August 16, 2017

Mr. Jeffery Birtch
Affinity Elmwood Gateway Properties LLC
105 Affinity Lane
Buffalo, New York 14215

Re: Phase II Environmental Investigation
1111 Elmwood and 605 Forest Avenues (Site)
Buffalo, New York

Dear Mr. Birtch:

Turnkey Environmental Restoration, LLC (TurnKey) has prepared this letter to summarize the results of the Phase II Environmental Investigation (Phase II) activities at the above referenced Site owned by Affinity Elmwood Gateway Properties LLC (Affinity) located at the corner of Elmwood Avenue and Forest Avenue, Buffalo, New York (Site; see Figures 1, 2 and 3). The primary purpose of the Phase II was to evaluate potential environmental impacts at the Site. The secondary purpose was to evaluate whether the Site may be eligible for admission to the New York Brownfield Cleanup Program (BCP) in the event that environmental impacts were identified. We understand that the planned redevelopment includes residential condominiums with some limited commercial retail space.

Soil/Fill Sampling

The Phase II investigation activities consisted of twelve (12) direct-push soil borings (SBs), six (6) hand auger (HAs), and ten (10) test pits (TPs). The locations are shown on attached Figure 4.

The direct-push SBs were advanced using a track mounted drill equipped with macrocore 1.5-inch diameter samplers that are 4-feet in length. The 4-foot sample cores were retrieved from the boring locations to allow for field characterization of the subsurface lithology and to collect of soil/fill samples by TurnKey's environmental scientist. The SBs were advanced to depths ranging from 8 to 13 to feet below ground surface (fbgs). At a minimum, borings were advanced until native soils were encountered. Refusal was encountered at three (3) locations (SB-2, -5 and -6) at depths ranging from 12 to 13 fbgs.

The HAs were completed with a 3-inch diameter stainless steel barrel auger. The HAs were advanced to depths ranging from 1.5 to 2 fbgs to investigate areas inaccessible via the direct push drill rig and to assess fill along the western portion of the Site.

The TPs were advanced using a mini-track mounted excavator (Kubota KX040) with a 24-inch bucket. The TPs were advanced to depths ranging from 1 to 4 fbgs to investigate areas inaccessible via the direct push drill rig and provide additional investigation at the Site.

TurnKey personnel made visual and/or olfactory observations, and scanned soil/fill samples retrieved from the investigation locations for total volatile organic vapors with a photoionization detector (PID) that is capable of detecting the presence of contaminants that emit volatile organic compounds (VOCs) such as petroleum products and solvents. The soil/fill samples retained were also headspace screened.

HA-6, SB-8, and TP-8 were completed on the property addressed 605 Forest Avenue. The remaining investigation locations were completed on the property addressed 1111 Elmwood Avenue.

PID headspace measurements were not detected above background (i.e., 0 ppm) at the SB or HA. A PID measurement of 8.4 ppm was noted at TP-4, 0 to 6 inches.

Table 1 is a summary of the soil/fill samples submitted along with the analysis completed. The soil/fill samples were placed in pre-cleaned laboratory provided sample jars, cooled to 4°C in the field, and transported under chain-of-custody to the laboratory for analysis for analysis which included volatile organic compounds (VOCs) via EPA Method 8260, semi-volatile organic compounds (SVOCs) via EPA Method 8270 and RCRA 8 metals via EPA Method 6010C/7471B.

TurnKey attempted to collect a groundwater sample from a 1-inch diameter microwell that was installed within SB-6 to a depth of 12 fbgs. However, no appreciable amount of groundwater was present within the well location and no sample could be collected.

Subsurface Conditions

The subsurface conditions encountered at the Site consist of the surface cover (topsoil, asphalt, concrete, building footprints) overlying fill material over native soil. Table 2 is a summary of the subsurface conditions encountered at the investigation locations. The fill materials encountered varied from dark granular fill material to reworked native soil containing man-made constituents (brick, cinders, ash, and glass). In general, fill material is present across the majority of the Site and varies in thickness from a few inches (SB-9, SB-11, TP-8) to up to 9.5 feet (SB-3). In general, the fill thickness is approximately 2 to 3 feet and likely thickest adjacent to and beneath existing structures.

No saturated or wet subsurface soil conditions were encountered and, as stated above, no appreciable amount of groundwater was present within the SB-6 temporary well location. Groundwater is likely present below the top of bedrock.

In addition to the Phase II activities, Affinity had a geotechnical investigation[1] completed at the Site in anticipation of the redevelopment. Three (3) soil borings were completed, two (2) in the northern portion (B-2 and -3) of the site and one (1) in the southern (B-1) as shown on Figure 3. The geotechnical report indicated that beneath the topsoil or pavement, fill type soils were encountered which extended to depths of about 2 to 8 feet. Beneath the fill layer, the indigenous soils consisted of silty clays and clayey silts with variable amounts of sand. Bedrock was encountered at depths of 10 to 13 fbgs.

During the geotechnical investigation, water level measurements were made at the completion of overburden drilling and sampling in the borehole. At test borings B-1 and B-2, no freestanding water was observed prior to bedrock coring. At test boring B-3, freestanding water was observed at a depth of about 9 feet (bedrock was encountered at approximately 13 bgs. As stated in the report "At test boring B-3, about 8 feet of relatively granular fill soils were encountered, which had a "moist to wet" condition. Accordingly, the water observed at the completion of overburden drilling could have results from perched groundwater seeping into the borehole."

Soil/Fill Analytical Results

The results of the analytical sample collected and analyzed as part of the Phase II investigation are summarized on Table 3. Based on your planned redevelopment, the applicable soil cleanup objectives (SCOs) would be Part 375 Restricted-Residential Use Soil Cleanup Objectives (RRSCOs); therefore exceedances of RRSCOs, as well as Commercial SCOs (CSCOs) and Industrial SCOs (ISCOs), are noted.

Semi-Volatile Organic Compounds

SVOCs were detected at or above their respective Part 375 RRSCOs (i.e., the applicable SCOs for the intended Site reuse) at three (3) investigation locations, SB-6, HA-6 and TP-4. Of the detected compounds, benzo(a)pyrene was detected at two (2) locations (SB-6 and TP-4) in exceedance of its ISCO.

Metal Analytes

Metal analytes were detected above their respective RRSCOs at seven (7) investigation locations, SB-1, HA-1, HA-5, TP-2, TP-3, TP-4, and TP-6.

- Arsenic exceeded its ISCO at two (2) locations (HA-1 and TP-6).
- Chromium exceeded its Commercial SCO (CSCO) at one (1) location, TP-2.
- Lead exceeded its CSCO at four (4) locations ((SB-1, HA-5, TP-3 and TP-4) and the ISCO at one (1) locations (TP-2).

[1] "Geotechnical Evaluation Report for Proposed Mixed Use Building, Elmwood Avenue and Forest Avenue, Buffalo, New York". Prepared by Empire GeoServices, Inc. for Affinity Elmwood Gateway Properties LLC. Date May 26, 2017.

Conclusions

The contaminants detected, SVOCs and metals (arsenic, chromium, and lead) were detected at concentrations above their respective applicable SCOs (i.e., Restricted Residential) for the intended reuse of the property. The detected concentrations exceeding the applicable SCOs were detected in the fill material present at the Site. Fill material is present across the majority of the Site and varies in thickness. The fill material and any other contaminated material generated during the redevelopment project will require management as contaminated soil.

Based on the existing data, which includes SVOC- and metals-contaminated soil/fill at numerous sample locations above applicable RRSCOs, as well as CSCOs/ISCOs, the Site is a candidate for the BCP. The Site meets the definition of a BCP site per the current BCP law which states a "brownfield site or site shall mean any real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria, or guidance adopted by the department that are applicable based on the reasonably anticipated use of the property, in accordance with applicable regulations."

Please contact us if you have any questions or require additional information.

Sincerely,
TurnKey Environmental Restoration, LLC

Christopher Boron
Sr. Project Manager

Michael Lesakowski
Principal

Attachments:
Figure 1 – Site Location & Vicinity Map
Figure 2 – Site Plan
Figure 3 – Tax Map
Figure 4 – Phase II Investigation Locations
Table 1 – Summary of Phase II Sampling and Analysis Program
Table 2 – Summary of Subsurface Field Observations
Table 3 – Soil/Fill Sample Analytical Results
Geotechnical Boring Logs
Analytical Data Packages

File: 0369-016-001

TABLES

TABLE 1

SUMMARY OF PHASE II SAMPLING AND ANALYSIS PROGRAM
ENVIRONMENTAL SITE INVESTGATION REPORT
1111 EIMWOOD AVENUE & 605 FFOREST AVENUE
BUFFALO, NEW YORK

Sample Location	Sample Depth (fbgs)	Analysis			Sample Type
		TCL VOCs	SVOCs - Base Neutrals	RCRA 8 Metals	
Subsurface Soil/Fill Samples					
SB-1	0 to 4		X	X	FILL
SB-6	0 to 4		X	X	FILL
SB-7	0 to 2		X	X	FILL
SB-10	1 to 4		X	X	FILL
HA-1	0.1 to 0.5		X	X	FILL
HA-3	0.3 to 0.7		X	X	FILL
HA-4	0.1 to 0.3		X	X	FILL
HA-5	0.1 to 0.3		X	X	FILL
HA-5	0.3 to 1.5		X	X	FILL
HA-6	0.3 to 0.7		X	X	FILL
TP-2	0 to 0.35		X	X	FILL
TP-3	0 to 0.35		X	X	FILL
TP-4	0 to 0.5	X	X	X	FILL
TP-6	0 to 0.35		X	X	FILL
TP-7	0 to 0.5		X	X	FILL
TP-9	0.1 to 0.5		X	X	FILL

Notes:
1. TCL VOCs - Target Compound List Volatile Organic Compounds.
2. SVOCs - Semivolatile Organic Compounds
3. RCRA - Resource Conservation & Recovery Act
4. fbgs - feet below ground surface

TABLE 2

SUMMARY OF SUBSURFACE FIELD OBSERVATIONS
ENVIRONMENTAL SITE INVESTGATION REPORT
1111 EIMWOOD AVENUE & 605 FFOREST AVENUE
BUFFALO, NEW YORK

Investigation Location	Depth (fbgs)	Depth Interval (fbgs)	Field Description	Fill Depth (feet)	Sample Collected	Sample Depth (fbgs)	Notes
SB-1	12	0 to 0.5	Topsoil	8			
		0.5 to 8	FILL - brown silty clay, sand, cinders, glass, brick, moist		X	0 to 4	Lead Exceedance of RRSCO
		8 to 12	Light brown silty clay, sand, moist				
SB-2	13	0 to 0.5	Topsoil	6			
		0.5 to 2	FILL - brown silty clay, sand, cinders, brick, moist				
		2 to 4	FILL - light brown sand with silt and clay, moist				
		4 to 6	FILL - light brown silty clay, sand, cinders, moist				
		6 to 9.5	Brown clay with sand, moist				
		9.5 to 13	Red brown clay with sand, moist				
SB-3	10.5	0 to 6	FILL - red brown clay, sand, cinders, moist	9.5			
		6 to 8	FILL - black clay with sand, moist				
		8 to 9.5	FILL - red brown clay with sand and cinders, moist				
		9.5 to 10.5	Light brown clayey sand, moist				
SB-4	12	0 to 0.5	Topsoil	4			
		0.5 to 4	FILL - brown clay, cinders, moist				
		4 to 12	Red brown clay, sand, moist				
SB-5	12	0 to 0.35	Topsoil	8			
		0.35 to 6	FILL - red brown clayey silt, sand, brick, cinders, moist				
		6 to 8	FILL - Dask brown clayey silt, sand, cinders, brick, moist				
		8 to 12	Red brown clay, sand , moist				
SB-6	12	0 to 0.35	Topsoil	4			
		0.35 to 4	FILL - red brown clay, sand, cinders, brick, moist		X	0 to 4	SVOC Exceedances of RRSCO/CSCO/ISCO
		8 to 12	Interbedded red brown sand with clay; and red brown clay with sand, moist				Microwell installed to 12 fbgs.
SB-7	8	0 to 0.5	FILL - Sand with gravel, cinders, ash, moist	4			
		0.5 to 4	FILL - red brown clay, cinders, moist		X	0 to 2	Chromium above USCO
		4 to 8	Red brown clay, sand, moist				
SB-8	12	0 to 0.35	Topsoil	4			
		0.35 to 4	FILL - red brown clay, cinders, moist				
		4 to 12	Red brown silty clay, sand, moist				
SB-9	8	0 to 0.35	Topsoil	0			
		0.35 to 8	Red brown clay, silt, sand, moist				
SB-10	8	0 to 0.67	Asphalt and subbase	2			
		0.67 to 2	FILL - red brown clay, sand, wood, moist		X	1 to 4	
		2 to 8	Red brown clay and sand, moist				
SB-11	8	0 to 0.35	Asphalt	0			
		0.35 to 3	Red brown sand, clay, moist				
		3 to 4	Red brown clay, sand, gravel, moist				
		4 to 8	Red brown clay, sands, moist				
SB-12	8	0 to 0.16	Topsoil	4			
		0.16 to 4	FILL MATERIAL				
		0.4 to 4	FILL - red brown clay, gravel, brick, moist				
		4 to 8	Red brown clay, sand, gravel, moist				
HA-1	1.7	0 to 0.16	Topsoil	1.7			
		0.16 to 1.7	FILL - red brown clay, cinders, brick, moist		X	0.1 to 0.5	Arsenic ISCO Exceedance
HA-2	1.5	0 to 0.3	Topsoil	0.5			
		0.3 to 0.5	FILL - red brown clay, cinders, brick, moist				
		0.5 to 1.5	Red brown clay, sand, moist				
HA-3	1.7	0 to 0.3	Topsoil	0.7			
		0.3 to 0.7	FILL - red brown clay, cinders, moist		X	0.3 to 0.7	
		0.7 to 1.7	Red brown, clay, sand, moist				
HA-4	1.5	0 to 0.1	Topsoil	0.3			
		0.1 to 0.3	FILL - dark brown loam and clay, cinders, brick, moist			0.1 to 0.3	Metals above USCOs
		0.3 to 1.5	Red brown, clay, sand, moist				
HA-5	2	0 to 0.1	Topsoil	1.5			
		0.1 to 0.3	FILL - Topsoil with black fill, ash, cinders, moist		X	0.1 to 0.3	Metals above USCOs
		0.3 to 1.5	FILL - red brown clay, cinders, brick, moist		X	0.3 to 1.5	Lead exceedance of RRSCO
		1.5 to 2	Red brown clay, moist				
HA-6	2	0 to 0.3	Topsoil	0.5			
		0.3 to 0.5	Fill - brown silty sand, cinders, brick, moist		X	0.3 to 0.7	SVOC Exceedance of RRSCO
		0.5 to 2	Red brown Clay, moist				
TP-1	3	0 to 0.3	FILL - dark brown sand, silt, cinder, wood, moist	0.3			
		0.3 to 3	Red brown clay, sand, gravel, moist				
TP-2	2	0 to 0.17	FILL - brown sand, silt, cinders, wood, moist	0.3	X	0 to 0.35	Lead Exccedance of ISCO
		0.17 to 0.3	FILL - red brown clay, silt, brick, cinders, moist				Chromium Exceedance of RRSCO
		0.3 to 1	Light brown sand, silt, moist				
		1 to 2	Red brown clay, sand, gravel, moist				
TP-3	3.5	0 to 0.3	FILL - brown sand, cinders, glass, moist	1	X	0 to 0.35	Lead Exceedance of RRSCO
		0.3 to 1	FILL - light brown, sand, silt, clay, brick, cinders, moist				
		1 to 3.5	Red brown clay, sand, moist				
TP-4	4	0 to 0.5	FILL - black sand, cinders, wood, moist	1.2	X	0 to 0.5	Petroleum odor - 8.4 ppm field screening
		0.5 to 1.2	FILL - red brown clay, sand, brick, cinders, moist				SVOC Exceedances of RRSCO/CSCO/ISCO
		1.2 to 1.7	Light brown silty sand, clay, moist				Lead Exceedance of RRSCO
		1.7 to 4	Red brown clay, sand, moist				
TP-5	3.5	0 to 1	FILL - black clay, sand, cinders, brick, moist	1			
		1 to 3.5	Red brown clay, sand, moist				
TP-6	1.5	0 to 0.3	FILL - black sand, gravel, cinders	0.7	X	0 to 0.35	Arsenic Exceedance of ISCO
		0.3 to 0.7	FILL - red brown clay, silt, sand, cinders, brick, moist				
		0.7 to 1.5	Red brown clay, sand, moist				
TP-7	2	0 to 0.5	FILL - dark/brown/black sand, cinders, ash, moist	1	X	0 to 0.5	
		0.5 to 1	FILL - red brown clay, silt, sand, cinders, brick, moist				
		1 to 2	Red brown clay, sand, moist				
TP-8	3.5	0 to 0.5	Topsoil	0			
		0.5 to 3.5	Red brown clay, sand, moist				
TP-9	2.5	0 to 0.17	Asphalt and subbase	1.8	0		
		0.17 to 0.5	FILL - black sand, silt, brick, cinders, moist		X	0.1 to 0.5	Metals above USCOs
		0.5 to 1.17	FILL - light brown clay, sand, silt, brick, cinders, moist				
		1.17 to 2.5	Red brown clay, sand, moist				
TP-10	1	0 to 0.3	FILL - dark brown sand, silt, clay, brick, moist	0.9			
		0.3 to 0.85	FILL - red brown clay, cinders, brick, moist				
		0.85 to 1	Red brown clay, sand, moist				

TABLE 1

Soil/Fill Sample Analytical Results
Phase II Environmental Investigation
1111 Elmwood Avenue & 605 Forest Avenue
Buffalo, NY

PARAMETER[1]	Unrestricted Use SCO's[2]	Restricted Residential Use SCO's [2]	Commercial Use SCO's[3]	Industrial Use SCO's[6]	SAMPLE LOCATION (DEPTH)															
					SB-1 (0-4')	SB-6 (0-4')	SB-7 (0-2')	SB-10 (1-4')	HA-1 (0.1-0.5')	HA-3 (0.3-0.7')	HA-4 (0.1-0.3')	HA-5 (0.1-0.3')	HA-5 (0.3-1.5')	HA-6 (0.3-0.7')	TP-2 (0-0.35')	TP-3 (0-0.35')	TP-4 (0-0.5')	TP-6 (0-0.35')	TP-7 (0-0.5')	TP-9 (0.1-0.5)
					2/8/2016	2/8/2016	2/8/2016	2/8/2016	3/17/2016	3/17/2016	3/17/2016	3/17/2016	3/17/2016	3/17/2016	2/21/2017	2/21/2017	2/21/2017	2/21/2017	2/21/2017	2/21/2017
Volatile Organic Compounds (SVOCs) - mg/Kg [4]																				
Acetone	**0.05**	**100**	**500**	**1000**	--	--	--	--	--	--	--	--	--	--	--	--	0.084 J	--	--	--
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg [4]																				
2-Methylnaphthalene	**--**	**--**	**--**	**--**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.047 J	ND	ND	0.22 J	1.2	0.063 J	ND
Acenaphthene	**20**	**100**	**500**	**1000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13 J	0.027 J	ND	0.82 J	ND	ND	ND
Acenaphthylene	**100**	**100**	**500**	**1000**	ND	0.22 J	ND	ND	ND	ND	ND	0.057 J	ND	0.037 J	ND	ND	ND	ND	0.034 J	ND
Anthracene	**100**	**100**	**500**	**1000**	ND	1.1	ND	ND	ND	ND	ND	0.052 J	ND	0.34	0.1 J	ND	2	0.28	0.062 J	ND
Benzo(a)anthracene	**1**	**1**	**5.6**	**11**	0.038 J	**5.4**	ND	ND	0.15	0.042 J	0.052 J	0.24	0.1 J	0.89	0.31	0.088 J	**4**	0.5	0.26	ND
Benzo(a)pyrene	**1**	**1**	**1**	**1.1**	0.036 J	**4.9**	ND	ND	0.18	0.083 J	0.096 J	0.3	0.18	0.66	0.3	0.083 J	**3.4**	0.8	0.26	ND
Benzo(b)fluoranthene	**1**	**1**	**5.6**	**11**	0.053 J	**5.3**	ND	ND	0.22	0.075 J	0.093 J	0.38	0.18	**1**	0.41	0.11 J	**4.6**	0.4	0.33	ND
Benzo(ghi)perylene	**100**	**100**	**500**	**1000**	0.028 J	3.2	44``	ND	0.094 J	0.027 J	0.034 J	0.23	0.085 J	0.52	0.18	0.054 J	1.9	1	0.14 J	ND
Benzo(k)fluoranthene	**0.8**	**3.9**	**56**	**110**	ND	**2.4**	ND	ND	0.09 J	ND	ND	0.16	0.056 J	0.42	0.12 J	0.042 J	**1.4**	0.057 J	0.1 J	ND
Biphenyl	**--**	**--**	**--**	**--**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.097 J	ND	ND
Bis(2-ethylhexyl) phthalate	**--**	**--**	**--**	**--**	0.082 J	ND	ND	ND	0.2 J	ND	0.17 J	0.93	0.2 J	0.16 J	0.59	0.073 J	ND	ND	ND	ND
Butyl benzyl phthalate	**--**	**--**	**--**	**--**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29 J	ND	ND	ND
Carbazole	**--**	**--**	**--**	**--**	ND	0.12 J	ND	ND	0.029 J	ND	ND	0.037 J	ND	0.23	0.05 J	ND	1.2	ND	0.02 J	ND
Chrysene	**1**	**3.9**	**56**	**110**	0.047 J	**5**	ND	ND	0.15	0.039 J	0.054 J	0.27	0.097 J	0.86	0.31	0.082 J	**3.7**	0.77	0.23	ND
Dibenzofuran	**7**	**59**	**350**	**1000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	ND	ND	0.63 J	0.24	0.022 J	ND
Dibenzo (a,h)anthracene	**0.33**	**0.33**	**0.56**	**1.1**	ND	ND	ND	ND	0.05 J	ND	ND	0.14	0.12 J	0.2	0.048 J	ND	**0.58 J**	0.27	0.038 J	ND
Fluoranthene	**100**	**100**	**500**	**1000**	0.091 J	11	ND	ND	0.31	0.08 J	0.1 J	0.6	0.23	2.3	0.73	0.16	9.8	0.15	0.55	0.16 J
Fluorene	**30**	**100**	**500**	**1000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.035 J	ND	1.2	ND	ND	ND
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	**5.6**	**11**	ND	**2.5**	ND	ND	0.16	0.093 J	0.11 J	0.24	0.15 J	0.44	0.21	0.06 J	**2.3**	0.35	0.17	ND
Naphthalene	**12**	**100**	**500**	**1000**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.067 J	ND	ND	0.5 J	0.72	0.038 J	ND
Phenanthrene	**100**	**100**	**500**	**1000**	0.059 J	3.2	ND	ND	0.15	0.04 J	0.055 J	0.19	0.091 J	1.4	0.41	0.089 J	8.4	1.5	0.23	ND
Pyrene	**100**	**100**	**500**	**1000**	0.076 J	11	ND	ND	0.25	0.065 J	0.082 J	0.47	0.18	1.8	0.59	0.14	7.4	1	0.46	0.14 J
Total Metals - mg/Kg																				
Arsenic	**13**	**16**	**16**	**16**	6.9	5.4	6.5	3.8	**20**	8.4	7.8	10	12	5.5	6.9	11	6.5	**20**	12	11
Barium	**350**	**400**	**400**	**10000**	120 F1	127	181	97.9	93	96	100	92	120	100	120	110	120	51	82	98
Cadmium	**2.5**	**4.3**	**9.3**	**60**	0.39	ND	ND	ND	ND	ND	ND	0.807	0.765	ND	**3.5**	0.83	0.91	0.22 J	0.2 J	**3.2**
Chromium	**30**	**180**	**1500**	**6800**	26.3	26.8	**40.3**	18.7	12	17	18	18	23	15	**500**	15	17	6.9	5.5	15
Lead	**63**	**400**	**1000**	**3900**	**732 F2**	18.7	15.8	19.7	**240**	52	**68**	**340**	**400**	**200**	**4200**	**520**	**470**	31	40	**200**
Mercury	**0.18**	**0.81**	**2.8**	**5.7**	0.048	0.037	ND	ND	**0.28**	0.11	**0.24**	**0.24**	**0.22**	**0.29**	0.14	**0.46**	**0.19**	0.05 J	0.04 J	**0.56**
Selenium	**30**	**180**	**1500**	**10000**	ND	ND	ND	ND	0.74 J	0.69 J	0.57 J	1.25	1.006	0.867 J	0.62 J	ND	ND	ND	ND	ND
Silver	**2**	**180**	**1500**	**6800**	ND	ND	ND	ND	ND	ND	ND	0.19 J	0.275 J	0.212 J	ND	ND	ND	ND	ND	ND

Notes:

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

Definitions:

ND = Parameter not detected above laboratory detection limit.
"--" = No value available for the parameter, or the parameter was not analysed for.
F2 =MS/MSD RPD exceeds control limits
F1=MS and/or MSD Recovery is outside acceptance limits.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

BOLD	= Result exceeds Restricted Residential use SCO's.
BOLD	= Result exceeds Commercial use SCO's.
BOLD	= Result exceeds Commercial Use SCOs
BOLD	= Result exceeds Industrial Use SCOs

FIGURES

F:\CAD\TurnKey\Affinity Elmwood Gateway Properties, LLC\Phase II ESA\Figure 1 - Site Location and Vicinity Map - Affinity.dwg

FIGURE 1

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

PROJECT NO.: 0369-016-001

DATE: AUGUST 2017

DRAFTED BY: RFL

SITE LOCATION AND VICINITY MAP

PHASE II ENVIRONMENTAL INVESTIGATION

1111 ELMWOOD AVENUE AND 605 FOREST AVENUE SITE

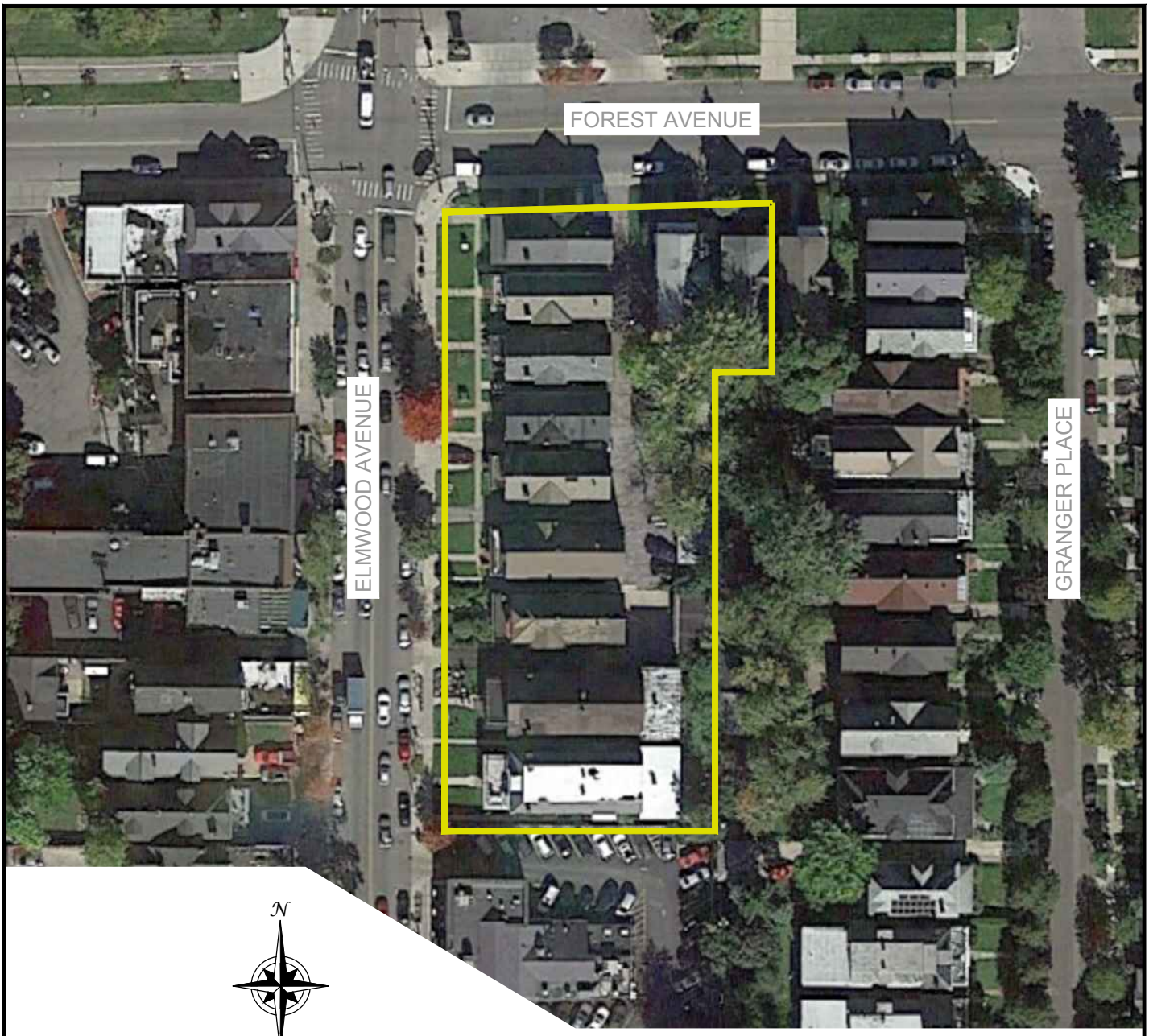
BUFFALO, NEW YORK

PREPARED FOR

AFFINITY ELMWOOD GATEWAY PROPERTIES LLC

F:\CAD\TurnKey\Affinity Elmwood Gateway Properties, LLC\Phase II ESA\Figure 2; Site Plan rev.dwg

FIGURE 2



SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

LEGEND:

BCP SITE PROPERTY BOUNDARY

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0369-016-001

DATE: AUGUST 2017

DRAFTED BY: CMC

SITE PLAN

PHASE II ENVIRONMENTAL INVESTIGATION

1111 ELMWOOD AVENUE AND 605 FOREST AVENUE SITE

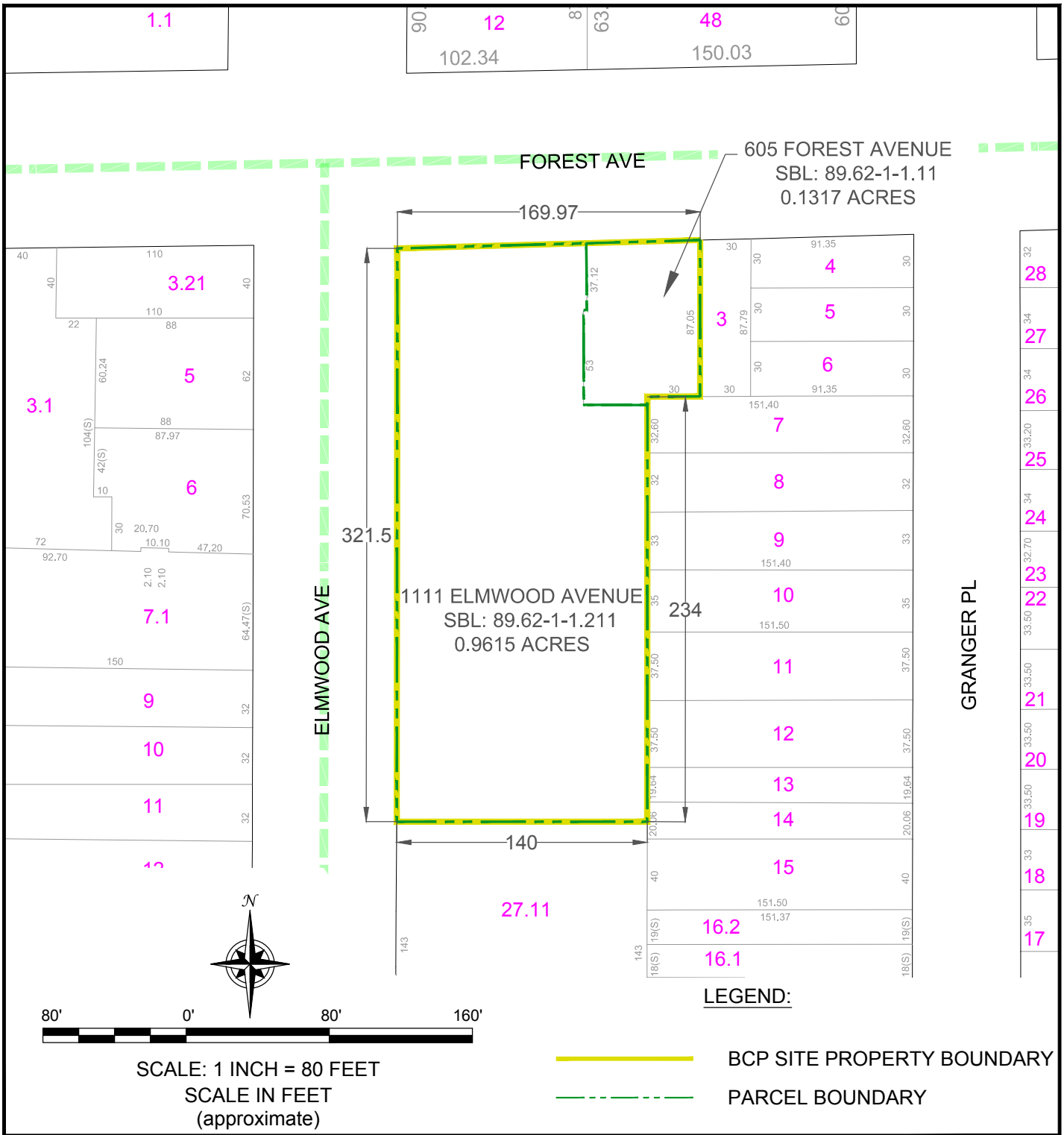
BUFFALO, NEW YORK

PREPARED FOR

AFFINITY ELMWOOD GATEWAY PROPERTIES LLC

F:\CAD\TurnKey\Affinity Elmwood Gateway Properties, LLC\Phase II ESA\Figure 3; Tax Map.dwg

FIGURE 3



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

PROJECT NO.: 0369-016-001

DATE: AUGUST 2017

DRAFTED BY: RFL

TAX MAP

PHASE II ENVIRONMENTAL INVESTIGATION

1111 ELMWOOD AVENUE AND 605 FOREST AVENUE SITE

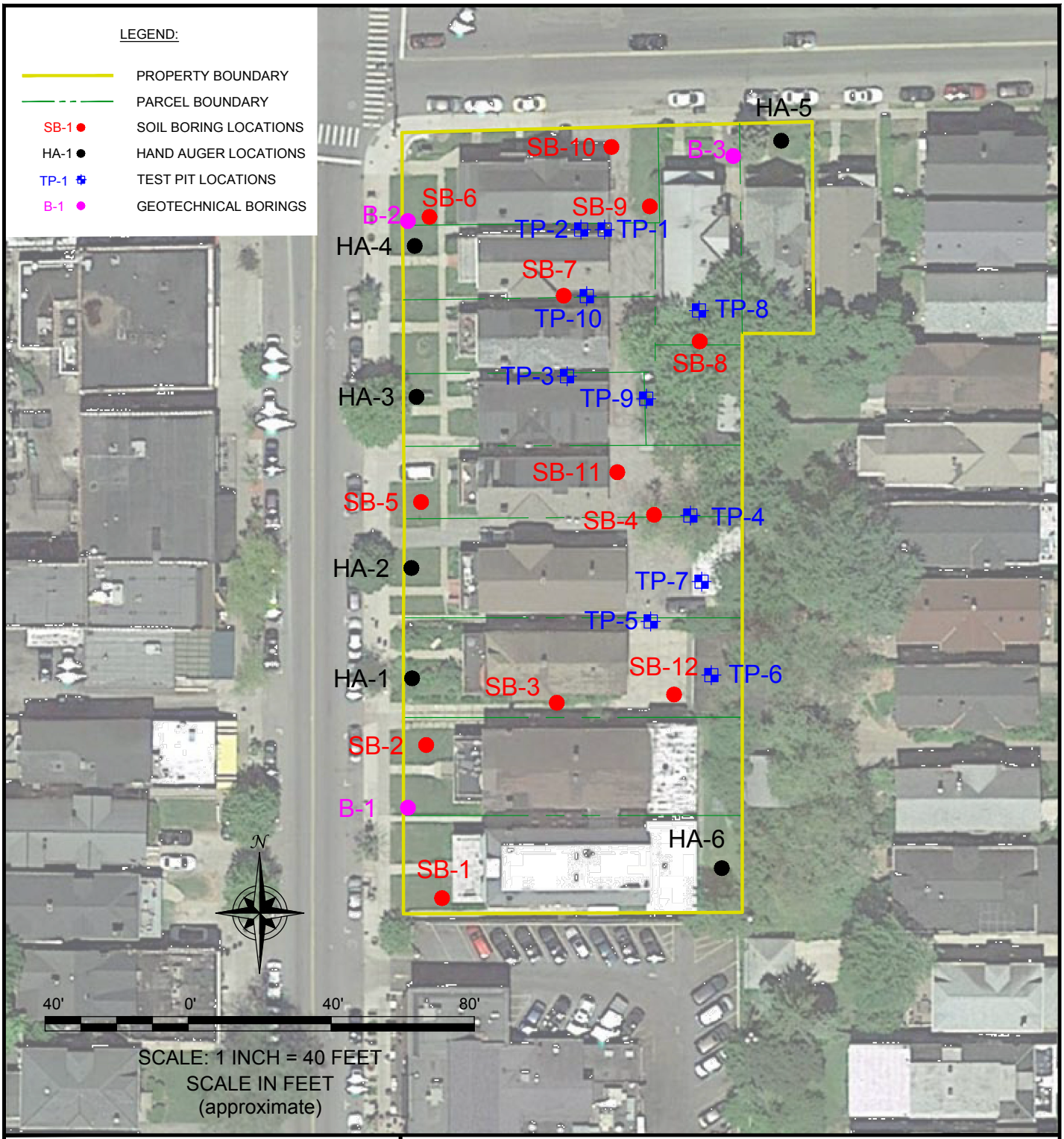
BUFFALO, NEW YORK

PREPARED FOR

AFFINITY ELMWOOD GATEWAY PROPERTIES LLC

F:\CAD\TurnKey\Affinity Elmwood Gateway Properties, LLC\Phase II ESA\Figure 4; Phase II Sampling Locations.dwg

FIGURE 4



TURNKEY ENVIRONMENTAL RESTORATION, LLC

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

PROJECT NO.: 0369-016-001

DATE: AUGUST 2017

DRAFTED BY: RFL

PHASE II ENVIRONMENTAL INVESTIGATION LOCATIONS

PHASE II ENVIRONMENTAL INVESTIGATION

1111 ELMWOOD AVENUE AND 605 FOREST AVENUE SITE

BUFFALO, NEW YORK

PREPARED FOR

AFFINITY ELMWOOD GATEWAY PROPERTIES, LLC

GEOTECHNICAL BORING LOGS

DATE:
START 5/3/2017
FINISH 5/3/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-1
SURF. ELEV 104.2'
G.W. DEPTH See Notes

PROJECT: PROPOSED MIXED USE BUILDING
PROJ. NO.: BE-17-072
LOCATION: ELMWOOD AVE & FOREST AVE
BUFFALO, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	3			TOPSOIL	Driller noted Topsoil at the ground surface
		4	6		7	Brown Silty CLAY, little f-c Sand, tr.organics	
	2	5	5			(moist, FILL)	
		6	7		11	Becomes Dark Brown	
5	3	4	5			Brown Silty CLAY, little f-c Sand, tr.gravel	
		8	9		13	(moist, stiff, CL)	
	4	6	7			Brown Clayey SILT, some fine Sand	
		10	9		17	(moist-wet, v.stiff, ML)	
	5	5	6			Contains "and" fine Sand (stiff)	
10		9	13		15		
	6	4	8			Brown Silty CLAY, little f-c Sand (moist, stiff, CL)	
		7	10		15		NQ '2' Size Rock Core
						Gray DOLOSTONE Rock, medium hard, sound, thinly to thickly bedded	RUN #1: 12.5' - 17.5' REC = 97% RQD = 90%
15							
							RUN #2: 17.5' - 22.5' REC = 100% RQD = 70%
20						Weathered seam from 19.8' - 20.3'	
						Boring Complete at 22.5'	No Free Standing Water encountered before Coring
25							Free Standing Water recorded at 15' after Coring
30							Driller noted core water loss at 18'
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: J. FRIDMAN

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE:
START 5/2/2017
FINISH 5/2/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-2
SURF. ELEV 102.1'
G.W. DEPTH See Notes

PROJECT: PROPOSED MIXED USE BUILDING
PROJ. NO.: BE-17-072
LOCATION: ELMWOOD AVE & FOREST AVE
BUFFALO, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	3			TOPSOIL	Driller noted Topsoil at the ground surface
		3	4		6	Brown Silty CLAY, little f-c Sand, tr.organics (moist, FILL)	
	2	6	6				
		6	6		12	Brown Silty CLAY, little f-c Sand, tr.gravel (moist, stiff, CL)	
5	3	3	4				
		6	8		10		
	4	9	6				
		7	8		13		
	5	6	9			Contains litle fine Gravel (v.stiff)	NQ '2' Size Rock Core
10		9	50/0.3		18		
						Gray DOLOSTONE Rock, medium hard, sound, thinly to thickly bedded	RUN #1: 10.0' - 15.0' REC = 80% RQD = 73%
15							
							RUN #2: 15.0' - 20.0' REC = 78% RQD = 64%
20							
						Boring Complete at 20.0'	No Free Standing Water encountered before Coring Free Standing Water recorded at 2' after Coring
25							
30							
35							
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE:
START 5/2/2017
FINISH 5/2/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. B-3
SURF. ELEV 103.2'
G.W. DEPTH See Notes

PROJECT: PROPOSED MIXED USE BUILDING
PROJ. NO.: BE-17-072
LOCATION: ELMWOOD AVE & FOREST AVE
BUFFALO, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	SOIL OR ROCK CLASSIFICATION	NOTES
	1	–	2			ASPHALT	Driller noted Asphalt at the ground surface
		3	3		6	Gray f-c GRAVEL and f-c Sand, tr.silty clay (moist-wet, FILL)	
	2	2	1				
		1	1		2		
5	3	1	1			Brown Silty CLAY, some f-c Gravel, little f-c Sand (moist-wet, FILL)	
		1	3		2		
	4	2	2				
		2	3		4		
	5	2	3			Brown Silty CLAY, little f-c Sand (moist-wet, medium, CL) Contains some f-c Sand, tr.gravel (v.stiff)	
10		4	4		7		
	6	14	10				
		8	7		18		NQ '2' Size Rock Core
15						Gray DOLOSTONE Rock, medium hard, sound, thinly to thickly bedded	RUN #1: 13.0' - 18.0' REC = 80% RQD = 56%
20							RUN #2: 18.0' - 23.0' REC = 86% RQD = 77%
25						Boring Complete at 23.0'	Free Standing Water recorded at 9' before Coring
30							Free Standing Water recorded at 10' after Coring
35							Driller noted core water loss at 13' to 23'
40							

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: J. FRIDMAN

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

ANALYTICAL DATA PACKAGES

TurnKey

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-94559-1
Client Project/Site: Benchmark - Elmwood & Forest site

For:
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, New York 14218

Attn: Mr. Christopher Z Boron

Joseph V. Giacomazza

Authorized for release by:
2/16/2016 9:45:35 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-94559-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-94559-1

Receipt
The samples were received on 2/1/2016 11:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4º C.

GC/MS Semi VOA
Method(s) 8270D: The following samples was diluted due to appearance and viscosity: SB-6 (0-4') (480-94559-2). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 480-285988 was outside the method criteria for the following analytes: bis (2-chloroisopropyl) ether and Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Client Sample ID: SB-1 (0-4') — Lab Sample ID: 480-94559-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)anthracene	38	J	200	20	ug/Kg	1	☼	8270D	Total/NA
Benzo(a)pyrene	36	J	200	29	ug/Kg	1	☼	8270D	Total/NA
Benzo(b)fluoranthene	53	J	200	32	ug/Kg	1	☼	8270D	Total/NA
Benzo(g,h,i)perylene	28	J	200	21	ug/Kg	1	☼	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	82	J	200	68	ug/Kg	1	☼	8270D	Total/NA
Chrysene	47	J	200	45	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	91	J	200	21	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	59	J	200	29	ug/Kg	1	☼	8270D	Total/NA
Pyrene	76	J	200	23	ug/Kg	1	☼	8270D	Total/NA
Arsenic	6.9		2.3		mg/Kg	1	☼	6010C	Total/NA
Barium	120	F1	0.58		mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.39		0.23		mg/Kg	1	☼	6010C	Total/NA
Chromium	26.3		0.58		mg/Kg	1	☼	6010C	Total/NA
Lead	732	F2	1.2		mg/Kg	1	☼	6010C	Total/NA
Mercury	0.048		0.022		mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-6 (0-4') — Lab Sample ID: 480-94559-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	220	J	990	130	ug/Kg	5	☼	8270D	Total/NA
Anthracene	1100		990	240	ug/Kg	5	☼	8270D	Total/NA
Benzo(a)anthracene	5400		990	99	ug/Kg	5	☼	8270D	Total/NA
Benzo(a)pyrene	4900		990	150	ug/Kg	5	☼	8270D	Total/NA
Benzo(b)fluoranthene	5300		990	160	ug/Kg	5	☼	8270D	Total/NA
Benzo(g,h,i)perylene	3200		990	100	ug/Kg	5	☼	8270D	Total/NA
Benzo(k)fluoranthene	2400		990	130	ug/Kg	5	☼	8270D	Total/NA
Carbazole	120	J	990	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	5000		990	220	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	11000		990	100	ug/Kg	5	☼	8270D	Total/NA
Indeno(1,2,3-cd)pyrene	2500		990	120	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	3200		990	150	ug/Kg	5	☼	8270D	Total/NA
Pyrene	11000		990	120	ug/Kg	5	☼	8270D	Total/NA
Arsenic	5.4		2.3		mg/Kg	1	☼	6010C	Total/NA
Barium	127		0.58		mg/Kg	1	☼	6010C	Total/NA
Chromium	26.8		0.58		mg/Kg	1	☼	6010C	Total/NA
Lead	18.7		1.2		mg/Kg	1	☼	6010C	Total/NA
Mercury	0.037		0.022		mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-7 (0-2') — Lab Sample ID: 480-94559-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.5		2.6		mg/Kg	1	☼	6010C	Total/NA
Barium	181		0.64		mg/Kg	1	☼	6010C	Total/NA
Chromium	40.3		0.64		mg/Kg	1	☼	6010C	Total/NA
Lead	15.8		1.3		mg/Kg	1	☼	6010C	Total/NA

Client Sample ID: SB-10 (1-4') — Lab Sample ID: 480-94559-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.8		2.8		mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Client Sample ID: SB-10 (1-4') (Continued)

Lab Sample ID: 480-94559-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	97.9		0.71		mg/Kg	1	☼	6010C	Total/NA
Chromium	18.7		0.71		mg/Kg	1	☼	6010C	Total/NA
Lead	19.7		1.4		mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SB-1 (0-4')

Date Collected: 01/29/16 09:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-1
Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		200	41	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
2-Chloronaphthalene	ND		200	33	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
2-Methylnaphthalene	ND		200	40	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
2-Nitroaniline	ND		390	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
3,3'-Dichlorobenzidine	ND		390	230	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
3-Nitroaniline	ND		390	55	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
4-Chloroaniline	ND		200	49	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
4-Chlorophenyl phenyl ether	ND		200	25	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
4-Nitroaniline	ND		390	100	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Acenaphthene	ND		200	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Acenaphthylene	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Acetophenone	ND		200	27	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Anthracene	ND		200	49	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Atrazine	ND		200	69	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzaldehyde	ND		200	160	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzo(a)anthracene	**38**	**J**	200	20	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzo(a)pyrene	**36**	**J**	200	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzo(b)fluoranthene	**53**	**J**	200	32	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzo(g,h,i)perylene	**28**	**J**	200	21	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Benzo(k)fluoranthene	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Biphenyl	ND		200	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Bis(2-ethylhexyl) phthalate	**82**	**J**	200	68	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Caprolactam	ND		200	60	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Carbazole	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Chrysene	**47**	**J**	200	45	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Dibenzofuran	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Diethyl phthalate	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Dimethyl phthalate	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Fluoranthene	**91**	**J**	200	21	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Fluorene	ND		200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Hexachloroethane	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Indeno(1,2,3-cd)pyrene	ND		200	25	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Isophorone	ND		200	42	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Naphthalene	ND		200	26	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Nitrobenzene	ND		200	22	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1

Client Sample ID: SB-1 (0-4')
Date Collected: 01/29/16 09:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-1
Matrix: Solid
Percent Solids: 84.4

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	59	J	200	29	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1
Pyrene	76	J	200	23	ug/Kg	☼	02/02/16 06:16	02/03/16 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*39 - 146*	*02/02/16 06:16*	*02/03/16 14:09*	*1*
2-Fluorobiphenyl	*69*		*37 - 120*	*02/02/16 06:16*	*02/03/16 14:09*	*1*
2-Fluorophenol	*72*		*18 - 120*	*02/02/16 06:16*	*02/03/16 14:09*	*1*
Nitrobenzene-d5	*73*		*34 - 132*	*02/02/16 06:16*	*02/03/16 14:09*	*1*
Phenol-d5	*72*		*11 - 120*	*02/02/16 06:16*	*02/03/16 14:09*	*1*
p-Terphenyl-d14	*67*		*65 - 153*	*02/02/16 06:16*	*02/03/16 14:09*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		2.3		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Barium	120	F1	0.58		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Cadmium	0.39		0.23		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Chromium	26.3		0.58		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Lead	732	F2	1.2		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Selenium	ND		4.6		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1
Silver	ND		0.70		mg/Kg	☼	02/02/16 13:30	02/03/16 09:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.048		0.022		mg/Kg	☼	02/03/16 09:40	02/03/16 12:58	1

Client Sample ID: SB-6 (0-4')

Date Collected: 01/29/16 11:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-2

Matrix: Solid
Percent Solids: 84.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		990	200	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
2,6-Dinitrotoluene	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
2-Chloronaphthalene	ND		990	160	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
2-Methylnaphthalene	ND		990	200	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
2-Nitroaniline	ND		1900	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
3,3'-Dichlorobenzidine	ND		1900	1200	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
3-Nitroaniline	ND		1900	270	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
4-Bromophenyl phenyl ether	ND		990	140	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
4-Chloroaniline	ND		990	240	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
4-Chlorophenyl phenyl ether	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
4-Nitroaniline	ND		1900	520	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Acenaphthene	ND		990	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Acenaphthylene	**220**	**J**	990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Acetophenone	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Anthracene	**1100**		990	240	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Atrazine	ND		990	340	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzaldehyde	ND		990	780	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzo(a)anthracene	**5400**		990	99	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzo(a)pyrene	**4900**		990	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzo(b)fluoranthene	**5300**		990	160	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzo(g,h,i)perylene	**3200**		990	100	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Benzo(k)fluoranthene	**2400**		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Biphenyl	ND		990	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
bis (2-chloroisopropyl) ether	ND		990	200	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Bis(2-chloroethoxy)methane	ND		990	210	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Bis(2-chloroethyl)ether	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Bis(2-ethylhexyl) phthalate	ND		990	340	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Butyl benzyl phthalate	ND		990	160	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Caprolactam	ND		990	300	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Carbazole	**120**	**J**	990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Chrysene	**5000**		990	220	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Dibenz(a,h)anthracene	ND		990	170	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Dibenzofuran	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Diethyl phthalate	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Dimethyl phthalate	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Di-n-butyl phthalate	ND		990	170	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Di-n-octyl phthalate	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Fluoranthene	**11000**		990	100	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Fluorene	ND		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Hexachlorobenzene	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Hexachlorobutadiene	ND		990	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Hexachlorocyclopentadiene	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Hexachloroethane	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Indeno(1,2,3-cd)pyrene	**2500**		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Isophorone	ND		990	210	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Naphthalene	ND		990	130	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Nitrobenzene	ND		990	110	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
N-Nitrosodi-n-propylamine	ND		990	170	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
N-Nitrosodiphenylamine	ND		990	800	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5

Client Sample ID: SB-6 (0-4')
Date Collected: 01/29/16 11:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-2
Matrix: Solid
Percent Solids: 84.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	3200		990	150	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5
Pyrene	11000		990	120	ug/Kg	☼	02/02/16 06:16	02/03/16 14:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*89*		*39 - 146*	*02/02/16 06:16*	*02/03/16 14:35*	*5*
2-Fluorobiphenyl	*80*		*37 - 120*	*02/02/16 06:16*	*02/03/16 14:35*	*5*
2-Fluorophenol	*80*		*18 - 120*	*02/02/16 06:16*	*02/03/16 14:35*	*5*
Nitrobenzene-d5	*71*		*34 - 132*	*02/02/16 06:16*	*02/03/16 14:35*	*5*
Phenol-d5	*77*		*11 - 120*	*02/02/16 06:16*	*02/03/16 14:35*	*5*
p-Terphenyl-d14	*74*		*65 - 153*	*02/02/16 06:16*	*02/03/16 14:35*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		2.3		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Barium	127		0.58		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Cadmium	ND		0.23		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Chromium	26.8		0.58		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Lead	18.7		1.2		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Selenium	ND		4.7		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1
Silver	ND		0.70		mg/Kg	☼	02/02/16 13:30	02/03/16 09:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.037		0.022		mg/Kg	☼	02/03/16 09:40	02/03/16 13:00	1

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Client Sample ID: SB-7 (0-2')
Date Collected: 01/29/16 12:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-3
Matrix: Solid
Percent Solids: 78.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		220	44	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
2,6-Dinitrotoluene	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
2-Chloronaphthalene	ND		220	35	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
2-Methylnaphthalene	ND		220	43	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
2-Nitroaniline	ND		420	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
3,3'-Dichlorobenzidine	ND		420	250	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
3-Nitroaniline	ND		420	59	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
4-Bromophenyl phenyl ether	ND		220	30	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
4-Chloroaniline	ND		220	53	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
4-Nitroaniline	ND		420	110	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Acenaphthene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Acenaphthylene	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Acetophenone	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Anthracene	ND		220	53	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Atrazine	ND		220	75	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzaldehyde	ND		220	170	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzo(a)anthracene	ND		220	22	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzo(a)pyrene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzo(b)fluoranthene	ND		220	34	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzo(g,h,i)perylene	ND		220	23	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Benzo(k)fluoranthene	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Biphenyl	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
bis (2-chloroisopropyl) ether	ND		220	43	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Bis(2-chloroethoxy)methane	ND		220	46	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Bis(2-chloroethyl)ether	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Bis(2-ethylhexyl) phthalate	ND		220	73	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Butyl benzyl phthalate	ND		220	35	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Caprolactam	ND		220	65	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Carbazole	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Chrysene	ND		220	48	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Dibenz(a,h)anthracene	ND		220	38	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Dibenzofuran	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Diethyl phthalate	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Dimethyl phthalate	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Di-n-butyl phthalate	ND		220	37	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Di-n-octyl phthalate	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Fluoranthene	ND		220	23	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Fluorene	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Hexachlorobenzene	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Hexachlorocyclopentadiene	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Hexachloroethane	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Indeno(1,2,3-cd)pyrene	ND		220	27	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Isophorone	ND		220	46	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Naphthalene	ND		220	28	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Nitrobenzene	ND		220	24	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
N-Nitrosodi-n-propylamine	ND		220	37	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
N-Nitrosodiphenylamine	ND		220	170	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1

Client Sample ID: SB-7 (0-2')
Date Collected: 01/29/16 12:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-3
Matrix: Solid
Percent Solids: 78.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1
Pyrene	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*39 - 146*	*02/02/16 06:16*	*02/03/16 15:02*	*1*
2-Fluorobiphenyl	*75*		*37 - 120*	*02/02/16 06:16*	*02/03/16 15:02*	*1*
2-Fluorophenol	*76*		*18 - 120*	*02/02/16 06:16*	*02/03/16 15:02*	*1*
Nitrobenzene-d5	*72*		*34 - 132*	*02/02/16 06:16*	*02/03/16 15:02*	*1*
Phenol-d5	*75*		*11 - 120*	*02/02/16 06:16*	*02/03/16 15:02*	*1*
p-Terphenyl-d14	*72*		*65 - 153*	*02/02/16 06:16*	*02/03/16 15:02*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.5**		2.6		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Barium	**181**		0.64		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Cadmium	ND		0.26		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Chromium	**40.3**		0.64		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Lead	**15.8**		1.3		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Selenium	ND		5.2		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1
Silver	ND		0.77		mg/Kg	☼	02/02/16 13:30	02/03/16 09:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.024		mg/Kg	☼	02/03/16 09:40	02/03/16 13:02	1

Client Sample ID: SB-10 (1-4')
Date Collected: 01/29/16 13:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-4
Matrix: Solid
Percent Solids: 76.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		220	45	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
2,6-Dinitrotoluene	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
2-Chloronaphthalene	ND		220	36	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
2-Methylnaphthalene	ND		220	44	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
2-Nitroaniline	ND		430	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
3,3'-Dichlorobenzidine	ND		430	260	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
3-Nitroaniline	ND		430	61	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
4-Bromophenyl phenyl ether	ND		220	31	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
4-Chloroaniline	ND		220	55	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
4-Chlorophenyl phenyl ether	ND		220	27	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
4-Nitroaniline	ND		430	120	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Acenaphthene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Acenaphthylene	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Acetophenone	ND		220	30	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Anthracene	ND		220	55	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Atrazine	ND		220	77	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzaldehyde	ND		220	180	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzo(a)anthracene	ND		220	22	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzo(a)pyrene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzo(b)fluoranthene	ND		220	35	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzo(g,h,i)perylene	ND		220	23	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Benzo(k)fluoranthene	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Biphenyl	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
bis (2-chloroisopropyl) ether	ND		220	44	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Bis(2-chloroethoxy)methane	ND		220	47	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Bis(2-chloroethyl)ether	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Bis(2-ethylhexyl) phthalate	ND		220	75	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Butyl benzyl phthalate	ND		220	36	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Caprolactam	ND		220	66	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Carbazole	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Chrysene	ND		220	49	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Dibenzofuran	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Diethyl phthalate	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Dimethyl phthalate	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Di-n-butyl phthalate	ND		220	38	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Di-n-octyl phthalate	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Fluoranthene	ND		220	23	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Fluorene	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Hexachlorobenzene	ND		220	30	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Hexachlorobutadiene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Hexachlorocyclopentadiene	ND		220	30	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Hexachloroethane	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Indeno(1,2,3-cd)pyrene	ND		220	27	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Isophorone	ND		220	47	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Naphthalene	ND		220	29	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Nitrobenzene	ND		220	25	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
N-Nitrosodi-n-propylamine	ND		220	38	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
N-Nitrosodiphenylamine	ND		220	180	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1

Client Sample ID: SB-10 (1-4')
Date Collected: 01/29/16 13:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-4
Matrix: Solid
Percent Solids: 76.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		220	32	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1
Pyrene	ND		220	26	ug/Kg	☼	02/02/16 06:16	02/03/16 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*39 - 146*	*02/02/16 06:16*	*02/03/16 15:28*	*1*
2-Fluorobiphenyl	*82*		*37 - 120*	*02/02/16 06:16*	*02/03/16 15:28*	*1*
2-Fluorophenol	*79*		*18 - 120*	*02/02/16 06:16*	*02/03/16 15:28*	*1*
Nitrobenzene-d5	*77*		*34 - 132*	*02/02/16 06:16*	*02/03/16 15:28*	*1*
Phenol-d5	*79*		*11 - 120*	*02/02/16 06:16*	*02/03/16 15:28*	*1*
p-Terphenyl-d14	*75*		*65 - 153*	*02/02/16 06:16*	*02/03/16 15:28*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.8**		2.8		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Barium	**97.9**		0.71		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Cadmium	ND		0.28		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Chromium	**18.7**		0.71		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Lead	**19.7**		1.4		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Selenium	ND		5.6		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1
Silver	ND		0.85		mg/Kg	☼	02/02/16 13:30	02/03/16 09:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.026		mg/Kg	☼	02/03/16 09:40	02/03/16 13:04	1

Surrogate Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TBP	FBP	2FP	NBZ	PHL	TPH		
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(11-120)	(65-153)		
480-94559-1	SB-1 (0-4')	81	69	72	73	72	67		
480-94559-2	SB-6 (0-4')	89	80	80	71	77	74		
480-94559-3	SB-7 (0-2')	87	75	76	72	75	72		
480-94559-4	SB-10 (1-4')	87	82	79	77	79	75		
480-94559-4 MS	SB-10 (1-4')	94	81	74	73	73	77		
480-94559-4 MSD	SB-10 (1-4')	95	84	76	74	77	82		
LCS 480-285765/2-A	Lab Control Sample	93	88	77	76	76	88		
MB 480-285765/1-A	Method Blank	81	85	77	73	76	83		

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-285765/1-A
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285765

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		170	34	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
2-Chloronaphthalene	ND		170	27	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
2-Methylnaphthalene	ND		170	33	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
2-Nitroaniline	ND		320	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
3,3'-Dichlorobenzidine	ND		320	200	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
3-Nitroaniline	ND		320	46	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
4-Bromophenyl phenyl ether	ND		170	23	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
4-Chloroaniline	ND		170	41	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
4-Nitroaniline	ND		320	87	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Acenaphthene	ND		170	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Acenaphthylene	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Acetophenone	ND		170	22	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Anthracene	ND		170	41	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Atrazine	ND		170	58	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzaldehyde	ND		170	130	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzo(a)anthracene	ND		170	17	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzo(a)pyrene	ND		170	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzo(b)fluoranthene	ND		170	26	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzo(g,h,i)perylene	ND		170	18	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Benzo(k)fluoranthene	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Biphenyl	ND		170	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Bis(2-chloroethyl)ether	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Bis(2-ethylhexyl) phthalate	ND		170	57	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Caprolactam	ND		170	50	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Carbazole	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Chrysene	ND		170	37	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Dibenzofuran	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Diethyl phthalate	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Dimethyl phthalate	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Fluoranthene	ND		170	18	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Fluorene	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Hexachlorobenzene	ND		170	22	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Hexachlorobutadiene	ND		170	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Hexachlorocyclopentadiene	ND		170	22	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Hexachloroethane	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Indeno(1,2,3-cd)pyrene	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Isophorone	ND		170	35	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Naphthalene	ND		170	21	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Nitrobenzene	ND		170	19	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		02/02/16 06:16	02/03/16 12:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-285765/1-A
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285765

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		170	130	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Phenanthrene	ND		170	24	ug/Kg		02/02/16 06:16	02/03/16 12:24	1
Pyrene	ND		170	20	ug/Kg		02/02/16 06:16	02/03/16 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*39 - 146*	*02/02/16 06:16*	*02/03/16 12:24*	*1*
2-Fluorobiphenyl	*85*		*37 - 120*	*02/02/16 06:16*	*02/03/16 12:24*	*1*
2-Fluorophenol	*77*		*18 - 120*	*02/02/16 06:16*	*02/03/16 12:24*	*1*
Nitrobenzene-d5	*73*		*34 - 132*	*02/02/16 06:16*	*02/03/16 12:24*	*1*
Phenol-d5	*76*		*11 - 120*	*02/02/16 06:16*	*02/03/16 12:24*	*1*
p-Terphenyl-d14	*83*		*65 - 153*	*02/02/16 06:16*	*02/03/16 12:24*	*1*

Lab Sample ID: LCS 480-285765/2-A
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1650	1410		ug/Kg		86	53 - 120
Biphenyl	1650	1440		ug/Kg		87	71 - 120
bis (2-chloroisopropyl) ether	1650	1040		ug/Kg		63	44 - 120
Bis(2-chloroethoxy)methane	1650	1260		ug/Kg		76	61 - 133
Bis(2-chloroethyl)ether	1650	1180		ug/Kg		71	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1440		ug/Kg		87	61 - 133
Butyl benzyl phthalate	1650	1470		ug/Kg		89	61 - 129
Caprolactam	3300	2620		ug/Kg		79	54 - 133
Carbazole	1650	1470		ug/Kg		89	59 - 129
Chrysene	1650	1470		ug/Kg		89	64 - 131
Dibenz(a,h)anthracene	1650	1590		ug/Kg		96	54 - 148
Dibenzofuran	1650	1440		ug/Kg		87	56 - 120
Diethyl phthalate	1650	1460		ug/Kg		88	66 - 126
Dimethyl phthalate	1650	1490		ug/Kg		90	65 - 124
Di-n-butyl phthalate	1650	1470		ug/Kg		89	58 - 130
Di-n-octyl phthalate	1650	1470		ug/Kg		89	62 - 133
Fluoranthene	1650	1460		ug/Kg		89	62 - 131
Fluorene	1650	1400		ug/Kg		85	63 - 126
Hexachlorobenzene	1650	1500		ug/Kg		91	60 - 132
Hexachlorobutadiene	1650	1370		ug/Kg		83	45 - 120
Hexachlorocyclopentadiene	1650	1310		ug/Kg		79	31 - 120
Hexachloroethane	1650	1130		ug/Kg		69	41 - 120
Indeno(1,2,3-cd)pyrene	1650	1570		ug/Kg		95	56 - 149
Isophorone	1650	1340		ug/Kg		81	56 - 120
Naphthalene	1650	1330		ug/Kg		80	46 - 120
Nitrobenzene	1650	1250		ug/Kg		75	49 - 120
N-Nitrosodi-n-propylamine	1650	1150		ug/Kg		70	46 - 120
N-Nitrosodiphenylamine	1650	1490		ug/Kg		90	20 - 119
Phenanthrene	1650	1440		ug/Kg		87	60 - 130
Pyrene	1650	1560		ug/Kg		94	51 - 133

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-285765/2-A
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285765

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*93*		*39 - 146*
2-Fluorobiphenyl	*88*		*37 - 120*
2-Fluorophenol	*77*		*18 - 120*
Nitrobenzene-d5	*76*		*34 - 132*
Phenol-d5	*76*		*11 - 120*
p-Terphenyl-d14	*88*		*65 - 153*

Lab Sample ID: 480-94559-4 MS
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: SB-10 (1-4')
Prep Type: Total/NA
Prep Batch: 285765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	ND		2140	1750		ug/Kg	☼	82	53 - 120
Biphenyl	ND		2140	1760		ug/Kg	☼	82	71 - 120
bis (2-chloroisopropyl) ether	ND		2140	1200		ug/Kg	☼	56	44 - 120
Bis(2-chloroethoxy)methane	ND		2140	1550		ug/Kg	☼	72	61 - 133
Bis(2-chloroethyl)ether	ND		2140	1410		ug/Kg	☼	66	45 - 120
Bis(2-ethylhexyl) phthalate	ND		2140	1770		ug/Kg	☼	83	61 - 133
Butyl benzyl phthalate	ND		2140	1770		ug/Kg	☼	83	61 - 129
Caprolactam	ND		4290	3370		ug/Kg	☼	79	54 - 133
Carbazole	ND		2140	1820		ug/Kg	☼	85	59 - 129
Chrysene	ND		2140	1800		ug/Kg	☼	84	64 - 131
Dibenz(a,h)anthracene	ND		2140	1840		ug/Kg	☼	86	54 - 148
Dibenzofuran	ND		2140	1790		ug/Kg	☼	84	56 - 120
Diethyl phthalate	ND		2140	1810		ug/Kg	☼	85	66 - 126
Dimethyl phthalate	ND		2140	1840		ug/Kg	☼	86	65 - 124
Di-n-butyl phthalate	ND		2140	1820		ug/Kg	☼	85	58 - 130
Di-n-octyl phthalate	ND		2140	1850		ug/Kg	☼	86	62 - 133
Fluoranthene	ND		2140	1850		ug/Kg	☼	86	62 - 131
Fluorene	ND		2140	1720		ug/Kg	☼	80	63 - 126
Hexachlorobenzene	ND		2140	1860		ug/Kg	☼	87	60 - 132
Hexachlorobutadiene	ND		2140	1660		ug/Kg	☼	77	45 - 120
Hexachlorocyclopentadiene	ND		2140	1580		ug/Kg	☼	74	31 - 120
Hexachloroethane	ND		2140	1290		ug/Kg	☼	60	41 - 120
Indeno(1,2,3-cd)pyrene	ND		2140	1840		ug/Kg	☼	86	56 - 149
Isophorone	ND		2140	1630		ug/Kg	☼	76	56 - 120
Naphthalene	ND		2140	1610		ug/Kg	☼	75	46 - 120
Nitrobenzene	ND		2140	1530		ug/Kg	☼	72	49 - 120
N-Nitrosodi-n-propylamine	ND		2140	1360		ug/Kg	☼	64	46 - 120
N-Nitrosodiphenylamine	ND		2140	1840		ug/Kg	☼	86	20 - 119
Phenanthrene	ND		2140	1830		ug/Kg	☼	85	60 - 130
Pyrene	ND		2140	1850		ug/Kg	☼	86	51 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*94*		*39 - 146*
2-Fluorobiphenyl	*81*		*37 - 120*
2-Fluorophenol	*74*		*18 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-94559-4 MS
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: SB-10 (1-4')
Prep Type: Total/NA
Prep Batch: 285765

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5	*73*		*34 - 132*
Phenol-d5	*73*		*11 - 120*
p-Terphenyl-d14	*77*		*65 - 153*

Lab Sample ID: 480-94559-4 MSD
Matrix: Solid
Analysis Batch: 285988

Client Sample ID: SB-10 (1-4')
Prep Type: Total/NA
Prep Batch: 285765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	ND		2160	1790		ug/Kg	☼	83	53 - 120	2	35
Biphenyl	ND		2160	1790		ug/Kg	☼	83	71 - 120	2	20
bis (2-chloroisopropyl) ether	ND		2160	1230		ug/Kg	☼	57	44 - 120	3	24
Bis(2-chloroethoxy)methane	ND		2160	1590		ug/Kg	☼	73	61 - 133	3	17
Bis(2-chloroethyl)ether	ND		2160	1470		ug/Kg	☼	68	45 - 120	4	21
Bis(2-ethylhexyl) phthalate	ND		2160	1830		ug/Kg	☼	85	61 - 133	3	15
Butyl benzyl phthalate	ND		2160	1850		ug/Kg	☼	86	61 - 129	5	16
Caprolactam	ND		4330	3560		ug/Kg	☼	82	54 - 133	5	20
Carbazole	ND		2160	1890		ug/Kg	☼	88	59 - 129	4	20
Chrysene	ND		2160	1860		ug/Kg	☼	86	64 - 131	3	15
Dibenz(a,h)anthracene	ND		2160	1930		ug/Kg	☼	89	54 - 148	5	15
Dibenzofuran	ND		2160	1820		ug/Kg	☼	84	56 - 120	2	15
Diethyl phthalate	ND		2160	1880		ug/Kg	☼	87	66 - 126	4	15
Dimethyl phthalate	ND		2160	1890		ug/Kg	☼	87	65 - 124	2	15
Di-n-butyl phthalate	ND		2160	1900		ug/Kg	☼	88	58 - 130	5	15
Di-n-octyl phthalate	ND		2160	1960		ug/Kg	☼	91	62 - 133	6	16
Fluoranthene	ND		2160	1940		ug/Kg	☼	90	62 - 131	5	15
Fluorene	ND		2160	1810		ug/Kg	☼	84	63 - 126	5	15
Hexachlorobenzene	ND		2160	1890		ug/Kg	☼	88	60 - 132	2	15
Hexachlorobutadiene	ND		2160	1660		ug/Kg	☼	77	45 - 120	0	44
Hexachlorocyclopentadiene	ND		2160	1510		ug/Kg	☼	70	31 - 120	4	49
Hexachloroethane	ND		2160	1290		ug/Kg	☼	59	41 - 120	0	46
Indeno(1,2,3-cd)pyrene	ND		2160	1920		ug/Kg	☼	89	56 - 149	4	15
Isophorone	ND		2160	1690		ug/Kg	☼	78	56 - 120	4	17
Naphthalene	ND		2160	1640		ug/Kg	☼	76	46 - 120	2	29
Nitrobenzene	ND		2160	1530		ug/Kg	☼	71	49 - 120	0	24
N-Nitrosodi-n-propylamine	ND		2160	1440		ug/Kg	☼	67	46 - 120	6	31
N-Nitrosodiphenylamine	ND		2160	1870		ug/Kg	☼	86	20 - 119	1	15
Phenanthrene	ND		2160	1890		ug/Kg	☼	87	60 - 130	3	15
Pyrene	ND		2160	1860		ug/Kg	☼	86	51 - 133	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	*95*		*39 - 146*
2-Fluorobiphenyl	*84*		*37 - 120*
2-Fluorophenol	*76*		*18 - 120*
Nitrobenzene-d5	*74*		*34 - 132*
Phenol-d5	*77*		*11 - 120*
p-Terphenyl-d14	*82*		*65 - 153*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-285824/1-A
Matrix: Solid
Analysis Batch: 286112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285824

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Barium	ND		0.50		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Cadmium	ND		0.20		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Chromium	ND		0.50		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Lead	ND		1.0		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Selenium	ND		4.0		mg/Kg		02/02/16 13:30	02/03/16 09:06	1
Silver	ND		0.60		mg/Kg		02/02/16 13:30	02/03/16 09:06	1

Lab Sample ID: LCSSRM 480-285824/2-A
Matrix: Solid
Analysis Batch: 286112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285824

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	98.5	86.20		mg/Kg		87.5	69.3 - 145.2
Barium	308	281.7		mg/Kg		91.5	74.0 - 126.0
Cadmium	146	131.2		mg/Kg		89.8	73.3 - 126.7
Chromium	182	163.6		mg/Kg		89.9	70.9 - 129.7
Lead	130	127.8		mg/Kg		98.3	72.5 - 126.9
Selenium	154	134.2		mg/Kg		87.1	67.5 - 132.5
Silver	40.9	34.62		mg/Kg		84.7	66.0 - 133.7

Lab Sample ID: 480-94559-1 MS
Matrix: Solid
Analysis Batch: 286112

Client Sample ID: SB-1 (0-4')
Prep Type: Total/NA
Prep Batch: 285824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.9		48.7	46.23		mg/Kg	☼	81	75 - 125
Barium	120	F1	48.7	172.8		mg/Kg	☼	108	75 - 125
Cadmium	0.39		48.7	40.92		mg/Kg	☼	83	75 - 125
Chromium	26.3		48.7	68.37		mg/Kg	☼	86	75 - 125
Lead	732	F2	48.7	626.7	4	mg/Kg	☼	-216	75 - 125
Selenium	ND		48.7	40.27		mg/Kg	☼	83	75 - 125
Silver	ND		12.2	10.35		mg/Kg	☼	85	75 - 125

Lab Sample ID: 480-94559-1 MSD
Matrix: Solid
Analysis Batch: 286112

Client Sample ID: SB-1 (0-4')
Prep Type: Total/NA
Prep Batch: 285824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.9		46.6	46.27		mg/Kg	☼	85	75 - 125	0	20
Barium	120	F1	46.6	195.3	F1	mg/Kg	☼	161	75 - 125	12	20
Cadmium	0.39		46.6	41.80		mg/Kg	☼	89	75 - 125	2	20
Chromium	26.3		46.6	71.76		mg/Kg	☼	98	75 - 125	5	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-94559-1 MSD
Matrix: Solid
Analysis Batch: 286112

Client Sample ID: SB-1 (0-4')
Prep Type: Total/NA
Prep Batch: 285824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	732	F2	46.6	236.7	4 F2	mg/Kg	☼	-1063	75 - 125	90	20
Selenium	ND		46.6	40.53		mg/Kg	☼	87	75 - 125	1	20
Silver	ND		11.6	10.58		mg/Kg	☼	91	75 - 125	2	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-285886/1-A
Matrix: Solid
Analysis Batch: 286089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		02/03/16 09:40	02/03/16 12:54	1

Lab Sample ID: LCSSRM 480-285886/2-A ^5
Matrix: Solid
Analysis Batch: 286089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285886

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			7.10	7.51		mg/Kg		105.8	51.3 - 149.3		

GC/MS Semi VOA

Prep Batch: 285765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	3550C	
480-94559-2	SB-6 (0-4')	Total/NA	Solid	3550C	
480-94559-3	SB-7 (0-2')	Total/NA	Solid	3550C	
480-94559-4	SB-10 (1-4')	Total/NA	Solid	3550C	
480-94559-4 MS	SB-10 (1-4')	Total/NA	Solid	3550C	
480-94559-4 MSD	SB-10 (1-4')	Total/NA	Solid	3550C	
LCS 480-285765/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-285765/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 285988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	8270D	285765
480-94559-2	SB-6 (0-4')	Total/NA	Solid	8270D	285765
480-94559-3	SB-7 (0-2')	Total/NA	Solid	8270D	285765
480-94559-4	SB-10 (1-4')	Total/NA	Solid	8270D	285765
480-94559-4 MS	SB-10 (1-4')	Total/NA	Solid	8270D	285765
480-94559-4 MSD	SB-10 (1-4')	Total/NA	Solid	8270D	285765
LCS 480-285765/2-A	Lab Control Sample	Total/NA	Solid	8270D	285765
MB 480-285765/1-A	Method Blank	Total/NA	Solid	8270D	285765

Metals

Prep Batch: 285824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	3050B	
480-94559-1 MS	SB-1 (0-4')	Total/NA	Solid	3050B	
480-94559-1 MSD	SB-1 (0-4')	Total/NA	Solid	3050B	
480-94559-2	SB-6 (0-4')	Total/NA	Solid	3050B	
480-94559-3	SB-7 (0-2')	Total/NA	Solid	3050B	
480-94559-4	SB-10 (1-4')	Total/NA	Solid	3050B	
LCSSRM 480-285824/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-285824/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 285886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	7471B	
480-94559-2	SB-6 (0-4')	Total/NA	Solid	7471B	
480-94559-3	SB-7 (0-2')	Total/NA	Solid	7471B	
480-94559-4	SB-10 (1-4')	Total/NA	Solid	7471B	
LCSSRM 480-285886/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	
MB 480-285886/1-A	Method Blank	Total/NA	Solid	7471B	

Analysis Batch: 286089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	7471B	285886
480-94559-2	SB-6 (0-4')	Total/NA	Solid	7471B	285886
480-94559-3	SB-7 (0-2')	Total/NA	Solid	7471B	285886
480-94559-4	SB-10 (1-4')	Total/NA	Solid	7471B	285886
LCSSRM 480-285886/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	285886
MB 480-285886/1-A	Method Blank	Total/NA	Solid	7471B	285886

Metals (Continued)

Analysis Batch: 286112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	6010C	285824
480-94559-1 MS	SB-1 (0-4')	Total/NA	Solid	6010C	285824
480-94559-1 MSD	SB-1 (0-4')	Total/NA	Solid	6010C	285824
480-94559-2	SB-6 (0-4')	Total/NA	Solid	6010C	285824
480-94559-3	SB-7 (0-2')	Total/NA	Solid	6010C	285824
480-94559-4	SB-10 (1-4')	Total/NA	Solid	6010C	285824
LCSSRM 480-285824/2-A	Lab Control Sample	Total/NA	Solid	6010C	285824
MB 480-285824/1-A	Method Blank	Total/NA	Solid	6010C	285824

General Chemistry

Analysis Batch: 285960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-94559-1	SB-1 (0-4')	Total/NA	Solid	Moisture	
480-94559-2	SB-6 (0-4')	Total/NA	Solid	Moisture	
480-94559-3	SB-7 (0-2')	Total/NA	Solid	Moisture	
480-94559-4	SB-10 (1-4')	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Client Sample ID: SB-1 (0-4')
Date Collected: 01/29/16 09:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	285960	02/03/16 03:34	CSW	TAL BUF

Client Sample ID: SB-1 (0-4')
Date Collected: 01/29/16 09:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-1
Matrix: Solid
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			285765	02/02/16 06:16	RMZ	TAL BUF
Total/NA	Analysis	8270D		1	285988	02/03/16 14:09	LMW	TAL BUF
Total/NA	Prep	3050B			285824	02/02/16 13:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	286112	02/03/16 09:12	LMH	TAL BUF
Total/NA	Prep	7471B			285886	02/03/16 09:40	TAS	TAL BUF
Total/NA	Analysis	7471B		1	286089	02/03/16 12:58	TAS	TAL BUF

Client Sample ID: SB-6 (0-4')
Date Collected: 01/29/16 11:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	285960	02/03/16 03:34	CSW	TAL BUF

Client Sample ID: SB-6 (0-4')
Date Collected: 01/29/16 11:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-2
Matrix: Solid
Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			285765	02/02/16 06:16	RMZ	TAL BUF
Total/NA	Analysis	8270D		5	285988	02/03/16 14:35	LMW	TAL BUF
Total/NA	Prep	3050B			285824	02/02/16 13:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	286112	02/03/16 09:38	LMH	TAL BUF
Total/NA	Prep	7471B			285886	02/03/16 09:40	TAS	TAL BUF
Total/NA	Analysis	7471B		1	286089	02/03/16 13:00	TAS	TAL BUF

Client Sample ID: SB-7 (0-2')
Date Collected: 01/29/16 12:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	285960	02/03/16 03:34	CSW	TAL BUF

Lab Chronicle

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Client Sample ID: SB-7 (0-2')

Date Collected: 01/29/16 12:00
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-3

Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			285765	02/02/16 06:16	RMZ	TAL BUF
Total/NA	Analysis	8270D		1	285988	02/03/16 15:02	LMW	TAL BUF
Total/NA	Prep	3050B			285824	02/02/16 13:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	286112	02/03/16 09:41	LMH	TAL BUF
Total/NA	Prep	7471B			285886	02/03/16 09:40	TAS	TAL BUF
Total/NA	Analysis	7471B		1	286089	02/03/16 13:02	TAS	TAL BUF

Client Sample ID: SB-10 (1-4')

Date Collected: 01/29/16 13:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	285960	02/03/16 03:34	CSW	TAL BUF

Client Sample ID: SB-10 (1-4')

Date Collected: 01/29/16 13:30
Date Received: 02/01/16 11:45

Lab Sample ID: 480-94559-4

Matrix: Solid
Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			285765	02/02/16 06:16	RMZ	TAL BUF
Total/NA	Analysis	8270D		1	285988	02/03/16 15:28	LMW	TAL BUF
Total/NA	Prep	3050B			285824	02/02/16 13:30	CMM	TAL BUF
Total/NA	Analysis	6010C		1	286112	02/03/16 09:44	LMH	TAL BUF
Total/NA	Prep	7471B			285886	02/03/16 09:40	TAS	TAL BUF
Total/NA	Analysis	7471B		1	286089	02/03/16 13:04	TAS	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16 *

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

* Certification renewal pending - certification considered valid.

Method Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Turnkey Environmental Restoration, LLC
Project/Site: Benchmark - Elmwood & Forest site

TestAmerica Job ID: 480-94559-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-94559-1	SB-1 (0-4')	Solid	01/29/16 09:00	02/01/16 11:45
480-94559-2	SB-6 (0-4')	Solid	01/29/16 11:30	02/01/16 11:45
480-94559-3	SB-7 (0-2')	Solid	01/29/16 12:00	02/01/16 11:45
480-94559-4	SB-10 (1-4')	Solid	01/29/16 13:30	02/01/16 11:45

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes☐ No☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Tunkey Environmental Restoration	Chris Boron	01/29/2016	190620
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
2558 Hamburg Turnpike	716-449-0882		
City	**State**	**Zip Code**	**Site Contact**	**Lab Contact**
Lackawanna	NY	14218	Josh Robinson	
Project Name and Location (State)	**Carrier/Waybill Number**		
12 Parcel - Corner of Elmwood and Forest			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: SVOC (8270)	TAL Metals (6010)	Special Instructions/ Conditions of Receipt
SB-1 (0-4')	01/29/2016	0900				X	X						X	X	
SB-6 (0-4')	1/29/2016	1130				X	X						X	X	
SB-7 (0-2')	1/29/2016	1200				X	X						X	X	
SB-10 (1-4')	1/29/2016	1330				X	X						X	X	
SB-5 (4-8')	1/29/2016	1100				X	X						X	X	Hold Sample
SB-11 (4-8')	1/29/2016	1400				X	X						X	X	Hold Sample

480-94559 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	01/29/16	1700	1. Received By	TA BUFFALO	2/1/16 1110
2. Relinquished By TA BUFFALO	2/1/16	1145	2. Received By		2/1/16 1145
3. Relinquished By			3. Received By		

Comments
SVOC Base Neutral, RCRA 8 Metals

7.4 °C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

2/16/2016

Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-94559-1

Login Number: 94559
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	bmtk
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Lab Number:	L1607809
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Chris Boron
Phone:	(716) 856-0599
Project Name:	ELMWOOD & FOREST AVENUE
Project Number:	T0369-016-001
Report Date:	03/24/16

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: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607809-01	HA-1 (2-6")	SOIL	BUFFALO, NY	03/17/16 09:45	03/17/16
L1607809-02	HA-2 (4-6")	SOIL	BUFFALO, NY	03/17/16 10:00	03/17/16
L1607809-03	HA-3 (4-8")	SOIL	BUFFALO, NY	03/17/16 10:15	03/17/16
L1607809-04	HA-4 (1-4")	SOIL	BUFFALO, NY	03/17/16 10:45	03/17/16
L1607809-05	HA-5 (1-4")	SOIL	BUFFALO, NY	03/17/16 11:30	03/17/16
L1607809-06	HA-5 (4-18")	SOIL	BUFFALO, NY	03/17/16 11:45	03/17/16
L1607809-07	HA-6 (4-8")	SOIL	BUFFALO, NY	03/17/16 12:30	03/17/16

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809
Project Number: T0369-016-001 **Report Date:** 03/24/16

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:	ELMWOOD & FOREST AVENUE	**Lab Number:**	L1607809
Project Number:	T0369-016-001	**Report Date:**	03/24/16

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.

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: Michelle M. Morris

Title: Technical Director/Representative Date: 03/24/16

ORGANICS

SEMIVOLATILES

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-01
Client ID: HA-1 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 01:31
Analyst: RC
Percent Solids: 79%

Date Collected: 03/17/16 09:45
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	20.	1
1,2-Dichlorobenzene	ND		ug/kg	210	37.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	55.	1
2,4-Dinitrotoluene	ND		ug/kg	210	41.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	310		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	21.	1
Hexachlorobutadiene	ND		ug/kg	210	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	190	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	25.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	160	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	200	J	ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	52.	1
Di-n-butylphthalate	ND		ug/kg	210	39.	1
Di-n-octylphthalate	ND		ug/kg	210	70.	1
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	43.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-01 Date Collected: 03/17/16 09:45

Client ID: HA-1 (2-6") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	150		ug/kg	120	23.	1
Benzo(a)pyrene	180		ug/kg	160	50.	1
Benzo(b)fluoranthene	220		ug/kg	120	35.	1
Benzo(k)fluoranthene	90	J	ug/kg	120	33.	1
Chrysene	150		ug/kg	120	22.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	94	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	150		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	50	J	ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	160		ug/kg	160	29.	1
Pyrene	250		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	39.	1
4-Nitroaniline	ND		ug/kg	210	86.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	63.	1
Carbazole	29	J	ug/kg	210	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	93		30-120
4-Terphenyl-d14	102		18-120

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-03
Client ID: HA-3 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 01:57
Analyst: RC
Percent Solids: 78%

Date Collected: 03/17/16 10:15
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	36.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	80	J	ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-03 Date Collected: 03/17/16 10:15

Client ID: HA-3 (4-8") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	42	J	ug/kg	120	24.	1
Benzo(a)pyrene	83	J	ug/kg	170	51.	1
Benzo(b)fluoranthene	75	J	ug/kg	120	35.	1
Benzo(k)fluoranthene	ND		ug/kg	120	34.	1
Chrysene	39	J	ug/kg	120	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	ND		ug/kg	120	41.	1
Benzo(ghi)perylene	27	J	ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	40	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	93	J	ug/kg	170	29.	1
Pyrene	65	J	ug/kg	120	21.	1
Biphenyl	ND		ug/kg	480	49.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	79		30-120
4-Terphenyl-d14	104		18-120

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-04
Client ID: HA-4 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 02:22
Analyst: RC
Percent Solids: 74%

Date Collected: 03/17/16 10:45
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	26.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
1,2-Dichlorobenzene	ND		ug/kg	220	40.	1
1,3-Dichlorobenzene	ND		ug/kg	220	38.	1
1,4-Dichlorobenzene	ND		ug/kg	220	39.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	59.	1
2,4-Dinitrotoluene	ND		ug/kg	220	45.	1
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1
Fluoranthene	100	J	ug/kg	130	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	38.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1
Hexachlorobutadiene	ND		ug/kg	220	33.	1
Hexachlorocyclopentadiene	ND		ug/kg	640	200	1
Hexachloroethane	ND		ug/kg	180	36.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	ND		ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	33.	1
NDPA/DPA	ND		ug/kg	180	25.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1
Bis(2-ethylhexyl)phthalate	170	J	ug/kg	220	77.	1
Butyl benzyl phthalate	ND		ug/kg	220	56.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	76.	1
Diethyl phthalate	ND		ug/kg	220	21.	1
Dimethyl phthalate	ND		ug/kg	220	47.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-04 Date Collected: 03/17/16 10:45

Client ID: HA-4 (1-4") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	52	J	ug/kg	130	25.	1
Benzo(a)pyrene	96	J	ug/kg	180	54.	1
Benzo(b)fluoranthene	93	J	ug/kg	130	38.	1
Benzo(k)fluoranthene	ND		ug/kg	130	36.	1
Chrysene	54	J	ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	ND		ug/kg	130	44.	1
Benzo(ghi)perylene	34	J	ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	55	J	ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	110	J	ug/kg	180	31.	1
Pyrene	82	J	ug/kg	130	22.	1
Biphenyl	ND		ug/kg	510	52.	1
4-Chloroaniline	ND		ug/kg	220	41.	1
2-Nitroaniline	ND		ug/kg	220	43.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	92.	1
Dibenzofuran	ND		ug/kg	220	21.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	28.	1
Benzyl Alcohol	ND		ug/kg	220	68.	1
Carbazole	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	101		30-120
4-Terphenyl-d14	101		18-120

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-05
Client ID: HA-5 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 01:39
Analyst: RC
Percent Solids: 70%

Date Collected: 03/17/16 11:30
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	190	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	27.	1
Hexachlorobenzene	ND		ug/kg	140	26.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	32.	1
2-Chloronaphthalene	ND		ug/kg	240	23.	1
1,2-Dichlorobenzene	ND		ug/kg	240	42.	1
1,3-Dichlorobenzene	ND		ug/kg	240	41.	1
1,4-Dichlorobenzene	ND		ug/kg	240	41.	1
3,3'-Dichlorobenzidine	ND		ug/kg	240	63.	1
2,4-Dinitrotoluene	ND		ug/kg	240	47.	1
2,6-Dinitrotoluene	ND		ug/kg	240	40.	1
Fluoranthene	600		ug/kg	140	27.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	240	25.	1
4-Bromophenyl phenyl ether	ND		ug/kg	240	36.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	40.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	260	24.	1
Hexachlorobutadiene	ND		ug/kg	240	35.	1
Hexachlorocyclopentadiene	ND		ug/kg	680	210	1
Hexachloroethane	ND		ug/kg	190	38.	1
Isophorone	ND		ug/kg	210	31.	1
Naphthalene	ND		ug/kg	240	29.	1
Nitrobenzene	ND		ug/kg	210	35.	1
NDPA/DPA	ND		ug/kg	190	27.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	240	36.	1
Bis(2-ethylhexyl)phthalate	930		ug/kg	240	82.	1
Butyl benzyl phthalate	ND		ug/kg	240	60.	1
Di-n-butylphthalate	ND		ug/kg	240	45.	1
Di-n-octylphthalate	ND		ug/kg	240	80.	1
Diethyl phthalate	ND		ug/kg	240	22.	1
Dimethyl phthalate	ND		ug/kg	240	50.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-05 Date Collected: 03/17/16 11:30

Client ID: HA-5 (1-4") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	240		ug/kg	140	27.	1
Benzo(a)pyrene	300		ug/kg	190	58.	1
Benzo(b)fluoranthene	380		ug/kg	140	40.	1
Benzo(k)fluoranthene	160		ug/kg	140	38.	1
Chrysene	270		ug/kg	140	24.	1
Acenaphthylene	57	J	ug/kg	190	36.	1
Anthracene	52	J	ug/kg	140	46.	1
Benzo(ghi)perylene	230		ug/kg	190	28.	1
Fluorene	ND		ug/kg	240	23.	1
Phenanthrene	190		ug/kg	140	29.	1
Dibenzo(a,h)anthracene	140		ug/kg	140	27.	1
Indeno(1,2,3-cd)pyrene	240		ug/kg	190	33.	1
Pyrene	470		ug/kg	140	23.	1
Biphenyl	ND		ug/kg	540	55.	1
4-Chloroaniline	ND		ug/kg	240	43.	1
2-Nitroaniline	ND		ug/kg	240	46.	1
3-Nitroaniline	ND		ug/kg	240	44.	1
4-Nitroaniline	ND		ug/kg	240	98.	1
Dibenzofuran	ND		ug/kg	240	22.	1
2-Methylnaphthalene	ND		ug/kg	280	28.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	240	25.	1
Acetophenone	ND		ug/kg	240	29.	1
Benzyl Alcohol	ND		ug/kg	240	72.	1
Carbazole	37	J	ug/kg	240	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	100		30-120
4-Terphenyl-d14	115		18-120

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-06
Client ID: HA-5 (4-18")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 02:05
Analyst: RC
Percent Solids: 78%

Date Collected: 03/17/16 11:45
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	37.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	230		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-ethylhexyl)phthalate	200	J	ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	72.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-06 Date Collected: 03/17/16 11:45

Client ID: HA-5 (4-18") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	100	J	ug/kg	130	24.	1
Benzo(a)pyrene	180		ug/kg	170	52.	1
Benzo(b)fluoranthene	180		ug/kg	130	36.	1
Benzo(k)fluoranthene	56	J	ug/kg	130	34.	1
Chrysene	97	J	ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	85	J	ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	91	J	ug/kg	130	26.	1
Dibenzo(a,h)anthracene	120	J	ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	150	J	ug/kg	170	30.	1
Pyrene	180		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	88.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	106		30-120
4-Terphenyl-d14	**121**	Q	18-120

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-07
Client ID: HA-6 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 03/24/16 02:31
Analyst: RC
Percent Solids: 77%

Date Collected: 03/17/16 12:30
Date Received: 03/17/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	130	J	ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	2300		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	67	J	ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	160	J	ug/kg	210	72.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-07 Date Collected: 03/17/16 12:30

Client ID: HA-6 (4-8") Date Received: 03/17/16

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	890		ug/kg	120	24.	1
Benzo(a)pyrene	660		ug/kg	170	51.	1
Benzo(b)fluoranthene	1000		ug/kg	120	35.	1
Benzo(k)fluoranthene	420		ug/kg	120	34.	1
Chrysene	860		ug/kg	120	22.	1
Acenaphthylene	37	J	ug/kg	170	32.	1
Anthracene	340		ug/kg	120	41.	1
Benzo(ghi)perylene	520		ug/kg	170	25.	1
Fluorene	180	J	ug/kg	210	20.	1
Phenanthrene	1400		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	200		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	440		ug/kg	170	29.	1
Pyrene	1800		ug/kg	120	21.	1
Biphenyl	ND		ug/kg	480	49.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	110	J	ug/kg	210	20.	1
2-Methylnaphthalene	47	J	ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	230		ug/kg	210	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	108		30-120
4-Terphenyl-d14	**125**	Q	18-120

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/23/16 19:06
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07 Batch: WG876071-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	18.
Hexachlorobenzene	ND		ug/kg	97	18.
Bis(2-chloroethyl)ether	ND		ug/kg	140	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	97	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	140	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	140	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/23/16 19:06
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07 Batch: WG876071-1					
Dimethyl phthalate	ND		ug/kg	160	34.
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.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	30.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	190	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/23/16 19:06
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 03/22/16 07:09

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07 Batch: WG876071-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	91		10-136
4-Terphenyl-d14	117		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG876071-2 WG876071-3								
Acenaphthene	93		94		31-137	1		50
Benzidine	58		62		10-66	7		50
n-Nitrosodimethylamine	90		90		22-100	0		50
1,2,4-Trichlorobenzene	91		92		38-107	1		50
Hexachlorobenzene	105		110		40-140	5		50
Bis(2-chloroethyl)ether	92		90		40-140	2		50
2-Chloronaphthalene	100		101		40-140	1		50
1,2-Dichlorobenzene	88		86		40-140	2		50
1,3-Dichlorobenzene	86		83		40-140	4		50
1,4-Dichlorobenzene	86		84		28-104	2		50
3,3'-Dichlorobenzidine	68		70		40-140	3		50
2,4-Dinitrotoluene	**122**	Q	**126**	Q	28-89	3		50
2,6-Dinitrotoluene	118		122		40-140	3		50
Fluoranthene	112		116		40-140	4		50
4-Chlorophenyl phenyl ether	98		101		40-140	3		50
4-Bromophenyl phenyl ether	109		114		40-140	4		50
Azobenzene	107		109		40-140	2		50
Bis(2-chloroisopropyl)ether	86		86		40-140	0		50
Bis(2-chloroethoxy)methane	104		104		40-117	0		50
Hexachlorobutadiene	90		89		40-140	1		50
Hexachlorocyclopentadiene	115		114		40-140	1		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG876071-2 WG876071-3								
Hexachloroethane	92		90		40-140	2		50
Isophorone	120		119		40-140	1		50
Naphthalene	91		91		40-140	0		50
Nitrobenzene	102		103		40-140	1		50
NitrosoDiPhenylAmine(NDPA)/DPA	114		117		36-157	3		50
n-Nitrosodi-n-propylamine	121		120		32-121	1		50
Bis(2-Ethylhexyl)phthalate	102		103		40-140	1		50
Butyl benzyl phthalate	122		124		40-140	2		50
Di-n-butylphthalate	113		115		40-140	2		50
Di-n-octylphthalate	109		110		40-140	1		50
Diethyl phthalate	116		121		40-140	4		50
Dimethyl phthalate	111		114		40-140	3		50
Benzo(a)anthracene	110		112		40-140	2		50
Benzo(a)pyrene	105		108		40-140	3		50
Benzo(b)fluoranthene	98		101		40-140	3		50
Benzo(k)fluoranthene	104		110		40-140	6		50
Chrysene	91		94		40-140	3		50
Acenaphthylene	114		115		40-140	1		50
Anthracene	107		109		40-140	2		50
Benzo(ghi)perylene	105		107		40-140	2		50
Fluorene	103		106		40-140	3		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG876071-2 WG876071-3								
Phenanthrene	95		97		40-140	2		50
Dibenzo(a,h)anthracene	99		101		40-140	2		50
Indeno(1,2,3-cd)Pyrene	114		116		40-140	2		50
Pyrene	108		111		35-142	3		50
Biphenyl	87		88		54-104	1		50
Aniline	54		58		40-140	7		50
4-Chloroaniline	82		81		40-140	1		50
2-Nitroaniline	120		126		47-134	5		50
3-Nitroaniline	90		94		26-129	4		50
4-Nitroaniline	108		114		41-125	5		50
Dibenzofuran	96		98		40-140	2		50
2-Methylnaphthalene	99		98		40-140	1		50
1,2,4,5-Tetrachlorobenzene	85		86		40-117	1		50
Acetophenone	109		109		14-144	0		50
2,4,6-Trichlorophenol	115		117		30-130	2		50
P-Chloro-M-Cresol	**121**	Q	**124**	Q	26-103	2		50
2-Chlorophenol	**108**	Q	**107**	Q	25-102	1		50
2,4-Dichlorophenol	117		117		30-130	0		50
2,4-Dimethylphenol	126		125		30-130	1		50
2-Nitrophenol	120		118		30-130	2		50
4-Nitrophenol	**115**	Q	**121**	Q	11-114	5		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG876071-2 WG876071-3								
2,4-Dinitrophenol	108		129		4-130	18		50
4,6-Dinitro-o-cresol	123		**134**	Q	10-130	9		50
Pentachlorophenol	**113**	Q	**114**	Q	17-109	1		50
Phenol	**104**	Q	**103**	Q	26-90	1		50
2-Methylphenol	110		109		30-130.	1		50
3-Methylphenol/4-Methylphenol	114		114		30-130	0		50
2,4,5-Trichlorophenol	118		122		30-130	3		50
Benzoic Acid	66		**74**	Q	10-66	11		50
Benzyl Alcohol	114		114		40-140	0		50
Carbazole	110		112		54-128	2		50
Benzaldehyde	96		94		40-140	2		50
Caprolactam	116		120		15-130	3		50
Atrazine	116		120		40-140	3		50
2,3,4,6-Tetrachlorophenol	122		128		40-140	5		50
Pyridine	75		73		10-93	3		50
Parathion, ethyl	**161**	Q	**167**	Q	40-140	4		50
1-Methylnaphthalene	98		96		26-130	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE

Project Number: T0369-016-001

Lab Number: L1607809

Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG876071-2 WG876071-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	100		99		25-120
Phenol-d6	105		106		10-120
Nitrobenzene-d5	99		99		23-120
2-Fluorobiphenyl	102		102		30-120
2,4,6-Tribromophenol	107		110		10-136
4-Terphenyl-d14	110		114		18-120

METALS

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-01
Client ID: HA-1 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 79%

Date Collected: 03/17/16 09:45
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	20		mg/kg	0.48	0.10	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Barium, Total	93		mg/kg	0.48	0.14	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.48	0.03	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Chromium, Total	12		mg/kg	0.48	0.10	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Lead, Total	240		mg/kg	2.4	0.10	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Mercury, Total	0.28		mg/kg	0.08	0.02	1	03/19/16 12:00	03/23/16 10:45	EPA 7471B	1,7471B	JH
Selenium, Total	0.74	J	mg/kg	0.97	0.14	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB
Silver, Total	ND		mg/kg	0.48	0.10	1	03/19/16 11:03	03/24/16 09:28	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-03
Client ID: HA-3 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 78%

Date Collected: 03/17/16 10:15
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.4		mg/kg	0.51	0.10	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Barium, Total	96		mg/kg	0.51	0.15	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.51	0.04	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Chromium, Total	17		mg/kg	0.51	0.10	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Lead, Total	52		mg/kg	2.6	0.10	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Mercury, Total	0.11		mg/kg	0.09	0.02	1	03/19/16 12:00	03/23/16 10:47	EPA 7471B	1,7471B	JH
Selenium, Total	0.69	J	mg/kg	1.0	0.15	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB
Silver, Total	ND		mg/kg	0.51	0.10	1	03/19/16 11:03	03/24/16 09:33	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-04
Client ID: HA-4 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 74%

Date Collected: 03/17/16 10:45
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	7.8		mg/kg	0.52	0.10	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Barium, Total	100		mg/kg	0.52	0.16	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.52	0.04	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Chromium, Total	18		mg/kg	0.52	0.10	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Lead, Total	68		mg/kg	2.6	0.10	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Mercury, Total	0.24		mg/kg	0.09	0.02	1	03/19/16 12:00	03/23/16 10:48	EPA 7471B	1,7471B	JH
Selenium, Total	0.57	J	mg/kg	1.0	0.16	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB
Silver, Total	ND		mg/kg	0.52	0.10	1	03/19/16 11:03	03/24/16 09:38	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-05
Client ID: HA-5 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 70%

Date Collected: 03/17/16 11:30
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	10		mg/kg	0.55	0.11	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Barium, Total	92		mg/kg	0.55	0.16	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Cadmium, Total	0.807		mg/kg	0.552	0.039	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Chromium, Total	18		mg/kg	0.55	0.11	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Lead, Total	340		mg/kg	2.8	0.11	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Mercury, Total	0.24		mg/kg	0.10	0.02	1	03/19/16 12:00	03/23/16 10:50	EPA 7471B	1,7471B	JH
Selenium, Total	1.25		mg/kg	1.10	0.166	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB
Silver, Total	0.19	J	mg/kg	0.55	0.11	1	03/19/16 11:03	03/24/16 09:43	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-06
Client ID: HA-5 (4-18")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 78%

Date Collected: 03/17/16 11:45
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	12		mg/kg	0.50	0.10	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Barium, Total	120		mg/kg	0.50	0.15	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Cadmium, Total	0.765		mg/kg	0.500	0.035	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Chromium, Total	23		mg/kg	0.50	0.10	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Lead, Total	400		mg/kg	2.5	0.10	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Mercury, Total	0.22		mg/kg	0.08	0.02	1	03/19/16 12:00	03/23/16 10:52	EPA 7471B	1,7471B	JH
Selenium, Total	1.006		mg/kg	1.000	0.1501	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB
Silver, Total	0.275	J	mg/kg	0.500	0.100	1	03/19/16 11:03	03/24/16 09:48	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE
Lab Number: L1607809
Project Number: T0369-016-001
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-07
Client ID: HA-6 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 77%

Date Collected: 03/17/16 12:30
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.5		mg/kg	0.50	0.10	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Barium, Total	100		mg/kg	0.50	0.15	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Cadmium, Total	ND		mg/kg	0.50	0.04	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Chromium, Total	15		mg/kg	0.50	0.10	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Lead, Total	200		mg/kg	2.5	0.10	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Mercury, Total	0.29		mg/kg	0.09	0.02	1	03/19/16 12:00	03/23/16 10:54	EPA 7471B	1,7471B	JH
Selenium, Total	0.867	J	mg/kg	1.01	0.151	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB
Silver, Total	0.212	J	mg/kg	0.504	0.101	1	03/19/16 11:03	03/24/16 09:53	EPA 3050B	1,6010C	FB

Project Name: ELMWOOD & FOREST AVENUE **Lab Number:** L1607809

Project Number: T0369-016-001 **Report Date:** 03/24/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01,03-07 Batch: WG875428-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	03/19/16 12:00	03/23/16 10:28	1,7471B	JH

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01,03-07 Batch: WG875465-1										
Arsenic, Total	ND		mg/kg	0.40	0.08	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	0.12	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	0.03	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	0.08	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	0.08	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	0.12	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	0.08	1	03/19/16 11:03	03/21/16 13:42	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE

Project Number: T0369-016-001

Lab Number: L1607809

Report Date: 03/24/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01,03-07 Batch: WG875428-2 SRM Lot Number: D088-540								
Mercury, Total	107		-		72-128	-		
Total Metals - Westborough Lab Associated sample(s): 01,03-07 Batch: WG875465-2 SRM Lot Number: D088-540								
Arsenic, Total	105		-		79-121	-		
Barium, Total	105		-		83-117	-		
Cadmium, Total	102		-		83-117	-		
Chromium, Total	110		-		80-120	-		
Lead, Total	98		-		81-117	-		
Selenium, Total	108		-		78-122	-		
Silver, Total	105		-		75-124	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG875428-4 QC Sample: L1607827-01 Client ID: MS Sample												
Mercury, Total	0.82	0.207	2.5	**813**	Q	-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG875465-4 QC Sample: L1608021-03 Client ID: MS Sample												
Arsenic, Total	2.3	10.6	12	91		-	-		75-125	-		20
Barium, Total	77.	177	260	103		-	-		75-125	-		20
Cadmium, Total	ND	4.52	3.2	**71**	Q	-	-		75-125	-		20
Chromium, Total	20.	17.7	41	118		-	-		75-125	-		20
Lead, Total	35.	45.2	79	97		-	-		75-125	-		20
Selenium, Total	ND	10.6	10	94		-	-		75-125	-		20
Silver, Total	ND	26.6	24	90		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG875428-3 QC Sample: L1607827-01 Client ID: DUP Sample						
Mercury, Total	0.82	0.98	mg/kg	18		20
Total Metals - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG875465-3 QC Sample: L1608021-03 Client ID: DUP Sample						
Arsenic, Total	2.3	2.2	mg/kg	4		20
Barium, Total	77.	85	mg/kg	10		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	20.	22	mg/kg	10		20
Lead, Total	35.	37	mg/kg	6		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-01
Client ID: HA-1 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 03/17/16 09:45
Date Received: 03/17/16
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	79.3		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-03
Client ID: HA-3 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil

Date Collected: 03/17/16 10:15
Date Received: 03/17/16
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	77.6		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-04
Client ID: HA-4 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 03/17/16 10:45
Date Received: 03/17/16
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	74.4		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-05
Client ID: HA-5 (1-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 03/17/16 11:30
Date Received: 03/17/16
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	69.5		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-06
Client ID: HA-5 (4-18")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 03/17/16 11:45
Date Received: 03/17/16
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	77.6		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001
Lab Number: L1607809
Report Date: 03/24/16

SAMPLE RESULTS

Lab ID: L1607809-07
Client ID: HA-6 (4-8")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 03/17/16 12:30
Date Received: 03/17/16
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	77.1		%	0.100	NA	1	-	03/19/16 01:09	30,2540G	RT

Lab Duplicate Analysis
Batch Quality Control

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG875389-1 QC Sample: L1607806-01 Client ID: DUP Sample						
Solids, Total	90.8	91.0	%	0		20

Project Name: ELMWOOD & FOREST AVENUE
Project Number: T0369-016-001

Lab Number: L1607809
Report Date: 03/24/16

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(*)
L1607809-01A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1607809-02A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	HOLD-WETCHEM(),HOLD-8270(14),HOLD-METAL(180)
L1607809-03A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1607809-04A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1607809-05A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1607809-06A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1607809-07A	Glass 250ml/8oz unpreserved	A	N/A	4.4	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name:	ELMWOOD & FOREST AVENUE	**Lab Number:**	L1607809
Project Number:	T0369-016-001	**Report Date:**	03/24/16

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.

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 reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: DU Report with 'J' Qualifiers

Project Name:	ELMWOOD & FOREST AVENUE	**Lab Number:**	L1607809
Project Number:	T0369-016-001	**Report Date:**	03/24/16

Data Qualifiers

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:	ELMWOOD & FOREST AVENUE	**Lab Number:**	L1607809
Project Number:	T0369-016-001	**Report Date:**	03/24/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
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.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, 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**.

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

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/18/16

ALPHA Job #: L1607809

Client Information

Client: Turnkey Environmental
Address: 2558 Hamburg TPKE
Lackawanna, NY 14218
Phone: 716-856-0635
Fax:
Email: jrobinson@turnkeyllc.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Elmwood & Forest Acres
Project Location: Buffalo, NY
Project #: T0369-016-001
Project Manager: Chris Boron
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: 8270 SVOCs B/N analytes	ANALYSIS: RCRA 8 metals 6010/7471	SAMPLE HANDLING	TOTAL # BOTTLES
07809-01	HA-1 (2-6")	03/17/16	0945	S	JJR	X	X		
02	HA-2 (4-6")		1000	S	JJR	X	X	Hold	
03	HA-3 (4-8")		1015	S	JJR	X	X		
04	HA-4 (1-4")		1045	S	JJR	X	X		
05	HA-5 (1-4")		1130	S	JJR	X	X		
06	HA-5 (4-18")		1145	S	JJR	X	X		
07	HA-6 (4-8")		1230	S	JJR	X	X		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)
Sample Specific Comments

Container Type	A	A
Preservative	A	A

Relinquished By:	Date/Time	Received By:	Date/Time
	3/17/16 1425	Linda Henry AAL	3/17/16 16:40
Linda Henry	3/17/16		3/18/16 0105

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1705569
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Chris Boron
Phone:	(716) 856-0599
Project Name:	REDEV PROJ ELMWOOD& FOREST AVE
Project Number:	T0369-016-001-006
Report Date:	03/01/17

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

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

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006

Lab Number: L1705569
Report Date: 03/01/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1705569-01	TP-1 (0-4")	SOIL	BUFFALO, NY	02/21/17 08:41	02/22/17
L1705569-02	TP-2 (0-4")	SOIL	BUFFALO, NY	02/21/17 09:10	02/22/17
L1705569-03	TP-2 (4"-1')	SOIL	BUFFALO, NY	02/21/17 09:17	02/22/17
L1705569-04	TP-3 (0-4")	SOIL	BUFFALO, NY	02/21/17 09:42	02/22/17
L1705569-05	TP-4 (0-6")	SOIL	BUFFALO, NY	02/21/17 10:10	02/22/17
L1705569-06	TP-5 (0-1')	SOIL	BUFFALO, NY	02/21/17 11:10	02/22/17
L1705569-07	TP-6 (0-4")	SOIL	BUFFALO, NY	02/21/17 12:12	02/22/17
L1705569-08	TP-6 (4"-8")	SOIL	BUFFALO, NY	02/21/17 12:15	02/22/17
L1705569-09	TP-7 (0-6")	SOIL	BUFFALO, NY	02/21/17 13:00	02/22/17
L1705569-10	TP-8 (0-6")	SOIL	BUFFALO, NY	02/21/17 13:25	02/22/17
L1705569-11	TP-9 (2-6")	SOIL	BUFFALO, NY	02/21/17 13:57	02/22/17

Project Name:	REDEV PROJ ELMWOOD& FOREST AVE	**Lab Number:**	L1705569
Project Number:	T0369-016-001-006	**Report Date:**	03/01/17

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

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

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	REDEV PROJ ELMWOOD& FOREST AVE	**Lab Number:**	L1705569
Project Number:	T0369-016-001-006	**Report Date:**	03/01/17

Case Narrative (continued)

Report Submission

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

Volatile Organics

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

L1705569-05: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Semivolatile Organics

L1705569-05 and -11: The sample has elevated detection limits due to the dilution required by the sample matrix.

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 Melissa Cripps

Title: Technical Director/Representative Date: 03/01/17

ORGANICS

VOLATILES

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05
Client ID: TP-4 (0-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/28/17 02:57
Analyst: TE
Percent Solids: 75%

Date Collected: 02/21/17 10:10
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	610	67.	1
1,1-Dichloroethane	ND		ug/kg	91	5.2	1
Chloroform	ND		ug/kg	91	22.	1
Carbon tetrachloride	ND		ug/kg	61	13.	1
1,2-Dichloropropane	ND		ug/kg	210	14.	1
Dibromochloromethane	ND		ug/kg	61	9.3	1
1,1,2-Trichloroethane	ND		ug/kg	91	18.	1
Tetrachloroethene	ND		ug/kg	61	8.5	1
Chlorobenzene	ND		ug/kg	61	21.	1
Trichlorofluoromethane	ND		ug/kg	300	24.	1
1,2-Dichloroethane	ND		ug/kg	61	6.9	1
1,1,1-Trichloroethane	ND		ug/kg	61	6.7	1
Bromodichloromethane	ND		ug/kg	61	10.	1
trans-1,3-Dichloropropene	ND		ug/kg	61	7.3	1
cis-1,3-Dichloropropene	ND		ug/kg	61	7.1	1
Bromoform	ND		ug/kg	240	14.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	61	6.1	1
Benzene	ND		ug/kg	61	7.2	1
Toluene	ND		ug/kg	91	12.	1
Ethylbenzene	ND		ug/kg	61	7.7	1
Chloromethane	ND		ug/kg	300	18.	1
Bromomethane	ND		ug/kg	120	20.	1
Vinyl chloride	ND		ug/kg	120	7.1	1
Chloroethane	ND		ug/kg	120	19.	1
1,1-Dichloroethene	ND		ug/kg	61	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	91	13.	1
Trichloroethene	ND		ug/kg	61	7.6	1
1,2-Dichlorobenzene	ND		ug/kg	300	9.3	1
1,3-Dichlorobenzene	ND		ug/kg	300	8.2	1
1,4-Dichlorobenzene	ND		ug/kg	300	8.4	1

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05 Date Collected: 02/21/17 10:10

Client ID: TP-4 (0-6") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	120	5.1	1
p/m-Xylene	ND		ug/kg	120	21.	1
o-Xylene	ND		ug/kg	120	20.	1
cis-1,2-Dichloroethene	ND		ug/kg	61	8.7	1
Styrene	ND		ug/kg	120	24.	1
Dichlorodifluoromethane	ND		ug/kg	610	12.	1
Acetone	84	J	ug/kg	610	63.	1
Carbon disulfide	ND		ug/kg	610	67.	1
2-Butanone	ND		ug/kg	610	16.	1
4-Methyl-2-pentanone	ND		ug/kg	610	15.	1
2-Hexanone	ND		ug/kg	610	40.	1
Bromochloromethane	ND		ug/kg	300	17.	1
1,2-Dibromoethane	ND		ug/kg	240	10.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	300	24.	1
Isopropylbenzene	ND		ug/kg	61	6.3	1
1,2,3-Trichlorobenzene	ND		ug/kg	300	9.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	11.	1
Methyl Acetate	ND		ug/kg	1200	16.	1
Cyclohexane	ND		ug/kg	1200	8.8	1
1,4-Dioxane	ND		ug/kg	2400	870	1
Freon-113	ND		ug/kg	1200	17.	1
Methyl cyclohexane	ND		ug/kg	240	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/27/17 20:22
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG981598-5					
Methylene chloride	ND		ug/kg	500	55.
1,1-Dichloroethane	ND		ug/kg	75	4.3
Chloroform	ND		ug/kg	75	18.
Carbon tetrachloride	ND		ug/kg	50	10.
1,2-Dichloropropane	ND		ug/kg	180	11.
Dibromochloromethane	ND		ug/kg	50	7.7
1,1,2-Trichloroethane	ND		ug/kg	75	15.
Tetrachloroethene	ND		ug/kg	50	7.0
Chlorobenzene	ND		ug/kg	50	17.
Trichlorofluoromethane	ND		ug/kg	250	19.
1,2-Dichloroethane	ND		ug/kg	50	5.7
1,1,1-Trichloroethane	ND		ug/kg	50	5.5
Bromodichloromethane	ND		ug/kg	50	8.7
trans-1,3-Dichloropropene	ND		ug/kg	50	6.0
cis-1,3-Dichloropropene	ND		ug/kg	50	5.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	5.0
Benzene	ND		ug/kg	50	5.9
Toluene	ND		ug/kg	75	9.7
Ethylbenzene	ND		ug/kg	50	6.4
Chloromethane	ND		ug/kg	250	15.
Bromomethane	25	J	ug/kg	100	17.
Vinyl chloride	ND		ug/kg	100	5.9
Chloroethane	ND		ug/kg	100	16.
1,1-Dichloroethene	ND		ug/kg	50	13.
trans-1,2-Dichloroethene	ND		ug/kg	75	11.
Trichloroethene	ND		ug/kg	50	6.2
1,2-Dichlorobenzene	ND		ug/kg	250	7.7
1,3-Dichlorobenzene	ND		ug/kg	250	6.8

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/27/17 20:22
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG981598-5					
1,4-Dichlorobenzene	ND		ug/kg	250	6.9
Methyl tert butyl ether	ND		ug/kg	100	4.2
p/m-Xylene	ND		ug/kg	100	18.
o-Xylene	ND		ug/kg	100	17.
cis-1,2-Dichloroethene	ND		ug/kg	50	7.1
Styrene	ND		ug/kg	100	20.
Dichlorodifluoromethane	ND		ug/kg	500	9.5
Acetone	ND		ug/kg	500	52.
Carbon disulfide	ND		ug/kg	500	55.
2-Butanone	ND		ug/kg	500	14.
4-Methyl-2-pentanone	ND		ug/kg	500	12.
2-Hexanone	ND		ug/kg	500	33.
Bromochloromethane	ND		ug/kg	250	14.
1,2-Dibromoethane	ND		ug/kg	200	8.7
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	20.
Isopropylbenzene	ND		ug/kg	50	5.2
1,2,3-Trichlorobenzene	ND		ug/kg	250	7.4
1,2,4-Trichlorobenzene	ND		ug/kg	250	9.1
Methyl Acetate	ND		ug/kg	1000	14.
Cyclohexane	ND		ug/kg	1000	7.3
1,4-Dioxane	ND		ug/kg	2000	720
Freon-113	ND		ug/kg	1000	14.
Methyl cyclohexane	ND		ug/kg	200	7.7

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/27/17 20:22
Analyst: KD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG981598-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG981598-3 WG981598-4								
Methylene chloride	95		100		70-130	5		30
1,1-Dichloroethane	98		95		70-130	3		30
Chloroform	101		99		70-130	2		30
Carbon tetrachloride	98		95		70-130	3		30
1,2-Dichloropropane	96		95		70-130	1		30
Dibromochloromethane	104		99		70-130	5		30
1,1,2-Trichloroethane	100		96		70-130	4		30
Tetrachloroethene	101		96		70-130	5		30
Chlorobenzene	99		95		70-130	4		30
Trichlorofluoromethane	102		95		70-139	7		30
1,2-Dichloroethane	100		98		70-130	2		30
1,1,1-Trichloroethane	104		101		70-130	3		30
Bromodichloromethane	101		101		70-130	0		30
trans-1,3-Dichloropropene	105		102		70-130	3		30
cis-1,3-Dichloropropene	105		103		70-130	2		30
Bromoform	92		90		70-130	2		30
1,1,2,2-Tetrachloroethane	100		97		70-130	3		30
Benzene	97		95		70-130	2		30
Toluene	96		93		70-130	3		30
Ethylbenzene	97		94		70-130	3		30
Chloromethane	97		93		52-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG981598-3 WG981598-4								
Bromomethane	101		97		57-147	4		30
Vinyl chloride	102		94		67-130	8		30
Chloroethane	96		90		50-151	6		30
1,1-Dichloroethene	101		97		65-135	4		30
trans-1,2-Dichloroethene	100		98		70-130	2		30
Trichloroethene	100		97		70-130	3		30
1,2-Dichlorobenzene	100		97		70-130	3		30
1,3-Dichlorobenzene	99		96		70-130	3		30
1,4-Dichlorobenzene	99		96		70-130	3		30
Methyl tert butyl ether	108		103		66-130	5		30
p/m-Xylene	98		94		70-130	4		30
o-Xylene	98		95		70-130	3		30
cis-1,2-Dichloroethene	99		96		70-130	3		30
Styrene	97		94		70-130	3		30
Dichlorodifluoromethane	103		98		30-146	5		30
Acetone	106		94		54-140	12		30
Carbon disulfide	78		75		59-130	4		30
2-Butanone	99		95		70-130	4		30
4-Methyl-2-pentanone	99		93		70-130	6		30
2-Hexanone	96		91		70-130	5		30
Bromochloromethane	104		101		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG981598-3 WG981598-4								
1,2-Dibromoethane	104		100		70-130	4		30
1,2-Dibromo-3-chloropropane	98		95		68-130	3		30
Isopropylbenzene	99		95		70-130	4		30
1,2,3-Trichlorobenzene	102		100		70-130	2		30
1,2,4-Trichlorobenzene	102		99		70-130	3		30
Methyl Acetate	100		97		51-146	3		30
Cyclohexane	96		94		59-142	2		30
1,4-Dioxane	104		98		65-136	6		30
Freon-113	104		100		50-139	4		30
Methyl cyclohexane	101		98		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	102		103		70-130
Dibromofluoromethane	104		102		70-130

SEMIVOLATILES

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-02
Client ID: TP-2 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 00:50
Analyst: RC
Percent Solids: 76%

Date Collected: 02/21/17 09:10
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	27	J	ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	25.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	220	21.	1
1,2-Dichlorobenzene	ND		ug/kg	220	39.	1
1,3-Dichlorobenzene	ND		ug/kg	220	37.	1
1,4-Dichlorobenzene	ND		ug/kg	220	38.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	58.	1
2,4-Dinitrotoluene	ND		ug/kg	220	43.	1
2,6-Dinitrotoluene	ND		ug/kg	220	37.	1
Fluoranthene	730		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	33.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	22.	1
Hexachlorobutadiene	ND		ug/kg	220	32.	1
Hexachlorocyclopentadiene	ND		ug/kg	620	200	1
Hexachloroethane	ND		ug/kg	170	35.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	220	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	25.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	33.	1
Bis(2-ethylhexyl)phthalate	590		ug/kg	220	75.	1
Butyl benzyl phthalate	ND		ug/kg	220	54.	1
Di-n-butylphthalate	ND		ug/kg	220	41.	1
Di-n-octylphthalate	ND		ug/kg	220	74.	1
Diethyl phthalate	ND		ug/kg	220	20.	1
Dimethyl phthalate	ND		ug/kg	220	45.	1

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-02 Date Collected: 02/21/17 09:10

Client ID: TP-2 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	310		ug/kg	130	24.	1
Benzo(a)pyrene	300		ug/kg	170	53.	1
Benzo(b)fluoranthene	410		ug/kg	130	36.	1
Benzo(k)fluoranthene	120	J	ug/kg	130	35.	1
Chrysene	310		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	100	J	ug/kg	130	42.	1
Benzo(ghi)perylene	180		ug/kg	170	25.	1
Fluorene	35	J	ug/kg	220	21.	1
Phenanthrene	410		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	48	J	ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	210		ug/kg	170	30.	1
Pyrene	590		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	220	39.	1
2-Nitroaniline	ND		ug/kg	220	42.	1
3-Nitroaniline	ND		ug/kg	220	41.	1
4-Nitroaniline	ND		ug/kg	220	90.	1
Dibenzofuran	ND		ug/kg	220	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	22.	1
Acetophenone	ND		ug/kg	220	27.	1
Benzyl Alcohol	ND		ug/kg	220	66.	1
Carbazole	50	J	ug/kg	220	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	71		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-04
Client ID: TP-3 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 01:15
Analyst: RC
Percent Solids: 78%

Date Collected: 02/21/17 09:42
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	28.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	36.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	160		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	27.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	31.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	32.	1
Bis(2-ethylhexyl)phthalate	73	J	ug/kg	210	73.	1
Butyl benzyl phthalate	ND		ug/kg	210	53.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	71.	1
Diethyl phthalate	ND		ug/kg	210	19.	1
Dimethyl phthalate	ND		ug/kg	210	44.	1

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-04 Date Collected: 02/21/17 09:42

Client ID: TP-3 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	88	J	ug/kg	130	24.	1
Benzo(a)pyrene	83	J	ug/kg	170	51.	1
Benzo(b)fluoranthene	110	J	ug/kg	130	35.	1
Benzo(k)fluoranthene	42	J	ug/kg	130	34.	1
Chrysene	82	J	ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	32.	1
Anthracene	ND		ug/kg	130	41.	1
Benzo(ghi)perylene	54	J	ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	20.	1
Phenanthrene	89	J	ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	24.	1
Indeno(1,2,3-cd)pyrene	60	J	ug/kg	170	29.	1
Pyrene	140		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	480	49.	1
4-Chloroaniline	ND		ug/kg	210	38.	1
2-Nitroaniline	ND		ug/kg	210	40.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	87.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	250	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	78		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05 D
Client ID: TP-4 (0-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 05:09
Analyst: RC
Percent Solids: 75%

Date Collected: 02/21/17 10:10
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	820	J	ug/kg	870	110	5
1,2,4-Trichlorobenzene	ND		ug/kg	1100	120	5
Hexachlorobenzene	ND		ug/kg	650	120	5
Bis(2-chloroethyl)ether	ND		ug/kg	980	150	5
2-Chloronaphthalene	ND		ug/kg	1100	110	5
1,2-Dichlorobenzene	ND		ug/kg	1100	190	5
1,3-Dichlorobenzene	ND		ug/kg	1100	190	5
1,4-Dichlorobenzene	ND		ug/kg	1100	190	5
3,3'-Dichlorobenzidine	ND		ug/kg	1100	290	5
2,4-Dinitrotoluene	ND		ug/kg	1100	220	5
2,6-Dinitrotoluene	ND		ug/kg	1100	190	5
Fluoranthene	9800		ug/kg	650	120	5
4-Chlorophenyl phenyl ether	ND		ug/kg	1100	120	5
4-Bromophenyl phenyl ether	ND		ug/kg	1100	160	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1300	180	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1200	110	5
Hexachlorobutadiene	ND		ug/kg	1100	160	5
Hexachlorocyclopentadiene	ND		ug/kg	3100	980	5
Hexachloroethane	ND		ug/kg	870	180	5
Isophorone	ND		ug/kg	980	140	5
Naphthalene	500	J	ug/kg	1100	130	5
Nitrobenzene	ND		ug/kg	980	160	5
NDPA/DPA	ND		ug/kg	870	120	5
n-Nitrosodi-n-propylamine	ND		ug/kg	1100	170	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1100	380	5
Butyl benzyl phthalate	290	J	ug/kg	1100	270	5
Di-n-butylphthalate	ND		ug/kg	1100	200	5
Di-n-octylphthalate	ND		ug/kg	1100	370	5
Diethyl phthalate	ND		ug/kg	1100	100	5
Dimethyl phthalate	ND		ug/kg	1100	230	5

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05 D
Client ID: TP-4 (0-6")
Sample Location: BUFFALO, NY

Date Collected: 02/21/17 10:10
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	4000		ug/kg	650	120	5
Benzo(a)pyrene	3400		ug/kg	870	260	5
Benzo(b)fluoranthene	4600		ug/kg	650	180	5
Benzo(k)fluoranthene	1400		ug/kg	650	170	5
Chrysene	3700		ug/kg	650	110	5
Acenaphthylene	ND		ug/kg	870	170	5
Anthracene	2000		ug/kg	650	210	5
Benzo(ghi)perylene	1900		ug/kg	870	130	5
Fluorene	1200		ug/kg	1100	100	5
Phenanthrene	8400		ug/kg	650	130	5
Dibenzo(a,h)anthracene	580	J	ug/kg	650	120	5
Indeno(1,2,3-cd)pyrene	2300		ug/kg	870	150	5
Pyrene	7400		ug/kg	650	110	5
Biphenyl	ND		ug/kg	2500	250	5
4-Chloroaniline	ND		ug/kg	1100	200	5
2-Nitroaniline	ND		ug/kg	1100	210	5
3-Nitroaniline	ND		ug/kg	1100	200	5
4-Nitroaniline	ND		ug/kg	1100	450	5
Dibenzofuran	630	J	ug/kg	1100	100	5
2-Methylnaphthalene	220	J	ug/kg	1300	130	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1100	110	5
Acetophenone	ND		ug/kg	1100	130	5
Benzyl Alcohol	ND		ug/kg	1100	330	5
Carbazole	1200		ug/kg	1100	100	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		25-120
Phenol-d6	49		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	50		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-07
Client ID: TP-6 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 01:41
Analyst: RC
Percent Solids: 78%

Date Collected: 02/21/17 12:12
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	24.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
1,2-Dichlorobenzene	ND		ug/kg	210	38.	1
1,3-Dichlorobenzene	ND		ug/kg	210	37.	1
1,4-Dichlorobenzene	ND		ug/kg	210	37.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	150		ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	720		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	72.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-07 Date Collected: 02/21/17 12:12

Client ID: TP-6 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	500		ug/kg	130	24.	1
Benzo(a)pyrene	800		ug/kg	170	52.	1
Benzo(b)fluoranthene	400		ug/kg	130	36.	1
Benzo(k)fluoranthene	57	J	ug/kg	130	34.	1
Chrysene	770		ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	280		ug/kg	130	42.	1
Benzo(ghi)perylene	1000		ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	1500		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	270		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	350		ug/kg	170	30.	1
Pyrene	1000		ug/kg	130	21.	1
Biphenyl	97	J	ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	88.	1
Dibenzofuran	240		ug/kg	210	20.	1
2-Methylnaphthalene	1200		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		25-120
Phenol-d6	45		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	81		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-09
Client ID: TP-7 (0-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 02:06
Analyst: RC
Percent Solids: 82%

Date Collected: 02/21/17 13:00
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	550		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	38	J	ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-09 Date Collected: 02/21/17 13:00

Client ID: TP-7 (0-6") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	260		ug/kg	120	23.	1
Benzo(a)pyrene	260		ug/kg	160	50.	1
Benzo(b)fluoranthene	330		ug/kg	120	34.	1
Benzo(k)fluoranthene	100	J	ug/kg	120	32.	1
Chrysene	230		ug/kg	120	21.	1
Acenaphthylene	34	J	ug/kg	160	31.	1
Anthracene	62	J	ug/kg	120	40.	1
Benzo(ghi)perylene	140	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	230		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	38	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	170		ug/kg	160	28.	1
Pyrene	460		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	22	J	ug/kg	200	19.	1
2-Methylnaphthalene	63	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	20	J	ug/kg	200	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		25-120
Phenol-d6	49		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	77		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-11 D
Client ID: TP-9 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/27/17 05:36
Analyst: RC
Percent Solids: 77%

Date Collected: 02/21/17 13:57
Date Received: 02/22/17
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	860	110	5
1,2,4-Trichlorobenzene	ND		ug/kg	1100	120	5
Hexachlorobenzene	ND		ug/kg	640	120	5
Bis(2-chloroethyl)ether	ND		ug/kg	960	140	5
2-Chloronaphthalene	ND		ug/kg	1100	110	5
1,2-Dichlorobenzene	ND		ug/kg	1100	190	5
1,3-Dichlorobenzene	ND		ug/kg	1100	180	5
1,4-Dichlorobenzene	ND		ug/kg	1100	190	5
3,3'-Dichlorobenzidine	ND		ug/kg	1100	280	5
2,4-Dinitrotoluene	ND		ug/kg	1100	210	5
2,6-Dinitrotoluene	ND		ug/kg	1100	180	5
Fluoranthene	160	J	ug/kg	640	120	5
4-Chlorophenyl phenyl ether	ND		ug/kg	1100	110	5
4-Bromophenyl phenyl ether	ND		ug/kg	1100	160	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1300	180	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1200	110	5
Hexachlorobutadiene	ND		ug/kg	1100	160	5
Hexachlorocyclopentadiene	ND		ug/kg	3100	970	5
Hexachloroethane	ND		ug/kg	860	170	5
Isophorone	ND		ug/kg	960	140	5
Naphthalene	ND		ug/kg	1100	130	5
Nitrobenzene	ND		ug/kg	960	160	5
NDPA/DPA	ND		ug/kg	860	120	5
n-Nitrosodi-n-propylamine	ND		ug/kg	1100	160	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1100	370	5
Butyl benzyl phthalate	ND		ug/kg	1100	270	5
Di-n-butylphthalate	ND		ug/kg	1100	200	5
Di-n-octylphthalate	ND		ug/kg	1100	360	5
Diethyl phthalate	ND		ug/kg	1100	99.	5
Dimethyl phthalate	ND		ug/kg	1100	220	5

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-11 D Date Collected: 02/21/17 13:57

Client ID: TP-9 (2-6") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)anthracene	ND		ug/kg	640	120	5
Benzo(a)pyrene	ND		ug/kg	860	260	5
Benzo(b)fluoranthene	ND		ug/kg	640	180	5
Benzo(k)fluoranthene	ND		ug/kg	640	170	5
Chrysene	ND		ug/kg	640	110	5
Acenaphthylene	ND		ug/kg	860	160	5
Anthracene	ND		ug/kg	640	210	5
Benzo(ghi)perylene	ND		ug/kg	860	130	5
Fluorene	ND		ug/kg	1100	100	5
Phenanthrene	ND		ug/kg	640	130	5
Dibenzo(a,h)anthracene	ND		ug/kg	640	120	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	860	150	5
Pyrene	140	J	ug/kg	640	110	5
Biphenyl	ND		ug/kg	2400	250	5
4-Chloroaniline	ND		ug/kg	1100	200	5
2-Nitroaniline	ND		ug/kg	1100	210	5
3-Nitroaniline	ND		ug/kg	1100	200	5
4-Nitroaniline	ND		ug/kg	1100	440	5
Dibenzofuran	ND		ug/kg	1100	100	5
2-Methylnaphthalene	ND		ug/kg	1300	130	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1100	110	5
Acetophenone	ND		ug/kg	1100	130	5
Benzyl Alcohol	ND		ug/kg	1100	330	5
Carbazole	ND		ug/kg	1100	100	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	52		18-120

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/26/17 20:10
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-05,07,09,11 Batch: WG981077-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	18.
Hexachlorobenzene	ND		ug/kg	97	18.
Bis(2-chloroethyl)ether	ND		ug/kg	140	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	97	18.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	170	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	140	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	140	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/26/17 20:10
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-05,07,09,11 Batch: WG981077-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	29.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	30.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	190	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
Benzyl Alcohol	ND		ug/kg	160	49.
Carbazole	ND		ug/kg	160	16.

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/26/17 20:10
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 02/25/17 23:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-05,07,09,11 Batch: WG981077-1					
Tentatively Identified Compounds					
Total TIC Compounds	154	J	ug/kg		
Unknown Organic Acid	154	J	ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	73		10-136
4-Terphenyl-d14	90		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-05,07,09,11 Batch: WG981077-2 WG981077-3								
Acenaphthene	87		84		31-137	4		50
1,2,4-Trichlorobenzene	86		84		38-107	2		50
Hexachlorobenzene	92		90		40-140	2		50
Bis(2-chloroethyl)ether	73		70		40-140	4		50
2-Chloronaphthalene	93		91		40-140	2		50
1,2-Dichlorobenzene	80		79		40-140	1		50
1,3-Dichlorobenzene	80		77		40-140	4		50
1,4-Dichlorobenzene	78		77		28-104	1		50
3,3'-Dichlorobenzidine	60		69		40-140	14		50
2,4-Dinitrotoluene	104		101		40-132	3		50
2,6-Dinitrotoluene	109		104		40-140	5		50
Fluoranthene	94		96		40-140	2		50
4-Chlorophenyl phenyl ether	94		90		40-140	4		50
4-Bromophenyl phenyl ether	97		92		40-140	5		50
Bis(2-chloroisopropyl)ether	70		67		40-140	4		50
Bis(2-chloroethoxy)methane	81		79		40-117	3		50
Hexachlorobutadiene	89		88		40-140	1		50
Hexachlorocyclopentadiene	96		94		40-140	2		50
Hexachloroethane	79		78		40-140	1		50
Isophorone	86		85		40-140	1		50
Naphthalene	84		80		40-140	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-05,07,09,11 Batch: WG981077-2 WG981077-3								
Nitrobenzene	85		82		40-140	4		50
NDPA/DPA	93		89		36-157	4		50
n-Nitrosodi-n-propylamine	85		83		32-121	2		50
Bis(2-ethylhexyl)phthalate	104		100		40-140	4		50
Butyl benzyl phthalate	102		98		40-140	4		50
Di-n-butylphthalate	104		101		40-140	3		50
Di-n-octylphthalate	109		104		40-140	5		50
Diethyl phthalate	97		94		40-140	3		50
Dimethyl phthalate	103		101		40-140	2		50
Benzo(a)anthracene	92		89		40-140	3		50
Benzo(a)pyrene	102		98		40-140	4		50
Benzo(b)fluoranthene	99		94		40-140	5		50
Benzo(k)fluoranthene	95		92		40-140	3		50
Chrysene	88		85		40-140	3		50
Acenaphthylene	100		96		40-140	4		50
Anthracene	94		91		40-140	3		50
Benzo(ghi)perylene	86		82		40-140	5		50
Fluorene	94		90		40-140	4		50
Phenanthrene	88		85		40-140	3		50
Dibenzo(a,h)anthracene	92		89		40-140	3		50
Indeno(1,2,3-cd)pyrene	92		88		40-140	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-05,07,09,11 Batch: WG981077-2 WG981077-3								
Pyrene	92		89		35-142	3		50
Biphenyl	96		93		54-104	3		50
4-Chloroaniline	46		51		40-140	10		50
2-Nitroaniline	102		99		47-134	3		50
3-Nitroaniline	71		76		26-129	7		50
4-Nitroaniline	97		91		41-125	6		50
Dibenzofuran	89		87		40-140	2		50
2-Methylnaphthalene	91		88		40-140	3		50
1,2,4,5-Tetrachlorobenzene	92		87		40-117	6		50
Acetophenone	89		86		14-144	3		50
Benzyl Alcohol	93		90		40-140	3		50
Carbazole	93		89		54-128	4		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	81		77		25-120
Phenol-d6	80		77		10-120
Nitrobenzene-d5	82		78		23-120
2-Fluorobiphenyl	92		87		30-120
2,4,6-Tribromophenol	89		86		10-136
4-Terphenyl-d14	89		85		18-120

METALS

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-02 Date Collected: 02/21/17 09:10

Client ID: TP-2 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 76%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.9		mg/kg	0.52	0.11	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Barium, Total	120		mg/kg	0.52	0.09	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Cadmium, Total	3.5		mg/kg	0.52	0.05	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Chromium, Total	500		mg/kg	0.52	0.05	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Lead, Total	4200		mg/kg	2.6	0.14	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Mercury, Total	0.14		mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 12:59	EPA 7471B	1,7471B	BV
Selenium, Total	0.62	J	mg/kg	1.0	0.13	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.52	0.15	1	02/24/17 18:45	02/27/17 11:25	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-04 Date Collected: 02/21/17 09:42

Client ID: TP-3 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	11		mg/kg	0.50	0.10	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Barium, Total	110		mg/kg	0.50	0.09	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Cadmium, Total	0.83		mg/kg	0.50	0.05	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Chromium, Total	15		mg/kg	0.50	0.05	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Lead, Total	520		mg/kg	2.5	0.13	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Mercury, Total	0.46		mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 13:10	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	1.0	0.13	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.50	0.14	1	02/24/17 18:45	02/27/17 11:29	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05 Date Collected: 02/21/17 10:10

Client ID: TP-4 (0-6") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	6.5		mg/kg	0.52	0.11	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Barium, Total	120		mg/kg	0.52	0.09	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Cadmium, Total	0.91		mg/kg	0.52	0.05	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Chromium, Total	17		mg/kg	0.52	0.05	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Lead, Total	470		mg/kg	2.6	0.14	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Mercury, Total	0.19		mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 13:11	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	1.0	0.13	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.52	0.15	1	02/24/17 18:45	02/27/17 11:34	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-07 Date Collected: 02/21/17 12:12

Client ID: TP-6 (0-4") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	20		mg/kg	0.50	0.10	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Barium, Total	51		mg/kg	0.50	0.09	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Cadmium, Total	0.22	J	mg/kg	0.50	0.05	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Chromium, Total	6.9		mg/kg	0.50	0.05	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Lead, Total	31		mg/kg	2.5	0.13	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Mercury, Total	0.05	J	mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 13:13	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	1.0	0.13	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.50	0.14	1	02/24/17 18:45	02/27/17 11:38	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-09 Date Collected: 02/21/17 13:00

Client ID: TP-7 (0-6") Date Received: 02/22/17

Sample Location: BUFFALO, NY Field Prep: Not Specified

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	12		mg/kg	0.48	0.10	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Barium, Total	82		mg/kg	0.48	0.08	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Cadmium, Total	0.20	J	mg/kg	0.48	0.05	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Chromium, Total	5.5		mg/kg	0.48	0.05	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Lead, Total	40		mg/kg	2.4	0.13	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Mercury, Total	0.04	J	mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 13:15	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	0.95	0.12	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.48	0.13	1	02/24/17 18:45	02/27/17 11:42	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Lab Number: L1705569
Project Number: T0369-016-001-006
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-11
Client ID: TP-9 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Percent Solids: 77%

Date Collected: 02/21/17 13:57
Date Received: 02/22/17
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	11		mg/kg	0.51	0.10	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Barium, Total	98		mg/kg	0.51	0.09	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Cadmium, Total	3.2		mg/kg	0.51	0.05	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Chromium, Total	15		mg/kg	0.51	0.05	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Lead, Total	200		mg/kg	2.5	0.14	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Mercury, Total	0.56		mg/kg	0.09	0.02	1	02/24/17 09:15	02/28/17 13:17	EPA 7471B	1,7471B	BV
Selenium, Total	ND		mg/kg	1.0	0.13	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.51	0.14	1	02/24/17 18:45	02/27/17 11:47	EPA 3050B	1,6010C	JH

Project Name: REDEV PROJ ELMWOOD& FOREST AVE **Lab Number:** L1705569

Project Number: T0369-016-001-006 **Report Date:** 03/01/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,04-05,07,09,11 Batch: WG980599-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	02/24/17 09:15	02/28/17 12:55	1,7471B	BV

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,04-05,07,09,11 Batch: WG980868-1										
Arsenic, Total	ND		mg/kg	0.40	0.08	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Barium, Total	ND		mg/kg	0.40	0.07	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Cadmium, Total	ND		mg/kg	0.40	0.04	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Chromium, Total	ND		mg/kg	0.40	0.04	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Lead, Total	ND		mg/kg	2.0	0.11	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Selenium, Total	ND		mg/kg	0.80	0.10	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH
Silver, Total	ND		mg/kg	0.40	0.11	1	02/24/17 18:45	02/27/17 10:47	1,6010C	JH

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE

Project Number: T0369-016-001-006

Lab Number: L1705569

Report Date: 03/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 Batch: WG980599-2 SRM Lot Number: D091-540								
Mercury, Total	89		-		72-128	-		
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 Batch: WG980868-2 SRM Lot Number: D091-540								
Arsenic, Total	117		-		80-121	-		
Barium, Total	115		-		84-117	-		
Cadmium, Total	107		-		83-117	-		
Chromium, Total	105		-		80-119	-		
Lead, Total	110		-		82-118	-		
Selenium, Total	107		-		79-121	-		
Silver, Total	115		-		75-124	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006

Lab Number: L1705569
Report Date: 03/01/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 QC Batch ID: WG980599-3 QC Sample: L1705569-02 Client ID: TP-2 (0-4")												
Mercury, Total	0.14	0.173	0.34	116		-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 QC Batch ID: WG980868-3 QC Sample: L1705775-03 Client ID: MS Sample												
Arsenic, Total	7.9	10.5	17	87		-	-		75-125	-		20
Barium, Total	33.	175	190	90		-	-		75-125	-		20
Cadmium, Total	ND	4.45	4.0	90		-	-		75-125	-		20
Chromium, Total	36.	17.5	54	103		-	-		75-125	-		20
Lead, Total	5.0	44.5	46	92		-	-		75-125	-		20
Selenium, Total	ND	10.5	8.4	80		-	-		75-125	-		20
Silver, Total	ND	26.2	24	92		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-00

Lab Number: L1705569
Report Date: 03/01/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 QC Batch ID: WG980599-4 QC Sample: L1705569-02 Client ID: TP-2 (0-4")						
Mercury, Total	0.14	0.17	mg/kg	19		20
Total Metals - Mansfield Lab Associated sample(s): 02,04-05,07,09,11 QC Batch ID: WG980868-4 QC Sample: L1705775-03 Client ID: DUP Sample						
Arsenic, Total	7.9	8.6	mg/kg	8		20
Barium, Total	33.	29	mg/kg	13		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	36.	41	mg/kg	13		20
Lead, Total	5.0	7.8	mg/kg	**44**	Q	20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-02
Client ID: TP-2 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil

Date Collected: 02/21/17 09:10
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.8		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-04
Client ID: TP-3 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil

Date Collected: 02/21/17 09:42
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.1		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-05
Client ID: TP-4 (0-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 02/21/17 10:10
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.3		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-07
Client ID: TP-6 (0-4")
Sample Location: BUFFALO, NY
Matrix: Soil

Date Collected: 02/21/17 12:12
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.5		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-09
Client ID: TP-7 (0-6")
Sample Location: BUFFALO, NY
Matrix: Soil

Date Collected: 02/21/17 13:00
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006
Lab Number: L1705569
Report Date: 03/01/17

SAMPLE RESULTS

Lab ID: L1705569-11
Client ID: TP-9 (2-6")
Sample Location: BUFFALO, NY
Matrix: Soil
Date Collected: 02/21/17 13:57
Date Received: 02/22/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.0		%	0.100	NA	1	-	02/23/17 16:00	121,2540G	RI

Lab Duplicate Analysis
Batch Quality Control

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-00

Lab Number: L1705569
Report Date: 03/01/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,04-05,07,09,11 QC Batch ID: WG980488-1 QC Sample: L1704561-08 Client ID: DUP Sample						
Solids, Total	77.7	79.0	%	2		20

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006

Lab Number: L1705569
Report Date: 03/01/17

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(*)
L1705569-01A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	HOLD-8270(14),HOLD-METAL(180)
L1705569-02A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)
L1705569-02B	Glass 60ml unpreserved split	A	N/A	2.4	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)
L1705569-03A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	HOLD-8270(14),HOLD-METAL(180)
L1705569-04A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)
L1705569-04B	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	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)
L1705569-05A	Vial Large Septa unpreserved (4o	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1705569-05B	Metals Only - Glass 60mL/2oz unp	A	N/A	2.4	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)
L1705569-05C	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)
L1705569-05X	Vial MeOH preserved split	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1705569-05Y	Vial Water preserved split	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1705569-05Z	Vial Water preserved split	A	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1705569-06A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	HOLD-8270(14),HOLD-METAL(180)
L1705569-07A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)
L1705569-07B	Glass 60ml unpreserved split	A	N/A	2.4	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)
L1705569-08A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	HOLD-8270(14),HOLD-METAL(180)
L1705569-09A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)
L1705569-09B	Glass 60ml unpreserved split	A	N/A	2.4	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)
L1705569-10A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	HOLD-8270(14),HOLD-METAL(180)
L1705569-11A	Glass 250ml/8oz unpreserved	A	N/A	2.4	Y	Absent	NYTCL-8270(14),TS(7)

*Values in parentheses indicate holding time in days

Project Name: REDEV PROJ ELMWOOD& FOREST AVE
Project Number: T0369-016-001-006

Lab Number: L1705569
Report Date: 03/01/17

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1705569-11B	Glass 60ml unpreserved split	A	N/A	2.4	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)

*Values in parentheses indicate holding time in days

Project Name:	REDEV PROJ ELMWOOD& FOREST AVE	**Lab Number:**	L1705569
Project Number:	T0369-016-001-006	**Report Date:**	03/01/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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:	REDEV PROJ ELMWOOD& FOREST AVE	**Lab Number:**	L1705569
Project Number:	T0369-016-001-006	**Report Date:**	03/01/17

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:	REDEV PROJ ELMWOOD& FOREST AVE	**Lab Number:**	L1705569
Project Number:	T0369-016-001-006	**Report Date:**	03/01/17

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, SM9221E.**

Mansfield Facility:

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

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

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

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

NEW YORK CHAIN OF CUSTODY

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

Page 1 of 2

Date Rec'd in Lab: 2/23/17

ALPHA Job #: L1705569

Client Information

Client: Tunkey Environmental
Address: 2558 Hamburg Turnpike
Lackawanna, NY 14218
Phone: 716-856-0635
Fax: 716-856-0583
Email: jrobinson@tunkeyllc.com

Project Information

Project Name: Redevelopment Project - Corner of Elmwood and Forest Avenue
Project Location: Buffalo, NY
Project # TO 369-016-001-006
(Use Project name as Project #) ☐
Project Manager: Chris Boron
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

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ 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:

Base Neutals for SVOCs via EPA Method 8270

Please specify Metals or TAL.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8270 SVOCs Base Neutrals	RCRA Metals 6010/7471	TCL VOCs 8260						Sample Specific Comments	Total Bottle
055569-01	TP-1 (0-4")	2/21/17	0841	Soil	JJR	X	X							Hold All	
-02	TP-2 (0-4")		0910	Soil	JJR	X	X								
-03	TP-2 (4"-1')		0917	Soil	JJR	X	X							Hold All	
-04	TP-3 (0-4")		0942	Soil	JJR	X	X								
-05	TP-4 (0-6")		1010	Soil	JJR	X	X	X							
-06	TP-5 (0-1')		1110	Soil	JJR	X	X							Hold ALL	
-07	TP-6 (0-4")		1212	Soil	JJR	X	X								
-08	TP-6 (4-8")		1215	Soil	JJR	X	X							Hold ALL	
-09	TP-7 (0-6")		1300	Soil	JJR	X	X								
-10	TP-8 (0-6")		1325	Soil	JJR	X	X							Hold ALL	
					Container Type	A	A	A							
					Preservative	A	A	A							

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

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
	2/21/17 1530	AAL	2/22/17 14:10
			2/23/17 0040

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)

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 2 of 2

Date Rec'd in Lab: 2/23/17

ALPHA Job #: L1705569

Client Information

Client: Turkey Environmental
Address: 2558 Hamburg Turnpike
Lackawanna, NY 14218
Phone: 716-856-0635
Fax: 716-856-0583
Email: jrobinson@turkeyllc.com

Project Information

Project Name: Redevelopment Project - Corner of Elmwood + Forest
Project Location: Buffalo, New York
Project #: T0369-016-001-006
(Use Project name as Project #) ☐
Project Manager: Chris Boron
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:

Base Neutrals for SVOCs via EPA Method 8270

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8270 SVOCs Base Neutrals	RCRA metals 6010/7471	TCL VOCs 8260						Sample Specific Comments
05564-11	TP-9 (2-6")	2/21/17	1357	Soil	JJR	X	X							~~Hold ALL~~

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

Total Bottle

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
	2/21/17 1530	JM AAL	2/22/17 14:10
JM AAL	2/22/17 15:45		2/23/17 0040

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)