February 10, 2020



Mr. Peter Krog The Krog Group, LLC 4 Centre Drive Orchard Park, New York 14127

Re: Phase II Environmental Investigation 133 Winsor Street Jamestown, New York

Dear Mr. Krog:

TurnKey Environmental Restoration, LLC (TurnKey) has prepared this report to present the results of a Phase II Environmental Investigation performed at 133 Winsor Street in the City of Jamestown, New York (Site). A Site Location and Vicinity Map is provided as Figure 1.

#### BACKGROUND

Based on a Phase I Environmental Site Assessment (ESA) completed by TurnKey, dated January 2020, the Site was used for industrial purposes from at least 1886 to approximately 2009 when former buildings were demolished and the Site became vacant land. Historic industrial operations reportedly included a lumber yard with lumber supply and storage, a saw mill, printing, glazing, a chemical company, and manufacturing of doors and blinds. The Site historically included a transformer room, a glue room, a paint room, a coal room and lumber piles. A portion of the adjacent Chadakoin River (formerly a portion of Log Pond) was formerly located on the central and southwestern portions of the Site until prior to 1930 when on-Site portions of the waterbody were backfilled with fill materials from unknown origins.

Spill No. 0651000, dated September 20, 2006, was identified for the Site and involved a warehouse fire at a chemical company (apparently a former tenant). Upon investigation, several drums and containers were noted on the Site; however, New York State Department of Environmental Conservation (NYSDEC) notes indicate that none of the containers stored liquids or mercury. As there was no indication of a release at the Site, the spill was reportedly reclassified as "closed" by the NYSDEC on January 11, 2007.

TurnKey identified the following recognized environmental conditions (RECs) for the Site:

• The long history of industrial uses at the Site (at least 1886 to 2009) with operations including a lumber yard, a saw mill, printing, glazing, a chemical company, and manufacturing of doors and blinds. In addition, a transformer room, a glue room, a paint room, a coal room and lumber piles were identified on-Site.

Mr. Peter Krog The Krog Group, LLC

- A portion of the Chadakoin River (formerly a portion of Log Pond) was formerly located on the central and southwestern portions of the Site until prior to 1930 when on-Site portions of the waterbody were apparently backfilled with fill materials from unknown origins.
- The Site is located in a current and historic industrial area.

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

#### **INVESTIGATION ACTIVITIES**

On January 23, 2020, 11 test pits identified as TP-1 through TP-11 were completed across the Site using an excavator; the majority of the test pits were completed to a target depth of approximately eight feet below ground surface (fbgs); however, shallow equipment refusal due to apparent concrete was encountered at TP-2, TP-3, and TP-4 at approximately six fbgs. Test pit locations are shown on Figure 2.

Subsurface soil samples were collected from the soil/fill layer at TP-1 (0-2 fbgs), TP-3 (3-4 fbgs), TP-4 (2-3 fbgs), TP-6 (3-4 fbgs), TP-8 (1-2 fbgs), TP-9 (1-2 fbgs), TP-10 (1-2 fbgs), and TP-11 (1-2 fbgs). The soil/fill samples from each test pit were screened for volatile organics using a MiniRae 3000 Photoionization Detector (PID), visual characteristics for each sample were classified using the ASTM D2488 Visual-Manual Procedure Description, and olfactory observations, if any, were noted.

Eight subsurface soil/fill samples were submitted to the laboratory for analysis of polycyclic aromatic hydrocarbons (PAHs) and Resource Conservation and Recovery Act (RCRA) Metals. All samples were collected in laboratory provided sample bottles and were cooled to 4<sup>o</sup> C prior to transport.

#### FIELD OBSERVATIONS AND FINDINGS

In general, urban fill consisting of black fines mixed with cinders, ash, brick and fragments of metal, glass, brick and/or concrete was observed from the ground surface to depths ranging between approximately 2 to approximately 7 fbgs. Intermingled slag was noted at certain test pits (TP-1 and TP-10). Apparent foundry sand was noted intermingled with fill material at TP-3 and ash layers were noted at TP-10 and TP-11. In addition, unknown odors and a layer of wood chips were noted at TP-6. A sheen was noted on groundwater at TP-6; TurnKey suspects that the sheen may be biological due to the presence of wood chips and absence of other indications of petroleum. Native sand and gravel were observed underlying the fill materials across the Site.

Groundwater was encountered at certain test pits at depths ranging between 3 fbgs and 6 fbgs at TP-6 (3 fbgs), TP-8 (5 fbgs), TP-9 (3 fbgs), TP-11 (6 fbgs).



No elevated PID readings above background (0.0 parts per million, ppm) were noted during the work.

Test pit logs with additional information relative to lithology and field observations are included in Appendix A. Photographs taken during the work are included in Appendix B.

#### LABORATORY ANALYTICAL RESULTS

Laboratory analytical reports are provided in Appendix C. Analytical results were compared to 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives (USCOs), Restricted-Residential Use Soil Cleanup Objectives (RRSCOs), Commercial Use SCOs (CSCOs) and Industrial Use SCOs (ISCOs).

As summarized on Table 1, PAHs were identified at concentrations exceeding USCOs, RRSCOs, CSCOs and ISCOs at four of the eight subsurface investigation locations at TP-4, TP-6, TP-9, and TP-11.

Metals were identified at concentrations exceeding USCOs, RRSCOs, CSCOs and/or ISCOs in seven of the eight soil/fill samples. Specifically, arsenic was detected at a concentration exceeding its ISCO at TP-1 (21.2 milligrams per kilogram, mg/kg), TP-8 (24.5 mg/kg), and TP-10 (18.5 mg/kg). Barium was detected above CSCOs at TP-4 and TP-8. Cadmium was detected above its CSCO at TP-8. Chromium was detected above USCOs at TP-6 and above its RRSCOs at TP-8. Lead was detected above its ISCO at TP-8 (4,740 mg/kg), above its RRSCO at TP-1, and above its USCO at TP-3, TP-4, TP-6, TP-9, and TP-10. Mercury exceeded its USCO at TP-6 and its ISCO at TP-8.

#### CONCLUSIONS

The Site soil/fill is impacted by PAHs and metals with concentrations exceeding Part 375 USCOs, RRSCOs, CSCOs and ISCOs. Based on evidence of urban fill observed at all investigation locations, it is likely that PAH- and/or metals-impacted soil/fill is present across the Site.

We understand that the Site is being considered for redevelopment. Based on the findings detailed above, the Site is a potential candidate for the New York State Brownfield Cleanup Program (BCP). Regardless of whether the BCP is pursued, PAHs- and metals-impacted soil/fill materials present on-Site will require exposure control, remediation, and/or proper soil management either prior to or during the redevelopment project.

#### **DECLARATIONS/LIMITATIONS**

This report has been prepared for the exclusive use of The Krog Group, LLC. The contents of this report are limited to information available at the time of the subject site investigation. Data provided by others as referenced herein is assumed to be accurate and reliable. The findings herein may be relied upon only at the discretion of The Krog Group, LLC. and are limited to the terms and conditions identified in the agreement between TurnKey and its client.



Mr. Peter Krog The Krog Group, LLC

Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

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

Sincerely, TurnKey Environmental Restoration, LLC

Michael A. Lesakowski Principal

Bryan W. Mayback Bryan W. Mayback

Sr. Project Scientist



# TABLE





#### TABLE 1 SUMMARY OF SUBSURFACE SOIL/FILL SAMPLE ANALYTICAL RESULTS PHASE II ENVIRONMENTAL INVESTIGATION **133 WINSOR STREET SITE JAMESTOWN, NEW YORK**

		-					-	TEST PIT SAM	PLE LOCATION			
PARAMETER	Unrestricted Use SCOs <sup>1</sup>	Restricted Residential Use SCOs <sup>2</sup>	Commercial Use SCOs <sup>3</sup>	Industrial Use SCOs <sup>4</sup>	<b>TP-1</b> <b>0-2 ft</b> 1/23/2020	<b>TP-3</b> <b>3-4 ft</b> 1/23/2020	<b>TP-4</b> <b>2-3 ft</b> 1/23/2020	<b>TP-6</b> <b>3-4 ft</b> 1/23/2020	<b>TP-8</b> <b>1-2 ft</b> 1/23/2020	<b>TP-9</b> <b>1-2 ft</b> 1/23/2020	<b>TP-10</b> <b>1-2 ft</b> 1/23/2020	<b>TP-11</b> <b>1-2 ft</b> 1/23/2020
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg <sup>5</sup>												.,_0,_0_0
Acenaphthene	20	100	500	1000	0.024 J	0.096 J	1.4 J	0.32	ND	0.33 J	0.058 J	0.32
Acenaphthylene	100	100	500	1000	0.063 J	0.04 J	0.91 J	0.1 J	ND	1.3 J	0.089 J	ND
Anthracene	100	100	500	1000	0.08 J	0.25	4.1	0.96	ND	2.3	0.15	0.69
Benzo(a)anthracene	1	1	5.6	11	0.3	0.89	8.9	3.2	0.5 J	8.4	0.5	1.3
Benzo(a)pyrene	1	1	1	1.1	0.26	0.8	9	3	ND	4.9	0.48	1.2
Benzo(b)fluoranthene	1	1	5.6	11	0.39	1.1	12	4.3	0.47 J	7.6	0.68	1.5
Benzo(ghi)perylene	100	100	500	1000	0.26	0.51	5.4	2	ND	2.3	0.35	0.71
Benzo(k)fluoranthene	0.8	3.9	56	110	0.1 J	0.33	3.6	1	ND	2.4	0.18	0.43
Chrysene	1	3.9	56	110	0.3	0.75	7.4	3.2	0.48 J	7.3	0.49	1
Dibenzo (a,h)anthracene	0.33	0.33	0.56	1.1	0.057 J	0.13	1.5	0.53	ND	0.84 J	0.092 J	0.18
Fluoranthene	100	100	500	1000	0.48	1.9	19	6.5	1 J	21	0.95	2.8
Fluorene	30	100	500	1000	0.037 J	0.11 J	1.5 J	0.35	ND	0.91 J	0.12 J	3.4
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	11	0.24	0.58	6.2	2.2	ND	3.1	0.36	0.79
Naphthalene	12	100	500	1000	0.43	0.18 J	0.53 J	0.18 J	0.42 J	1.1 J	0.5	0.12 J
Phenanthrene	100	100	500	1000	0.56	1.3	13	3.6	0.72 J	10	0.84	2.4
Pyrene	100	100	500	1000	0.46	1.6	16	5.4	0.85 J	16	0.88	2.5
Total Metals - mg/Kg					_							
Arsenic	13	16	16	16	21.2	7.18	3.99	12.7	24.5	12.2	18.5	8.36
Barium	350	400	400	10000	116	80.9	544	84.3	462	129	132	56.3
Cadmium	2.5	4.3	9.3	60	0.565	0.845	1.16	0.875	10.1	0.614	1.03	0.335 J
Chromium	30	180	1500	6800	8.22	11	5.34	36.6	644	15.2	12.9	6.81
Lead	63	400	1000	3900	475	88.9	115	195	4740	168	89.9	34.2
Mercury	0.18	0.81	2.8	5.7	0.099	0.118	0.14	0.68	8.34	0.122	0.107	ND
Selenium	30	180	1500	10000	1.46	1.64	0.538	0.957 J	0.926 J	1.32	1.66	0.707 J
Silver	2	180	1500	6800	0.179 J	0.167 J	ND	0.922	0.597	0.22 J	0.174 J	0.154 J

Page 1 of 1

#### Notes:

Values per 6NYCRR Part 375 Unrestricted Soil Cleanup Objectives (SCOs), Table 375-6(a).
 Values per 6NYCRR Part 375 Residential Use Soil Cleanup Objectives (SCOs), Table 375-6.8(b).

3. Values per 6NYCRR Part 375 Commercial Use Soil Cleanup Objectives (SCOs), Table 375-6.8(b).

Values per 6NYCRR Part 375Industrial Use Soil Cleanup Objectives (SCOs), Table 375-6.8(b).
 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.

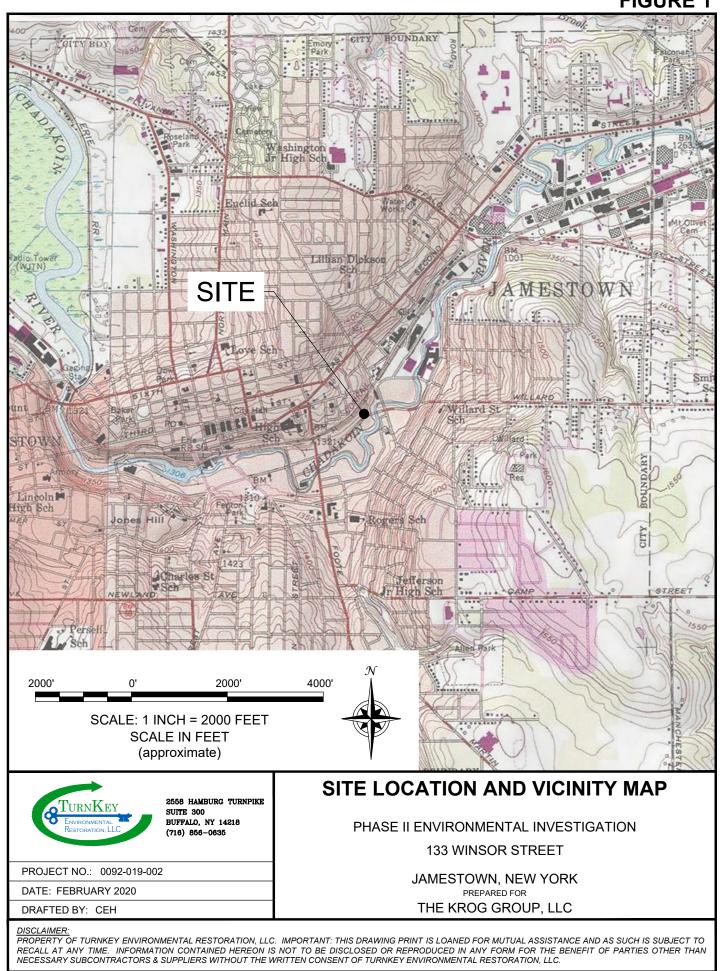
J = Estimated value; result is less than the sample quantitation limit but greater than zero.

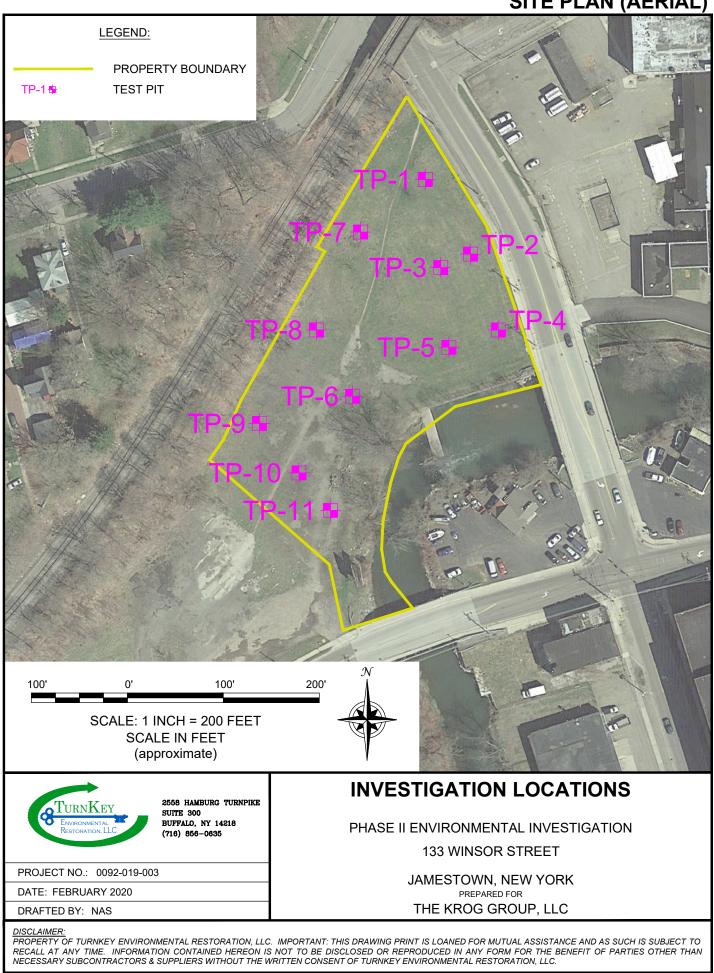
BOLD	= Exceeds Unrestricted SCOs or CP-51 SCLs
BOLD	= Exceeds Restricted Residential SCOs
BOLD	= Exceeds Commercial SCOs
BOLD	= Exceeds Industrial SCOs

# FIGURES



# FIGURE 1





# **APPENDIX A**





PR	OJECT:	133 Wins	Log of Test Pit No.:	TP-1				
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:			
со	NTRACTO	DR:	TurnKey E	invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 7'		
DE	PTH OF F	ILL:	3.5 ft		ļ	TOTAL LENGTH: 10'		
OB	STRUCTI	ONS:			DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'		
SA	MPLE TA	(EN:	0-2 ft		LOGGED BY: NAS			
WE	ATHER:							
			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (	ASTM D 2499)			
Depth (fbgs)	Analytical Sample	REMARKS						
_		0	0	Topsoil- Brown, moist, mostly silty sand, so				
1		0	0	Fill- Black, moist, mostly fill (cinders, metal, subrounded gravel, wood, some fine sand, n				
2		0	0	City conducith fill. Drown project proofly cit	tu a an al little fill (briels, sie dere			
۲		0	0	wood), no odors	h fill- Brown, moist, mostly silty sand, little fill (brick, cinders, rs			
3		0	0					
4		0	0	Fine sand- Tan, moist, mostly fine sand, so	me subrounded gravel, no odors			
4_		0	0					
5		0	0					
6		0	0					
			-					
7_		0	0					
8								
9								
10								
11								
12_								
13								
14_								
15								
16								
17								
Pro	ject No:			TurnKey Environmen	ntal Restoration, LLC	Figure		



PR	OJECT:	133 Wins	sor Street S	Log of Test Pit No.:	TP-2			
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:			
CO	NTRACTO	DR:	TurnKey E	Invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 5.8'		
DE	PTH OF F	ILL:	5.8 ft			TOTAL LENGTH: 10'		
OB	STRUCTI	ONS:	Concrete f	floor at 5 .8 ft	DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'		
SA	MPLE TAI	KEN:	N/A		LOGGED BY: NAS			
WE	ATHER:	35 degre	es sunny		BACKGROUND PID (PPM) 0			
Depth (fbgs)	Analytical Sample	REMARKS						
	4	C FIELD PID (PPM)	HEADSPACE PID (ppm)	SURFACE COVER Grass Topsoil- Brown, moist, mostly silty sand, so	me subrounded gravel po			
-		0	0	odors	sine subrounded gravel, no			
1		0	0	Fill- Brown/black, moist, mostly fill (brick,co cinders, loose when disturbed, no odors	bbles, limestone, wood, metal,			
2		0	0					
3		0	0					
4		0	0					
-								
5_		0	0					
6_								
7								
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9								
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17_								
					ntal Pastaration 110	Figure		
Pro	ject No:			TurnKey Environme	ntal Restoration, LLC	Figure		



PR	OJECT:	133 Wins	Log of Test Pit No.:	TP-3			
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:		
СО	NTRACTO	DR:	TurnKey E	Invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 6'	
DE	PTH OF F	ILL:	6 ft		ļ	TOTAL LENGTH: 10'	
OB	STRUCTI	ONS:	Concrete f	floor at 6 ft	DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'	
SA	MPLE TA	KEN:	3-4 ft		LOGGED BY: NAS		
WE	ATHER:	35 degre	es sunny		BACKGROUND PID (PPM) 0		
(sɓq	mple	(ASTM D 2488) Iry Soil Type, Secondary Soil Type (<5%					
Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	Trace, 5-10% Few, 15-25% Little, 30-45% Some), Sti bedded, thickly bedded, laminated, fissured, blocky, (Standard Penetration Test, SPT), Weathering/Fracture	lensed, massive), Consistency/Density	REMARKS	
	A			SURFACE COVER Grass			
_		0	0	Topsoil- Brown, moist, mostly silty sand, so odors	ome subrounded gravel, no		
1		0	0	Fill- Black/ white, brown, moist, mostly fill (f brick, wood, cinder blocks, ash, loose when			
2		0	0				
3		0	0				
4		0	0				
5		0	0				
6		0	0				
7							
8							
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Pro	ject No:			TurnKey Environme	ntal Restoration, LLC	Figure	



PR	OJECT:	133 Wins	Log of Test Pit No.:	TP-4		
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:	
CO	NTRACTO	DR:	TurnKey E	invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 6'
DEI	PTH OF F	ILL:	6 ft			TOTAL LENGTH: 10'
OB	STRUCTI	ONS:	Concrete f	floor at 6 ft	DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'
SAI	MPLE TAI	KEN:	2-3 ft		LOGGED BY: NAS	
WE	ATHER:	35 degre	es sunny		BACKGROUND PID (PPM) 0	
			(m	SAMPLE DESCRIPTION	(ΔSTM D 2488)	
(sb	nple	(Mc	ary Soil Type, Secondary Soil Type (<5%			
Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	Trace, 5-10% Few, 15-25% Little, 30-45% Some), Str bedded, thickly bedded, laminated, fissured, blocky,	ructure (varved, stratified, thinly bedded,	REMARKS
De	alytic	ELD F	ADSP	(Standard Penetration Test, SPT), Weathering/Fracture		
	Ar	_		SURFACE COVER Grass		
		0	0	Topsoil-Brown, moist, mostly silty sand, so	me subrounded gravel, no odors	
1		0	0	Fill- Brown, moist, mostly brick, some addit		
2		0	0	cinders, ash, glass, brick wall, former stairc some subrounded gravel, loose when distur		
			•			
3		0	0			
4		0	0			
5_		0	0			
6		0	0			
7						
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Pro	ject No:			TurnKey Environme	ntal Restoration, LLC	Figure



PR	OJECT:	133 Wins	or Street S	Site	Log of Test Pit No.: TP-5				
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:				
CO	NTRACTO	DR:	TurnKey E	nvironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 8'			
DE	PTH OF F	ILL:	7 ft			TOTAL LENGTH: 10'			
OB	STRUCTI	ONS:			DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'			
SA	MPLE TAP	KEN:	N/A		LOGGED BY: NAS				
WE	ATHER:	35 degre	BACKGROUND PID (PPM) 0						
			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (	ASTM D 2488)				
Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	y Soil Type, Secondary Soil Type (<5% cture (varved, stratified, thinly bedded, ensed, massive), Consistency/Density g, Odor, Fill Materials (if present), Other	REMARKS					
_		0	0	Topsoil- Brown, moist, mostly silty sand, so	me subrounded gravel, no				
-		0	0	odors					
1_		0	0						
2		0	0						
3		0	0						
4		0	0						
-		-							
5		0	0						
6		0	0	Fill- Black, moist, mostly fill (brick, cinders, s	ubangular gravel, metal,				
7				wood), loose when disturbed, no odors Fine sand- Grey/blue, moist, mostly fine sar	d some silt medium dense no				
'-				odors					
8									
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15_									
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Pro	ject No:			□ □ TurnKey Environmer	tal Restoration, LLC	Figure			



PR	OJECT:	133 Wins	Log of Test Pit No.:	TP-6					
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:				
CO	NTRACTO	DR:	TurnKey E	Invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 8'			
DE	PTH OF F	ILL:	8+ ft		<u> </u>	TOTAL LENGTH: 10'			
OB	STRUCTI	ONS:	Water rus	hing into excavation	DEPTH TO FIRST: 6' COMPL.:	TOTAL WIDTH: 3'			
SA	MPLE TA	KEN:	3-4 ft		WATER: LOGGED BY: NAS				
WE	ATHER:	35 degre	es sunny		BACKGROUND PID (PPM) 0				
			HEADSPACE PID (ppm)	SAMPLE DESCRIPTION (	ASTM D 2488)				
Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	y Soil Type, Secondary Soil Type (<5% icture (varved, stratified, thinly bedded, ensed, massive), Consistency/Density g, Odor, Fill Materials (if present), Other	REMARKS					
_		0	0	Topsoil- Brown, moist, mostly silty sand, sor odors	me subrounded gravel, no				
1		0	0						
2_		0	0						
3		0	0						
4		0	0	<b>ill-</b> Black,wet, water rushing in with sheen, mostly fill (Brick, wood, trees, inders,metal, glass, fine sand), slight non-descript odors					
5_		0	0						
6		0	0	Wood chips- Tan, wet, mostly fine wood chi non-descript odors	<b>Vood chips</b> - Tan, wet, mostly fine wood chips, loose when disturbed, slight				
7									
		0	0						
8_		0	0						
9_									
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17									
Pro	ject No:			TurnKey Environmer	ntal Restoration, LLC	Figure			



PR	OJECT:	133 Wins	Log of Test Pit No.:	TP-7					
BO	RING LO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:				
CO	NTRACT	OR:	TurnKey E	invironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 7'			
DE	PTH OF F	FILL:	1 ft			TOTAL LENGTH: 10'			
OB	STRUCTI	ONS:			DEPTH TO FIRST: N/A COMPL.: WATER:	TOTAL WIDTH: 3'			
SA	MPLE TAI	KEN:	N/A		LOGGED BY: NAS	-			
WE	ATHER:								
Depth (fbgs)	Analytical Sample	FIELD PID (PPM)	HEADSPACE PID (ppm)	SAMPLE DESCRIPTION USCS Classification: Color, Moisture Condition, Prima Trace, 5-10% Few, 15-25% Little, 30-45% Some), Str	ry Soil Type, Secondary Soil Type (<5% ucture (varved, stratified, thinly bedded,	REMARKS			
Dep	Jalytica	ELD PI	ADSP₽	bedded, thickly bedded, laminated, fissured, blocky, (Standard Penetration Test, SPT), Weathering/Fracturi					
	Ar			SURFACE COVER Grass					
_		0		Topsoil- Brown, moist, mostly silty sand, so Fill- Black, moist, mostly subamgular grave					
1		0	0	when distrubed, no odors	to a life a second second and second				
2		0	0	Fine sand- Tan, moist, mostly fine sand, litt no odors	le silt, some subrounded gravel,				
3		0	0						
4		0	0						
-		0	0						
5_		0	0						
6		0	0						
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17									
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PR	PROJECT: 133 Winsor Street Site Log of Test Pit No						ГР-8
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:		
CO	NTRACT	OR:	TurnKey E	invironmental Restoration, LLC	DATE COMPLETED: 01/23/2	20 T	OTAL DEPTH: 7'
DE	PTH OF F	ILL:	7+ ft		•	Т	OTAL LENGTH: 10'
OB	STRUCTI	ONS:	Water rusł	hing into excavation	DEPTH TO FIRST: 5' COMP WATER:	L.: Т	OTAL WIDTH: 3'
SAI	MPLE TAI	KEN:	1-2 ft		LOGGED BY: NAS	·	
WE	ATHER:						
Image: Second structure       Image: Second structure       Sample Description (ASTM D 2488)         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure         Image: Second structure       Image: Second structure       Image: Second structure       Image: Second structure       Im							REMARKS
		0	0	Topsoil- Brown, moist, mostly silty sand, so odors	ome subrounded gravel, no		
		0	0	Fill- Grey/black, moist, mostly fill (metal, sc wood, glass), slight odor, loose when distur		-	
4_		0	0				
5		0	0	Fill- Grey, wet, water rushing into excavatio (metal, urban materials), no odors			
6		0	0				
7		0	0				
8							
9							
10							
11							
-							
12							
13_							
14							
15							
16							
17							
Pro	ject No:			🗆 🗆 TurnKey Environme	ntal Restoration, LLC		Figure



PR	OJECT:	133 Wins	or Street S	Site	Log of Test Pit No.:	TP-9			
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AND DATUM:				
CO	NTRACTO	DR:	TurnKey E	nvironmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 7'			
DE	PTH OF F	ILL:	7+ ft		Į.	TOTAL LENGTH: 10'			
OB	STRUCTI	ONS:	Water rusl	hing into excavation	DEPTH TO FIRST: 3' COMPL.: WATER:	TOTAL WIDTH: 3'			
SA	MPLE TAI	KEN:	1-2 ft		LOGGED BY: NAS				
WE	ATHER:	35 degre	es sunny		BACKGROUND PID (PPM) 0				
Depth (fbgs)	Analytical Sample	REMARKS							
-		0	0	Topsoil- Brown, moist, mostly silty sand, so odors	ome subrounded gravel, no				
1		0	0	Fill- Grey/black, moist, mostly fill (brick, mer sand, no odors, loose when disturbed	tal, wood, glass), some fine				
2		0	0	<b>Fill</b> - Red, moist, mostly silty sand, some fill disturbed, no odors	(brick, glass, metal), loos when				
3		0	0		sand, few fill (wood, brick), some silt, no odors				
4		0	0	II- Grey, wet, water rushing into excavation, mostly brick, some fill (wood,					
-		0	0	ine sand, trees), decreased volume of fill with depth, no odors					
5		0	0						
6		0	0						
7		0	0						
8									
9									
9_									
10									
11									
12									
-									
13_									
14									
15									
16									
-									
17_									
					utel Besteurit - 11 C	<b>P</b> <sup>1</sup>			
Pro	ject No:			I TurnKey Environme	ntal Restoration, LLC	Figure			



PR	PROJECT: 133 Winsor Street Site Log of Test Pit N							TP-10
BO	RING LOO	CATION:	Jam	estown, NY	ELEVATION AN			
CO	NTRACTO	DR:	TurnKey E	nvironmental Restoration, LLC	DATE COMPLE	TED: 0	1/23/20	TOTAL DEPTH: 7'
DEI	PTH OF F	ILL:	3 ft		<u> </u>			TOTAL LENGTH: 10'
OB	STRUCTI	ONS:			DEPTH TO FIR WATER:	ST: N/A C	OMPL.:	TOTAL WIDTH: 3'
SAI	MPLE TAI	EN:	1-2 ft		LOGGED BY:	NAS	Į	
WE	WEATHER: 35 degrees sunny BACKGROUND PID (PPM) 0							
Image: Stample Description (ASTM D 2488)         Image: Stample Description (Astample Description (Astample Description))         Image: Stample Description (Astample Description)         Image: Stample Description (As							dded, nsity Other	REMARKS
-		0	0	Topsoil- Brown, moist, mostly silty sand, so Fill- Black, moist, mostly silty sand, some s				
1		0	0	(slag, brick, wood, ash, glass, cinders), loos				
_								
2_		0	0	Fill- Ash layer				
3		0	0					
_				Fine sand- grey, moist/ damp, mostly fine s gravel, no odors	and, little silt, so	me subrou	nded	
4		0	0	gravel, no odors				
5_		0	0					
6		0	0					
7		0	0					
8								
9								
10								
11								
12								
13								
13								
14								
15								
16_								
17								
Pro	ject No:			TurnKey Environme	ntal Restoration	n, LLC		Figure



PR	OJECT:	133 Wins	or Street S	Site	Log of Test Pit No.:	TP-11
BO	RING LOO	CATION:	Jam	nestown, NY	ELEVATION AND DATUM:	
со	NTRACTO	DR:	TurnKey E	Environmental Restoration, LLC	DATE COMPLETED: 01/23/20	TOTAL DEPTH: 7'
DE	PTH OF F	ILL:	3 ft		Į	TOTAL LENGTH: 10'
OB	STRUCTI	ONS:	Water rus	hing into excavation	DEPTH TO FIRST: 6' COMPL.: WATER:	TOTAL WIDTH: 3'
SA	MPLE TAP	EN:	1-2 ft		LOGGED BY: NAS	-
WE	ATHER:	35 degree	es sunny		BACKGROUND PID (PPM) 0	
Depth (fbgs)	Image: Stample Description (ASTM D 2488)         Image: Stample Description (ASTM D 2488)					REMARKS
-		0	0	<b>Topsoil-</b> Brown, moist, mostly silty sand, so		
1		0	0	Fill- Black, moist, mostly silty sand, some su (brick, wood, ash, glass, cinders), loose whe		
'-		0	0			
2		0	0			
3		0	0	Fill- Ash layer		
_				Fine sand- grey, moist to wet (6'), mostly fin	e sand, little silt, some	
4_		0	0	subrounded gravel, no odors		
5		0	0			
		0	0	-		
6		0	0			
7_		0	0			
8				-		
9						
10						
-				-		
11_						
12				-		
13				-		
14				-		
15						
16						
ں۔ _						
17				1		
Pro	ject No:			TurnKey Environmer	ntal Restoration, LLC	Figure

# **APPENDIX B**

PHOTO LOG



Photo 1:



Photo 3:

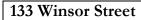


- Photo 1: View of TP-1.
- Photo 2: View of TP-1.
- Photo 3: View of TP-2.
- Photo 4: View of TP-2.













#### Photo 5:



Photo 7:



Photo 6: View of TP-3.

Photo 7: View of TP-4.

Photo 8: View of TP-4.

## 133 Winsor Street

Photo Date: January 23, 2020

Photo 6:



Photo 8:









Photo 11:



- Photo 9: View of TP-5.
- Photo 10: View of TP-5.
- Photo 11: View of TP-6.
- Photo 12: View of TP-6.

### 133 Winsor Street



Photo Date: January 23, 2020

Photo 10:







Photo 13:	View of TP-7
1 11010 15.	

- Photo 15: View of TP-8.
- Photo 16: View of TP-8.

## 133 Winsor Street

Photo Date: January 23, 2020







Photo 19:



- Photo 17: View of TP-9.
- Photo 18: View of TP-9.
- Photo 19: View of TP-10.
- Photo 20: View of TP-11.

### 133 Winsor Street

Photo Date: January 23, 2020

Photo 18:







# **APPENDIX C**

LABORATORY ANALYTICAL REPORT





#### ANALYTICAL REPORT

Lab Number:	L2003508
Client:	Turnkey Environmental Restoration, LLC
	2558 Hamburg Turnpike
	Suite 300
	Buffalo, NY 14218
ATTN:	Bryan Mayback
Phone:	(716) 856-0599
Project Name:	133 WINSOR STREET
Project Number:	T0092-014-002
Report Date:	02/02/20

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

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

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



#### Serial\_No:02022019:03

Project Name:133 WINSOR STREETProject Number:T0092-014-002

Lab Number:	L2003508
Report Date:	02/02/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2003508-01	TP-1 0-2FT	SOIL	JAMESTOWN, NY	01/23/20 09:00	01/24/20
L2003508-02	TP-3 3-4FT	SOIL	JAMESTOWN, NY	01/23/20 10:00	01/24/20
L2003508-03	TP-4 2-3FT	SOIL	JAMESTOWN, NY	01/23/20 11:00	01/24/20
L2003508-04	TP-6 3-4FT	SOIL	JAMESTOWN, NY	01/23/20 12:00	01/24/20
L2003508-05	TP-8 1-2FT	SOIL	JAMESTOWN, NY	01/23/20 13:30	01/24/20
L2003508-06	TP-9 1-2FT	SOIL	JAMESTOWN, NY	01/23/20 14:00	01/24/20
L2003508-07	TP-10 1-2FT	SOIL	JAMESTOWN, NY	01/23/20 15:00	01/24/20
L2003508-08	TP-11 1-2FT	SOIL	JAMESTOWN, NY	01/23/20 16:00	01/24/20
L2003508-09	TP-2 0-2FT	SOIL	JAMESTOWN, NY	01/23/20 09:30	01/24/20
L2003508-10	TP-5 6-7FT	SOIL	JAMESTOWN, NY	01/23/20 11:30	01/24/20
L2003508-11	TP-6 6-7FT	SOIL	JAMESTOWN, NY	01/23/20 12:30	01/24/20
L2003508-12	TP-7 0-1FT	SOIL	JAMESTOWN, NY	01/23/20 13:00	01/24/20
L2003508-13	TP-10 2-3FT	SOIL	JAMESTOWN, NY	01/23/20 15:30	01/24/20
L2003508-14	TP-11 2-3FT	SOIL	JAMESTOWN, NY	01/23/20 16:30	01/24/20



Project Name: 133 WINSOR STREET Project Number: T0092-014-002 
 Lab Number:
 L2003508

 Report Date:
 02/02/20

#### **Case Narrative**

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

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

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

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

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

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



Project Name: 133 WINSOR STREET Project Number: T0092-014-002 
 Lab Number:
 L2003508

 Report Date:
 02/02/20

#### **Case Narrative (continued)**

**Report Submission** 

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

Semivolatile Organics

L2003508-03, -05, and -06: 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.

find I. Without Lisa Westerlind

Authorized Signature:

Title: Technical Director/Representative

Date: 02/02/20



# ORGANICS



# SEMIVOLATILES



			Serial_No	02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-01		Date Collected:	01/23/20 09:00
Client ID:	TP-1 0-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil		Extraction Method	l: EPA 3546
Analytical Method:	1,8270D		Extraction Date:	01/31/20 13:28
Analytical Date:	01/31/20 16:31			
Analyst:	JG			
Percent Solids:	84%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	24	J	ug/kg	160	20.	1
Fluoranthene	480	0	ug/kg	120	22.	1
Naphthalene	430		ug/kg	200	24.	1
Benzo(a)anthracene	300		ug/kg	120	22.	1
Benzo(a)pyrene	260		ug/kg	160	48.	1
Benzo(b)fluoranthene	390		ug/kg	120	33.	1
Benzo(k)fluoranthene	100	J	ug/kg	120	31.	1
Chrysene	300		ug/kg	120	20.	1
Acenaphthylene	63	J	ug/kg	160	30.	1
Anthracene	80	J	ug/kg	120	38.	1
Benzo(ghi)perylene	260		ug/kg	160	23.	1
Fluorene	37	J	ug/kg	200	19.	1
Phenanthrene	560		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	57	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	240		ug/kg	160	27.	1
Pyrene	460		ug/kg	120	19.	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	80	23-120	
2-Fluorobiphenyl	80	30-120	
4-Terphenyl-d14	83	18-120	



			Serial_No	0:02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-02		Date Collected:	01/23/20 10:00
Client ID:	TP-3 3-4FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil		Extraction Method	l: EPA 3546
Analytical Method:	1,8270D		Extraction Date:	01/28/20 14:15
Analytical Date:	01/31/20 09:43			
Analyst:	IM			
Percent Solids:	74%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	96	J	ug/kg	180	23.	1
Fluoranthene	1900		ug/kg	130	25.	1
Naphthalene	180	J	ug/kg	220	27.	1
Benzo(a)anthracene	890		ug/kg	130	25.	1
Benzo(a)pyrene	800		ug/kg	180	54.	1
Benzo(b)fluoranthene	1100		ug/kg	130	37.	1
Benzo(k)fluoranthene	330		ug/kg	130	35.	1
Chrysene	750		ug/kg	130	23.	1
Acenaphthylene	40	J	ug/kg	180	34.	1
Anthracene	250		ug/kg	130	43.	1
Benzo(ghi)perylene	510		ug/kg	180	26.	1
Fluorene	110	J	ug/kg	220	22.	1
Phenanthrene	1300		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	130		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	580		ug/kg	180	31.	1
Pyrene	1600		ug/kg	130	22.	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	83	23-120	
2-Fluorobiphenyl	87	30-120	
4-Terphenyl-d14	92	18-120	



			Serial_No	0:02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULT	rs	
Lab ID:	L2003508-03	)	Date Collected:	01/23/20 11:00
Client ID:	TP-4 2-3FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8270D 01/31/20 11:15 IM 84%		Extraction Method Extraction Date:	t: EPA 3546 01/28/20 14:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS - Westborough Lab								
Acenaphthene	1400	J	ug/kg	1600	200	10		
Fluoranthene	19000		ug/kg	1200	220	10		
Naphthalene	530	J	ug/kg	1900	240	10		
Benzo(a)anthracene	8900		ug/kg	1200	220	10		
Benzo(a)pyrene	9000		ug/kg	1600	470	10		
Benzo(b)fluoranthene	12000		ug/kg	1200	330	10		
Benzo(k)fluoranthene	3600		ug/kg	1200	310	10		
Chrysene	7400		ug/kg	1200	200	10		
Acenaphthylene	910	J	ug/kg	1600	300	10		
Anthracene	4100		ug/kg	1200	380	10		
Benzo(ghi)perylene	5400		ug/kg	1600	230	10		
Fluorene	1500	J	ug/kg	1900	190	10		
Phenanthrene	13000		ug/kg	1200	240	10		
Dibenzo(a,h)anthracene	1500		ug/kg	1200	220	10		
Indeno(1,2,3-cd)pyrene	6200		ug/kg	1600	270	10		
Pyrene	16000		ug/kg	1200	190	10		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	89	23-120	
2-Fluorobiphenyl	66	30-120	
4-Terphenyl-d14	63	18-120	



			Serial_No	0:02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-04		Date Collected:	01/23/20 12:00
Client ID:	TP-6 3-4FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil		Extraction Method	1: EPA 3546
Analytical Method:	1,8270D		Extraction Date:	01/31/20 10:01
Analytical Date:	01/31/20 16:54			
Analyst:	JG			
Percent Solids:	57%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS - Westborough Lab								
A	320			220	29.	1		
Acenaphthene			ug/kg	230		•		
Fluoranthene	6500		ug/kg	170	33.	1		
Naphthalene	180	J	ug/kg	280	34.	1		
Benzo(a)anthracene	3200		ug/kg	170	32.	1		
Benzo(a)pyrene	3000		ug/kg	230	69.	1		
Benzo(b)fluoranthene	4300		ug/kg	170	48.	1		
Benzo(k)fluoranthene	1000		ug/kg	170	45.	1		
Chrysene	3200		ug/kg	170	30.	1		
Acenaphthylene	100	J	ug/kg	230	44.	1		
Anthracene	960		ug/kg	170	55.	1		
Benzo(ghi)perylene	2000		ug/kg	230	33.	1		
Fluorene	350		ug/kg	280	28.	1		
Phenanthrene	3600		ug/kg	170	34.	1		
Dibenzo(a,h)anthracene	530		ug/kg	170	33.	1		
Indeno(1,2,3-cd)pyrene	2200		ug/kg	230	40.	1		
Pyrene	5400		ug/kg	170	28.	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	77	23-120	
2-Fluorobiphenyl	72	30-120	
4-Terphenyl-d14	76	18-120	



				Serial_No	02022019:03
Project Name:	133 WINSOR STREE	Т		Lab Number:	L2003508
Project Number:	T0092-014-002			Report Date:	02/02/20
			SAMPLE RESULTS		
Lab ID:	L2003508-05	D		Date Collected:	01/23/20 13:30
Client ID:	TP-8 1-2FT			Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY			Field Prep:	Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8270D 01/31/20 08:34 IM 79%			Extraction Method Extraction Date:	I: EPA 3546 01/28/20 14:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS - Westborough Lab								
Acenaphthene	ND		ug/kg	1600	210	10		
Fluoranthene	1000	J	ug/kg	1200	240	10		
Naphthalene	420	J	ug/kg	2100	250	10		
Benzo(a)anthracene	500	J	ug/kg	1200	230	10		
Benzo(a)pyrene	ND		ug/kg	1600	500	10		
Benzo(b)fluoranthene	470	J	ug/kg	1200	350	10		
Benzo(k)fluoranthene	ND		ug/kg	1200	330	10		
Chrysene	480	J	ug/kg	1200	210	10		
Acenaphthylene	ND		ug/kg	1600	320	10		
Anthracene	ND		ug/kg	1200	400	10		
Benzo(ghi)perylene	ND		ug/kg	1600	240	10		
Fluorene	ND		ug/kg	2100	200	10		
Phenanthrene	720	J	ug/kg	1200	250	10		
Dibenzo(a,h)anthracene	ND		ug/kg	1200	240	10		
Indeno(1,2,3-cd)pyrene	ND		ug/kg	1600	290	10		
Pyrene	850	J	ug/kg	1200	200	10		

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Nitrobenzene-d5	121	Q	23-120	
2-Fluorobiphenyl	73		30-120	
4-Terphenyl-d14	79		18-120	



				Serial_No	:02022019:03
Project Name:	133 WINSOR STREE	Т		Lab Number:	L2003508
Project Number:	T0092-014-002			Report Date:	02/02/20
			SAMPLE RESULTS		
Lab ID:	L2003508-06	D		Date Collected:	01/23/20 14:00
Client ID:	TP-9 1-2FT			Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY			Field Prep:	Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst: Percent Solids:	Soil 1,8270D 01/31/20 11:38 IM 86%			Extraction Method Extraction Date:	: EPA 3546 01/28/20 14:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS - Westborough Lab								
Acenaphthene	330	J	ug/kg	1500	200	10		
Fluoranthene	21000		ug/kg	1200	220	10		
Naphthalene	1100	J	ug/kg	1900	230	10		
Benzo(a)anthracene	8400		ug/kg	1200	220	10		
Benzo(a)pyrene	4900		ug/kg	1500	470	10		
Benzo(b)fluoranthene	7600		ug/kg	1200	320	10		
Benzo(k)fluoranthene	2400		ug/kg	1200	310	10		
Chrysene	7300		ug/kg	1200	200	10		
Acenaphthylene	1300	J	ug/kg	1500	300	10		
Anthracene	2300		ug/kg	1200	380	10		
Benzo(ghi)perylene	2300		ug/kg	1500	230	10		
Fluorene	910	J	ug/kg	1900	190	10		
Phenanthrene	10000		ug/kg	1200	230	10		
Dibenzo(a,h)anthracene	840	J	ug/kg	1200	220	10		
Indeno(1,2,3-cd)pyrene	3100		ug/kg	1500	270	10		
Pyrene	16000		ug/kg	1200	190	10		

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Nitrobenzene-d5	79		23-120	
2-Fluorobiphenyl	62		30-120	
4-Terphenyl-d14	75		18-120	



			Serial_No	0:02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-07		Date Collected:	01/23/20 15:00
Client ID:	TP-10 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil		Extraction Method	l: EPA 3546
Analytical Method:	1,8270D		Extraction Date:	01/31/20 13:28
Analytical Date:	01/31/20 17:17			
Analyst:	JG			
Percent Solids:	82%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS - W	Semivolatile Organics by GC/MS - Westborough Lab							
Acenaphthene	58	J		160	21.	1		
Fluoranthene	950	J	ug/kg	120	21.	1		
	500		ug/kg	200	23.	1		
Naphthalene			ug/kg			•		
Benzo(a)anthracene	500		ug/kg	120	22.	1		
Benzo(a)pyrene	480		ug/kg	160	49.	1		
Benzo(b)fluoranthene	680		ug/kg	120	34.	1		
Benzo(k)fluoranthene	180		ug/kg	120	32.	1		
Chrysene	490		ug/kg	120	21.	1		
Acenaphthylene	89	J	ug/kg	160	31.	1		
Anthracene	150		ug/kg	120	39.	1		
Benzo(ghi)perylene	350		ug/kg	160	24.	1		
Fluorene	120	J	ug/kg	200	19.	1		
Phenanthrene	840		ug/kg	120	24.	1		
Dibenzo(a,h)anthracene	92	J	ug/kg	120	23.	1		
Indeno(1,2,3-cd)pyrene	360		ug/kg	160	28.	1		
Pyrene	880		ug/kg	120	20.	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	84	23-120	
2-Fluorobiphenyl	81	30-120	
4-Terphenyl-d14	84	18-120	



			Serial_No	02022019:03
Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-08		Date Collected:	01/23/20 16:00
Client ID:	TP-11 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified
Sample Depth:				
Matrix:	Soil		Extraction Method	l: EPA 3546
Analytical Method:	1,8270D		Extraction Date:	01/28/20 14:15
Analytical Date:	01/31/20 07:01			
Analyst:	IM			
Percent Solids:	83%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Semivolatile Organics by GC/MS - Westborough Lab							
Accorditions	320			160	20.	1	
Acenaphthene			ug/kg				
Fluoranthene	2800		ug/kg	120	23.	1	
Naphthalene	120	J	ug/kg	200	24.	1	
Benzo(a)anthracene	1300		ug/kg	120	22.	1	
Benzo(a)pyrene	1200		ug/kg	160	48.	1	
Benzo(b)fluoranthene	1500		ug/kg	120	33.	1	
Benzo(k)fluoranthene	430		ug/kg	120	32.	1	
Chrysene	1000		ug/kg	120	21.	1	
Acenaphthylene	ND		ug/kg	160	30.	1	
Anthracene	690		ug/kg	120	39.	1	
Benzo(ghi)perylene	710		ug/kg	160	23.	1	
Fluorene	340		ug/kg	200	19.	1	
Phenanthrene	2400		ug/kg	120	24.	1	
Dibenzo(a,h)anthracene	180		ug/kg	120	23.	1	
Indeno(1,2,3-cd)pyrene	790		ug/kg	160	28.	1	
Pyrene	2500		ug/kg	120	20.	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Nitrobenzene-d5	77	23-120	
2-Fluorobiphenyl	66	30-120	
4-Terphenyl-d14	69	18-120	



Project Name:	133 WINSOR STREET	Lab Number:	L2003508
Project Number:	T0092-014-002	Report Date:	02/02/20

## Method Blank Analysis Batch Quality Control

Analytical Method:	
Analytical Date:	
Analyst:	

1,8270D 01/30/20 14:24 DW Extraction Method: EPA 3546 Extraction Date: 01/28/20 14:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS VG1334621-1	- Westboroug	h Lab for s	ample(s):	02-03,05-06,08	Batch:
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	19.
Naphthalene	ND		ug/kg	160	20.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery Qua	Acceptance lifier Criteria
2-Fluorophenol	83	25-120
Phenol-d6	83	10-120
Nitrobenzene-d5	76	23-120
2-Fluorobiphenyl	82	30-120
2,4,6-Tribromophenol	67	10-136
4-Terphenyl-d14	90	18-120



Project Name:	133 WINSOR STREET	Lab Number:	L2003508
Project Number:	T0092-014-002	Report Date:	02/02/20

## Method Blank Analysis Batch Quality Control

Analytical Method:	
Analytical Date:	
Analyst:	

1,8270D 02/01/20 01:35 JG Extraction Method: EPA 3546 Extraction Date: 01/31/20 10:01

arameter	Result	Qualifier	Units	RL	MDL
emivolatile Organics by GC/MS -	Westboroug	n Lab for s	ample(s):	01,04,07	Batch: WG1335827-1
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	100	19.
Naphthalene	ND		ug/kg	170	20.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.

Surrogate	%Recovery Qu	Acceptance alifier Criteria
2-Fluorophenol Phenol-d6	81 81	25-120 10-120
Nitrobenzene-d5	82	23-120
2-Fluorobiphenyl	77	30-120
2,4,6-Tribromophenol	72	10-136
4-Terphenyl-d14	90	18-120



Project Number: T0092-014-002

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limit	
emivolatile Organics by GC/MS - Westboro	ugh Lab Associ	ated sample(s):	02-03,05-06,08	B Batch:	WG1334621-2	WG1334621-3		
Acenaphthene	91		82		31-137	10	50	
Fluoranthene	92		83		40-140	10	50	
Naphthalene	84		78		40-140	7	50	
Benzo(a)anthracene	89		80		40-140	11	50	
Benzo(a)pyrene	82		73		40-140	12	50	
Benzo(b)fluoranthene	81		74		40-140	9	50	
Benzo(k)fluoranthene	95		86		40-140	10	50	
Chrysene	92		84		40-140	9	50	
Acenaphthylene	91		83		40-140	9	50	
Anthracene	91		83		40-140	9	50	
Benzo(ghi)perylene	92		84		40-140	9	50	
Fluorene	94		83		40-140	12	50	
Phenanthrene	90		82		40-140	9	50	
Dibenzo(a,h)anthracene	93		84		40-140	10	50	
Indeno(1,2,3-cd)pyrene	86		79		40-140	8	50	
Pyrene	91		81		35-142	12	50	



Project Name: 133 WINSOR STREET

**Project Number:** T0092-014-002

 Lab Number:
 L2003508

 Report Date:
 02/02/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Semivolatile Organics by GC/MS - Westboro	ugh Lab Associa	ted sample(s):	02-03,05-06,08	Batch:	WG1334621-2	WG1334621-3			

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
2-Fluorophenol	84	77	25-120
Phenol-d6	91	83	10-120
Nitrobenzene-d5	84	80	23-120
2-Fluorobiphenyl	87	78	30-120
2,4,6-Tribromophenol	75	66	10-136
4-Terphenyl-d14	92	80	18-120



**Project Name: 133 WINSOR STREET** 

Project Number: T0092-014-002

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limit	
Semivolatile Organics by GC/MS - Westboro	ugh Lab Associ	ated sample(s)	: 01,04,07 B	atch: WG1	335827-2 WG133	5827-3		
Acenaphthene	74		78		31-137	5	50	
Fluoranthene	78		85		40-140	9	50	
Naphthalene	71		77		40-140	8	50	
Benzo(a)anthracene	74		78		40-140	5	50	
Benzo(a)pyrene	77		85		40-140	10	50	
Benzo(b)fluoranthene	76		82		40-140	8	50	
Benzo(k)fluoranthene	80		87		40-140	8	50	
Chrysene	75		81		40-140	8	50	
Acenaphthylene	75		80		40-140	6	50	
Anthracene	78		83		40-140	6	50	
Benzo(ghi)perylene	76		83		40-140	9	50	
Fluorene	78		81		40-140	4	50	
Phenanthrene	75		80		40-140	6	50	
Dibenzo(a,h)anthracene	78		84		40-140	7	50	
Indeno(1,2,3-cd)pyrene	77		83		40-140	8	50	
Pyrene	77		82		35-142	6	50	



Project Name: 133 WINSOR STREET

**Project Number:** T0092-014-002

 Lab Number:
 L2003508

 Report Date:
 02/02/20

Parameter	LCS %Recoverv	Qual	LCSD %Recoverv	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Farameter	/%Recovery	Quai	Junecovery	Quai	Linints	RPD	Quai	Linints	
Semivolatile Organics by GC/MS - Westbord	ough Lab Associa	ted sample(s)	): 01,04,07 Ba	tch: WG1	335827-2 WG133	5827-3			

Surrogate	LCS %Recovery Qua	LCSD I %Recovery Qual	Acceptance Criteria
2-Fluorophenol	71	78	25-120
Phenol-d6	75	81	10-120
Nitrobenzene-d5	71	80	23-120
2-Fluorobiphenyl	72	77	30-120
2,4,6-Tribromophenol	78	81	10-136
4-Terphenyl-d14	85	90	18-120



## METALS



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-01		Date Collected:	01/23/20 09:00
Client ID:	TP-1 0-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 84%					Dilution	Dete	Data	Davas	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	sfield Lab										
Arsenic, Total	21.2		mg/kg	0.459	0.096	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Barium, Total	116		mg/kg	0.459	0.080	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Cadmium, Total	0.565		mg/kg	0.459	0.045	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Chromium, Total	8.22		mg/kg	0.459	0.044	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Lead, Total	475		mg/kg	2.30	0.123	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Mercury, Total	0.099		mg/kg	0.075	0.049	1	01/28/20 06:50	01/28/20 16:45	EPA 7471B	1,7471B	GD
Selenium, Total	1.46		mg/kg	0.918	0.118	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC
Silver, Total	0.179	J	mg/kg	0.459	0.130	1	01/28/20 02:00	01/29/20 19:19	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-02		Date Collected:	01/23/20 10:00
Client ID:	TP-3 3-4FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 74%										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Arsenic, Total	7.18		mg/kg	0.522	0.108	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Barium, Total	80.9		mg/kg	0.522	0.091	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Cadmium, Total	0.845		mg/kg	0.522	0.051	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Chromium, Total	11.0		mg/kg	0.522	0.050	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Lead, Total	88.9		mg/kg	2.61	0.140	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Mercury, Total	0.118		mg/kg	0.085	0.055	1	01/28/20 06:5	0 01/28/20 16:51	EPA 7471B	1,7471B	GD
Selenium, Total	1.64		mg/kg	1.04	0.134	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC
Silver, Total	0.167	J	mg/kg	0.522	0.148	1	01/28/20 02:0	0 01/29/20 19:24	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-03		Date Collected:	01/23/20 11:00
Client ID:	TP-4 2-3FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 84%										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Arsenic, Total	3.99		mg/kg	0.452	0.094	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC
Barium, Total	544		mg/kg	0.452	0.079	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC
Cadmium, Total	1.16		mg/kg	0.452	0.044	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC
Chromium, Total	5.34		mg/kg	0.452	0.043	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC
Lead, Total	115		mg/kg	2.26	0.121	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC
Mercury, Total	0.140		mg/kg	0.075	0.049	1	01/28/20 06:50	01/28/20 16:52	EPA 7471B	1,7471B	GD
Selenium, Total	0.538	J	mg/kg	0.904	0.116	1	01/28/20 02:00	) 01/29/20 19:29	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.452	0.128	1	01/28/20 02:00	01/29/20 19:29	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-04		Date Collected:	01/23/20 12:00
Client ID:	TP-6 3-4FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 57%					Dilution	Date	Date	Prep	Analytical		
Parameter	Result	ameter Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst
Total Metals - Man	sfield Lab											
Arsenic, Total	12.7		mg/kg	0.683	0.142	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Barium, Total	84.3		mg/kg	0.683	0.119	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Cadmium, Total	0.875		mg/kg	0.683	0.067	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Chromium, Total	36.6		mg/kg	0.683	0.066	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Lead, Total	195		mg/kg	3.42	0.183	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Mercury, Total	0.680		mg/kg	0.111	0.072	1	01/28/20 06:5	0 01/28/20 16:54	EPA 7471B	1,7471B	GD	
Selenium, Total	0.957	J	mg/kg	1.37	0.176	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	
Silver, Total	0.922		mg/kg	0.683	0.193	1	01/28/20 02:0	0 01/29/20 19:33	EPA 3050B	1,6010D	LC	



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-05		Date Collected:	01/23/20 13:30
Client ID:	TP-8 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 79%					Dilution	Date	Date	Prep	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst
Total Metals - Mans	sfield Lab										
Arsenic, Total	24.5		mg/kg	0.506	0.105	1	01/28/20 02:00	01/29/20 20:26	EPA 3050B	1,6010D	LC
Barium, Total	462		mg/kg	0.506	0.088	1	01/28/20 02:00	01/29/20 20:26	EPA 3050B	1,6010D	LC
Cadmium, Total	10.1		mg/kg	0.506	0.050	1	01/28/20 02:00	01/29/20 20:26	EPA 3050B	1,6010D	LC
Chromium, Total	644		mg/kg	0.506	0.049	1	01/28/20 02:00	01/29/20 20:26	EPA 3050B	1,6010D	LC
Lead, Total	4740		mg/kg	2.53	0.136	1	01/28/20 02:00	01/29/20 20:26	EPA 3050B	1,6010D	LC
Mercury, Total	8.34		mg/kg	1.59	1.03	20	01/28/20 06:50	01/28/20 18:42	EPA 7471B	1,7471B	GD
Selenium, Total	0.926	J	mg/kg	1.01	0.131	1	01/28/20 02:00	) 01/29/20 20:26	EPA 3050B	1,6010D	LC
Silver, Total	0.597		mg/kg	0.506	0.143	1	01/28/20 02:00	) 01/29/20 20:26	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-06		Date Collected:	01/23/20 14:00
Client ID:	TP-9 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

### Sample Depth:

Matrix: Percent Solids:	Soil 86%										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Arsenic, Total	12.2		mg/kg	0.458	0.095	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Barium, Total	129		mg/kg	0.458	0.080	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Cadmium, Total	0.614		mg/kg	0.458	0.045	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Chromium, Total	15.2		mg/kg	0.458	0.044	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Lead, Total	168		mg/kg	2.29	0.123	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Mercury, Total	0.122		mg/kg	0.073	0.048	1	01/28/20 06:5	0 01/28/20 17:01	EPA 7471B	1,7471B	GD
Selenium, Total	1.32		mg/kg	0.916	0.118	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC
Silver, Total	0.220	J	mg/kg	0.458	0.130	1	01/28/20 02:0	0 01/29/20 20:30	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-07		Date Collected:	01/23/20 15:00
Client ID:	TP-10 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 82%					Dilution	Date	Date	Prep	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst
Total Metals - Mans	sfield Lab										
Arsenic, Total	18.5		mg/kg	0.470	0.098	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Barium, Total	132		mg/kg	0.470	0.082	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Cadmium, Total	1.03		mg/kg	0.470	0.046	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Chromium, Total	12.9		mg/kg	0.470	0.045	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Lead, Total	89.9		mg/kg	2.35	0.126	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Mercury, Total	0.107		mg/kg	0.077	0.050	1	01/28/20 06:50	01/28/20 17:03	EPA 7471B	1,7471B	GD
Selenium, Total	1.66		mg/kg	0.940	0.121	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC
Silver, Total	0.174	J	mg/kg	0.470	0.133	1	01/28/20 02:00	01/29/20 20:35	EPA 3050B	1,6010D	LC



Project Name:	133 WINSOR STREET		Lab Number:	L2003508
Project Number:	T0092-014-002		Report Date:	02/02/20
		SAMPLE RESULTS		
Lab ID:	L2003508-08		Date Collected:	01/23/20 16:00
Client ID:	TP-11 1-2FT		Date Received:	01/24/20
Sample Location:	JAMESTOWN, NY		Field Prep:	Not Specified

## Sample Depth:

Matrix: Percent Solids:	Soil 83%								_	Annahadiant	
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Arsenic, Total	8.36		mg/kg	0.465	0.097	1	01/28/20 02:00	01/29/20 20:40	EPA 3050B	1,6010D	LC
Barium, Total	56.3		mg/kg	0.465	0.081	1	01/28/20 02:00	01/29/20 20:40	EPA 3050B	1,6010D	LC
Cadmium, Total	0.335	J	mg/kg	0.465	0.046	1	01/28/20 02:00	01/29/20 20:40	EPA 3050B	1,6010D	LC
Chromium, Total	6.81		mg/kg	0.465	0.045	1	01/28/20 02:00	01/29/20 20:40	EPA 3050B	1,6010D	LC
Lead, Total	34.2		mg/kg	2.33	0.125	1	01/28/20 02:00	) 01/29/20 20:40	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.075	0.049	1	01/28/20 06:50	) 01/28/20 17:04	EPA 7471B	1,7471B	GD
Selenium, Total	0.707	J	mg/kg	0.931	0.120	1	01/28/20 02:00	) 01/29/20 20:40	EPA 3050B	1,6010D	LC
Silver, Total	0.154	J	mg/kg	0.465	0.132	1	01/28/20 02:00	01/29/20 20:40	EPA 3050B	1,6010D	LC



Project Name:133 WINSOR STREETProject Number:T0092-014-002

 Lab Number:
 L2003508

 Report Date:
 02/02/20

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfiel	d Lab for sample(s):	01-08 B	atch: Wo	G13343	63-1				
Arsenic, Total	ND	mg/kg	0.400	0.083	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Barium, Total	ND	mg/kg	0.400	0.070	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Cadmium, Total	ND	mg/kg	0.400	0.039	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Chromium, Total	ND	mg/kg	0.400	0.038	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Lead, Total	ND	mg/kg	2.00	0.107	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Selenium, Total	ND	mg/kg	0.800	0.103	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC
Silver, Total	ND	mg/kg	0.400	0.113	1	01/28/20 02:00	01/29/20 18:01	1,6010D	LC

### **Prep Information**

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytica Method	
Total Metals - Mansfiel	Id Lab for sample(s):	01-08 B	atch: Wo	G13343	96-1				
Mercury, Total	ND	mg/kg	0.083	0.054	1	01/28/20 06:50	01/28/20 16:20	1,7471B	GD

#### **Prep Information**

Digestion Method: EPA 7471B



**Project Name:** 133 WINSOR STREET

Project Number: T0092-014-002

Parameter	LCS %Recover	y Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Fotal Metals - Mansfield Lab Associated sample	e(s): 01-08 E	Batch: WG13	34363-2 SRM	Lot Number:	D105-540			
Arsenic, Total	96		-		70-130	-		
Barium, Total	96		-		75-125	-		
Cadmium, Total	98		-		75-125	-		
Chromium, Total	92		-		70-130	-		
Lead, Total	90		-		71-128	-		
Selenium, Total	95		-		63-137	-		
Silver, Total	95		-		69-131	-		
otal Metals - Mansfield Lab Associated sample	e(s): 01-08 E	Batch: WG13	34396-2 SRM	Lot Number:	D105-540			
Mercury, Total	75		-		60-141	-		



## Matrix Spike Analysis Batch Quality Control

Project Name: 133 WINSOR STREET

**Project Number:** T0092-014-002

arameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery C	Recovery Qual Limits	RPD Qual	RPD Limits
otal Metals - Mansfield Lab	Associated san	nple(s): 01-08	QC Bat	ch ID: WG133	4363-3	QC Sam	ple: L2003507-0	1 Client ID: MS	Sample	
Arsenic, Total	4.36	11	14.5	92		-	-	75-125	-	20
Barium, Total	60.0	183	219	87		-	-	75-125	-	20
Cadmium, Total	0.387J	4.66	4.74	102		-	-	75-125	-	20
Chromium, Total	15.6	18.3	32.7	94		-	-	75-125	-	20
Lead, Total	74.6	46.6	98.5	51	Q	-	-	75-125	-	20
Selenium, Total	0.523J	11	11.0	100		-	-	75-125	-	20
Silver, Total	ND	27.4	26.8	98		-	-	75-125	-	20
otal Metals - Mansfield Lab	Associated san	nple(s): 01-08	QC Bat	ch ID: WG133	4396-3	QC Sam	ple: L2002576-0	3 Client ID: MS	Sample	
Mercury, Total	0.065J	0.142	0.207	146	Q	-	-	80-120	-	20



## Lab Duplicate Analysis Batch Quality Control

Project Name: 133 WINSOR STREET **Project Number:** T0092-014-002

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
otal Metals - Mansfield Lab Associated sample(s): 01-08	QC Batch ID:	WG1334363-4 QC Sample:	L2003507-01	Client ID:	DUP Sam	ple
Arsenic, Total	4.36	4.16	mg/kg	5		20
Barium, Total	60.0	46.2	mg/kg	26	Q	20
Cadmium, Total	0.387J	0.361J	mg/kg	NC		20
Chromium, Total	15.6	17.0	mg/kg	9		20
Lead, Total	74.6	60.6	mg/kg	21	Q	20
Selenium, Total	0.523J	0.740J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
otal Metals - Mansfield Lab Associated sample(s): 01-08	QC Batch ID:	WG1334396-4 QC Sample:	L2002576-03	Client ID:	DUP Sam	ple
Mercury, Total	0.065J	0.067J	mg/kg	NC		20



# INORGANICS & MISCELLANEOUS



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STRI T0092-014-002	EET						L2003508 02/02/20	
			SAMPLE	RESUL	rs				
Lab ID: Client ID:	L2003508-01 TP-1 0-2FT						Received:	01/23/20 09:00 01/24/20	)
Sample Location:	JAMESTOWN, NY					Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil								
Parameter	Result Qualifie	er Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	stborough Lab								
lids, Total	83.7	%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	RI



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSO T0092-014-0		T					lumber: rt Date:	L2003508 02/02/20	
				SAMPLE	RESUL	ГS				
Lab ID: Client ID: Sample Location:	L2003508-02 TP-3 3-4FT JAMESTOW	_						Received:	01/23/20 10:00 01/24/20 Not Specified	
Sample Depth: Matrix: Parameter	Soil Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR T0092-014-0		Т						L2003508 02/02/20	
				SAMPLE	RESUL	ГS				
Lab ID: Client ID: Sample Location:	L2003508-03 TP-4 2-3FT JAMESTOWI							Received:	01/23/20 11:00 01/24/20 Not Specified	
Sample Depth: Matrix: Parameter	Soil Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STREET T0092-014-002							Lab Number:         L2003508           Report Date:         02/02/20		
				SAMPLE	RESUL	rs				
Lab ID:	L2003508-04						Date (	Collected:	01/23/20 12:00	)
Client ID:	TP-6 3-4FT						Date I	Received:	01/24/20	
Sample Location:	JAMESTOWN	N, NY					Field	Prep:	Not Specified	
Sample Depth: Matrix:	Soil									
Parameter	Result (	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	stborough Lab									
olids, Total	56.9		%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	RI



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STREET T0092-014-002							ab Number:         L2003508           eport Date:         02/02/20			
				SAMPLE	RESUL	ГS					
Lab ID: Client ID: Sample Location:	L2003508-05 TP-8 1-2FT JAMESTOWN,	NY						Received:	01/23/20 13:30 01/24/20 Not Specified		
Sample Depth: Matrix: Parameter	Soil Result Qu	ualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Parameter eneral Chemistry - We		ualifier	Units	RL	MDL	Factor	Prepared	Analyzed		Ana	
olids, Total	79.0		%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	R	



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STR T0092-014-002	EET						L2003508 02/02/20	
			SAMPLE	RESUL	TS				
Lab ID:	L2003508-06					Date	Collected:	01/23/20 14:00	)
Client ID:	TP-9 1-2FT					Date	Received:	01/24/20	
Sample Location:	JAMESTOWN, NY					Field	Prep:	Not Specified	
Sample Depth:									
Matrix:	Soil								
Parameter	Result Qualifi	er Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analys
eneral Chemistry - We	stborough Lab								
olids, Total	85.6	%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	RI



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STREET T0092-014-002							Lab Number:         L2003508           Report Date:         02/02/20			
				SAMPLE	RESUL	rs					
Lab ID:	L2003508-07						Date	Collected:	01/23/20 15:00	)	
Client ID:	TP-10 1-2FT						Date	Received:	01/24/20		
Sample Location:	JAMESTOW	N, NY					Field	Prep:	Not Specified		
Sample Depth: Matrix:	Soil										
Parameter		Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
eneral Chemistry - We	stborough Lab										
olids, Total	82.1		%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	RI	



Serial NO.02022019.03	Serial	No:02022019:03
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Project Name: Project Number:	133 WINSOR STREET T0092-014-002							b Number:         L2003508           port Date:         02/02/20			
				SAMPLE	RESUL	ГS					
Lab ID:	L2003508-08						Date	Collected:	01/23/20 16:00	)	
Client ID:	TP-11 1-2FT						Date	Received:	01/24/20		
Sample Location:	JAMESTOWN	N, NY					Field	Prep:	Not Specified		
Sample Depth: Matrix:	Soil										
Parameter		Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
eneral Chemistry - We	stborough Lab										
olids, Total	83.3		%	0.100	NA	1	-	01/25/20 11:1	5 121,2540G	RI	



Parameter		Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Project Number:	T0092-014-002				Re	eport Date	
Project Name:	133 WINSOR STREET	Lä	ab Duplicate Analy Batch Quality Control	SIS	La	ab Number	: L2003508

Farameter	Native Sail		Suplicate Sample		KFU	Quai	
General Chemistry - Westborough Lab	Associated sample(s): 01-08	QC Batch ID:	WG1333783-1	QC Sample:	L2003508-01	Client ID:	TP-1 0-2FT
Solids, Total	83.7		83.7	%	0		20





#### Project Name: 133 WINSOR STREET *Project Number:* T0092-014-002

Serial\_No:02022019:03 Lab Number: L2003508 Report Date: 02/02/20

#### Sample Receipt and Container Information

YES

Were project specific reporting limits specified?

#### **Cooler Information**

Cooler	Custody Seal
A	Absent

Container Information			Initial Final Temp					Frozen			
Container ID	Container Type	Cooler	pН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)		
L2003508-01A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-01B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-02A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-02B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-03A	Glass 60ml unpreserved split	А	NA		3.6	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)		
L2003508-03B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-04A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-04B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-05A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-05B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-06A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-06B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-07A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-07B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		
L2003508-08A	Glass 60ml unpreserved split	A	NA		3.6	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)		
L2003508-08B	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		NYCP51-PAH(14),TS(7)		



## Project Name:133 WINSOR STREETProject Number:T0092-014-002

Serial\_No:02022019:03 *Lab Number:* L2003508 *Report Date:* 02/02/20

Container Information				Final	Temp			Frozen			
Container ID	Container Type	Cooler	Cooler pH		deg C	Pres	Seal	Date/Time	Analysis(*)		
L2003508-09A	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		HOLD()		
L2003508-10A	Glass 250ml/8oz unpreserved	А	NA		3.6	Υ	Absent		HOLD()		
L2003508-11A	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		HOLD()		
L2003508-12A	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		HOLD()		
L2003508-13A	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		HOLD()		
L2003508-14A	Glass 250ml/8oz unpreserved	А	NA		3.6	Y	Absent		HOLD()		



## Project Name: 133 WINSOR STREET

**Project Number:** T0092-014-002

### Lab Number: L2003508

**Report Date:** 02/02/20

#### GLOSSARY

#### Acronyms

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

#### Footnotes

Report Format: DU Report with 'J' Qualifiers



### Project Name: 133 WINSOR STREET

#### Project Number: T0092-014-002

Lab Number: L2003508 Report Date: 02/02/20

1

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

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

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

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

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

#### Data Qualifiers

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

Report Format: DU Report with 'J' Qualifiers



#### Project Name: 133 WINSOR STREET

Project Number: T0092-014-002

Lab Number: L2003508 Report Date: 02/02/20

#### Data Qualifiers

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

- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- **S** Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 133 WINSOR STREET Project Number: T0092-014-002 
 Lab Number:
 L2003508

 Report Date:
 02/02/20

#### REFERENCES

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

#### LIMITATION OF LIABILITIES

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

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



## **Certification Information**

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

#### Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

**EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: lodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility** 

SM 2540D: TSS

EPA 8082A: <u>NPW:</u> PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

#### Westborough Facility:

#### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

#### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

#### Mansfield Facility:

#### **Drinking Water**

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

#### Non-Potable Water

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

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

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