Benzo(k)fluoranthene	0.8	1	56	110	1.4	70 D2	0.18	ND	9.8 D	49 D
Carbazole	--	--	--	--	0.36	ND	ND	ND	ND	ND
Chrysene	1	1	56	110	3.4	140 D2	0.43	ND	22 D	290 D2
Dibenzo(a,h)anthracene	0.33	0.33	0.56	1	0.54	20 D	0.062 J	ND	3.2 D	41 D
Dibenzofuran	7	14	350	1,000	0.15 J	ND	ND	ND	ND	ND
Diethyl phthalate	--	--	--	--	ND	ND	ND	0.66 J D	ND	ND
Di-n-butyl phthalate	--	--	--	--	ND	ND	ND	0.77 J D	ND	ND
Fluoranthene	100	100	500	1,000	7.3	400 D2	1	ND	37 D	780 D2
Fluorene	30	100	500	1,000	0.21	66 D2	0.1 J	ND	0.92 J D	150 D2
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	11	2.4	100 D2	0.25	ND	14 D	200 D2
Naphthalene	12	100	500	1,000	0.16 J	25 D	0.03 J	0.99 J D	0.57 J D	70 D
Phenanthrene	100	100	500	1,000	3.3	380 D2	0.94	ND	18 D	810 D2
Pyrene	100	100	500	1,000	6.1	290 D2	0.85	ND	30 D	580 D2
Total PAHs	--	100	500	--	39.33	2229.8	5.702	0.99	230.56	4445.8
Metals - mg/Kg										
Arsenic	13	16	16	16	10.5	3.91	9.24	3.87	24.8	6.78
Barium	350	350	400	10,000	104	60	32.1	79.1	218	136
Cadmium	2.5	2.5	9.3	60	0.475	0.218 J	0.64	0.729	0.87	4.36
Chromium	30	36	1,500	6,800	13.8	4.65	11	11.8	17.9	87.9
Lead	63	400	1,000	3,900	338	49.9	98.5	14.2	856	399
Mercury	0.18	0.81	2.8	6	0.42	0.03 J	0.52	1.3	0.63	0.03 J
Selenium	3.9	36	1,500	6,800	0.364 J	ND	1.96	0.286 J	7.4	0.48 J
Silver	2	36	1,500	6,800	0.312 J	ND	ND	ND	0.132 J	0.594

Notes:

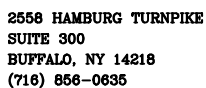
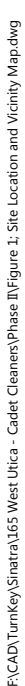
- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
- Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:

ND = Parameter not detected above laboratory detection limit.
 "--" = No value available for the parameter. Or parameter not analysed for.
 J = Estimated value; result is less than the sample quantitation limit but greater than zero.
 D = Compounds were identified in an analysis at the secondary dilution factor.
 D2 = Compounds were identified in an analysis at the third dilution factor.

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

FIGURES



PHASE II ENVIRONMENTAL SITE INVESTIGATION

BUFFALO, NEW YORK

PREPARED FOR

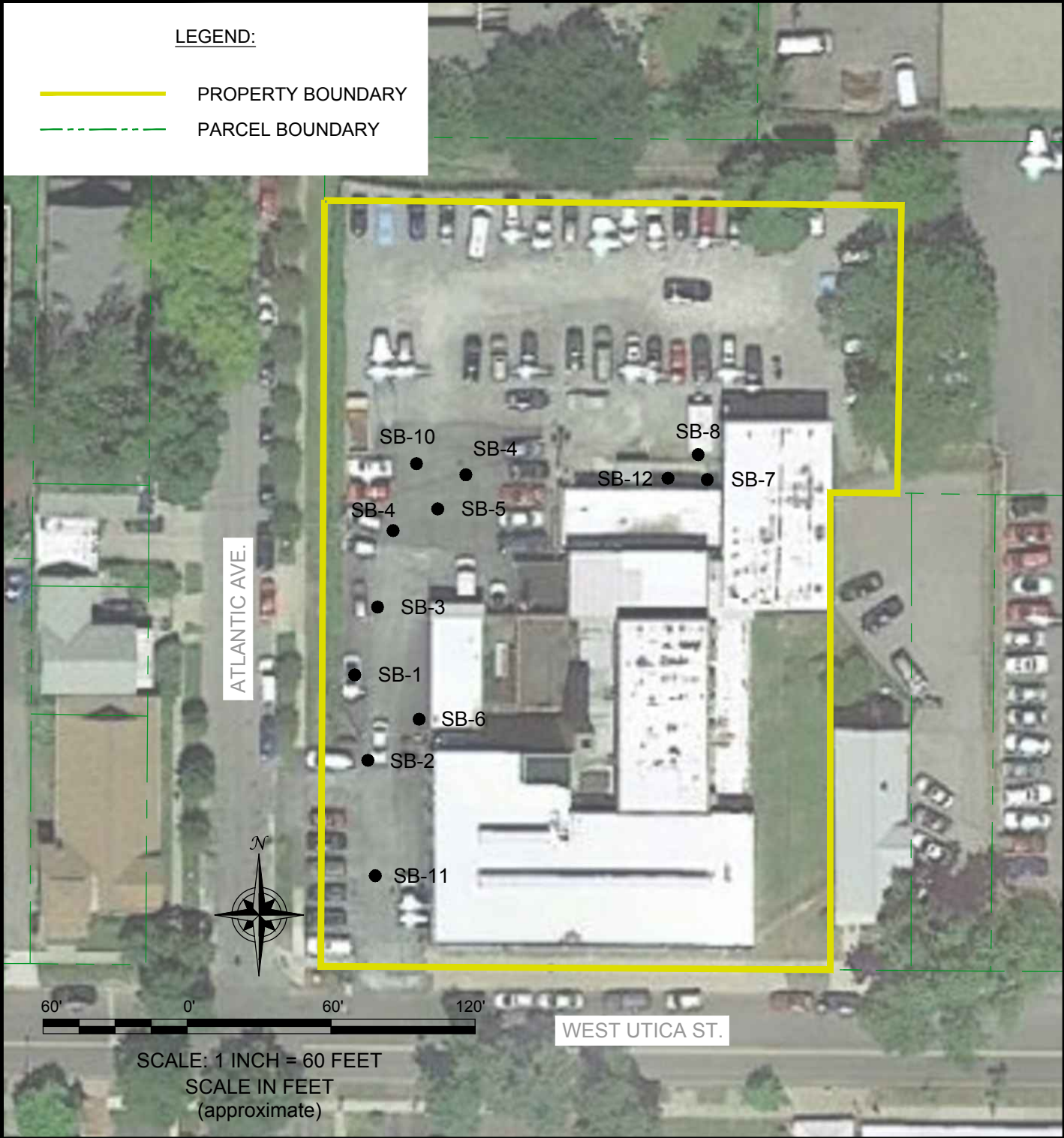
PROJECT NO.: T0239-017-002

DATE: JULY 2017

DRAFTED BY: CEH

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FIGURE 2



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

**SITE PLAN (AERIAL) &
INVESTIGATION LOCATIONS**
PHASE II ENVIRONMENTAL SITE INVESTIGATION

165-169 WEST UTICA STREET

BUFFALO, NEW YORK

PREPARED FOR

471 ELMWOOD GROUP, LLC

PROJECT NO.: T0239-017-002

DATE: JULY 2017

DRAFTED BY: CMC

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APPENDIX A

LABORATORY ANALYTICAL DATA SUMMARY PACKAGE



ANALYTICAL REPORT

Lab Number:	L1724949
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Nate Munley
Phone:	(716) 856-0599
Project Name:	165 WEST UTICA
Project Number:	B0239-017-001
Report Date:	07/27/17

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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



Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1724949-01	SB-1 (4-6')	SOIL	BUFFALO, NY	07/19/17 09:00	07/20/17
L1724949-02	SB-2 (6"-3')	SOIL	BUFFALO, NY	07/19/17 09:30	07/20/17
L1724949-03	SB-5 (3"-2')	SOIL	BUFFALO, NY	07/19/17 10:30	07/20/17
L1724949-04	SB-7 (4"-2')	SOIL	BUFFALO, NY	07/19/17 12:30	07/20/17
L1724949-05	SB-11 (3"-2')	SOIL	BUFFALO, NY	07/19/17 16:00	07/20/17
L1724949-06	SB-12 (3"-1')	SOIL	BUFFALO, NY	07/19/17 17:30	07/20/17

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

Case Narrative (continued)

Report Submission

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

Volatile Organics

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

Semivolatile Organics

L1724949-04: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1724949-06: The sample has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 07/27/17

ORGANICS

VOLATILES

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-01
 Client ID: SB-1 (4-6')
 Sample Location: BUFFALO, NY

Date Collected: 07/19/17 09:00
 Date Received: 07/20/17
 Field Prep: Not Specified

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/25/17 15:05
 Analyst: CBN
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	2.9	J	ug/kg	11	1.8	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.30	1
Chloroform	ND		ug/kg	1.6	0.41	1
Carbon tetrachloride	ND		ug/kg	1.1	0.38	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.34	1
Tetrachloroethene	2.6		ug/kg	1.1	0.33	1
Chlorobenzene	ND		ug/kg	1.1	0.38	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.39	1
Bromodichloromethane	ND		ug/kg	1.1	0.34	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.23	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.25	1
Bromoform	ND		ug/kg	4.4	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.33	1
Benzene	ND		ug/kg	1.1	0.21	1
Toluene	ND		ug/kg	1.6	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.19	1
Chloromethane	ND		ug/kg	5.5	0.48	1
Bromomethane	ND		ug/kg	2.2	0.37	1
Vinyl chloride	ND		ug/kg	2.2	0.35	1
Chloroethane	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.26	1
Trichloroethene	ND		ug/kg	1.1	0.33	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	5.5	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	5.5	0.20	1

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-01

Date Collected: 07/19/17 09:00

Client ID: SB-1 (4-6')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.2	0.17	1
p/m-Xylene	ND		ug/kg	2.2	0.39	1
o-Xylene	ND		ug/kg	2.2	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.38	1
Styrene	ND		ug/kg	2.2	0.44	1
Dichlorodifluoromethane	ND		ug/kg	11	0.55	1
Acetone	3.3	J	ug/kg	11	2.5	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.76	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.27	1
2-Hexanone	ND		ug/kg	11	0.74	1
Bromochloromethane	ND		ug/kg	5.5	0.39	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.22	1
n-Butylbenzene	ND		ug/kg	1.1	0.25	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	0.44	1
Isopropylbenzene	ND		ug/kg	1.1	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
n-Propylbenzene	ND		ug/kg	1.1	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	0.18	1
1,2,4-Trimethylbenzene	0.20	J	ug/kg	5.5	0.20	1
Methyl Acetate	ND		ug/kg	22	0.51	1
Cyclohexane	ND		ug/kg	22	0.48	1
1,4-Dioxane	ND		ug/kg	44	16.	1
Freon-113	ND		ug/kg	22	0.57	1
Methyl cyclohexane	ND		ug/kg	4.4	0.26	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/kg	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	103		70-130

Project Name: 165 WEST UTICA**Lab Number:** L1724949**Project Number:** B0239-017-001**Report Date:** 07/27/17**SAMPLE RESULTS**

Lab ID: L1724949-04 D

Date Collected: 07/19/17 12:30

Client ID: SB-7 (4"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 07/26/17 17:28

Analyst: BD

Percent Solids: 53%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	260000	43000	200
1,1-Dichloroethane	ND		ug/kg	39000	7000	200
Chloroform	ND		ug/kg	39000	9600	200
Carbon tetrachloride	ND		ug/kg	26000	9000	200
1,2-Dichloropropane	ND		ug/kg	91000	5900	200
Dibromochloromethane	ND		ug/kg	26000	4600	200
1,1,2-Trichloroethane	ND		ug/kg	39000	8200	200
Tetrachloroethene	4500000		ug/kg	26000	7900	200
Chlorobenzene	ND		ug/kg	26000	9100	200
Trichlorofluoromethane	ND		ug/kg	130000	11000	200
1,2-Dichloroethane	ND		ug/kg	26000	6400	200
1,1,1-Trichloroethane	ND		ug/kg	26000	9100	200
Bromodichloromethane	ND		ug/kg	26000	8000	200
trans-1,3-Dichloropropene	ND		ug/kg	26000	5400	200
cis-1,3-Dichloropropene	ND		ug/kg	26000	6000	200
Bromoform	ND		ug/kg	100000	6200	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	26000	7800	200
Benzene	ND		ug/kg	26000	5000	200
Toluene	ND		ug/kg	39000	5100	200
Ethylbenzene	ND		ug/kg	26000	4400	200
Chloromethane	ND		ug/kg	130000	11000	200
Bromomethane	ND		ug/kg	52000	8800	200
Vinyl chloride	18000	J	ug/kg	52000	8200	200
Chloroethane	ND		ug/kg	52000	8200	200
1,1-Dichloroethene	43000		ug/kg	26000	9700	200
trans-1,2-Dichloroethene	ND		ug/kg	39000	6300	200
Trichloroethene	210000		ug/kg	26000	7900	200
1,2-Dichlorobenzene	ND		ug/kg	130000	4700	200
1,3-Dichlorobenzene	ND		ug/kg	130000	5700	200
1,4-Dichlorobenzene	ND		ug/kg	130000	4700	200

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-04 D

Date Collected: 07/19/17 12:30

Client ID: SB-7 (4"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	52000	4000	200
p/m-Xylene	ND		ug/kg	52000	9100	200
o-Xylene	ND		ug/kg	52000	8800	200
cis-1,2-Dichloroethene	120000		ug/kg	26000	8900	200
Styrene	ND		ug/kg	52000	10000	200
Dichlorodifluoromethane	ND		ug/kg	260000	13000	200
Acetone	ND		ug/kg	260000	60000	200
Carbon disulfide	38000	J	ug/kg	260000	29000	200
2-Butanone	ND		ug/kg	260000	18000	200
4-Methyl-2-pentanone	ND		ug/kg	260000	6400	200
2-Hexanone	ND		ug/kg	260000	17000	200
Bromochloromethane	ND		ug/kg	130000	9300	200
1,2-Dibromoethane	ND		ug/kg	100000	5200	200
n-Butylbenzene	ND		ug/kg	26000	5900	200
sec-Butylbenzene	ND		ug/kg	26000	5600	200
1,2-Dibromo-3-chloropropane	ND		ug/kg	130000	10000	200
Isopropylbenzene	ND		ug/kg	26000	5000	200
p-Isopropyltoluene	ND		ug/kg	26000	5300	200
n-Propylbenzene	ND		ug/kg	26000	5600	200
1,2,3-Trichlorobenzene	ND		ug/kg	130000	6500	200
1,2,4-Trichlorobenzene	ND		ug/kg	130000	5600	200
1,3,5-Trimethylbenzene	ND		ug/kg	130000	4200	200
1,2,4-Trimethylbenzene	ND		ug/kg	130000	4800	200
Methyl Acetate	ND		ug/kg	520000	12000	200
Cyclohexane	ND		ug/kg	520000	11000	200
1,4-Dioxane	ND		ug/kg	1000000	380000	200
Freon-113	ND		ug/kg	520000	13000	200
Methyl cyclohexane	ND		ug/kg	100000	6200	200

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/kg 200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/25/17 08:57
 Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1025802-5					
Methylene chloride	ND		ug/kg	10	1.6
1,1-Dichloroethane	ND		ug/kg	1.5	0.27
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.34
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.18
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.31
Tetrachloroethene	ND		ug/kg	1.0	0.30
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.42
1,2-Dichloroethane	ND		ug/kg	1.0	0.25
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.35
Bromodichloromethane	ND		ug/kg	1.0	0.31
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.21
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.23
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.30
Benzene	ND		ug/kg	1.0	0.19
Toluene	ND		ug/kg	1.5	0.20
Ethylbenzene	ND		ug/kg	1.0	0.17
Chloromethane	ND		ug/kg	5.0	0.44
Bromomethane	0.58	J	ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.32
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.37
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.24
Trichloroethene	ND		ug/kg	1.0	0.30
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.22

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/25/17 08:57
 Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1025802-5					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.18
Methyl tert butyl ether	ND		ug/kg	2.0	0.15
p/m-Xylene	ND		ug/kg	2.0	0.35
o-Xylene	ND		ug/kg	2.0	0.34
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.34
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.50
Acetone	ND		ug/kg	10	2.3
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.69
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.36
1,2-Dibromoethane	ND		ug/kg	4.0	0.20
n-Butylbenzene	ND		ug/kg	1.0	0.23
sec-Butylbenzene	ND		ug/kg	1.0	0.22
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Isopropylbenzene	ND		ug/kg	1.0	0.19
p-Isopropyltoluene	ND		ug/kg	1.0	0.20
n-Propylbenzene	ND		ug/kg	1.0	0.22
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.25
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.22
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.16
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.19
Methyl Acetate	ND		ug/kg	20	0.46
Cyclohexane	ND		ug/kg	20	0.43
1,4-Dioxane	ND		ug/kg	40	14.
Freon-113	ND		ug/kg	20	0.51
Methyl cyclohexane	ND		ug/kg	4.0	0.24

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 07/25/17 08:57

Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1025802-5					

Tentatively Identified Compounds

Total TIC Compounds	5.26	J	ug/kg
Pentane, 2-methyl-	5.26	NJ	ug/kg

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/26/17 09:39
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026102-5					
Methylene chloride	ND		ug/kg	500	82.
1,1-Dichloroethane	ND		ug/kg	75	14.
Chloroform	ND		ug/kg	75	18.
Carbon tetrachloride	ND		ug/kg	50	17.
1,2-Dichloropropane	ND		ug/kg	180	11.
Dibromochloromethane	ND		ug/kg	50	8.8
1,1,2-Trichloroethane	ND		ug/kg	75	16.
Tetrachloroethene	ND		ug/kg	50	15.
Chlorobenzene	ND		ug/kg	50	17.
Trichlorofluoromethane	ND		ug/kg	250	21.
1,2-Dichloroethane	ND		ug/kg	50	12.
1,1,1-Trichloroethane	ND		ug/kg	50	18.
Bromodichloromethane	ND		ug/kg	50	15.
trans-1,3-Dichloropropene	ND		ug/kg	50	10.
cis-1,3-Dichloropropene	ND		ug/kg	50	12.
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	15.
Benzene	ND		ug/kg	50	9.6
Toluene	ND		ug/kg	75	9.8
Ethylbenzene	ND		ug/kg	50	8.5
Chloromethane	ND		ug/kg	250	22.
Bromomethane	ND		ug/kg	100	17.
Vinyl chloride	ND		ug/kg	100	16.
Chloroethane	ND		ug/kg	100	16.
1,1-Dichloroethene	ND		ug/kg	50	19.
trans-1,2-Dichloroethene	ND		ug/kg	75	12.
Trichloroethene	ND		ug/kg	50	15.
1,2-Dichlorobenzene	ND		ug/kg	250	9.1
1,3-Dichlorobenzene	ND		ug/kg	250	11.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/26/17 09:39
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026102-5					
1,4-Dichlorobenzene	ND		ug/kg	250	9.1
Methyl tert butyl ether	ND		ug/kg	100	7.6
p/m-Xylene	ND		ug/kg	100	18.
o-Xylene	ND		ug/kg	100	17.
cis-1,2-Dichloroethene	ND		ug/kg	50	17.
Styrene	ND		ug/kg	100	20.
Dichlorodifluoromethane	ND		ug/kg	500	25.
Acetone	ND		ug/kg	500	110
Carbon disulfide	ND		ug/kg	500	55.
2-Butanone	ND		ug/kg	500	34.
4-Methyl-2-pentanone	ND		ug/kg	500	12.
2-Hexanone	ND		ug/kg	500	33.
Bromochloromethane	ND		ug/kg	250	18.
1,2-Dibromoethane	ND		ug/kg	200	10.
n-Butylbenzene	ND		ug/kg	50	11.
sec-Butylbenzene	ND		ug/kg	50	11.
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	20.
Isopropylbenzene	ND		ug/kg	50	9.7
p-Isopropyltoluene	ND		ug/kg	50	10.
n-Propylbenzene	ND		ug/kg	50	11.
1,2,3-Trichlorobenzene	ND		ug/kg	250	12.
1,2,4-Trichlorobenzene	ND		ug/kg	250	11.
1,3,5-Trimethylbenzene	ND		ug/kg	250	8.0
1,2,4-Trimethylbenzene	ND		ug/kg	250	9.3
Methyl Acetate	ND		ug/kg	1000	23.
Cyclohexane	ND		ug/kg	1000	22.
1,4-Dioxane	ND		ug/kg	2000	720
Freon-113	ND		ug/kg	1000	26.
Methyl cyclohexane	ND		ug/kg	200	12.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/26/17 09:39
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026102-5					

Tentatively Identified Compounds

Total TIC Compounds	232	J	ug/kg
Unknown	102	J	ug/kg
Unknown	130	J	ug/kg

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1025802-3 WG1025802-4								
Methylene chloride	87		88		70-130	1		30
1,1-Dichloroethane	94		97		70-130	3		30
Chloroform	96		94		70-130	2		30
Carbon tetrachloride	108		107		70-130	1		30
1,2-Dichloropropane	97		98		70-130	1		30
Dibromochloromethane	92		92		70-130	0		30
1,1,2-Trichloroethane	94		92		70-130	2		30
Tetrachloroethene	99		101		70-130	2		30
Chlorobenzene	95		95		70-130	0		30
Trichlorofluoromethane	97		96		70-139	1		30
1,2-Dichloroethane	95		96		70-130	1		30
1,1,1-Trichloroethane	103		103		70-130	0		30
Bromodichloromethane	96		96		70-130	0		30
trans-1,3-Dichloropropene	96		94		70-130	2		30
cis-1,3-Dichloropropene	92		91		70-130	1		30
Bromoform	89		90		70-130	1		30
1,1,2,2-Tetrachloroethane	95		90		70-130	5		30
Benzene	96		96		70-130	0		30
Toluene	99		99		70-130	0		30
Ethylbenzene	99		100		70-130	1		30
Chloromethane	90		91		52-130	1		30
Bromomethane	86		88		57-147	2		30
Vinyl chloride	103		101		67-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1025802-3 WG1025802-4								
Chloroethane	87		90		50-151	3		30
1,1-Dichloroethene	93		93		65-135	0		30
trans-1,2-Dichloroethene	93		93		70-130	0		30
Trichloroethene	99		100		70-130	1		30
1,2-Dichlorobenzene	94		96		70-130	2		30
1,3-Dichlorobenzene	98		97		70-130	1		30
1,4-Dichlorobenzene	92		93		70-130	1		30
Methyl tert butyl ether	56	Q	43	Q	66-130	26		30
p/m-Xylene	98		98		70-130	0		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Styrene	94		95		70-130	1		30
Dichlorodifluoromethane	92		89		30-146	3		30
Acetone	99		94		54-140	5		30
Carbon disulfide	63		63		59-130	0		30
2-Butanone	84		71		70-130	17		30
4-Methyl-2-pentanone	96		91		70-130	5		30
2-Hexanone	95		88		70-130	8		30
Bromochloromethane	91		88		70-130	3		30
1,2-Dibromoethane	93		91		70-130	2		30
n-Butylbenzene	107		106		70-130	1		30
sec-Butylbenzene	106		106		70-130	0		30
1,2-Dibromo-3-chloropropane	87		80		68-130	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1025802-3 WG1025802-4								
Isopropylbenzene	104		106		70-130	2		30
p-Isopropyltoluene	104		105		70-130	1		30
n-Propylbenzene	105		107		70-130	2		30
1,2,3-Trichlorobenzene	94		94		70-130	0		30
1,2,4-Trichlorobenzene	96		94		70-130	2		30
1,3,5-Trimethylbenzene	103		106		70-130	3		30
1,2,4-Trimethylbenzene	101		105		70-130	4		30
Methyl Acetate	92		89		51-146	3		30
Cyclohexane	109		112		59-142	3		30
1,4-Dioxane	104		93		65-136	11		30
Freon-113	100		101		50-139	1		30
Methyl cyclohexane	109		111		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		106		70-130
Toluene-d8	105		108		70-130
4-Bromofluorobenzene	106		109		70-130
Dibromofluoromethane	103		101		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1026102-3 WG1026102-4								
Methylene chloride	95		98		70-130	3		30
1,1-Dichloroethane	98		100		70-130	2		30
Chloroform	97		98		70-130	1		30
Carbon tetrachloride	105		106		70-130	1		30
1,2-Dichloropropane	97		98		70-130	1		30
Dibromochloromethane	98		99		70-130	1		30
1,1,2-Trichloroethane	93		94		70-130	1		30
Tetrachloroethene	99		102		70-130	3		30
Chlorobenzene	95		96		70-130	1		30
Trichlorofluoromethane	84		85		70-139	1		30
1,2-Dichloroethane	89		90		70-130	1		30
1,1,1-Trichloroethane	101		101		70-130	0		30
Bromodichloromethane	96		95		70-130	1		30
trans-1,3-Dichloropropene	94		95		70-130	1		30
cis-1,3-Dichloropropene	93		95		70-130	2		30
Bromoform	97		97		70-130	0		30
1,1,2,2-Tetrachloroethane	92		92		70-130	0		30
Benzene	95		96		70-130	1		30
Toluene	94		96		70-130	2		30
Ethylbenzene	93		94		70-130	1		30
Chloromethane	102		104		52-130	2		30
Bromomethane	65		65		57-147	0		30
Vinyl chloride	80		81		67-130	1		30

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1026102-3 WG1026102-4								
Chloroethane	70		72		50-151	3		30
1,1-Dichloroethene	101		102		65-135	1		30
trans-1,2-Dichloroethene	98		99		70-130	1		30
Trichloroethene	95		97		70-130	2		30
1,2-Dichlorobenzene	95		97		70-130	2		30
1,3-Dichlorobenzene	95		98		70-130	3		30
1,4-Dichlorobenzene	95		96		70-130	1		30
Methyl tert butyl ether	92		93		66-130	1		30
p/m-Xylene	95		95		70-130	0		30
o-Xylene	91		92		70-130	1		30
cis-1,2-Dichloroethene	100		98		70-130	2		30
Styrene	94		96		70-130	2		30
Dichlorodifluoromethane	102		102		30-146	0		30
Acetone	100		98		54-140	2		30
Carbon disulfide	107		187	Q	59-130	54	Q	30
2-Butanone	90		90		70-130	0		30
4-Methyl-2-pentanone	90		90		70-130	0		30
2-Hexanone	83		83		70-130	0		30
Bromochloromethane	98		97		70-130	1		30
1,2-Dibromoethane	93		94		70-130	1		30
n-Butylbenzene	94		94		70-130	0		30
sec-Butylbenzene	95		96		70-130	1		30
1,2-Dibromo-3-chloropropane	99		94		68-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1026102-3 WG1026102-4								
Isopropylbenzene	93		95		70-130	2		30
p-Isopropyltoluene	95		97		70-130	2		30
n-Propylbenzene	92		94		70-130	2		30
1,2,3-Trichlorobenzene	96		100		70-130	4		30
1,2,4-Trichlorobenzene	97		99		70-130	2		30
1,3,5-Trimethylbenzene	96		98		70-130	2		30
1,2,4-Trimethylbenzene	97		98		70-130	1		30
Methyl Acetate	98		100		51-146	2		30
Cyclohexane	108		110		59-142	2		30
1,4-Dioxane	70		71		65-136	1		30
Freon-113	109		111		50-139	2		30
Methyl cyclohexane	99		99		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		92		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	102		102		70-130
Dibromofluoromethane	102		101		70-130

SEMIVOLATILES

Project Name: 165 WEST UTICA**Lab Number:** L1724949**Project Number:** B0239-017-001**Report Date:** 07/27/17**SAMPLE RESULTS**

Lab ID: L1724949-01
 Client ID: SB-1 (4-6')
 Sample Location: BUFFALO, NY

Date Collected: 07/19/17 09:00
 Date Received: 07/20/17
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/27/17 04:43
 Analyst: SZ
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	210		ug/kg	160	21.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	7300		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	160	J	ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	3400		ug/kg	120	23.	1
Benzo(a)pyrene	3100		ug/kg	160	50.	1
Benzo(b)fluoranthene	4500		ug/kg	120	34.	1
Benzo(k)fluoranthene	1400		ug/kg	120	33.	1

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-01

Date Collected: 07/19/17 09:00

Client ID: SB-1 (4-6')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Chrysene	3400		ug/kg	120	21.	1
Acenaphthylene	380		ug/kg	160	31.	1
Anthracene	730		ug/kg	120	40.	1
Benzo(ghi)perylene	2200		ug/kg	160	24.	1
Fluorene	210		ug/kg	200	20.	1
Phenanthrene	3300		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	540		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	2400		ug/kg	160	28.	1
Pyrene	6100		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	150	J	ug/kg	200	19.	1
2-Methylnaphthalene	93	J	ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	280	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Carbazole	360		ug/kg	200	20.	1
Atrazine	ND		ug/kg	160	71.	1
Benzaldehyde	ND		ug/kg	270	55.	1
Caprolactam	ND		ug/kg	200	62.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	200	41.	1

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-01

Date Collected: 07/19/17 09:00

Client ID: SB-1 (4-6')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

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

Tentatively Identified Compounds

Total TIC Compounds	10200	J	ug/kg	1
Unknown	212	J	ug/kg	1
Unknown Oxygenated PAH	190	J	ug/kg	1
Unknown Oxygenated PAH	202	J	ug/kg	1
Unknown Oxygenated PAH	515	J	ug/kg	1
Unknown PAH	891	J	ug/kg	1
Unknown PAH	170	J	ug/kg	1
Unknown PAH	184	J	ug/kg	1
Unknown	346	J	ug/kg	1
Unknown PAH	4650	J	ug/kg	1
Unknown Pyrene	190	J	ug/kg	1
Unknown Thiophene	164	J	ug/kg	1
Unknown	407	J	ug/kg	1
Unknown PAH	209	J	ug/kg	1
Unknown PAH	275	J	ug/kg	1
Unknown PAH	354	J	ug/kg	1
Unknown PAH	643	J	ug/kg	1
Unknown	204	J	ug/kg	1
Unknown PAH	223	J	ug/kg	1
Unknown	200	J	ug/kg	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		25-120
Phenol-d6	41		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	61		18-120

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-02 D2
 Client ID: SB-2 (6"-3')
 Sample Location: BUFFALO, NY
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/26/17 15:41
 Analyst: RC
 Percent Solids: 87%

Date Collected: 07/19/17 09:30
 Date Received: 07/20/17
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	63000		ug/kg	15000	1900	100
Fluoranthene	400000		ug/kg	11000	2100	100
Benzo(a)anthracene	150000		ug/kg	11000	2100	100
Benzo(a)pyrene	150000		ug/kg	15000	4600	100
Benzo(b)fluoranthene	200000		ug/kg	11000	3200	100
Benzo(k)fluoranthene	70000		ug/kg	11000	3000	100
Chrysene	140000		ug/kg	11000	1900	100
Anthracene	84000		ug/kg	11000	3600	100
Benzo(ghi)perylene	90000		ug/kg	15000	2200	100
Fluorene	66000		ug/kg	19000	1800	100
Phenanthrene	380000		ug/kg	11000	2300	100
Indeno(1,2,3-cd)pyrene	100000		ug/kg	15000	2600	100
Pyrene	290000		ug/kg	11000	1900	100

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-02 D

Date Collected: 07/19/17 09:30

Client ID: SB-2 (6"-3')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 07/22/17 17:14

Analytical Date: 07/24/17 09:05

Analyst: CB

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	58000	E	ug/kg	750	97.	5
Fluoranthene	280000	E	ug/kg	560	110	5
Naphthalene	25000		ug/kg	940	110	5
Benzo(a)anthracene	170000	E	ug/kg	560	100	5
Benzo(a)pyrene	130000	E	ug/kg	750	230	5
Benzo(b)fluoranthene	230000	E	ug/kg	560	160	5
Benzo(k)fluoranthene	38000	E	ug/kg	560	150	5
Chrysene	120000	E	ug/kg	560	97.	5
Acenaphthylene	1800		ug/kg	750	140	5
Anthracene	75000	E	ug/kg	560	180	5
Benzo(ghi)perylene	74000	E	ug/kg	750	110	5
Fluorene	60000	E	ug/kg	940	91.	5
Phenanthrene	260000	E	ug/kg	560	110	5
Dibenzo(a,h)anthracene	20000		ug/kg	560	110	5
Indeno(1,2,3-cd)pyrene	89000	E	ug/kg	750	130	5
Pyrene	230000	E	ug/kg	560	93.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	73		30-120
4-Terphenyl-d14	60		18-120

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-03
Client ID: SB-5 (3"-2')
Sample Location: BUFFALO, NY

Date Collected: 07/19/17 10:30
Date Received: 07/20/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 07/22/17 17:14

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/24/17 08:37
Analyst: CB
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	110	J	ug/kg	160	20.	1
Fluoranthene	1000		ug/kg	120	23.	1
Naphthalene	30	J	ug/kg	200	24.	1
Benzo(a)anthracene	440		ug/kg	120	22.	1
Benzo(a)pyrene	390		ug/kg	160	48.	1
Benzo(b)fluoranthene	490		ug/kg	120	33.	1
Benzo(k)fluoranthene	180		ug/kg	120	32.	1
Chrysene	430		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	200		ug/kg	120	39.	1
Benzo(ghi)perylene	230		ug/kg	160	23.	1
Fluorene	100	J	ug/kg	200	19.	1
Phenanthrene	940		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	62	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	250		ug/kg	160	28.	1
Pyrene	850		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	65		30-120
4-Terphenyl-d14	44		18-120

Project Name: 165 WEST UTICA**Lab Number:** L1724949**Project Number:** B0239-017-001**Report Date:** 07/27/17**SAMPLE RESULTS**

Lab ID: L1724949-04 D

Client ID: SB-7 (4"-2')

Sample Location: BUFFALO, NY

Date Collected: 07/19/17 12:30

Date Received: 07/20/17

Field Prep: Not Specified

Extraction Method: EPA 3546

Extraction Date: 07/27/17 08:58

Matrix: Soil

Analytical Method: 1,8270D

Analytical Date: 07/27/17 16:27

Analyst: SZ

Percent Solids: 53%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	2500	320	10
Hexachlorobenzene	ND		ug/kg	1800	340	10
Bis(2-chloroethyl)ether	ND		ug/kg	2800	420	10
2-Chloronaphthalene	ND		ug/kg	3100	300	10
3,3'-Dichlorobenzidine	ND		ug/kg	3100	820	10
2,4-Dinitrotoluene	ND		ug/kg	3100	620	10
2,6-Dinitrotoluene	ND		ug/kg	3100	530	10
Fluoranthene	ND		ug/kg	1800	350	10
4-Chlorophenyl phenyl ether	ND		ug/kg	3100	330	10
4-Bromophenyl phenyl ether	ND		ug/kg	3100	470	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	3700	520	10
Bis(2-chloroethoxy)methane	ND		ug/kg	3300	310	10
Hexachlorobutadiene	ND		ug/kg	3100	450	10
Hexachlorocyclopentadiene	ND		ug/kg	8800	2800	10
Hexachloroethane	ND		ug/kg	2500	500	10
Isophorone	ND		ug/kg	2800	400	10
Naphthalene	990	J	ug/kg	3100	370	10
Nitrobenzene	ND		ug/kg	2800	460	10
NDPA/DPA	ND		ug/kg	2500	350	10
n-Nitrosodi-n-propylamine	ND		ug/kg	3100	470	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	3100	1100	10
Butyl benzyl phthalate	ND		ug/kg	3100	780	10
Di-n-butylphthalate	770	J	ug/kg	3100	580	10
Di-n-octylphthalate	ND		ug/kg	3100	1000	10
Diethyl phthalate	660	J	ug/kg	3100	280	10
Dimethyl phthalate	ND		ug/kg	3100	640	10
Benzo(a)anthracene	ND		ug/kg	1800	350	10
Benzo(a)pyrene	ND		ug/kg	2500	750	10
Benzo(b)fluoranthene	ND		ug/kg	1800	520	10
Benzo(k)fluoranthene	ND		ug/kg	1800	490	10

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-04 D

Date Collected: 07/19/17 12:30

Client ID: SB-7 (4"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Chrysene	ND		ug/kg	1800	320	10
Acenaphthylene	ND		ug/kg	2500	470	10
Anthracene	ND		ug/kg	1800	600	10
Benzo(ghi)perylene	ND		ug/kg	2500	360	10
Fluorene	ND		ug/kg	3100	300	10
Phenanthrene	ND		ug/kg	1800	370	10
Dibenzo(a,h)anthracene	ND		ug/kg	1800	360	10
Indeno(1,2,3-cd)pyrene	ND		ug/kg	2500	430	10
Pyrene	ND		ug/kg	1800	300	10
Biphenyl	ND		ug/kg	7000	710	10
4-Chloroaniline	ND		ug/kg	3100	560	10
2-Nitroaniline	ND		ug/kg	3100	590	10
3-Nitroaniline	ND		ug/kg	3100	580	10
4-Nitroaniline	ND		ug/kg	3100	1300	10
Dibenzofuran	ND		ug/kg	3100	290	10
2-Methylnaphthalene	ND		ug/kg	3700	370	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	3100	320	10
Acetophenone	ND		ug/kg	3100	380	10
2,4,6-Trichlorophenol	ND		ug/kg	1800	580	10
p-Chloro-m-cresol	ND		ug/kg	3100	460	10
2-Chlorophenol	ND		ug/kg	3100	360	10
2,4-Dichlorophenol	ND		ug/kg	2800	490	10
2,4-Dimethylphenol	ND		ug/kg	3100	1000	10
2-Nitrophenol	ND		ug/kg	6600	1200	10
4-Nitrophenol	ND		ug/kg	4300	1200	10
2,4-Dinitrophenol	ND		ug/kg	15000	1400	10
4,6-Dinitro-o-cresol	ND		ug/kg	8000	1500	10
Pentachlorophenol	ND		ug/kg	2500	680	10
Phenol	ND		ug/kg	3100	460	10
2-Methylphenol	ND		ug/kg	3100	480	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	4400	480	10
2,4,5-Trichlorophenol	ND		ug/kg	3100	590	10
Carbazole	ND		ug/kg	3100	300	10
Atrazine	ND		ug/kg	2500	1100	10
Benzaldehyde	ND		ug/kg	4100	830	10
Caprolactam	ND		ug/kg	3100	940	10
2,3,4,6-Tetrachlorophenol	ND		ug/kg	3100	620	10

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-04 D

Date Collected: 07/19/17 12:30

Client ID: SB-7 (4"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

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

Tentatively Identified Compounds

Total TIC Compounds	81900	J	ug/kg	10
Unknown	6000	J	ug/kg	10
Unknown Alkane	2670	J	ug/kg	10
Unknown Alkane	10700	J	ug/kg	10
Unknown Alkane	3760	J	ug/kg	10
Unknown Alkane	6000	J	ug/kg	10
Unknown	2950	J	ug/kg	10
Unknown	9680	J	ug/kg	10
Unknown	2970	J	ug/kg	10
Unknown Alkane	5960	J	ug/kg	10
Unknown	2650	J	ug/kg	10
Unknown	4020	J	ug/kg	10
Unknown	10300	J	ug/kg	10
Unknown Alkane	10600	J	ug/kg	10
Unknown	3600	J	ug/kg	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	21	Q	25-120
Phenol-d6	33		10-120
Nitrobenzene-d5	115		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	36		10-136
4-Terphenyl-d14	21		18-120

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-05 D

Date Collected: 07/19/17 16:00

Client ID: SB-11 (3"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 07/22/17 17:14

Analytical Date: 07/24/17 09:30

Analyst: CB

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	470	J	ug/kg	770	100	5
Fluoranthene	37000		ug/kg	580	110	5
Naphthalene	570	J	ug/kg	960	120	5
Benzo(a)anthracene	22000		ug/kg	580	110	5
Benzo(a)pyrene	23000		ug/kg	770	230	5
Benzo(b)fluoranthene	28000		ug/kg	580	160	5
Benzo(k)fluoranthene	9800		ug/kg	580	150	5
Chrysene	22000		ug/kg	580	100	5
Acenaphthylene	4800		ug/kg	770	150	5
Anthracene	3800		ug/kg	580	190	5
Benzo(ghi)perylene	13000		ug/kg	770	110	5
Fluorene	920	J	ug/kg	960	94.	5
Phenanthrene	18000		ug/kg	580	120	5
Dibenzo(a,h)anthracene	3200		ug/kg	580	110	5
Indeno(1,2,3-cd)pyrene	14000		ug/kg	770	130	5
Pyrene	30000		ug/kg	580	96.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	71		30-120
4-Terphenyl-d14	53		18-120

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-06 D2
 Client ID: SB-12 (3"-1')
 Sample Location: BUFFALO, NY
 Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/26/17 16:33
 Analyst: RC
 Percent Solids: 85%

Date Collected: 07/19/17 17:30
 Date Received: 07/20/17
 Field Prep: Not Specified
 Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140000		ug/kg	31000	4000	100
Fluoranthene	780000		ug/kg	23000	4400	100
Benzo(a)anthracene	300000		ug/kg	23000	4300	100
Benzo(a)pyrene	300000		ug/kg	31000	9400	100
Benzo(b)fluoranthene	380000		ug/kg	23000	6400	100
Chrysene	290000		ug/kg	23000	4000	100
Anthracene	180000		ug/kg	23000	7500	100
Benzo(ghi)perylene	170000		ug/kg	31000	4500	100
Fluorene	150000		ug/kg	38000	3700	100
Phenanthrene	810000		ug/kg	23000	4700	100
Indeno(1,2,3-cd)pyrene	200000		ug/kg	31000	5300	100
Pyrene	580000		ug/kg	23000	3800	100

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-06 **D**
Client ID: SB-12 (3"-1')
Sample Location: BUFFALO, NY

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/24/17 09:55
Analyst: CB
Percent Solids: 85%

Date Collected: 07/19/17 17:30
Date Received: 07/20/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140000	E	ug/kg	1500	200	10
Fluoranthene	580000	E	ug/kg	1200	220	10
Naphthalene	70000		ug/kg	1900	230	10
Benzo(a)anthracene	340000	E	ug/kg	1200	220	10
Benzo(a)pyrene	230000	E	ug/kg	1500	470	10
Benzo(b)fluoranthene	400000	E	ug/kg	1200	320	10
Benzo(k)fluoranthene	49000		ug/kg	1200	310	10
Chrysene	230000	E	ug/kg	1200	200	10
Acenaphthylene	5800		ug/kg	1500	300	10
Anthracene	180000	E	ug/kg	1200	370	10
Benzo(ghi)perylene	170000	E	ug/kg	1500	220	10
Fluorene	150000	E	ug/kg	1900	190	10
Phenanthrene	580000	E	ug/kg	1200	230	10
Dibenzo(a,h)anthracene	41000		ug/kg	1200	220	10
Indeno(1,2,3-cd)pyrene	200000	E	ug/kg	1500	270	10
Pyrene	500000	E	ug/kg	1200	190	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	91		30-120
4-Terphenyl-d14	77		18-120

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/26/17 08:36
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06 Batch: WG1025013-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/26/17 08:36
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06 Batch: WG1025013-1					
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/26/17 08:36
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/22/17 17:14

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05-06 Batch: WG1025013-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	58.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/kg

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	88		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	87		18-120

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/27/17 15:01
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/27/17 00:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026132-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/27/17 15:01
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/27/17 00:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026132-1					
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/27/17 15:01
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 07/27/17 00:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1026132-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	57.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/kg

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	80		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06 Batch: WG1025013-2 WG1025013-3								
Acenaphthene	76		73		31-137	4		50
Hexachlorobenzene	86		82		40-140	5		50
Bis(2-chloroethyl)ether	62		69		40-140	11		50
2-Chloronaphthalene	72		72		40-140	0		50
3,3'-Dichlorobenzidine	74		63		40-140	16		50
2,4-Dinitrotoluene	92		87		40-132	6		50
2,6-Dinitrotoluene	84		80		40-140	5		50
Fluoranthene	82		76		40-140	8		50
4-Chlorophenyl phenyl ether	84		80		40-140	5		50
4-Bromophenyl phenyl ether	88		84		40-140	5		50
Bis(2-chloroisopropyl)ether	58		64		40-140	10		50
Bis(2-chloroethoxy)methane	70		72		40-117	3		50
Hexachlorobutadiene	66		73		40-140	10		50
Hexachlorocyclopentadiene	58		67		40-140	14		50
Hexachloroethane	62		68		40-140	9		50
Isophorone	79		79		40-140	0		50
Naphthalene	66		70		40-140	6		50
Nitrobenzene	72		78		40-140	8		50
NDPA/DPA	88		83		36-157	6		50
n-Nitrosodi-n-propylamine	78		81		32-121	4		50
Bis(2-ethylhexyl)phthalate	66		64		40-140	3		50
Butyl benzyl phthalate	80		73		40-140	9		50
Di-n-butylphthalate	87		81		40-140	7		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06 Batch: WG1025013-2 WG1025013-3								
Di-n-octylphthalate	68		66		40-140	3		50
Diethyl phthalate	87		82		40-140	6		50
Dimethyl phthalate	83		77		40-140	8		50
Benzo(a)anthracene	74		68		40-140	8		50
Benzo(a)pyrene	80		74		40-140	8		50
Benzo(b)fluoranthene	79		75		40-140	5		50
Benzo(k)fluoranthene	75		72		40-140	4		50
Chrysene	69		67		40-140	3		50
Acenaphthylene	78		76		40-140	3		50
Anthracene	80		75		40-140	6		50
Benzo(ghi)perylene	81		74		40-140	9		50
Fluorene	84		80		40-140	5		50
Phenanthrene	76		72		40-140	5		50
Dibenzo(a,h)anthracene	72		73		40-140	1		50
Indeno(1,2,3-cd)pyrene	74		75		40-140	1		50
Pyrene	82		75		35-142	9		50
Biphenyl	78		77		54-104	1		50
4-Chloroaniline	66		56		40-140	16		50
2-Nitroaniline	86		82		47-134	5		50
3-Nitroaniline	82		71		26-129	14		50
4-Nitroaniline	89		82		41-125	8		50
Dibenzofuran	81		78		40-140	4		50
2-Methylnaphthalene	71		72		40-140	1		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06 Batch: WG1025013-2 WG1025013-3								
1,2,4,5-Tetrachlorobenzene	78		78		40-117	0		50
Acetophenone	73		77		14-144	5		50
2,4,6-Trichlorophenol	82		77		30-130	6		50
p-Chloro-m-cresol	86		81		26-103	6		50
2-Chlorophenol	68		74		25-102	8		50
2,4-Dichlorophenol	78		78		30-130	0		50
2,4-Dimethylphenol	93		92		30-130	1		50
2-Nitrophenol	72		79		30-130	9		50
4-Nitrophenol	95		91		11-114	4		50
2,4-Dinitrophenol	52		49		4-130	6		50
4,6-Dinitro-o-cresol	78		73		10-130	7		50
Pentachlorophenol	72		67		17-109	7		50
Phenol	72		76		26-90	5		50
2-Methylphenol	77		78		30-130	1		50
3-Methylphenol/4-Methylphenol	78		79		30-130	1		50
2,4,5-Trichlorophenol	84		80		30-130	5		50
Carbazole	80		74		54-128	8		50
Atrazine	108		104		40-140	4		50
Benzaldehyde	57		63		40-140	10		50
Caprolactam	88		82		15-130	7		50
2,3,4,6-Tetrachlorophenol	87		83		40-140	5		50

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03,05-06 Batch: WG1025013-2 WG1025013-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		77		25-120
Phenol-d6	76		79		10-120
Nitrobenzene-d5	76		81		23-120
2-Fluorobiphenyl	76		76		30-120
2,4,6-Tribromophenol	96		91		10-136
4-Terphenyl-d14	86		79		18-120

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1026132-2 WG1026132-3								
Acenaphthene	77		68		31-137	12		50
Hexachlorobenzene	83		71		40-140	16		50
Bis(2-chloroethyl)ether	88		74		40-140	17		50
2-Chloronaphthalene	83		73		40-140	13		50
3,3'-Dichlorobenzidine	65		57		40-140	13		50
2,4-Dinitrotoluene	97		82		40-132	17		50
2,6-Dinitrotoluene	91		82		40-140	10		50
Fluoranthene	86		75		40-140	14		50
4-Chlorophenyl phenyl ether	83		72		40-140	14		50
4-Bromophenyl phenyl ether	83		74		40-140	11		50
Bis(2-chloroisopropyl)ether	84		69		40-140	20		50
Bis(2-chloroethoxy)methane	90		74		40-117	20		50
Hexachlorobutadiene	79		69		40-140	14		50
Hexachlorocyclopentadiene	84		73		40-140	14		50
Hexachloroethane	81		67		40-140	19		50
Isophorone	89		75		40-140	17		50
Naphthalene	80		69		40-140	15		50
Nitrobenzene	88		73		40-140	19		50
NDPA/DPA	86		75		36-157	14		50
n-Nitrosodi-n-propylamine	89		74		32-121	18		50
Bis(2-ethylhexyl)phthalate	93		82		40-140	13		50
Butyl benzyl phthalate	95		84		40-140	12		50
Di-n-butylphthalate	88		77		40-140	13		50

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1026132-2 WG1026132-3								
Di-n-octylphthalate	93		82		40-140	13		50
Diethyl phthalate	88		76		40-140	15		50
Dimethyl phthalate	86		77		40-140	11		50
Benzo(a)anthracene	84		74		40-140	13		50
Benzo(a)pyrene	93		83		40-140	11		50
Benzo(b)fluoranthene	91		80		40-140	13		50
Benzo(k)fluoranthene	88		78		40-140	12		50
Chrysene	83		74		40-140	11		50
Acenaphthylene	86		75		40-140	14		50
Anthracene	84		74		40-140	13		50
Benzo(ghi)perylene	90		78		40-140	14		50
Fluorene	83		73		40-140	13		50
Phenanthrene	80		71		40-140	12		50
Dibenzo(a,h)anthracene	92		81		40-140	13		50
Indeno(1,2,3-cd)pyrene	93		83		40-140	11		50
Pyrene	85		74		35-142	14		50
Biphenyl	86		75		54-104	14		50
4-Chloroaniline	61		52		40-140	16		50
2-Nitroaniline	96		85		47-134	12		50
3-Nitroaniline	76		67		26-129	13		50
4-Nitroaniline	86		74		41-125	15		50
Dibenzofuran	82		71		40-140	14		50
2-Methylnaphthalene	82		72		40-140	13		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1026132-2 WG1026132-3								
1,2,4,5-Tetrachlorobenzene	82		72		40-117	13		50
Acetophenone	91		75		14-144	19		50
2,4,6-Trichlorophenol	93		81		30-130	14		50
p-Chloro-m-cresol	95		84		26-103	12		50
2-Chlorophenol	94		79		25-102	17		50
2,4-Dichlorophenol	99		84		30-130	16		50
2,4-Dimethylphenol	96		81		30-130	17		50
2-Nitrophenol	99		82		30-130	19		50
4-Nitrophenol	87		75		11-114	15		50
2,4-Dinitrophenol	62		60		4-130	3		50
4,6-Dinitro-o-cresol	93		80		10-130	15		50
Pentachlorophenol	52		45		17-109	14		50
Phenol	94	Q	78		26-90	19		50
2-Methylphenol	95		79		30-130	18		50
3-Methylphenol/4-Methylphenol	98		81		30-130	19		50
2,4,5-Trichlorophenol	91		80		30-130	13		50
Carbazole	85		75		54-128	13		50
Atrazine	92		81		40-140	13		50
Benzaldehyde	80		66		40-140	19		50
Caprolactam	98		90		15-130	9		50
2,3,4,6-Tetrachlorophenol	83		70		40-140	17		50

Lab Control Sample Analysis Batch Quality Control

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1026132-2 WG1026132-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	91		76		25-120
Phenol-d6	94		78		10-120
Nitrobenzene-d5	84		70		23-120
2-Fluorobiphenyl	80		71		30-120
2,4,6-Tribromophenol	87		75		10-136
4-Terphenyl-d14	81		71		18-120

METALS

Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-01

Date Collected: 07/19/17 09:00

Client ID: SB-1 (4-6')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

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	10.5		mg/kg	0.466	0.097	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Barium, Total	104		mg/kg	0.466	0.081	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Cadmium, Total	0.475		mg/kg	0.466	0.046	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Chromium, Total	13.8		mg/kg	0.466	0.045	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Lead, Total	338		mg/kg	2.33	0.125	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Mercury, Total	0.42		mg/kg	0.08	0.02	1	07/22/17 10:00	07/22/17 14:20	EPA 7471B	1,7471B	BV
Selenium, Total	0.364	J	mg/kg	0.932	0.120	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS
Silver, Total	0.312	J	mg/kg	0.466	0.132	1	07/22/17 09:30	07/24/17 10:32	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-02

Date Collected: 07/19/17 09:30

Client ID: SB-2 (6"-3')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.91		mg/kg	0.446	0.093	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Barium, Total	60.0		mg/kg	0.446	0.078	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Cadmium, Total	0.218	J	mg/kg	0.446	0.044	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Chromium, Total	4.65		mg/kg	0.446	0.043	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Lead, Total	49.9		mg/kg	2.23	0.120	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	07/22/17 10:00	07/22/17 14:22	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.892	0.115	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.446	0.126	1	07/22/17 09:30	07/24/17 10:37	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-03

Date Collected: 07/19/17 10:30

Client ID: SB-5 (3"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

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	9.24		mg/kg	0.478	0.099	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Barium, Total	32.1		mg/kg	0.478	0.083	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Cadmium, Total	0.640		mg/kg	0.478	0.047	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Chromium, Total	11.0		mg/kg	0.478	0.046	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Lead, Total	98.5		mg/kg	2.39	0.128	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Mercury, Total	0.52		mg/kg	0.08	0.02	1	07/22/17 10:00	07/22/17 14:24	EPA 7471B	1,7471B	BV
Selenium, Total	1.96		mg/kg	0.956	0.123	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.478	0.135	1	07/22/17 09:30	07/24/17 10:41	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-04

Date Collected: 07/19/17 12:30

Client ID: SB-7 (4"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 53%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.87		mg/kg	0.715	0.149	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Barium, Total	79.1		mg/kg	0.715	0.124	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Cadmium, Total	0.729		mg/kg	0.715	0.070	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Chromium, Total	11.8		mg/kg	0.715	0.069	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Lead, Total	14.2		mg/kg	3.57	0.192	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Mercury, Total	1.3		mg/kg	0.12	0.03	1	07/22/17 10:00	07/22/17 14:30	EPA 7471B	1,7471B	BV
Selenium, Total	0.286	J	mg/kg	1.43	0.184	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.715	0.202	1	07/22/17 09:30	07/24/17 10:58	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-05

Date Collected: 07/19/17 16:00

Client ID: SB-11 (3"-2')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	24.8		mg/kg	0.456	0.095	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Barium, Total	218		mg/kg	0.456	0.079	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Cadmium, Total	0.870		mg/kg	0.456	0.045	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Chromium, Total	17.9		mg/kg	0.456	0.044	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Lead, Total	856		mg/kg	2.28	0.122	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Mercury, Total	0.63		mg/kg	0.07	0.02	1	07/22/17 10:00	07/22/17 14:32	EPA 7471B	1,7471B	BV
Selenium, Total	7.40		mg/kg	0.911	0.118	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS
Silver, Total	0.132	J	mg/kg	0.456	0.129	1	07/22/17 09:30	07/24/17 11:03	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-06

Date Collected: 07/19/17 17:30

Client ID: SB-12 (3"-1')

Date Received: 07/20/17

Sample Location: BUFFALO, NY

Field Prep: Not Specified

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.78		mg/kg	0.457	0.095	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Barium, Total	136		mg/kg	0.457	0.080	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Cadmium, Total	4.36		mg/kg	0.457	0.045	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Chromium, Total	87.9		mg/kg	0.457	0.044	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Lead, Total	399		mg/kg	2.28	0.122	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Mercury, Total	0.03	J	mg/kg	0.07	0.02	1	07/22/17 10:00	07/22/17 14:34	EPA 7471B	1,7471B	BV
Selenium, Total	0.480	J	mg/kg	0.914	0.118	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS
Silver, Total	0.594		mg/kg	0.457	0.129	1	07/22/17 09:30	07/24/17 11:07	EPA 3050B	1,6010C	PS



Project Name: 165 WEST UTICA

Lab Number: L1724949

Project Number: B0239-017-001

Report Date: 07/27/17

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: WG1024877-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	07/22/17 10:00	07/22/17 14:09	1,7471B	BV

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): 01-06 Batch: WG1024919-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Barium, Total	ND		mg/kg	0.400	0.070	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.400	0.039	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Chromium, Total	0.064	J	mg/kg	0.400	0.038	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Lead, Total	ND		mg/kg	2.00	0.107	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Selenium, Total	ND		mg/kg	0.800	0.103	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS
Silver, Total	ND		mg/kg	0.400	0.113	1	07/22/17 09:30	07/24/17 10:07	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1024877-2 SRM Lot Number: D093-540								
Mercury, Total	96		-		72-128	-		
Total Metals - Mansfield Lab Associated sample(s): 01-06 Batch: WG1024919-2 SRM Lot Number: D093-540								
Arsenic, Total	109		-		70-130	-		
Barium, Total	89		-		83-117	-		
Cadmium, Total	108		-		83-117	-		
Chromium, Total	94		-		80-120	-		
Lead, Total	104		-		82-117	-		
Selenium, Total	103		-		78-122	-		
Silver, Total	93		-		76-124	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

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: WG1024877-3			QC Sample: L1725224-01			Client ID: MS Sample			
Mercury, Total	0.03J	0.128	0.18	141	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-06			QC Batch ID: WG1024919-3			QC Sample: L1725224-01			Client ID: MS Sample			
Arsenic, Total	2.76	9.56	13.8	115		-	-		75-125	-		20
Barium, Total	15.1	159	177	102		-	-		75-125	-		20
Cadmium, Total	0.386J	4.06	4.55	112		-	-		75-125	-		20
Chromium, Total	8.10	15.9	24.6	104		-	-		75-125	-		20
Lead, Total	8.03	40.6	49.3	102		-	-		75-125	-		20
Selenium, Total	ND	9.56	9.80	102		-	-		75-125	-		20
Silver, Total	0.394J	23.9	26.1	109		-	-		75-125	-		20

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1724949
Report Date: 07/27/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1024877-4 QC Sample: L1725224-01 Client ID: DUP Sample						
Mercury, Total	0.03J	0.04J	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1024919-4 QC Sample: L1725224-01 Client ID: DUP Sample						
Arsenic, Total	2.76	2.81	mg/kg	2		20
Barium, Total	15.1	12.6	mg/kg	18		20
Cadmium, Total	0.386J	0.369J	mg/kg	NC		20
Chromium, Total	8.10	8.13	mg/kg	0		20
Lead, Total	8.03	7.77	mg/kg	3		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	0.394J	0.440J	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17**SAMPLE RESULTS****Lab ID:** L1724949-01**Client ID:** SB-1 (4-6')**Sample Location:** BUFFALO, NY**Matrix:** Soil**Date Collected:** 07/19/17 09:00**Date Received:** 07/20/17**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.9		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Project Name: 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17**SAMPLE RESULTS****Lab ID:** L1724949-02**Client ID:** SB-2 (6"-3')**Sample Location:** BUFFALO, NY**Matrix:** Soil**Date Collected:** 07/19/17 09:30**Date Received:** 07/20/17**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.1		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Project Name: 165 WEST UTICA

Project Number: B0239-017-001

Lab Number: L1724949

Report Date: 07/27/17

SAMPLE RESULTS

Lab ID: L1724949-03

Client ID: SB-5 (3"-2')

Sample Location: BUFFALO, NY

Matrix: Soil

Date Collected: 07/19/17 10:30

Date Received: 07/20/17

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.1		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Project Name: 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17**SAMPLE RESULTS****Lab ID:** L1724949-04**Client ID:** SB-7 (4"-2')**Sample Location:** BUFFALO, NY**Matrix:** Soil**Date Collected:** 07/19/17 12:30**Date Received:** 07/20/17**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	53.4		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Project Name: 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17**SAMPLE RESULTS****Lab ID:** L1724949-05**Client ID:** SB-11 (3"-2')**Sample Location:** BUFFALO, NY**Matrix:** Soil**Date Collected:** 07/19/17 16:00**Date Received:** 07/20/17**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.8		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Project Name: 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17**SAMPLE RESULTS****Lab ID:** L1724949-06**Client ID:** SB-12 (3"-1')**Sample Location:** BUFFALO, NY**Matrix:** Soil**Date Collected:** 07/19/17 17:30**Date Received:** 07/20/17**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.0		%	0.100	NA	1	-	07/21/17 13:34	121,2540G	RI



Lab Duplicate Analysis
Batch Quality Control**Project Name:** 165 WEST UTICA**Project Number:** B0239-017-001**Lab Number:** L1724949**Report Date:** 07/27/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1024692-1 QC Sample: L1725099-01 Client ID: DUP Sample						
Solids, Total	80.4	80.4	%	0		20

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Serial_No:07271719:38
Lab Number: L1724949
Report Date: 07/27/17

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(*)
L1724949-01A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		5.1	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)
L1724949-01B	Vial Large Septa unpreserved (4oz)	A	NA		5.1	Y	Absent		NYTCL-8260-R2(14)
L1724949-01C	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYTCL-8270(14),TS(7)
L1724949-01X	Vial MeOH preserved split	A	NA		5.1	Y	Absent		NYTCL-8260-R2(14)
L1724949-01Y	Vial Water preserved split	A	NA		5.1	Y	Absent	22-JUL-17 10:34	NYTCL-8260-R2(14)
L1724949-01Z	Vial Water preserved split	A	NA		5.1	Y	Absent	22-JUL-17 10:34	NYTCL-8260-R2(14)
L1724949-02A	Glass 120ml/4oz unpreserved	A	NA		5.1	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)
L1724949-02B	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYCP51-PAH(14),TS(7)
L1724949-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		5.1	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)
L1724949-03B	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYCP51-PAH(14),TS(7)
L1724949-04A	Glass 120ml/4oz unpreserved	A	NA		5.1	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)
L1724949-04B	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYTCL-8260-R2(14)
L1724949-04C	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYTCL-8270(14),TS(7)
L1724949-04X	Vial MeOH preserved split	A	NA		5.1	Y	Absent		NYTCL-8260-R2(14)
L1724949-04Y	Vial Water preserved split	A	NA		5.1	Y	Absent	22-JUL-17 10:34	NYTCL-8260-R2(14)
L1724949-04Z	Vial Water preserved split	A	NA		5.1	Y	Absent	22-JUL-17 10:34	NYTCL-8260-R2(14)
L1724949-05A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		5.1	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)
L1724949-05B	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYCP51-PAH(14),TS(7)

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Serial_No:07271719:38
Lab Number: L1724949
Report Date: 07/27/17

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1724949-06A	Glass 120ml/4oz unpreserved	A	NA		5.1	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)
L1724949-06B	Glass 120ml/4oz unpreserved	A	NA		5.1	Y	Absent		NYCP51-PAH(14),TS(7)

Project Name: 165 WEST UTICA
Project Number: B0239-017-001

Lab Number: L1724949
Report Date: 07/27/17

GLOSSARY

Acronyms

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).
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.
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.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 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.

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.

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers



Project Name: 165 WEST UTICA
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Data Qualifiers

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

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- 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).
- 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



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REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 10

Department: **Quality Assurance**

Published Date: 1/16/2017 11:00:05 AM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

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

Westborough Facility**EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** NPW and SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**EPA 9012B:** NPW: Total Cyanide**EPA 9050A:** NPW: Specific Conductance**SM3500:** NPW: Ferrous Iron**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.**SM5310C:** DW: Dissolved Organic Carbon**Mansfield Facility****SM 2540D:** TSS**EPA 3005A** NPW**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:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, 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 624:** Volatile Halocarbons & Aromatics,**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.****Mansfield Facility:****Drinking Water****EPA 200.7:** Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.****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, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

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

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

of

7/21/17

L1724949

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

Email: AMuntes@Tuningsllc.com

Rush (only if pre approved) ☐ # of Days:

X		X	TCI + CP-51100's
X		XX	PAH's
X		XX	PCRA Metals
X		X	TCI Spots + TILS

(Please Specify below)

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		
24949-01	SF-1 (4'-6')	7/18/17	9:00	SdH	NAS
02	SF-2 (6''-3')	7/19/17	9:30		
03	SF-5 (3''-2')		10:30		
04	SF-7 (4''-2')		12:30		
05	SF-11 (3''-2')		16:00		
06	SF-12 (3''-1')		17:30		

A = None
B = HCl
C = HNO₃
D = H₂SO₄
E = NaOH
F = MeOH
G = NaHSO₄
H = Na₂S₂O₃
K/E = Zn Ac/NaOH
O = Other

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

Mansfield: Certification No: MA015

A A A A

0	0	0	0
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Date/Time

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

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