Phase II Environmental Investigation

9 Lakeview Avenue Site
Buffalo, New York

March 2020 T0394-016-001

Prepared For:

Buffalo Lakeview, LLC

Prepared By:

TurnKey Environmental Restoration, LLC

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PHASE II ENVIRONMENTAL INVESTIGATION REPORT

9 Lakeview Avenue
Buffalo, New York

March 2020 T0394-016-001

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

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

9 Lakeview Avenue Site
Buffalo, New York

TABLE OF CONTENTS

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

9 Lakeview Avenue Site
Buffalo, New York

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 Background and Site Description

TurnKey Environmental Restoration, LLC (TurnKey) performed a Phase II Environmental Investigation for Buffalo Lakeview, LLC. at the property addressed at 9 Lakeview Avenue, City of Buffalo, Erie County, New York (Site; see Figure 1).

The Site is located in a highly developed commercial and residential area. The Site was most recently used as an automotive repair facility. One structure is present on-Site; Building 1 is an existing garage/historic automotive repair facility. A second structure, Building 2 was a residence on the northern portion of the Site that has been demolished. The Site consists of one parcel totaling approximately 0.42-acres (see Figure 2) and is supplied with or has access to municipal sanitary sewer, electric, natural-gas and public water.

During TurnKey's initial site visit on August 10, 2016, we noted the presence of numerous automotive-related fluids in containers of various size scattered throughout interior and exterior areas. In addition, automobile parts were noted throughout interior and exterior areas. The automotive-related fluids and parts have since been removed; however, areas of black staining to earthen ground surfaces, apparently as a result of historic discharges, remain in several areas throughout the Site.

According to historic Sanborn maps (see Appendix A) the Site has a history as commercial with a former motor freight station in at least 1951. Online research indicates the Site was also historically used as an auto body/tire shop.

This investigation was performed to assess subsurface soil conditions and to assess whether the Site would be a possible candidate in the New York State Brownfield Cleanup Program (NYS BCP). We understand the Site is being considered for redevelopment that incudes apartment building(s).

2.0 SITE INVESTIGATION ACTIVITIES

2.1 Test Pit Investigation

On August 10, 2016, TurnKey mobilized a track-mounted excavator to the Site. As shown on Figure 2, six (6) test pits designated as TP-1 through TP-6 were completed to target depths between four (4) and eight (8) feet below ground surface (fbgs). Additional information relative to the test pits is provided in the table in Section 3.1.1.

The physical characteristics of all test pits were classified using the ASTM D2488 Visual-Manual Procedure Description. Soils from each test pit were screened via headspace screening using a MiniRae 2000 Photoionization Detector (PID). Visual and/or olfactory observations were noted. All field observations, including lithology, depths, PID scan results, etc., at each investigation location are summarized in the Test Pit Log sheets provided in Appendix B. Photographs taken during the work are included in Appendix C.

Four (4) soil samples selected for laboratory analysis were transported under chain-of custody command to Alpha Analytical (Alpha) in Westborough, Massachusetts for analysis of New York State Department of Environmental Conservation (NYSDEC) Commissioner Policy 51 (CP-51) and Target Compound List (TCL) volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) metals, via United States Environmental Protection Agency (USEPA) Methods 8260C, 8270D, 6010C/7471B, respectively. All samples were collected in laboratory provided sample bottles and were cooled to 4^0 C prior to transport.

2.2 Hand Core Sampling Activities

As indicated above, the existing building was emptied of automobile-related fluids and parts. On March 13, 2020, TurnKey collected four additional soil/fill samples from the Site using hand tools. Specifically, TurnKey collected three hand core (HC) soil/fill samples (HC-1 through HC-3) using a hand auger from the 0 to 0.5 foot interval beneath the interior concrete floor of Building 1; the soil/fill samples were collected by TurnKey subsequent to removal of the concrete floor using a concrete corer. Two additional soil/fill samples, HC-4 and HC-5, were collected using a hand auger (0 to 0.5-foot interval) from the exterior of the Site proximate to the northeast and northwest corners of Building 1.

The physical characteristics of all hand core samples were classified using the ASTM D2488 Visual-Manual Procedure Description. Soils from each investigation location were screened via headspace screening using a MiniRae 2000 PID. Visual and/or olfactory observations were noted. Additional information relative to each hand core sample is provided in the table below. Photographs taken during the work are included in Appendix C.

Four (4) soil samples selected for laboratory analysis were transported under chain-of custody command to Alpha for analysis of PAHs and RCRA metals via USEPA Methods 8270D and 6010C/7471B, respectively. All samples were collected in laboratory provided sample bottles and were cooled to 4^0 C prior to transport.

3.0 INVESTIGATION FINDINGS

3.1 Field Observations

Soil samples from the test pit investigation were observed and scanned via headspace screening for volatile organics using a PID. A brief description of the field observations during the boring investigation is presented below:

Investigation Location ID	Environmental Concern Assessed	Highest PID reading (parts per million, ppm) and depth (fbgs)	Other Observations
TP-1	Surface staining from automobile repair and general storage.	0.5 ppm from 0-2 fbgs.	Black staining, fill material approximately two (2) fbgs, ash-like material present to one (1) fbgs.
TP-2	Surface staining from automobile repair and storage.	0.0 ppm throughout test pit to four (4) fbgs.	Fill material with brick and glass to approximately three (3) fbgs, ash- like material present to one (1) fbgs.
TP-3	Automobile parts storage.	2.0 ppm to two (2) fbgs.	Black stained surface soils, fill to approximately two (2) fbgs
TP-4	Down-gradient of suspect former building foundation	465.5 ppm from four (4) to six (6) fbgs.	Suspect fill materials with slag, brick, glass, cinders, and asphalt to approximately two (2) fbgs, Petroleum-like odors throughout test pit from approximately three (3) to eight (8) fbgs.
TP-5	West of automotive repair building	4.0 ppm from three (3) to six (6) fbgs.	Mostly suspected slag from one (1) to three (3) fbgs. Two (2) steel pipes encountered at three (3) fbgs, petroleum like odors proximate to pipes from approximately two (2) to four (4) fbgs. Traced Pipes to central portion of parking lot but end not found.
TP-6	West of automotive repair building and suspected former building location.	0.0 ppm throughout test pit to six (6) fbgs.	Fill materials including gravel, brick, asphalt, and slag to four (4) fbgs.

Investigation Location ID	Environmental Concern Assessed	Highest PID reading (parts per million, ppm) and depth (fbgs)	Other Observations
HC-1	Southeastern portion of historic automotive repair area of Building 1.	8 ppm to 0.5 fbgs.	Fill material with brick and cinders.
HC-2	Southern portion of historic automotive repair area of Building 1.	10 ppm to 0.5 fbgs.	Black stained fill material.
HC-3	Southwestern portion of historic automotive repair area of Building 1.	0.0 ppm.	Fill material with brick and cinders.
HC-4	Northeast of Building 1.	0.0 ppm.	Fill material with plastic, glass and brick.
HC-5	Northwest of Building 1.	0.0 ppm.	Fill material with slag, brick and cinders.

3.2 Soil Analytical Results

Table 1 presents a summary of the detected VOCs, PAHs, and/or metals for each of the four (4) soil samples selected for laboratory analysis from the test pit investigation and the four (4) additional samples from hand core sampling. For comparative purposes, Table 1 includes 6NYCRR Part 375 Unrestricted Soil Cleanup Objectives (SCOs) and Restricted Residential SCOs (RRSCOs, which are the applicable SCOs for the Site since development of an apartment building is planned). Appendix D contains a copy of the laboratory analytical data package.

As summarized on Table 1, elevated PAH concentrations above USCOs and RRSCOs were identified in the soil/fill samples collected from the TP-2, HC-1 and HC-2.

Regarding metals, arsenic exceeded its respected RRSCO (16 milligrams per kilogram, mg/kg) at HC-1 (23.9 mg/kg), HC-3 (70.7 mg/kg) and HC-5 (21.2 mg/kg). Arsenic exceeded its USCOs at TP-1 and HC-2. Barium exceeded its respective RRSCO at HC-3 and cadmium exceeded its respective USCO and/or RRSCO at HC-1, HC-2, HC-3 and HC-5. Chromium exceeded its USCO at HC-5 and lead exceeded its USCO and/or RRSCO at TP-

1, TP-2, HC-1, HC-2, HC-3 and HC-5. Mercury exceeded its USCO at TP-2, HC-1, HC-2 and HC-3.

The elevated PAHs and metals discussed above are likely indicative of the conditions of the fill material across the Site.

No VOCs, PAHs, or metals were detected at concentrations above regulatory criteria in the soil samples from TP-4 or TP-5; however, petroleum-like odors and elevated PID readings (up to 465 ppm at TP-4) were identified at these locations.

Acetone exceeded the Unrestricted Use SCO at TP-2; however, acetone is a common laboratory artifact and is likely not indicative of Site conditions.

3.3 Site Geology/Hydrogeology

The overburden geology observed during the test pit investigation is generally described as fill materials, mainly consisting of ash, brick, slag, and glass fragments to depths to at least three (3) fbgs overlying native sand or combinations of sand and clay to at least eight (8) fbgs. Similar fill materials were noted during the hand core sampling completed in interior and exterior areas.

Groundwater was not encountered during the investigation activities.

Groundwater flow is likely to the west toward Lake Erie located approximately 0.4 miles from the Site. Local groundwater flow, however, may be influenced by subsurface features, such as excavations, utilities, and localized fill-conditions.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the Phase II investigation at the Site, TurnKey offers the following conclusions and recommendations:

- The Site, located within an historical industrial area, has a history of automotive repair with staining, apparently associated with historic discharges, noted to earthen ground surfaces in several areas throughout the Site.
- Fill materials with ash, cinders, slag, brick, glass fragments, etc. were noted across the Site during the work. Black stained soil/fill was noted at TP-1, TP-3 and HC-2.
- Elevated PAHs and/or metals were detected at concentrations above Part 375 SCOs, including RRSCOs (the applicable SCOs for the Site since development of an apartment building is planned), in samples collected from the fill material across the Site at TP-2, HC-1, HC-2, HC-3 and HC-5. TurnKey suspects that the elevated PAHs and metals are likely indicative of the fill material conditions across the Site.
- TP-4 (4-6 fbgs) exhibited an elevated PID reading of 465.5 ppm and petroleum-like odors.
- Petroleum-like odors were also noted proximate to two buried metal pipes encountered at TP-5. It is possible that these pipes are product piping related to an abandoned UST.

Based on the findings detailed above, the Site is a potential BCP candidate; however, if the Client wishes to pursue the BCP, TurnKey recommends that a pre-application meeting be scheduled with the NYSDEC to discuss the project.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Buffalo Lakeview, 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 Buffalo Lakeview, 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.

TABLE

TABLE 1

Phase II Environmental Investigation Results
9 Lakeview Avenue, Buffalo, NY

PARAMETER[1]	Unrestricted Use SCOs[2]	Restricted Residential Use SCOs[2]	Sample locations							
			TP-1	TP-2	TP-4	TP-5	HC-1	HC-2	HC-3	HC-5
			(0-2')	(0-2')	(4-6')	(2-4')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')
			08/10/2016	08/10/2016	08/10/2016	08/10/2016	03/13/2020	03/13/2020	03/13/2020	03/13/2020
Maximum PID Readings (ppm)	--	--	0.5	0	465.5	4	8	10	0	0
Olfactory Observations	--	--	None	None	Petroleum- like odors	Petroleum- like odors	None	None	None	None
Visual Observations	--	--	Black Stained Surface Soil, Ash (1'), Fill (0-4')	Fill (0-3'), Ash (1')	Fill with Trace Cinders (0-2'), Ash (1')	Fill with Slag, Ash and Brick (1-3'), Two Metal Pipes (3')	Fill with Brick and Cinders	Black Stained	Fill with Brick and Cinders	Fill with Slag, Brick and Cinders
Volatile Organic Compounds (VOCs) - mg/Kg [3]										
Tetrachloroethene	**1.3**	**19**	ND	ND	ND	0.00051 J	--	--	--	--
1,1,1-Trichloroethane	**0.68**	**100**	ND	ND	ND	0.00018 J	--	--	--	--
Benzene	**0.06**	**4.8**	ND	0.00037 J	0.00048 J	0.00033 J	--	--	--	--
Acetone	**0.05**	**100**	ND	**0.065**	0.026	0.036	--	--	--	--
2-Butanone (MEK)	**0.12**	**100**	ND	0.0098 J	0.0042 J	ND	--	--	--	--
n-Butylbenzene	**12**	**100**	ND	ND	0.012	ND	--	--	--	--
sec-Butylbenzene	**11**	**100**	ND	ND	0.0052	ND	--	--	--	--
Isopropylbenzene	**--**	**--**	ND	ND	0.0011 J	ND	--	--	--	--
n-Propylbenzene	**3.9**	**100**	ND	ND	0.0053	ND	--	--	--	--
1,2,4-Trichlorobenzene	**--**	**--**	ND	ND	ND	0.00026 J	--	--	--	--
1,2,4-Trimethylbenzene	**3.6**	**52**	ND	ND	0.0002 J	ND	--	--	--	--
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [3]										
Acenaphthene	**20**	**100**	0.025 J	0.76	ND	ND	2.8 J	ND	0.12 J	ND
Fluoranthene	**100**	**100**	0.57	5.3	0.056 J	ND	27	6.9	1.6	0.41
Naphthalene	**12**	**100**	ND	ND	ND	ND	2.2 J	1.1 J	0.15 J	1
Benzo(a)anthracene	**1**	**1**	0.28	**2.4**	0.026 J	ND	**9.1**	**1.9 J**	0.86	0.28
Benzo(a)pyrene	**1**	**1**	0.25	**2**	ND	ND	**6.6 J**	ND	0.7	0.24
Benzo(b)fluoranthene	**1**	**1**	0.42	**2.5**	ND	ND	**9.6**	**1.8 J**	0.92	0.37
Benzo(k)fluoranthene	**0.8**	**3.9**	0.12	**0.83**	ND	ND	**4.1 J**	**1.2 J**	0.3	0.16
Chrysene	**1**	**3.9**	0.4	**2.2**	0.025 J	ND	**9**	**2.4 J**	0.76	0.33
Acenaphthylene	**100**	**100**	0.044 J	ND	ND	ND	ND	ND	0.091 J	ND
Anthracene	**100**	**100**	0.082 J	1.5	ND	ND	5.1 J	ND	0.29	0.058 J
Benzo(ghi)perylene	**100**	**100**	0.18	1.1	ND	ND	5.2 J	1.9 J	0.5	0.24
Fluorene	**30**	**100**	0.034 J	0.85	0.023 J	ND	3 J	ND	0.13 J	0.034 J
Phenanthrene	**100**	**100**	0.61	4.4	0.064 J	ND	22	4 J	1.1	0.49
Dibenzo(a,h)anthracene	**0.33**	**0.33**	0.057 J	0.3	ND	ND	ND	ND	0.1 J	0.043 J
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	0.17	**1.2**	ND	ND	**4.8 J**	ND	0.48	0.22
Pyrene	**100**	**100**	0.51	4.3	0.048 J	ND	22	8.3	1.4	0.39
Total Metals- mg/Kg										
Aresenic, Total	**13**	**16**	**16**	5.8	2.2	3.6	**23.9**	**13.5**	**70.7**	**21.2**
Barium, Total	**350**	**400**	81	85	51	88	137	188	**1180**	198
Cadmium, Total	**2.5**	**4.3**	ND	0.08	ND	0.05	**2.7**	**4.78**	**5.59**	**3.34**
Chromium, Total	**30**	**180**	4.6	14	9.9	16	22.2	24.5	16.4	**70.3**
Lead, Total	**63**	**400**	**96**	**100**	8.2	12	**493**	**1070**	**473**	**354**
Mercury, Total	**0.18**	**0.81**	0.1	**0.26**	0.04	0.03	**0.541**	**0.297**	**0.422**	0.131
Selenium, Total	**3.9**	**180**	1	ND	ND	ND	2.94	ND	ND	ND
Silver, Total	**2**	**180**	ND	ND	ND	ND	0.142 J	0.154 J	ND	0.6

Notes:

1. Only those parameters detected at concentrations above laboratory detection limits are shown in the table above.
2. Values per NYSDEC part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

Definitions:

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

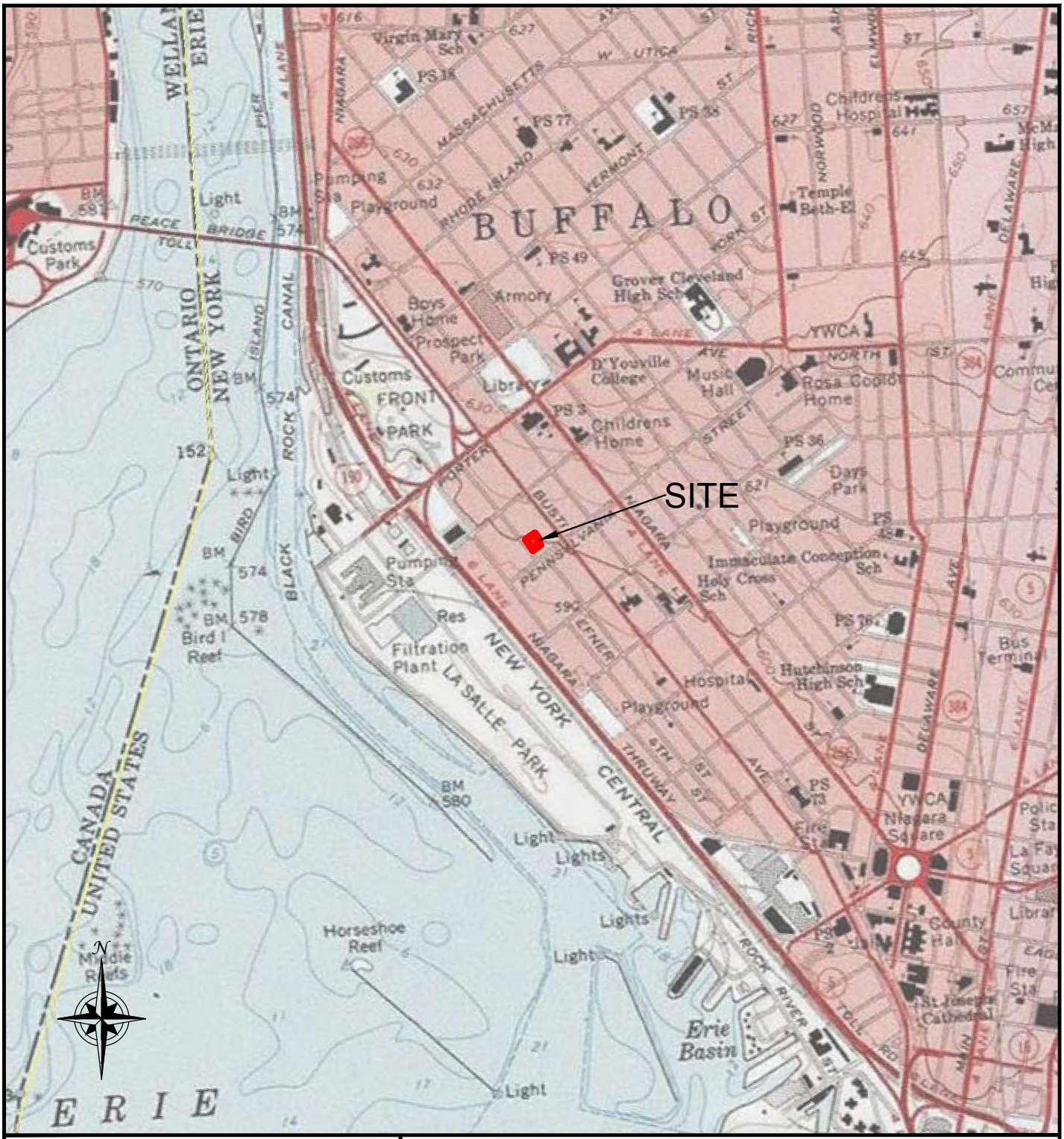
ND = Parameter not detected above laboratory detection limit.

Bold	: Exceeds NYSDEC Part 375 Unrestricted Use SCOs
Bold	: Exceeds NYSDEC Part 375 Restricted Residential Use SCOs

FIGURES

F:\CAD\TurnKey\LoFaso\9-21 Lakeview Ave\Figure 1 and 2.dwg

FIGURE 1



TURNKEY ENVIRONMENTAL RESTORATION, LLC

2558 HAMBURG TURNPIKE
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SITE LOCATION AND VICINITY MAP

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

9 LAKEVIEW AVENUE

BUFFALO, NEW YORK

PREPARED FOR

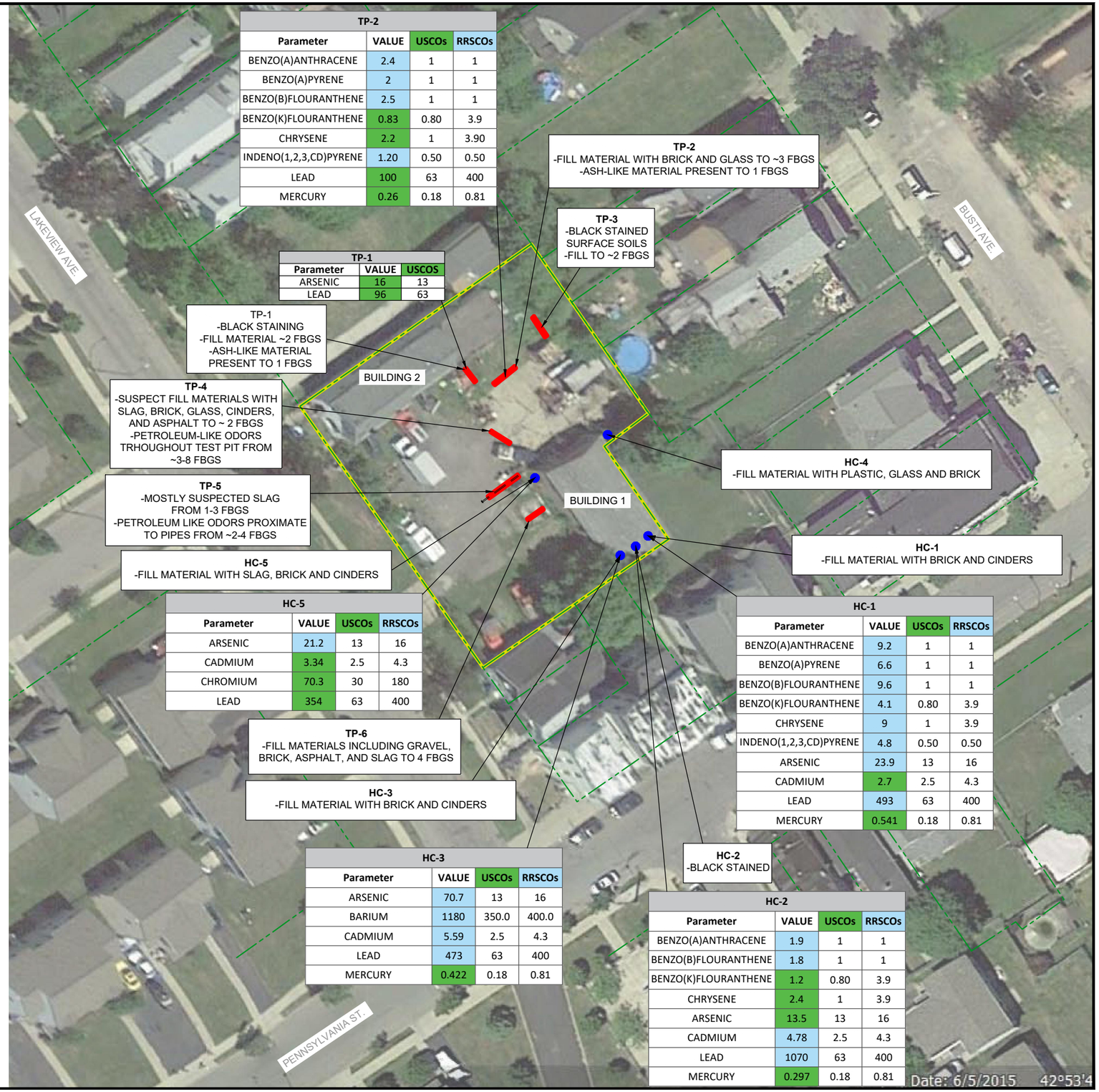
BUFFALO LAKEVIEW, LLC

PROJECT NO.:	0394-016-001
DATE:	SEPTEMBER 2016
DRAFTED BY:	CMC

F:\CAD\TurnKey\LoFaso\9-21 Lakeview Ave\Figure 1 and 2_REV2.dwg

LEGEND:

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- PIPES OF UNKNOWN NATURE
- TEST PIT
- HAND CORE



TP-2			
Parameter	VALUE	USCOs	RRSCOs
BENZO(A)ANTHRACENE	2.4	1	1
BENZO(A)PYRENE	2	1	1
BENZO(B)FLOURANTHENE	2.5	1	1
BENZO(K)FLOURANTHENE	0.83	0.80	3.9
CHRYSENE	2.2	1	3.90
INDENO(1,2,3,CD)PYRENE	1.20	0.50	0.50
LEAD	100	63	400
MERCURY	0.26	0.18	0.81

TP-1		
Parameter	VALUE	USCOS
ARSENIC	16	13
LEAD	96	63

HC-5			
Parameter	VALUE	USCOs	RRSCOs
ARSENIC	21.2	13	16
CADMIUM	3.34	2.5	4.3
CHROMIUM	70.3	30	180
LEAD	354	63	400

HC-1			
Parameter	VALUE	USCOs	RRSCOs
BENZO(A)ANTHRACENE	9.2	1	1
BENZO(A)PYRENE	6.6	1	1
BENZO(B)FLOURANTHENE	9.6	1	1
BENZO(K)FLOURANTHENE	4.1	0.80	3.9
CHRYSENE	9	1	3.9
INDENO(1,2,3,CD)PYRENE	4.8	0.50	0.50
ARSENIC	23.9	13	16
CADMIUM	2.7	2.5	4.3
LEAD	493	63	400
MERCURY	0.541	0.18	0.81

HC-3			
Parameter	VALUE	USCOs	RRSCOs
ARSENIC	70.7	13	16
BARIUM	1180	350.0	400.0
CADMIUM	5.59	2.5	4.3
LEAD	473	63	400
MERCURY	0.422	0.18	0.81

HC-2			
Parameter	VALUE	USCOs	RRSCOs
BENZO(A)ANTHRACENE	1.9	1	1
BENZO(B)FLOURANTHENE	1.8	1	1
BENZO(K)FLOURANTHENE	1.2	0.80	3.9
CHRYSENE	2.4	1	3.9
ARSENIC	13.5	13	16
CADMIUM	4.78	2.5	4.3
LEAD	1070	63	400
MERCURY	0.297	0.18	0.81

N

300' 0' 300' 600'

SCALE: 1 INCH = 300 FEET
SCALE IN FEET
(approximate)

DATE: MARCH 2020
DRAFTED BY: CMC/CMS

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JOB NO.: 0394-016-001

INVESTIGATION LOCATIONS AND AREAS OF CONCERN

PHASE II ENVIRONMENTAL INVESTIGATION REPORT
9 LAKEVIEW AVENUE
BUFFALO, NEW YORK

PREPARED FOR
Buffalo Lakeview, LLC

FIGURE 2

APPENDIX A

SANBORN MAPS

1889

36

36

35

NIAGARA

39

STREET

STREET

SEVENTH

FRONT

JERSEY

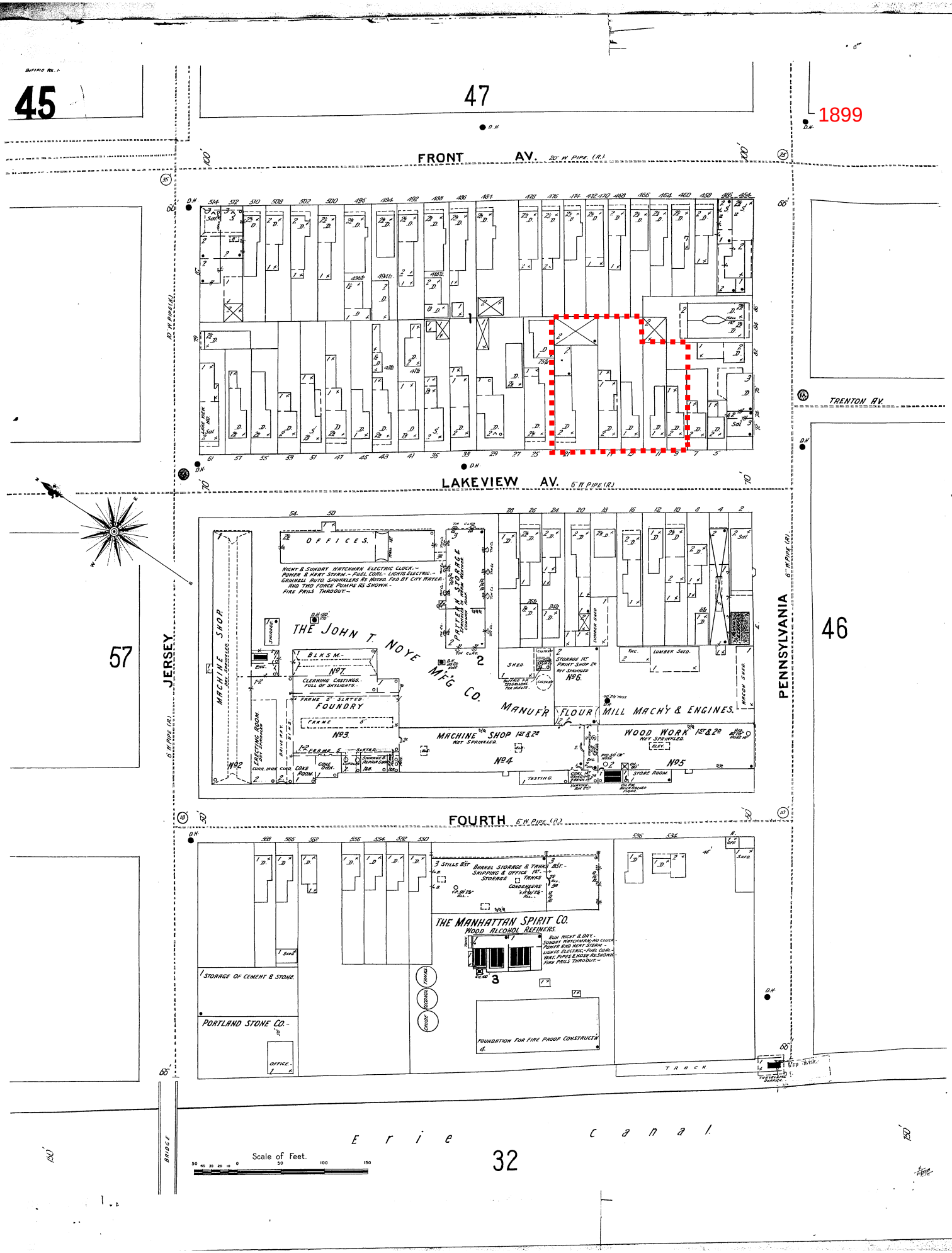
PENNSYLVANIA

39

LAKEVIEW AVENUE

FIFTH

38


45
47
1899
FRONT AV. 20" W. PIPE (R.)
LAKEVIEW AV. 6" W. PIPE (R.)
TRENTON AV.
FOURTH 6" W. PIPE (R.)
JERSEY
PENNSYLVANIA
57
46
32
OFFICES.
MACHINE SHOP
THE JOHN T. NOYE MFG CO.
FOUNDRY
MACHINE SHOP 1ST & 2D
WOOD WORK 1ST & 2D
MANUF'R FLOUR MILL MACH'Y & ENGINES.
THE MANHATTAN SPIRIT CO.
WOOD ALCOHOL REFINERS.
PORTLAND STONE CO.
STORAGE OF CEMENT & STONE.
FOUNDATION FOR FIRE PROOF CONSTRUCT'N
TRACK
Erie canal
BRIDGE
Scale of Feet.

1925

BUFFALO, N.Y. VOL. 1A (1B)

144

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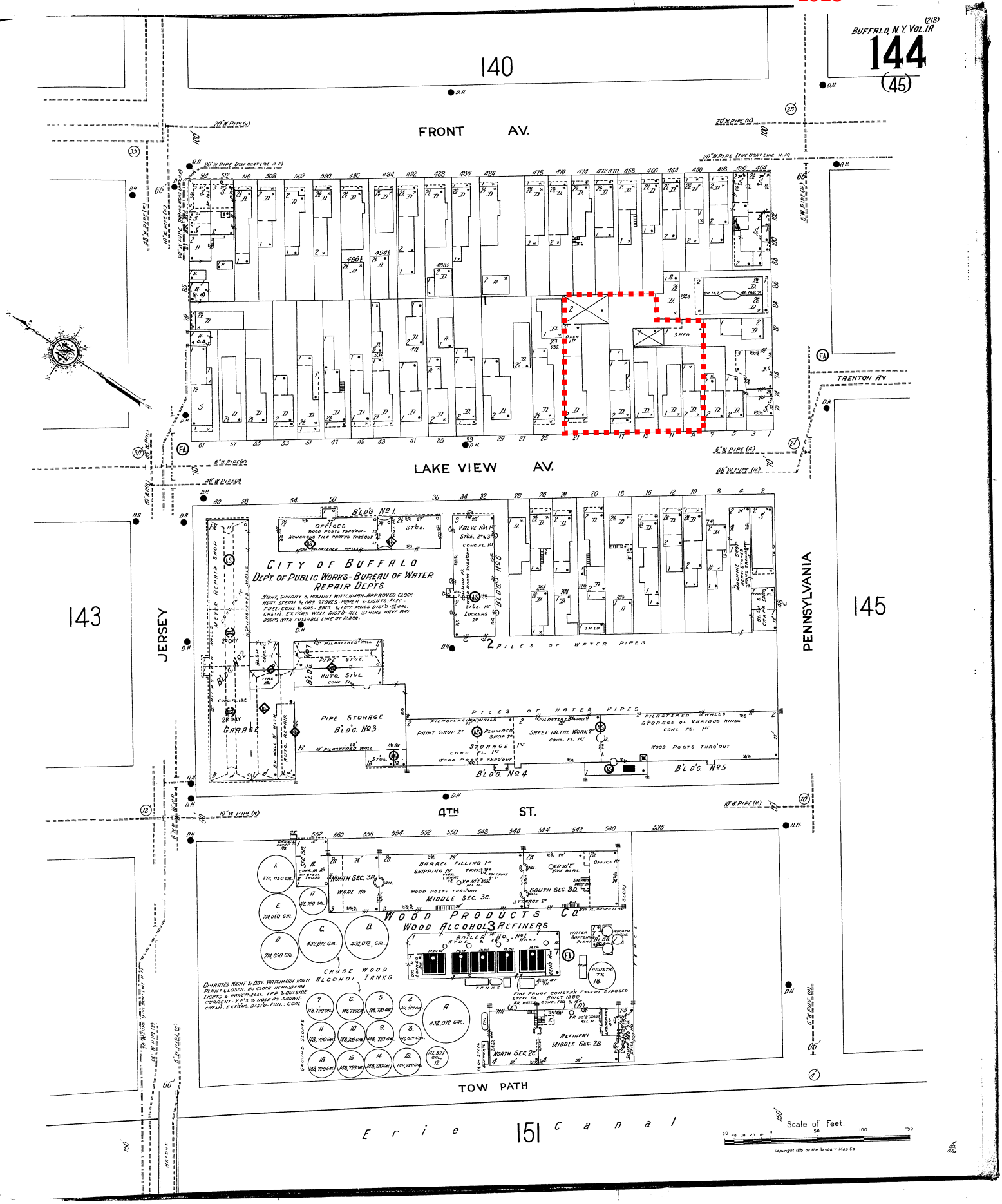

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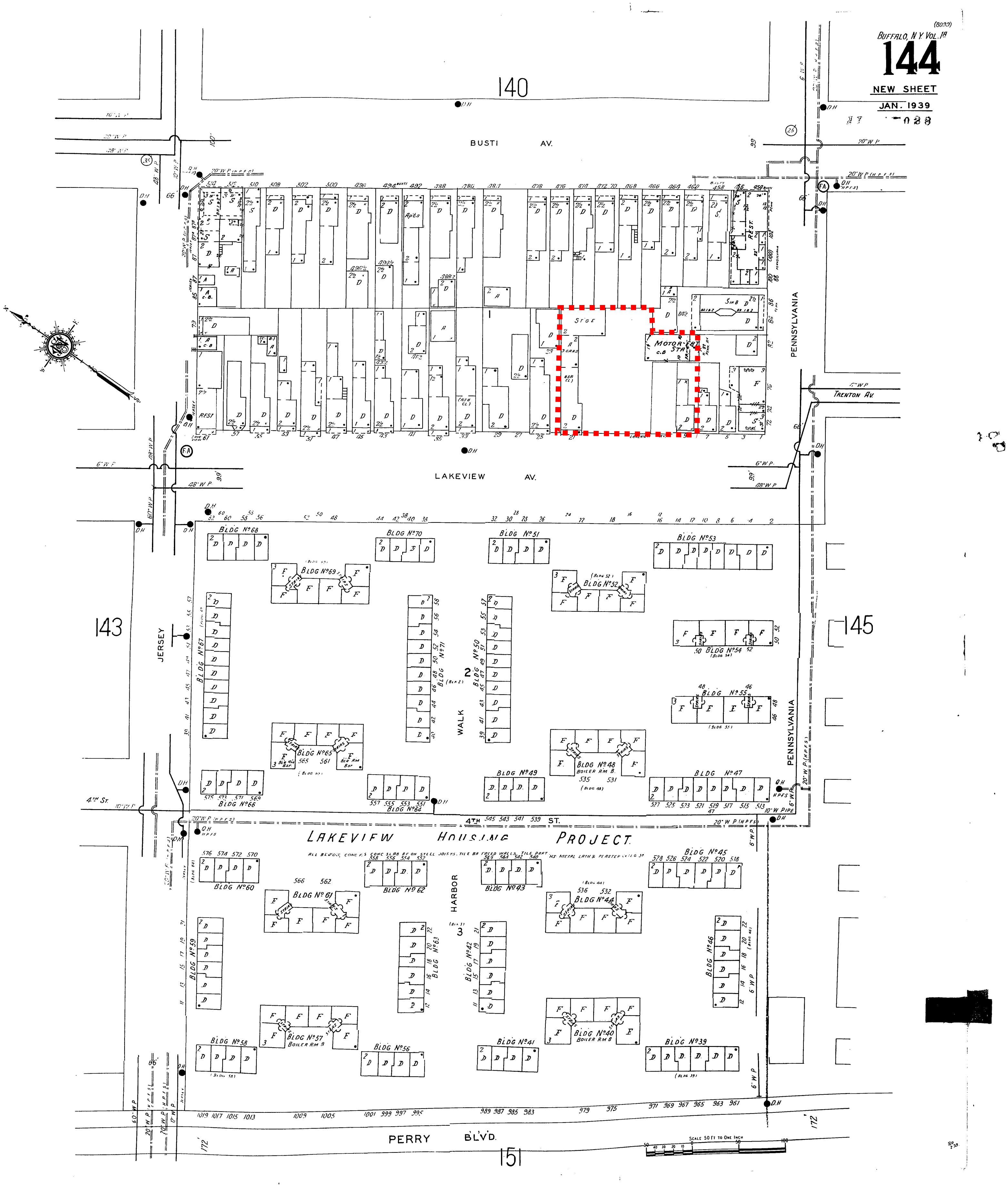
Buffalo, N.Y. Vol. 18
144
NEW SHEET
JAN. 1939
140
BUSTI AV.
LAKEVIEW AV.
PENNSYLVANIA
TRENTON AV.
JERSEY
4TH ST.
HARBOR
WALK
143
145
LAKEVIEW HOUSING PROJECT
PERRY BLVD.
151
MOTOR FRT STA
STGE
REST
Apts
BLDG Nº 68
BLDG Nº 70
BLDG Nº 51
BLDG Nº 53
BLDG Nº 69
BLDG Nº 52
BLDG Nº 54
BLDG Nº 55
BLDG Nº 67
BLDG Nº 71
BLDG Nº 50
BLDG Nº 65
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BLDG Nº 62
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BLDG Nº 61
BLDG Nº 44
BLDG Nº 59
BLDG Nº 63
BLDG Nº 42
BLDG Nº 46
BLDG Nº 57
BLDG Nº 58
BLDG Nº 56
BLDG Nº 41
BLDG Nº 40
BLDG Nº 39
SCALE 50 FT TO ONE INCH

APPENDIX B

TEST PIT LOGS

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-1
Logged By: NAS
Checked By: BWM

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

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm: 0, 25, 50, 75, 100)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Black, Moist, Mostly non-plastic fines, some ash-like material, brick no odor, loose when disurbed			Sampled (0-1')	
	-2.0					
	2.0	***Sandy Lean Clay*** Reddish-brown, mostly medium plasticity fines, some fine sand, trace brick, stiff, no odors			Sampled (2-4')	
	-4.0					
	4.0	***Lean Clay*** Grey, Moist, Mostly medium plasticity fines, little well graded sand, stiff, no odors			Sampled (6-8')	
5.0						
	-8.0					
	8.0	End of Test Pit				
10.0						

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments:

Length: 10
Width: 3
Depth: 8

Depth to Water: NA
Visual Impacts: Black surface staining, ashy fill
Olfactory Observations: NA

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-2
Logged By: NAS
Checked By: BWM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Greyish Black, Moist, Mostly non-plastic fines, some ash-like material, brick no odor, loose when disurbed			Sampled (0-2')	
	-2.0 / 2.0	***Sandy Lean Clay*** Reddish-brown, mostly medium plasticity fines, few fine sand, trace brick, stiff, no odors				
	-2.8 / 2.8	***Gravel*** Grey, moist, mostly gravel, some medium plasticity fines, few fine sand, loose when disturbed, no odors			Sampled (2-4')	
	-3.2 / 3.2	***Sandy Lean Clay*** Reddish-brown, mostly medium plasticity fines, few fine sand, trace brick, stiff, no odors				
	-4.0 / 4.0	End of Test Pit				
5.0						
10.0						

PID VOCs ppm: 0 25 50 75 100

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments:

Length: 20
Width: 3
Depth: 4

Depth to Water: NA
Visual Impacts: Ashy fill
Olfactory Observations: NA

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-3
Logged By: NAS
Checked By: BWM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Blackish grey, Moist, mostly non-plastic fines, some ash-like material brick,glass, gravel, no odor, loose when disurbed		2.0	Sampled (0-2')	
	-2.0					
	2.0	***Sandy Lean Clay*** Grey, moist, mostly non-plastic fines, some medium plasticity fines, trace brick,gravel, stiff, no odors				
	-4.0					
	4.0	***Lean Clay*** Reddish-brown, Moist, Mostly medium plasticity fines, few fine sand, stiff, no odors				
5.0						
	-6.0					
	6.0	***Lean Clay*** As above, grey, no odors				
	-8.0					
	8.0	End of Test Pit				
10.0						

PID VOCs ppm: 0 25 50 75 100

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments:

Length: 10
Width: 3
Depth: 8

Depth to Water: NA
Visual Impacts: Black Surface Staining, ashy fill
Olfactory Observations: NA

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-4
Logged By: NAS
Checked By: BWM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm, 0–2000)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Blackish-Grey, moist, Mostly non-plastic fines, some gravel, few ash-like material, slag, brick, glass, asphault, firm, no odors				
	-2.0					
	2.0	***Lean clay with Sand*** Reddish-brown, moist, mostly medium plasticity fines, little well graded sands, trace cinders, gravel, firm, slight petroleum-like odors		108.8		
	-4.0					
	4.0	***Lean clay*** Grey, moist, mostly medium plasticity fines, few well graded sands,gravel firm, petroleum-like odors		465.5	Sampled (4-6')	
5.0						
				387.0	Sampled (6-8')	
	-8.0					
	8.0	End of Test Pit				
10.0						

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments:

Length: 10
Width: 3
Depth: 8

Depth to Water: NA
Visual Impacts: Miscellaneous fill with ash
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-5
Logged By: NAS
Checked By: BWM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm, 0–2000)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Brown, moist, mostly non-plastic fines, some ash-like material, gravel, slag, Few brick, glass, asphault, firm, no odors				
	-1.0 1.0	***Fill*** Greyish black, mostly slag, few brick, little non-plastic fines, steel piping at 3', petroleum-like odors				
	-3.0 3.0	***Lean clay*** Brownish-tan, moist, mostly medium plasticity fines, some fine sand, petroleum-like odors		2.0	Sampled (2-4')	
5.0						
	-8.0 8.0	End of Test Pit				
10.0						

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments: Two steel pipes encountered at 3 fbgs

Length: 15
Width: 3
Depth: 8

Depth to Water: NA
Visual Impacts: Steel piping at 3', ashy fill
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: T0394-016-001
Project: 9 Lakeview Avenue
Client: Lofaso
Site Location: 9 Lakeview Avenue

Test Pit I.D.: TP-6
Logged By: NAS
Checked By: BWM

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm, 0–2000)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Ashy Fill*** Brown, moist, Mostly non-plastic fines, some ash-like material, gravel, slag, few brick, glass, asphault, firm, no odors				
	-2.0					
	2.0	***Lean clay with fill*** Organish-brown, moist, mostly medium plasticity fines, little non-plastic fines, few brick, slag, stiff, no odors			Sampled (2-4')	
	-4.0					
	4.0	***Lean clay*** Reddish-brown, moist, mostly medium plasticity fines, massive, very stiff, no odors				
5.0						
	-6.0					
	6.0	End of Test Pit				
10.0						

Excavated By: MJL
Excavator Type: Bobcat ZHS
Excavation Date(s): 08-10-2016
Comments: Stopped at 6 fbgs due to hard clay

Length: 10
Width: 3
Depth: 6

Depth to Water: NA
Visual Impacts: Ashy fill
Olfactory Observations: NA

APPENDIX C

PHOTO LOG

TEST PIT INVESTIGATION - SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: View of the black surface staining at TP-1.

Photo 2: View of TP-1.

Photo 3: View of TP-2, note black fill material.

Photo 4: Another View of TP-2, note black and ashy fill material.

9 Lakeview Avenue Photo Date: August 10, 2016	TURNKEY

TEST PIT INVESTIGATION - SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

Photo 8:

Photo 5: View of the pipes encountered at TP-5.

Photo 6: Another view of the piping noted within TP-5.

Photo 7: View of the slag noted in TP-5.

Photo 8: View of TP-5 showing black ashy fill.

9 Lakeview Avenue Photo Date: August 10, 2016	TURNKEY

TEST PIT INVESTIGATION - SITE PHOTOGRAPHS

Photo 9:

Photo 10:

Photo 11:

Photo 12:

Photo 9: View of TP-6 showing miscellaneous fill.

Photo 10: View of the former automotive repair garage, as well as view of the area of TP-4, TP-5.

Photo 11: View of the stored automotive parts noted on-Site.

Photo 12: View of the stored old automotive parts noted on-Site in the area of TP-2 and TP-3.

HAND CORE SAMPLES - SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: View of HC-1.

Photo 2: View of HC-2.

Photo 3: View of HC-3

Photo 4: View of HC-4.

APPENDIX D

LABORATORY ANALYTICAL DATA SUMMARY PACKAGE

ANALYTICAL REPORT

Lab Number:	L1624924
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Nick Suraci
Phone:	(716) 856-0599
Project Name:	9-21 LAKEVIEW AVENUE
Project Number:	T0394-016-001
Report Date:	08/17/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1624924-01	TP-4 (4-6)	SOIL	9-21 LAKEVIEW AVENUE	08/10/16 09:40	08/10/16
L1624924-02	TP-5 (2-4)	SOIL	9-21 LAKEVIEW AVENUE	08/10/16 10:30	08/10/16
L1624924-03	TP-2 (0-2)	SOIL	9-21 LAKEVIEW AVENUE	08/10/16 08:45	08/10/16
L1624924-04	TP-1 (0-2)	SOIL	9-21 LAKEVIEW AVENUE	08/10/16 08:15	08/10/16

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924
Project Number: T0394-016-001 **Report Date:** 08/17/16

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:	9-21 LAKEVIEW AVENUE	**Lab Number:**	L1624924
Project Number:	T0394-016-001	**Report Date:**	08/17/16

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.

Total Mercury

The WG922128-4 MS recovery, performed on L1624924-01, is outside the acceptance criteria for mercury (123%). A post digestion spike was performed and was within acceptance criteria.

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:  Melissa Cripps

Title: Technical Director/Representative Date: 08/17/16

ORGANICS

VOLATILES

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-01
Client ID: TP-4 (4-6)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 08/16/16 17:44
Analyst: CBN
Percent Solids: 81%

Date Collected: 08/10/16 09:40
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.26	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.45	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.20	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
Bromoform	ND		ug/kg	4.6	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	0.48	J	ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.7	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	5.8	0.34	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.14	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.16	1

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-01 Date Collected: 08/10/16 09:40

Client ID: TP-4 (4-6) Date Received: 08/10/16

Sample Location: 9-21 LAKEVIEW AVENUE 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	2.3	0.10	1
p/m-Xylene	ND		ug/kg	2.3	0.23	1
o-Xylene	ND		ug/kg	2.3	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.16	1
Styrene	ND		ug/kg	2.3	0.47	1
Dichlorodifluoromethane	ND		ug/kg	12	0.22	1
Acetone	26		ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	4.2	J	ug/kg	12	0.32	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.77	1
Bromochloromethane	ND		ug/kg	5.8	0.32	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.20	1
n-Butylbenzene	12		ug/kg	1.2	0.13	1
sec-Butylbenzene	5.2		ug/kg	1.2	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.46	1
Isopropylbenzene	1.1	J	ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
n-Propylbenzene	5.3		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trimethylbenzene	0.20	J	ug/kg	5.8	0.16	1
Methyl Acetate	ND		ug/kg	23	0.31	1
Cyclohexane	ND		ug/kg	23	0.17	1
1,4-Dioxane	ND		ug/kg	120	17.	1
Freon-113	ND		ug/kg	23	0.32	1
Methyl cyclohexane	ND		ug/kg	4.6	0.18	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-02
Client ID: TP-5 (2-4)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 08/16/16 18:11
Analyst: CBN
Percent Solids: 80%

Date Collected: 08/10/16 10:30
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.10	1
Chloroform	ND		ug/kg	1.8	0.44	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	0.51	J	ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.46	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.14	1
1,1,1-Trichloroethane	0.18	J	ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.21	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
Bromoform	ND		ug/kg	4.8	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	0.33	J	ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.23	1
Ethylbenzene	ND		ug/kg	1.2	0.15	1
Chloromethane	ND		ug/kg	6.0	0.35	1
Bromomethane	ND		ug/kg	2.4	0.40	1
Vinyl chloride	ND		ug/kg	2.4	0.14	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.16	1

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-02 Date Collected: 08/10/16 10:30

Client ID: TP-5 (2-4) Date Received: 08/10/16

Sample Location: 9-21 LAKEVIEW AVENUE 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	2.4	0.10	1
p/m-Xylene	ND		ug/kg	2.4	0.24	1
o-Xylene	ND		ug/kg	2.4	0.20	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.4	0.48	1
Dichlorodifluoromethane	ND		ug/kg	12	0.23	1
Acetone	36		ug/kg	12	1.2	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	ND		ug/kg	12	0.32	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
2-Hexanone	ND		ug/kg	12	0.80	1
Bromochloromethane	ND		ug/kg	6.0	0.33	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.21	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.47	1
Isopropylbenzene	ND		ug/kg	1.2	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.15	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.18	1
1,2,4-Trichlorobenzene	0.26	J	ug/kg	6.0	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
Methyl Acetate	ND		ug/kg	24	0.32	1
Cyclohexane	ND		ug/kg	24	0.17	1
1,4-Dioxane	ND		ug/kg	120	17.	1
Freon-113	ND		ug/kg	24	0.33	1
Methyl cyclohexane	ND		ug/kg	4.8	0.18	1

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

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-03
Client ID: TP-2 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 08/16/16 18:38
Analyst: CBN
Percent Solids: 75%

Date Collected: 08/10/16 08:45
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	1.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.10	1
Chloroform	ND		ug/kg	1.8	0.45	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.3	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.37	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.1	0.47	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.14	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.21	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
Bromoform	ND		ug/kg	4.9	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.12	1
Benzene	0.37	J	ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.24	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	6.1	0.36	1
Bromomethane	ND		ug/kg	2.4	0.41	1
Vinyl chloride	ND		ug/kg	2.4	0.14	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	6.1	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	6.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	6.1	0.17	1

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-03 Date Collected: 08/10/16 08:45

Client ID: TP-2 (0-2) Date Received: 08/10/16

Sample Location: 9-21 LAKEVIEW AVENUE 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	2.4	0.10	1
p/m-Xylene	ND		ug/kg	2.4	0.24	1
o-Xylene	ND		ug/kg	2.4	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Styrene	ND		ug/kg	2.4	0.49	1
Dichlorodifluoromethane	ND		ug/kg	12	0.23	1
Acetone	65		ug/kg	12	1.3	1
Carbon disulfide	ND		ug/kg	12	1.3	1
2-Butanone	9.8	J	ug/kg	12	0.33	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
2-Hexanone	ND		ug/kg	12	0.81	1
Bromochloromethane	ND		ug/kg	6.1	0.34	1
1,2-Dibromoethane	ND		ug/kg	4.9	0.21	1
n-Butylbenzene	ND		ug/kg	1.2	0.14	1
sec-Butylbenzene	ND		ug/kg	1.2	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	0.48	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.15	1
n-Propylbenzene	ND		ug/kg	1.2	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	0.18	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.1	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.1	0.17	1
Methyl Acetate	ND		ug/kg	24	0.33	1
Cyclohexane	ND		ug/kg	24	0.18	1
1,4-Dioxane	ND		ug/kg	120	18.	1
Freon-113	ND		ug/kg	24	0.33	1
Methyl cyclohexane	ND		ug/kg	4.9	0.19	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	102		70-130

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-04
Client ID: TP-1 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 08/17/16 13:57
Analyst: CBN
Percent Solids: 90%

Date Collected: 08/10/16 08:15
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	11	1.2	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.10	1
Chloroform	ND		ug/kg	1.7	0.41	1
Carbon tetrachloride	ND		ug/kg	1.1	0.23	1
1,2-Dichloropropane	ND		ug/kg	3.9	0.25	1
Dibromochloromethane	ND		ug/kg	1.1	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.34	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.39	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.43	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.13	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.12	1
Bromodichloromethane	ND		ug/kg	1.1	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.13	1
Bromoform	ND		ug/kg	4.4	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.11	1
Benzene	ND		ug/kg	1.1	0.13	1
Toluene	ND		ug/kg	1.7	0.22	1
Ethylbenzene	ND		ug/kg	1.1	0.14	1
Chloromethane	ND		ug/kg	5.6	0.33	1
Bromomethane	ND		ug/kg	2.2	0.38	1
Vinyl chloride	ND		ug/kg	2.2	0.13	1
Chloroethane	ND		ug/kg	2.2	0.35	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	5.6	0.15	1

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-04 Date Collected: 08/10/16 08:15

Client ID: TP-1 (0-2) Date Received: 08/10/16

Sample Location: 9-21 LAKEVIEW AVENUE 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	0.09	1
p/m-Xylene	ND		ug/kg	2.2	0.22	1
o-Xylene	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.16	1
Styrene	ND		ug/kg	2.2	0.45	1
Dichlorodifluoromethane	ND		ug/kg	11	0.21	1
Acetone	ND		ug/kg	11	1.2	1
Carbon disulfide	ND		ug/kg	11	1.2	1
2-Butanone	ND		ug/kg	11	0.30	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	5.6	0.31	1
1,2-Dibromoethane	ND		ug/kg	4.4	0.19	1
n-Butylbenzene	ND		ug/kg	1.1	0.13	1
sec-Butylbenzene	ND		ug/kg	1.1	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	0.44	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.14	1
n-Propylbenzene	ND		ug/kg	1.1	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	0.16	1
Methyl Acetate	ND		ug/kg	22	0.30	1
Cyclohexane	ND		ug/kg	22	0.16	1
1,4-Dioxane	ND		ug/kg	110	16.	1
Freon-113	ND		ug/kg	22	0.30	1
Methyl cyclohexane	ND		ug/kg	4.4	0.17	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	102		70-130

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/16/16 09:16
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG923507-5					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	0.93	J	ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/16/16 09:16
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG923507-5					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
Methyl Acetate	ND		ug/kg	20	0.27
Cyclohexane	ND		ug/kg	20	0.15
1,4-Dioxane	ND		ug/kg	100	14.
Freon-113	ND		ug/kg	20	0.27
Methyl cyclohexane	ND		ug/kg	4.0	0.15

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/16/16 09:16
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG923507-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	107		70-130

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/17/16 09:05
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG923577-5					
Methylene chloride	3.8	J	ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/17/16 09:05
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG923577-5					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	ND		ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	ND		ug/kg	10	0.27
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
Methyl Acetate	ND		ug/kg	20	0.27
Cyclohexane	ND		ug/kg	20	0.15
1,4-Dioxane	ND		ug/kg	100	14.
Freon-113	ND		ug/kg	20	0.27
Methyl cyclohexane	ND		ug/kg	4.0	0.15

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/17/16 09:05
Analyst: CBN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG923577-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG923507-3 WG923507-4								
Methylene chloride	100		107		70-130	7		30
1,1-Dichloroethane	93		105		70-130	12		30
Chloroform	102		112		70-130	9		30
Carbon tetrachloride	99		126		70-130	24		30
1,2-Dichloropropane	90		98		70-130	9		30
Dibromochloromethane	103		105		70-130	2		30
2-Chloroethylvinyl ether	104		104		70-130	0		30
1,1,2-Trichloroethane	91		91		70-130	0		30
Tetrachloroethene	88		106		70-130	19		30
Chlorobenzene	93		101		70-130	8		30
Trichlorofluoromethane	100		138		70-139	**32**	Q	30
1,2-Dichloroethane	121		126		70-130	4		30
1,1,1-Trichloroethane	100		121		70-130	19		30
Bromodichloromethane	109		116		70-130	6		30
trans-1,3-Dichloropropene	99		101		70-130	2		30
cis-1,3-Dichloropropene	102		107		70-130	5		30
1,1-Dichloropropene	84		105		70-130	22		30
Bromoform	97		99		70-130	2		30
1,1,2,2-Tetrachloroethane	82		83		70-130	1		30
Benzene	87		97		70-130	11		30
Toluene	84		95		70-130	12		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG923507-3 WG923507-4								
Ethylbenzene	88		99		70-130	12		30
Chloromethane	98		108		52-130	10		30
Bromomethane	146		**159**	Q	57-147	9		30
Vinyl chloride	85		109		67-130	25		30
Chloroethane	91		106		50-151	15		30
1,1-Dichloroethene	82		105		65-135	25		30
trans-1,2-Dichloroethene	85		100		70-130	16		30
Trichloroethene	92		108		70-130	16		30
1,2-Dichlorobenzene	96		99		70-130	3		30
1,3-Dichlorobenzene	94		101		70-130	7		30
1,4-Dichlorobenzene	95		100		70-130	5		30
Methyl tert butyl ether	102		106		66-130	4		30
p/m-Xylene	91		101		70-130	10		30
o-Xylene	93		103		70-130	10		30
cis-1,2-Dichloroethene	92		102		70-130	10		30
Dibromomethane	105		110		70-130	5		30
Styrene	96		102		70-130	6		30
Dichlorodifluoromethane	87		119		30-146	**31**	Q	30
Acetone	94		91		54-140	3		30
Carbon disulfide	74		91		59-130	21		30
2-Butanone	90		88		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG923507-3 WG923507-4								
Vinyl acetate	104		109		70-130	5		30
4-Methyl-2-pentanone	87		87		70-130	0		30
1,2,3-Trichloropropane	88		90		68-130	2		30
2-Hexanone	86		86		70-130	0		30
Bromochloromethane	110		116		70-130	5		30
2,2-Dichloropropane	103		121		70-130	16		30
1,2-Dibromoethane	96		97		70-130	1		30
1,3-Dichloropropane	91		96		69-130	5		30
1,1,1,2-Tetrachloroethane	102		107		70-130	5		30
Bromobenzene	94		98		70-130	4		30
n-Butylbenzene	85		99		70-130	15		30
sec-Butylbenzene	82		96		70-130	16		30
tert-Butylbenzene	84		97		70-130	14		30
o-Chlorotoluene	85		93		70-130	9		30
p-Chlorotoluene	90		97		70-130	7		30
1,2-Dibromo-3-chloropropane	91		95		68-130	4		30
Hexachlorobutadiene	93		106		67-130	13		30
Isopropylbenzene	82		95		70-130	15		30
p-Isopropyltoluene	87		100		70-130	14		30
Naphthalene	95		96		70-130	1		30
Acrylonitrile	96		92		70-130	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG923507-3 WG923507-4								
Isopropyl Ether	97		103		66-130	6		30
tert-Butyl Alcohol	89		89		70-130	0		30
n-Propylbenzene	81		94		70-130	15		30
1,2,3-Trichlorobenzene	100		104		70-130	4		30
1,2,4-Trichlorobenzene	101		106		70-130	5		30
1,3,5-Trimethylbenzene	86		97		70-130	12		30
1,2,4-Trimethylbenzene	90		98		70-130	9		30
Methyl Acetate	93		92		51-146	1		30
Ethyl Acetate	**61**	Q	**50**	Q	70-130	20		30
Acrolein	95		93		70-130	2		30
Cyclohexane	73		100		59-142	**31**	Q	30
1,4-Dioxane	93		94		65-136	1		30
Freon-113	84		118		50-139	**34**	Q	30
1,4-Diethylbenzene	87		100		70-130	14		30
4-Ethyltoluene	83		96		70-130	15		30
1,2,4,5-Tetramethylbenzene	95		102		70-130	7		30
Tetrahydrofuran	87		91		66-130	4		30
Ethyl ether	100		101		67-130	1		30
trans-1,4-Dichloro-2-butene	102		104		70-130	2		30
Methyl cyclohexane	72		100		70-130	**33**	Q	30
Ethyl-Tert-Butyl-Ether	102		106		70-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG923507-3 WG923507-4								
Tertiary-Amyl Methyl Ether	101		105		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	122		121		70-130
Toluene-d8	94		93		70-130
4-Bromofluorobenzene	93		93		70-130
Dibromofluoromethane	107		109		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

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: WG923577-3 WG923577-4								
Methylene chloride	95		91		70-130	4		30
1,1-Dichloroethane	97		91		70-130	6		30
Chloroform	98		94		70-130	4		30
Carbon tetrachloride	104		93		70-130	11		30
1,2-Dichloropropane	95		92		70-130	3		30
Dibromochloromethane	96		96		70-130	0		30
2-Chloroethylvinyl ether	115		109		70-130	5		30
1,1,2-Trichloroethane	99		96		70-130	3		30
Tetrachloroethene	110		100		70-130	10		30
Chlorobenzene	102		96		70-130	6		30
Trichlorofluoromethane	108		93		70-139	15		30
1,2-Dichloroethane	96		93		70-130	3		30
1,1,1-Trichloroethane	103		94		70-130	9		30
Bromodichloromethane	95		92		70-130	3		30
trans-1,3-Dichloropropene	99		97		70-130	2		30
cis-1,3-Dichloropropene	97		94		70-130	3		30
1,1-Dichloropropene	103		91		70-130	12		30
Bromoform	96		96		70-130	0		30
1,1,2,2-Tetrachloroethane	96		95		70-130	1		30
Benzene	98		91		70-130	7		30
Toluene	101		94		70-130	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

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: WG923577-3 WG923577-4								
Ethylbenzene	104		97		70-130	7		30
Chloromethane	98		88		52-130	11		30
Bromomethane	95		87		57-147	9		30
Vinyl chloride	94		82		67-130	14		30
Chloroethane	98		89		50-151	10		30
1,1-Dichloroethene	100		88		65-135	13		30
trans-1,2-Dichloroethene	100		92		70-130	8		30
Trichloroethene	101		93		70-130	8		30
1,2-Dichlorobenzene	100		98		70-130	2		30
1,3-Dichlorobenzene	104		98		70-130	6		30
1,4-Dichlorobenzene	102		99		70-130	3		30
Methyl tert butyl ether	98		96		66-130	2		30
p/m-Xylene	105		98		70-130	7		30
o-Xylene	104		98		70-130	6		30
cis-1,2-Dichloroethene	98		93		70-130	5		30
Dibromomethane	98		96		70-130	2		30
Styrene	105		100		70-130	5		30
Dichlorodifluoromethane	96		85		30-146	12		30
Acetone	117		119		54-140	2		30
Carbon disulfide	83		74		59-130	11		30
2-Butanone	93		93		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

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: WG923577-3 WG923577-4								
Vinyl acetate	88		87		70-130	1		30
4-Methyl-2-pentanone	99		99		70-130	0		30
1,2,3-Trichloropropane	99		99		68-130	0		30
2-Hexanone	100		101		70-130	1		30
Bromochloromethane	100		98		70-130	2		30
2,2-Dichloropropane	103		93		70-130	10		30
1,2-Dibromoethane	97		98		70-130	1		30
1,3-Dichloropropane	98		97		69-130	1		30
1,1,1,2-Tetrachloroethane	101		96		70-130	5		30
Bromobenzene	100		97		70-130	3		30
n-Butylbenzene	109		100		70-130	9		30
sec-Butylbenzene	105		95		70-130	10		30
tert-Butylbenzene	103		95		70-130	8		30
o-Chlorotoluene	101		96		70-130	5		30
p-Chlorotoluene	102		96		70-130	6		30
1,2-Dibromo-3-chloropropane	96		100		68-130	4		30
Hexachlorobutadiene	111		102		67-130	8		30
Isopropylbenzene	104		95		70-130	9		30
p-Isopropyltoluene	106		98		70-130	8		30
Naphthalene	98		100		70-130	2		30
Acrylonitrile	98		99		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

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: WG923577-3 WG923577-4								
Isopropyl Ether	93		89		66-130	4		30
tert-Butyl Alcohol	95		97		70-130	2		30
n-Propylbenzene	104		96		70-130	8		30
1,2,3-Trichlorobenzene	103		102		70-130	1		30
1,2,4-Trichlorobenzene	106		104		70-130	2		30
1,3,5-Trimethylbenzene	103		96		70-130	7		30
1,2,4-Trimethylbenzene	104		98		70-130	6		30
Methyl Acetate	95		95		51-146	0		30
Ethyl Acetate	**148**	Q	115		70-130	25		30
Acrolein	115		101		70-130	13		30
Cyclohexane	102		89		59-142	14		30
1,4-Dioxane	102		109		65-136	7		30
Freon-113	95		84		50-139	12		30
1,4-Diethylbenzene	109		101		70-130	8		30
4-Ethyltoluene	105		97		70-130	8		30
1,2,4,5-Tetramethylbenzene	104		99		70-130	5		30
Tetrahydrofuran	82		84		66-130	2		30
Ethyl ether	94		92		67-130	2		30
trans-1,4-Dichloro-2-butene	87		86		70-130	1		30
Methyl cyclohexane	106		92		70-130	14		30
Ethyl-Tert-Butyl-Ether	96		93		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

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: WG923577-3 WG923577-4								
Tertiary-Amyl Methyl Ether	97		96		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	100		100		70-130

SEMIVOLATILES

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-01
Client ID: TP-4 (4-6)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/14/16 13:04
Analyst: MW
Percent Solids: 81%

Date Collected: 08/10/16 09:40
Date Received: 08/10/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/13/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	56	J	ug/kg	120	23.	1
Benzo(a)anthracene	26	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	25	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	23	J	ug/kg	200	20.	1
Phenanthrene	64	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	48	J	ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	90		30-120
4-Terphenyl-d14	93		18-120

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-02
Client ID: TP-5 (2-4)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/14/16 13:29
Analyst: MW
Percent Solids: 80%

Date Collected: 08/10/16 10:30
Date Received: 08/10/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/13/16 14:23

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	85		30-120
4-Terphenyl-d14	98		18-120

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-03
Client ID: TP-2 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/14/16 13:55
Analyst: MW
Percent Solids: 75%

Date Collected: 08/10/16 08:45
Date Received: 08/10/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/13/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	760		ug/kg	180	23.	1
Fluoranthene	5300		ug/kg	130	25.	1
Benzo(a)anthracene	2400		ug/kg	130	25.	1
Benzo(a)pyrene	2000		ug/kg	180	54.	1
Benzo(b)fluoranthene	2500		ug/kg	130	37.	1
Benzo(k)fluoranthene	830		ug/kg	130	35.	1
Chrysene	2200		ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	1500		ug/kg	130	43.	1
Benzo(ghi)perylene	1100		ug/kg	180	26.	1
Fluorene	850		ug/kg	220	21.	1
Phenanthrene	4400		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	300		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	1200		ug/kg	180	31.	1
Pyrene	4300		ug/kg	130	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	80		30-120
4-Terphenyl-d14	84		18-120

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-04
Client ID: TP-1 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 08/14/16 14:20
Analyst: MW
Percent Solids: 90%

Date Collected: 08/10/16 08:15
Date Received: 08/10/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 08/13/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	25	J	ug/kg	140	19.	1
Fluoranthene	570		ug/kg	110	21.	1
Benzo(a)anthracene	280		ug/kg	110	20.	1
Benzo(a)pyrene	250		ug/kg	140	44.	1
Benzo(b)fluoranthene	420		ug/kg	110	31.	1
Benzo(k)fluoranthene	120		ug/kg	110	29.	1
Chrysene	400		ug/kg	110	19.	1
Acenaphthylene	44	J	ug/kg	140	28.	1
Anthracene	82	J	ug/kg	110	36.	1
Benzo(ghi)perylene	180		ug/kg	140	21.	1
Fluorene	34	J	ug/kg	180	18.	1
Phenanthrene	610		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	57	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	170		ug/kg	140	25.	1
Pyrene	510		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	82		30-120
4-Terphenyl-d14	78		18-120

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 08/15/16 13:16
Analyst: MW

Extraction Method: EPA 3546
Extraction Date: 08/13/16 14:23

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG922553-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	19.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	57		30-120
4-Terphenyl-d14	60		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG922553-2 WG922553-3								
Acenaphthene	61		65		31-137	6		50
2-Chloronaphthalene	57		60		40-140	5		50
Fluoranthene	58		62		40-140	7		50
Naphthalene	58		61		40-140	5		50
Benzo(a)anthracene	58		62		40-140	7		50
Benzo(a)pyrene	64		67		40-140	5		50
Benzo(b)fluoranthene	64		67		40-140	5		50
Benzo(k)fluoranthene	63		65		40-140	3		50
Chrysene	58		62		40-140	7		50
Acenaphthylene	56		59		40-140	5		50
Anthracene	59		62		40-140	5		50
Benzo(ghi)perylene	71		73		40-140	3		50
Fluorene	58		62		40-140	7		50
Phenanthrene	58		62		40-140	7		50
Dibenzo(a,h)anthracene	65		69		40-140	6		50
Indeno(1,2,3-cd)Pyrene	68		72		40-140	6		50
Pyrene	56		60		35-142	7		50
1-Methylnaphthalene	56		60		26-130	7		50
2-Methylnaphthalene	59		63		40-140	7		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG922553-2 WG922553-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	54		59		23-120
2-Fluorobiphenyl	54		58		30-120
4-Terphenyl-d14	54		58		18-120

METALS

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-01
Client ID: TP-4 (4-6)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Percent Solids: 81%

Date Collected: 08/10/16 09:40
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.2		mg/kg	0.48	0.16	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Barium, Total	51		mg/kg	0.48	0.13	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Cadmium, Total	ND		mg/kg	0.48	0.03	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Chromium, Total	9.9		mg/kg	0.48	0.08	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Lead, Total	8.2		mg/kg	2.4	0.10	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Mercury, Total	0.04	J	mg/kg	0.08	0.02	1	08/12/16 07:20	08/16/16 11:35	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.96	0.13	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB
Silver, Total	ND		mg/kg	0.48	0.10	1	08/11/16 18:45	08/11/16 23:38	EPA 3050B	1,6010C	AB

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-02
Client ID: TP-5 (2-4)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Percent Solids: 80%

Date Collected: 08/10/16 10:30
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.6		mg/kg	0.47	0.15	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Barium, Total	88		mg/kg	0.47	0.13	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Cadmium, Total	0.05	J	mg/kg	0.47	0.03	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Chromium, Total	16		mg/kg	0.47	0.08	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Lead, Total	12		mg/kg	2.3	0.10	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	08/12/16 07:20	08/16/16 11:46	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.93	0.13	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB
Silver, Total	ND		mg/kg	0.47	0.09	1	08/11/16 18:45	08/11/16 23:20	EPA 3050B	1,6010C	AB

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-03
Client ID: TP-2 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Percent Solids: 75%

Date Collected: 08/10/16 08:45
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.8		mg/kg	0.51	0.17	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Barium, Total	85		mg/kg	0.51	0.14	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Cadmium, Total	0.08	J	mg/kg	0.51	0.04	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Chromium, Total	14		mg/kg	0.51	0.09	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Lead, Total	100		mg/kg	2.6	0.11	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Mercury, Total	0.26		mg/kg	0.09	0.02	1	08/12/16 07:20	08/16/16 11:48	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	1.0	0.14	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB
Silver, Total	ND		mg/kg	0.51	0.10	1	08/11/16 18:45	08/11/16 23:42	EPA 3050B	1,6010C	AB

Project Name: 9-21 LAKEVIEW AVENUE
Lab Number: L1624924
Project Number: T0394-016-001
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-04
Client ID: TP-1 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil
Percent Solids: 90%

Date Collected: 08/10/16 08:15
Date Received: 08/10/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	16		mg/kg	0.43	0.14	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Barium, Total	81		mg/kg	0.43	0.12	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Cadmium, Total	ND		mg/kg	0.43	0.03	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Chromium, Total	4.6		mg/kg	0.43	0.07	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Lead, Total	96		mg/kg	2.2	0.10	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Mercury, Total	0.10		mg/kg	0.07	0.02	1	08/12/16 07:20	08/16/16 11:50	EPA 7471B	1,7471B	BV
Selenium, Total	1.0		mg/kg	0.86	0.12	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB
Silver, Total	ND		mg/kg	0.43	0.09	1	08/11/16 18:45	08/11/16 23:46	EPA 3050B	1,6010C	AB

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

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): 01-04 Batch: WG922024-1										
Arsenic, Total	ND		mg/kg	0.40	0.13	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Barium, Total	ND		mg/kg	0.40	0.11	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Cadmium, Total	ND		mg/kg	0.40	0.03	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Chromium, Total	ND		mg/kg	0.40	0.07	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Lead, Total	ND		mg/kg	2.0	0.09	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Selenium, Total	ND		mg/kg	0.80	0.11	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB
Silver, Total	ND		mg/kg	0.40	0.08	1	08/11/16 18:45	08/11/16 22:28	1,6010C	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG922128-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	08/12/16 07:20	08/16/16 11:32	1,7471B	BV

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE

Project Number: T0394-016-001

Lab Number: L1624924

Report Date: 08/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG922024-2 SRM Lot Number: D089-540								
Arsenic, Total	100		-		80-120	-		
Barium, Total	84		-		83-117	-		
Cadmium, Total	95		-		82-117	-		
Chromium, Total	88		-		79-121	-		
Lead, Total	98		-		81-119	-		
Selenium, Total	90		-		78-121	-		
Silver, Total	87		-		75-125	-		
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG922128-2 SRM Lot Number: D089-540								
Mercury, Total	94		-		57-143	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

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): 01-04 QC Batch ID: WG922024-4 QC Sample: L1624495-01 Client ID: MS Sample												
Arsenic, Total	27.	10.8	42	**138**	Q	-	-		75-125	-		20
Barium, Total	35.	181	190	86		-	-		75-125	-		20
Cadmium, Total	ND	4.61	4.2	91		-	-		75-125	-		20
Chromium, Total	17.	18.1	34	94		-	-		75-125	-		20
Lead, Total	85.	46.1	120	76		-	-		75-125	-		20
Selenium, Total	ND	10.8	10	92		-	-		75-125	-		20
Silver, Total	ND	27.1	24	88		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG922128-4 QC Sample: L1624924-01 Client ID: TP-4 (4-6)												
Mercury, Total	0.04J	0.154	0.19	**123**	Q	-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG922024-3 QC Sample: L1624495-01 Client ID: DUP Sample						
Arsenic, Total	27.	28	mg/kg	4		20
Barium, Total	35.	30	mg/kg	15		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	17.	16	mg/kg	6		20
Lead, Total	85.	80	mg/kg	6		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG922128-3 QC Sample: L1624924-01 Client ID: TP-4 (4-6)						
Mercury, Total	0.04J	0.03J	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-01
Client ID: TP-4 (4-6)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil

Date Collected: 08/10/16 09:40
Date Received: 08/10/16
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	81.3		%	0.100	NA	1	-	08/12/16 01:47	121,2540G	VB

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-02
Client ID: TP-5 (2-4)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil

Date Collected: 08/10/16 10:30
Date Received: 08/10/16
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	80.4		%	0.100	NA	1	-	08/12/16 01:47	121,2540G	VB

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-03
Client ID: TP-2 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil

Date Collected: 08/10/16 08:45
Date Received: 08/10/16
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	74.6		%	0.100	NA	1	-	08/12/16 01:47	121,2540G	VB

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001
Lab Number: L1624924
Report Date: 08/17/16

SAMPLE RESULTS

Lab ID: L1624924-04
Client ID: TP-1 (0-2)
Sample Location: 9-21 LAKEVIEW AVENUE
Matrix: Soil

Date Collected: 08/10/16 08:15
Date Received: 08/10/16
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	89.9		%	0.100	NA	1	-	08/12/16 01:47	121,2540G	VB

Lab Duplicate Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG922104-1 QC Sample: L1625144-01 Client ID: DUP Sample						
Solids, Total	77.2	74.7	%	3		20

Project Name: 9-21 LAKEVIEW AVENUE
Project Number: T0394-016-001

Lab Number: L1624924
Report Date: 08/17/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1624924-01A	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-01A9	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-01B	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-01C	Metals Only - Glass 60mL/2oz unp	A	N/A	4.8	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)
L1624924-01D	Glass 120ml/4oz unpreserved	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-02A	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-02A9	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-02B	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-02C	Metals Only - Glass 60mL/2oz unp	A	N/A	4.8	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)
L1624924-02D	Glass 120ml/4oz unpreserved	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-03A	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-03A9	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-03B	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-03C	Metals Only - Glass 60mL/2oz unp	A	N/A	4.8	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)
L1624924-03D	Glass 120ml/4oz unpreserved	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-04A	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-04A9	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYTCL-8260-R2(14)
L1624924-04B	Vial Large Septa unpreserved (4o	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)
L1624924-04C	Metals Only - Glass 60mL/2oz unp	A	N/A	4.8	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)
L1624924-04D	Glass 120ml/4oz unpreserved	A	N/A	4.8	Y	Absent	NYCP51-PAH(14),TS(7)

*Values in parentheses indicate holding time in days

Project Name:	9-21 LAKEVIEW AVENUE	**Lab Number:**	L1624924
Project Number:	T0394-016-001	**Report Date:**	08/17/16

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

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.

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.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	9-21 LAKEVIEW AVENUE	**Lab Number:**	L1624924
Project Number:	T0394-016-001	**Report Date:**	08/17/16

Data Qualifiers

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

Project Name: 9-21 LAKEVIEW AVENUE **Lab Number:** L1624924

Project Number: T0394-016-001 **Report Date:** 08/17/16

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.

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, SM4500Cl-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, SM9222D-MF**.

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.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

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

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

Page 1 of 1

Date Rec'd in Lab: 8/11/16

ALPHA Job #: L1624924

Client Information

Client: Turnkey Env. Restoration, LLC
Address: 2558 Hamburg Turnpike
Suite 300, Buffalo, NY, 14218
Phone: 716-713-3437
Fax:
Email: NSuruki@Turnkeyllc.com

Project Information

Project Name: 9-21 Lakeview Avenue Site
Project Location: 9-21 Lakeview Avenue
Project #: T0394-016-001
(Use Project name as Project #)
Project Manager: Nick Suruki
ALPHAQuote #:

Turn-Around Time

Standard: [X]
Rush (only if pre approved): [ ]
Due Date:
# of Days:

Deliverables

[ ] ASP-A [X] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [X] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[ ] Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

TCL+CPSI VOC; CPSI PAH; RCRA Metals

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL+CPSI VOC	CPSI PAH	RCRA Metals	Total Bottle	Sample Specific Comments
24924-01	TP-4 (4-6)	8/10/16	9:40	Soil	MAS	X	X	X	4	
02	TP-5 (2-4)		10:30			X	X	X	4	
03	TP-2 (0-2)		8:45			X	X	X	4	
04	TP-1 (0-2)		8:15			X	X	X	4	

Container Type: A A A
Preservative: A A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/10/16 13:00	Audrey Filey ADL	8/10/16 14:00
Audrey Filey			8/11/16 0630

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.)

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

ANALYTICAL REPORT

Lab Number:	L2011695
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	9-21 LAKEVIEW
Project Number:	T0394-020-001-002
Report Date:	03/20/20

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

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

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2011695-01	HC-1	SOIL	BUFFALO, NY	03/12/20 09:00	03/13/20
L2011695-02	HC-2	SOIL	BUFFALO, NY	03/12/20 10:00	03/13/20
L2011695-03	HC-3	SOIL	BUFFALO, NY	03/12/20 11:00	03/13/20
L2011695-04	HC-4	SOIL	BUFFALO, NY	03/12/20 12:00	03/13/20
L2011695-05	HC-5	SOIL	BUFFALO, NY	03/12/20 12:30	03/13/20

Project Name:	9-21 LAKEVIEW	**Lab Number:**	L2011695
Project Number:	T0394-020-001-002	**Report Date:**	03/20/20

Case Narrative

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

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

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

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

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

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

Project Name: 9-21 LAKEVIEW **Lab Number:** L2011695
Project Number: T0394-020-001-002 **Report Date:** 03/20/20

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.

Semivolatile Organics

L2011695-01 and -02: The sample has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the sample matrix.

L2011695-01 and -02: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 03/20/20

ORGANICS

SEMIVOLATILES

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-01 D
Client ID: HC-1
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 09:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/19/20 05:19
Analyst: WR
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 03/18/20 11:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	2800	J	ug/kg	7100	920	50
Fluoranthene	27000		ug/kg	5300	1000	50
Naphthalene	2200	J	ug/kg	8900	1100	50
Benzo(a)anthracene	9100		ug/kg	5300	1000	50
Benzo(a)pyrene	6600	J	ug/kg	7100	2200	50
Benzo(b)fluoranthene	9600		ug/kg	5300	1500	50
Benzo(k)fluoranthene	4100	J	ug/kg	5300	1400	50
Chrysene	9000		ug/kg	5300	920	50
Acenaphthylene	ND		ug/kg	7100	1400	50
Anthracene	5100	J	ug/kg	5300	1700	50
Benzo(ghi)perylene	5200	J	ug/kg	7100	1000	50
Fluorene	3000	J	ug/kg	8900	860	50
Phenanthrene	22000		ug/kg	5300	1100	50
Dibenzo(a,h)anthracene	ND		ug/kg	5300	1000	50
Indeno(1,2,3-cd)pyrene	4800	J	ug/kg	7100	1200	50
Pyrene	22000		ug/kg	5300	880	50

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

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-02 D
Client ID: HC-2
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 10:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/19/20 05:41
Analyst: WR
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 03/18/20 11:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	6100	790	40
Fluoranthene	6900		ug/kg	4600	870	40
Naphthalene	1100	J	ug/kg	7600	930	40
Benzo(a)anthracene	1900	J	ug/kg	4600	860	40
Benzo(a)pyrene	ND		ug/kg	6100	1800	40
Benzo(b)fluoranthene	1800	J	ug/kg	4600	1300	40
Benzo(k)fluoranthene	1200	J	ug/kg	4600	1200	40
Chrysene	2400	J	ug/kg	4600	790	40
Acenaphthylene	ND		ug/kg	6100	1200	40
Anthracene	ND		ug/kg	4600	1500	40
Benzo(ghi)perylene	1900	J	ug/kg	6100	890	40
Fluorene	ND		ug/kg	7600	740	40
Phenanthrene	4000	J	ug/kg	4600	920	40
Dibenzo(a,h)anthracene	ND		ug/kg	4600	880	40
Indeno(1,2,3-cd)pyrene	ND		ug/kg	6100	1100	40
Pyrene	8300		ug/kg	4600	760	40

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

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-03
Client ID: HC-3
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 11:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/19/20 06:08
Analyst: WR
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 03/18/20 11:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	120	J	ug/kg	160	21.	1
Fluoranthene	1600		ug/kg	120	23.	1
Naphthalene	150	J	ug/kg	200	25.	1
Benzo(a)anthracene	860		ug/kg	120	23.	1
Benzo(a)pyrene	700		ug/kg	160	50.	1
Benzo(b)fluoranthene	920		ug/kg	120	34.	1
Benzo(k)fluoranthene	300		ug/kg	120	33.	1
Chrysene	760		ug/kg	120	21.	1
Acenaphthylene	91	J	ug/kg	160	32.	1
Anthracene	290		ug/kg	120	40.	1
Benzo(ghi)perylene	500		ug/kg	160	24.	1
Fluorene	130	J	ug/kg	200	20.	1
Phenanthrene	1100		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	100	J	ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	480		ug/kg	160	28.	1
Pyrene	1400		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	109		23-120
2-Fluorobiphenyl	82		30-120
4-Terphenyl-d14	76		18-120

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-05
Client ID: HC-5
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 12:30
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/19/20 06:31
Analyst: WR
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 03/18/20 11:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Fluoranthene	410		ug/kg	120	24.	1
Naphthalene	1000		ug/kg	200	25.	1
Benzo(a)anthracene	280		ug/kg	120	23.	1
Benzo(a)pyrene	240		ug/kg	160	50.	1
Benzo(b)fluoranthene	370		ug/kg	120	35.	1
Benzo(k)fluoranthene	160		ug/kg	120	33.	1
Chrysene	330		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	58	J	ug/kg	120	40.	1
Benzo(ghi)perylene	240		ug/kg	160	24.	1
Fluorene	34	J	ug/kg	200	20.	1
Phenanthrene	490		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	43	J	ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	220		ug/kg	160	29.	1
Pyrene	390		ug/kg	120	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	**125**	Q	23-120
2-Fluorobiphenyl	92		30-120
4-Terphenyl-d14	87		18-120

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/18/20 12:39
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 03/18/20 02:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03,05 Batch: WG1352256-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	99	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	91		25-120
Phenol-d6	92		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	105		10-136
4-Terphenyl-d14	113		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

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 Batch: WG1352256-2 WG1352256-3								
Acenaphthene	101		101		31-137	0		50
Fluoranthene	105		104		40-140	1		50
Naphthalene	101		94		40-140	7		50
Benzo(a)anthracene	104		103		40-140	1		50
Benzo(a)pyrene	107		104		40-140	3		50
Benzo(b)fluoranthene	106		108		40-140	2		50
Benzo(k)fluoranthene	104		99		40-140	5		50
Chrysene	106		103		40-140	3		50
Acenaphthylene	107		103		40-140	4		50
Anthracene	107		103		40-140	4		50
Benzo(ghi)perylene	99		98		40-140	1		50
Fluorene	106		105		40-140	1		50
Phenanthrene	103		100		40-140	3		50
Dibenzo(a,h)anthracene	102		102		40-140	0		50
Indeno(1,2,3-cd)pyrene	102		103		40-140	1		50
Pyrene	103		104		35-142	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW

Project Number: T0394-020-001-002

Lab Number: L2011695

Report Date: 03/20/20

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 Batch: WG1352256-2 WG1352256-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	98		92		25-120
Phenol-d6	94		92		10-120
Nitrobenzene-d5	97		93		23-120
2-Fluorobiphenyl	97		95		30-120
2,4,6-Tribromophenol	101		104		10-136
4-Terphenyl-d14	107		108		18-120

METALS

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-01
Client ID: HC-1
Sample Location: BUFFALO, NY
Date Collected: 03/12/20 09:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	23.9		mg/kg	0.406	0.084	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Barium, Total	137		mg/kg	0.406	0.071	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Cadmium, Total	2.70		mg/kg	0.406	0.040	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Chromium, Total	22.2		mg/kg	0.406	0.039	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Lead, Total	493		mg/kg	2.03	0.109	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Mercury, Total	0.541		mg/kg	0.068	0.044	1	03/17/20 09:00	03/17/20 20:27	EPA 7471B	1,7471B	GD
Selenium, Total	2.94		mg/kg	0.811	0.105	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC
Silver, Total	0.142	J	mg/kg	0.406	0.115	1	03/17/20 06:40	03/20/20 00:31	EPA 3050B	1,6010D	LC

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-02
Client ID: HC-2
Sample Location: BUFFALO, NY
Date Collected: 03/12/20 10:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	13.5		mg/kg	0.452	0.094	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Barium, Total	188		mg/kg	0.452	0.079	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Cadmium, Total	4.78		mg/kg	0.452	0.044	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Chromium, Total	24.5		mg/kg	0.452	0.043	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Lead, Total	1070		mg/kg	2.26	0.121	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Mercury, Total	0.297		mg/kg	0.073	0.047	1	03/17/20 09:00	03/17/20 20:30	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.904	0.116	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC
Silver, Total	0.154	J	mg/kg	0.452	0.128	1	03/17/20 06:40	03/20/20 00:35	EPA 3050B	1,6010D	LC

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-03
Client ID: HC-3
Sample Location: BUFFALO, NY
Date Collected: 03/12/20 11:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	70.7		mg/kg	0.482	0.100	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Barium, Total	1180		mg/kg	0.482	0.084	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Cadmium, Total	5.59		mg/kg	0.482	0.047	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Chromium, Total	16.4		mg/kg	0.482	0.046	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Lead, Total	473		mg/kg	2.41	0.129	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Mercury, Total	0.422		mg/kg	0.079	0.051	1	03/17/20 09:00	03/17/20 20:40	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.963	0.124	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.482	0.136	1	03/17/20 06:40	03/20/20 00:40	EPA 3050B	1,6010D	LC

Project Name: 9-21 LAKEVIEW
Lab Number: L2011695
Project Number: T0394-020-001-002
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-05
Client ID: HC-5
Sample Location: BUFFALO, NY
Date Collected: 03/12/20 12:30
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	21.2		mg/kg	0.484	0.101	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Barium, Total	198		mg/kg	0.484	0.084	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Cadmium, Total	3.34		mg/kg	0.484	0.047	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Chromium, Total	70.3		mg/kg	0.484	0.046	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Lead, Total	354		mg/kg	2.42	0.130	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Mercury, Total	0.131		mg/kg	0.080	0.052	1	03/17/20 09:00	03/17/20 20:44	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.968	0.125	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC
Silver, Total	0.600		mg/kg	0.484	0.137	1	03/17/20 06:40	03/20/20 00:45	EPA 3050B	1,6010D	LC

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002
Lab Number: L2011695
Report Date: 03/20/20

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03,05 Batch: WG1351612-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Chromium, Total	0.140	J	mg/kg	0.400	0.038	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	03/17/20 06:40	03/19/20 21:31	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03,05 Batch: WG1351615-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	03/17/20 09:00	03/17/20 19:08	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW

Project Number: T0394-020-001-002

Lab Number: L2011695

Report Date: 03/20/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 Batch: WG1351612-2 SRM Lot Number: D105-540								
Arsenic, Total	99		-		70-130	-		
Barium, Total	97		-		75-125	-		
Cadmium, Total	91		-		75-125	-		
Chromium, Total	98		-		70-130	-		
Lead, Total	91		-		71-128	-		
Selenium, Total	100		-		63-137	-		
Silver, Total	96		-		69-131	-		
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 Batch: WG1351615-2 SRM Lot Number: D105-540								
Mercury, Total	80		-		60-141	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG1351612-3 QC Sample: L2011573-01 Client ID: MS Sample												
Arsenic, Total	1.58	9.95	12.6	111		-	-		75-125	-		20
Barium, Total	11.9	166	178	100		-	-		75-125	-		20
Cadmium, Total	ND	4.23	4.14	98		-	-		75-125	-		20
Chromium, Total	2.56	16.6	19.4	102		-	-		75-125	-		20
Lead, Total	28.4	42.3	75.7	112		-	-		75-125	-		20
Selenium, Total	ND	9.95	10.2	102		-	-		75-125	-		20
Silver, Total	ND	24.9	21.8	88		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG1351615-3 QC Sample: L2011573-01 Client ID: MS Sample												
Mercury, Total	0.056J	0.136	0.174	**128**	Q	-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG1351612-4 QC Sample: L2011573-01 Client ID: DUP Sample						
Arsenic, Total	1.58	1.95	mg/kg	**21**	Q	20
Barium, Total	11.9	13.6	mg/kg	13		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	2.56	2.89	mg/kg	12		20
Lead, Total	28.4	28.8	mg/kg	1		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG1351615-4 QC Sample: L2011573-01 Client ID: DUP Sample						
Mercury, Total	0.056J	0.050J	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-01
Client ID: HC-1
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 09:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.4		%	0.100	NA	1	-	03/14/20 12:23	121,2540G	RI

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-02
Client ID: HC-2
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 10:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.4		%	0.100	NA	1	-	03/14/20 12:23	121,2540G	RI

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-03
Client ID: HC-3
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 11:00
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.0		%	0.100	NA	1	-	03/14/20 12:23	121,2540G	RI

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

SAMPLE RESULTS

Lab ID: L2011695-05
Client ID: HC-5
Sample Location: BUFFALO, NY

Date Collected: 03/12/20 12:30
Date Received: 03/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.6		%	0.100	NA	1	-	03/14/20 15:51	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: 9-21 LAKEVIEW

Project Number: T0394-020-001-002

Lab Number: L2011695

Report Date: 03/20/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1351067-1 QC Sample: L2011384-03 Client ID: DUP Sample						
Solids, Total	84.9	86.2	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1351100-1 QC Sample: L2011290-01 Client ID: DUP Sample						
Solids, Total	79.3	78.4	%	1		20

Project Name: 9-21 LAKEVIEW
Project Number: T0394-020-001-002

Lab Number: L2011695
Report Date: 03/20/20

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(*)
L2011695-01A	Glass 120ml/4oz unpreserved	A	NA		2.2	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)
L2011695-01B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYCP51-PAH(14),TS(7)
L2011695-02A	Glass 120ml/4oz unpreserved	A	NA		2.2	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)
L2011695-02B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYCP51-PAH(14),TS(7)
L2011695-03A	Glass 120ml/4oz unpreserved	A	NA		2.2	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)
L2011695-03B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYCP51-PAH(14),TS(7)
L2011695-04A	Glass 60ml unpreserved split	A	NA		2.2	Y	Absent		HOLD-METAL(180)
L2011695-04B	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		HOLD-8270(14)
L2011695-05A	Glass 60ml unpreserved split	A	NA		2.2	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)
L2011695-05B	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYCP51-PAH(14),TS(7)

*Values in parentheses indicate holding time in days

Project Name:	9-21 LAKEVIEW	**Lab Number:**	L2011695
Project Number:	T0394-020-001-002	**Report Date:**	03/20/20

GLOSSARY

Acronyms

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

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	9-21 LAKEVIEW	**Lab Number:**	L2011695
Project Number:	T0394-020-001-002	**Report Date:**	03/20/20

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

Terms

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

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

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

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

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

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

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

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers

Project Name:	9-21 LAKEVIEW	**Lab Number:**	L2011695
Project Number:	T0394-020-001-002	**Report Date:**	03/20/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	9-21 LAKEVIEW	**Lab Number:**	L2011695
Project Number:	T0394-020-001-002	**Report Date:**	03/20/20

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.

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

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

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

Page 1 of 1

Date Rec'd in Lab: 3/14/20

ALPHA Job #: L2011695

Client Information
Client: Tonkers ENV Restoration
Address: 255B Hamburg TPke
Buffalo, Ny, 14218
Phone: 716-713-3437
Fax:
Email: BMayback@BM-Tlc.com

Project Information
Project Name: 9-21 Lakeview
Project Location: Buffalo, NY
Project #: T0394-020-001-602
(Use Project name as Project #) ☐
Project Manager: Brian Mayback
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH's	RCRA Metals	Total Bottle	Sample Specific Comments
11695-01	HC-1	3/13/20	9:00	SO-1	MHS	X	X	2	
02	HC-2		10:00			X	X	2	
03	HC-3		11:00			X	X	2	
04	HC-4		12:00						
05	HC-5		12:30			X	X	1	On Hold
								1	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A	A											
Preservative	O	O											

Relinquished By:	Date/Time	Received By:	Date/Time
	3/13/20 15:00	RCunningham AAL	3/13/20 1800
RCunningham AAL	3/13/20 18:00		3/14/20 0625

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.)

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