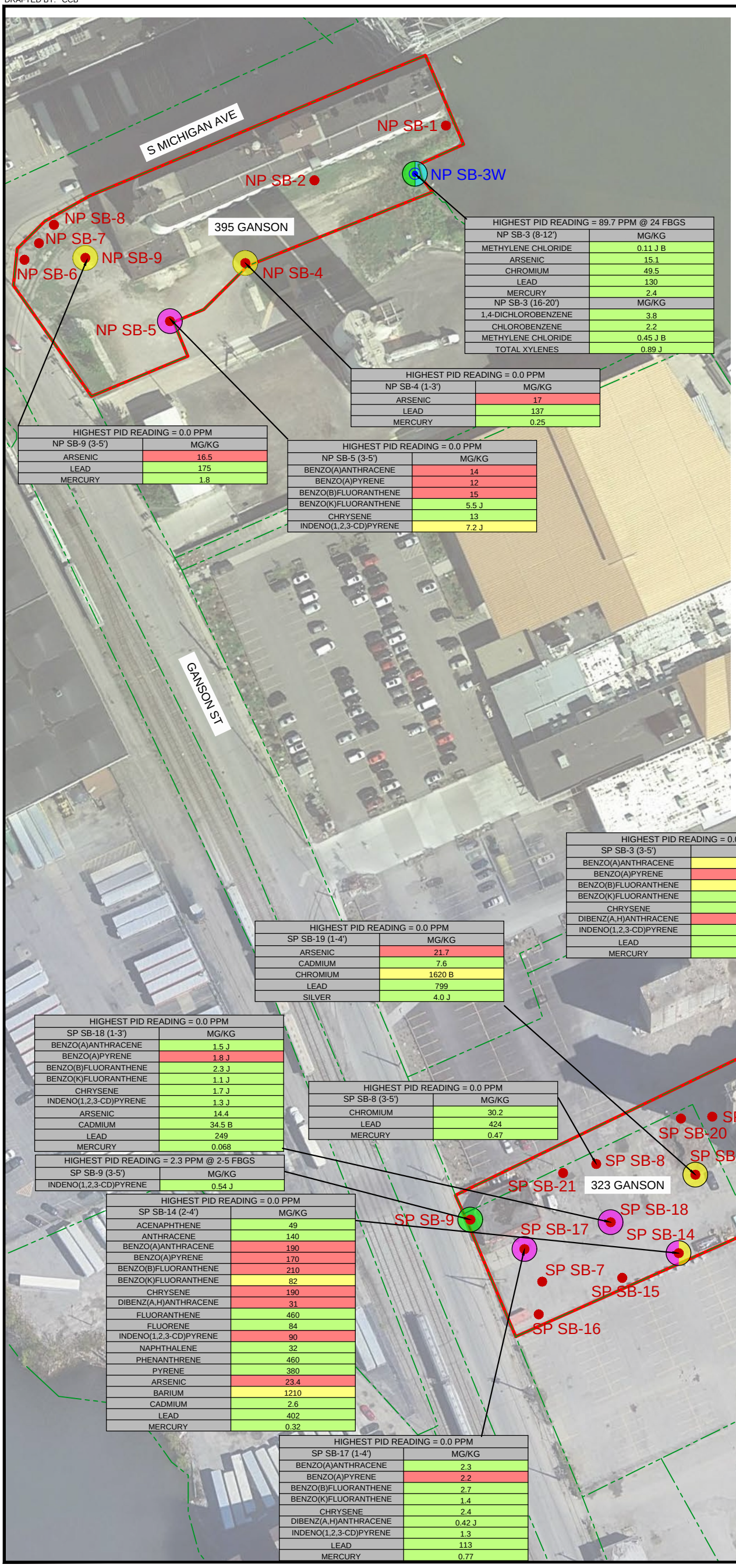
SUPPLEMENTAL PHASE II SOIL BORING LOGS, UPDATED FIGURE, ANALYTICAL TABLE AND LABORATORY ANALYTICAL REPORT.

F:\CAD\Benchmark\Buffalo Riverworks\BCP\Figure 6 - Investigation Locations and Areas of Concern.dwg

DATE: JUNE 2019
DRAFTED BY: CCB



HIGHEST PID READING = 89.7 PPM @ 24 FBGS	
NP SB-3 (8-12')	MG/KG
METHYLENE CHLORIDE	0.11 J B
ARSENIC	15.1
CHROMIUM	49.5
LEAD	130
MERCURY	2.4
NP SB-3 (16-20')	MG/KG
1,4-DICHLOROBENZENE	3.8
CHLOROBENZENE	2.2
METHYLENE CHLORIDE	0.45 J B
TOTAL XYLENES	0.89 J

HIGHEST PID READING = 0.0 PPM	
NP SB-4 (1-3')	MG/KG
ARSENIC	17
LEAD	137
MERCURY	0.25

HIGHEST PID READING = 0.0 PPM	
NP SB-9 (3-5')	MG/KG
ARSENIC	16.5
LEAD	175
MERCURY	1.8

HIGHEST PID READING = 0.0 PPM	
NP SB-5 (3-5')	MG/KG
BENZO(A)ANTHRACENE	14
BENZO(A)PYRENE	12
BENZO(B)FLUORANTHENE	15
BENZO(K)FLUORANTHENE	5.5 J
CHRYSENE	13
INDENO(1,2,3-CD)PYRENE	7.2 J

HIGHEST PID READING = 0.0 PPM	
SP SB-3 (3-5')	MG/KG
BENZO(A)ANTHRACENE	9.9
BENZO(A)PYRENE	8.2
BENZO(B)FLUORANTHENE	9.4
BENZO(K)FLUORANTHENE	4.5
CHRYSENE	8.9
DIBENZ(A,H)ANTHRACENE	1.2
INDENO(1,2,3-CD)PYRENE	4.3
LEAD	151
MERCURY	0.2

HIGHEST PID READING = 0.0 PPM	
SP SB-2 (3-5')	MG/KG
BENZO(A)ANTHRACENE	2.4
BENZO(A)PYRENE	2
BENZO(B)FLUORANTHENE	2.8
BENZO(K)FLUORANTHENE	1.1
CHRYSENE	2.5
INDENO(1,2,3-CD)PYRENE	1.1
LEAD	568 F2
MERCURY	0.65 F1

HIGHEST PID READING = 0.0 PPM	
SP SB-19 (1-4')	MG/KG
ARSENIC	21.7
CADMIUM	7.6
CHROMIUM	1620 B
LEAD	799
SILVER	4.0 J

HIGHEST PID READING = 0.0 PPM	
SP SB-18 (1-3')	MG/KG
BENZO(A)ANTHRACENE	1.5 J
BENZO(A)PYRENE	1.8 J
BENZO(B)FLUORANTHENE	2.3 J
BENZO(K)FLUORANTHENE	1.1 J
CHRYSENE	1.7 J
INDENO(1,2,3-CD)PYRENE	1.3 J
ARSENIC	14.4
CADMIUM	34.5 B
LEAD	249
MERCURY	0.068

HIGHEST PID READING = 0.0 PPM	
SP SB-8 (3-5')	MG/KG
CHROMIUM	30.2
LEAD	424
MERCURY	0.47

HIGHEST PID READING = 2.3 PPM @ 2-5 FBGS	
SP SB-9 (3-5')	MG/KG
INDENO(1,2,3-CD)PYRENE	0.54 J

HIGHEST PID READING = 0.0 PPM	
SP SB-14 (2-4')	MG/KG
ACENAPHTHENE	49
ANTHRACENE	140
BENZO(A)ANTHRACENE	190
BENZO(A)PYRENE	170
BENZO(B)FLUORANTHENE	210
BENZO(K)FLUORANTHENE	82
CHRYSENE	190
DIBENZ(A,H)ANTHRACENE	31
FLUORANTHENE	460
FLUORENE	84
INDENO(1,2,3-CD)PYRENE	90
NAPHTHALENE	32
PHENANTHRENE	460
PYRENE	380
ARSENIC	23.4
BARIUM	1210
CADMIUM	2.6
LEAD	402
MERCURY	0.32

HIGHEST PID READING = 0.0 PPM	
SP SB-17 (1-4')	MG/KG
BENZO(A)ANTHRACENE	2.3
BENZO(A)PYRENE	2.2
BENZO(B)FLUORANTHENE	2.7
BENZO(K)FLUORANTHENE	1.4
CHRYSENE	2.4
DIBENZ(A,H)ANTHRACENE	0.42 J
INDENO(1,2,3-CD)PYRENE	1.3
LEAD	113
MERCURY	0.77

LEGEND:

- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- SP SB-1 — SOIL BORING
- SP SB-2W — SOIL BORING/ TEMPORARY MONITORING WELL
- PAHs EXCEEDING CSCOs AND/OR ISCOs IN SOIL/FILL
- METALS EXCEEDING CSCOs AND/OR ISCOs IN SOIL/FILL
- VOCs EXCEEDING CP-51 SCLs AND/OR USCOs IN SOIL/FILL
- ELEVATED PID READINGS IN SOIL/FILL

NOTE:

VALUES PER NYCRR PART 375 SOIL CLEANUP OBJECTIVES (SCOs).

- EXCEEDS PART 375 USCOs/CP-51 SCLs
- EXCEEDS PART 375 CSCOs
- EXCEEDS PART 375 ISCOs

DEFINITIONS:

B = COMPOUND WAS FOUND IN BLANK AND SAMPLE

J = ESTIMATED VALUE; RESULT IS LESS THAN THE SAMPLE QUANTITATION LIMIT BUT GREATER THAN ZERO.

F1 = MS AND/OR MSD RECOVERY IS OUTSIDE ACCEPTANCE LIMITS.

F2 = MS/MSD RPD EXCEEDS CONTROL LIMITS.

N

100' 0' 100' 200'

SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

FIGURE 6

INVESTIGATION LOCATIONS AND AREAS OF CONCERN

BROWNFIELD CLEANUP PROGRAM APPLICATION

BUFFALO RIVERWORKS SITE
BUFFALO, NEW YORK

PREPARED FOR
KETRY RE LLC

BENCHMARK Environmental Engineering & Science, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

JOB NO.: 0476-018-001

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF SUBSURFACE SOIL/FILL SAMPLE ANALYTICAL RESULTS

PHASE II ENVIRONMENTAL INVESTIGATION REPORT

NORTHERN PROPERTY 389 AND 395 GANSON STREET
SOUTHERN PROPERTY 305, 323, 339 GANSON STREET
BUFFALO, NEW YORK

PARAMETER[1]	CP-51 SCLs [2]	Unrestricted Use SCOs [3]	Commercial Use SCOs [3]	Industrial Use SCOs [3]	Sample Location (Depth - ft)												
					NP SB-3 (8-12')	NP SB-3 (16-20')	NP SB-4 (1-3')	NP SB-5 (3-5')	NP SB-9 (3-5')	SP SB-2 (3-5')	SP SB-3 (2-4')	SP SB-8 (3-5')	SP SB-9 (3-5')	SP SB-14 (2-4')	SP SB-17 (1-4')	SP SB-18 (1-3')	SP SB-19 (1-4')
					395 GANSON STREET (NORTHERN PROPERTY)					323, 339 GANSON STREET (SOUTHERN PROPERTY)				323, 339 GANSON STREET (SOUTHERN PROPERTY - SUPPLEMENTAL			
					2/28/2019					2/27/2019				5/9/2019			
Volatile Organic Compounds (VOCs) - mg/Kg [4]																	
1,2,4-Trimethylbenzene	**3.6**	**3.6**	**190**	**380**	0.088 J	0.91 J	--	--	--	--	--	--	0.0017 J F1 vs	--	--	--	--
1,3-Dichlorobenzene	**2.4**	**2.4**	**280**	**560**	ND	0.47 J	--	--	--	--	--	--	ND	--	--	--	--
1,4-Dichlorobenzene	**1.8**	**1.8**	**130**	**250**	ND	**3.8**	--	--	--	--	--	--	ND	--	--	--	--
2-Butanone (MEK)	**--**	**0.12**	**500**	**1000**	ND	ND	--	--	--	--	--	--	0.0044 J F1 vs	--	--	--	--
Acetone	**--**	**0.05**	**500**	**1000**	ND	ND	--	--	--	--	--	--	0.02 J vs	--	--	--	--
Benzene	**0.06**	**0.06**	**44**	**89**	ND	ND	--	--	--	--	--	--	0.00041 J vs	--	--	--	--
Chlorobenzene	**--**	**1.1**	**500**	**1000**	0.23 J	**2.2**	--	--	--	--	--	--	ND	--	--	--	--
Chloroform		**0.37**	**350**	**700**	ND	ND	--	--	--	--	--	--	0.00049 J B vs	--	--	--	--
Cyclohexane	**--**	**--**	**--**	**--**	ND	0.49 J	--	--	--	--	--	--	ND	--	--	--	--
Isopropylbenzene (Cumene)	**2.3**	**--**	**--**	**--**	ND	0.57 J	--	--	--	--	--	--	0.0076 F1 vs	--	--	--	--
Methylcyclohexane	**--**	**--**	**--**	**--**	ND	2	--	--	--	--	--	--	ND	--	--	--	--
Methylene chloride	**--**	**0.05**	**500**	**1000**	**0.11 J B**	**0.45 J B**	--	--	--	--	--	--	0.0095 B vs	--	--	--	--
n-Butylbenzene	**12**	**12**	**500**	**1000**	ND	1.3 J	--	--	--	--	--	--	ND	--	--	--	--
n-Propylbenzene	**3.9**	**3.9**	**500**	**1000**	ND	ND	--	--	--	--	--	--	0.0034 J F1 vs	--	--	--	--
sec-Butylbenzene	**11**	**11**	**500**	**1000**	ND	0.75 J	--	--	--	--	--	--	0.0059 J F1 vs	--	--	--	--
tert-Butylbenzene	**5.9**	**5.9**	**500**	**1000**	ND	ND	--	--	--	--	--	--	0.0023 J F1 vs	--	--	--	--
Total Xylenes	**0.26**	**0.26**	**500**	**1000**	0.073 J	**0.89 J**	--	--	--	--	--	--	0.0016 J F1 vs	--	--	--	--
Polycyclic Aromatic Hydrocarbons (PAHs) - mg/Kg [4]																	
Acenaphthene	**20**	**20**	**500**	**1000**	0.99	--	ND	6.2 J	ND	0.26 J	3.5	ND	ND	**49**	0.18 J	ND	ND
Acenaphthylene	**100**	**100**	**500**	**1000**	ND	--	ND	ND	ND	ND	ND	ND	ND	27	0.2 J	0.44 J	0.032 J
Anthracene	**100**	**100**	**500**	**1000**	1	--	ND	11	ND	0.69 J	7.5	ND	ND	**140**	0.61 J	ND	0.081 J
Benzo(a)anthracene	**1**	**1**	**5.6**	**11**	0.89	--	ND	**14**	0.21 J	**2.4**	**9.9**	ND	0.44 J	**190**	**2.3**	**1.5 J**	0.33
Benzo(a)pyrene	**1**	**1**	**1**	**1.1**	0.68	--	ND	**12**	0.18 J	**2**	**8.2**	ND	ND	**170**	**2.2**	**1.8 J**	0.36
Benzo(b)fluoranthene	**1**	**1**	**5.6**	**11**	0.83	--	ND	**15**	0.24 J	**2.8**	**9.4**	0.77 J	0.94 J	**210**	**2.7**	**2.3 J**	0.48
Benzo(ghi)perylene	**100**	**100**	**500**	**1000**	0.35 J	--	ND	6.8 J	0.15 J	1.4	4.7	0.53 J	0.62 J	100	1.4	1.6 J	0.34
Benzo(k)fluoranthene	**0.8**	**0.8**	**56**	**110**	0.27 J	--	ND	**5.5 J**	ND	**1.1**	**4.5**	ND	ND	**82**	**1.4**	**1.1 J**	0.24
Chrysene	**1**	**1**	**56**	**110**	0.76	--	ND	**13**	ND	**2.5**	**8.9**	ND	ND	**190**	**2.4**	**1.7 J**	0.37
Dibenzo(a,h)anthracene	**0.33**	**0.33**	**0.56**	**1.1**	ND	--	ND	ND	ND	ND	**1.2**	ND	ND	**31**	**0.42 J**	ND	ND
Fluoranthene	**100**	**100**	**500**	**1000**	2.3	--	ND	37	0.37 J	4.8	20	1.2 J	1.7 J	**460**	4.7	2.5	0.59
Fluorene	**30**	**30**	**500**	**1000**	1.6	--	ND	14	ND	0.19 J	3.5	ND	ND	**84**	0.19 J	ND	0.032 J
Indeno(1,2,3-cd)pyrene	**0.5**	**0.5**	**5.6**	**11**	0.35 J	--	ND	**7.2 J**	ND	**1.1**	**4.3**	ND	**0.54 J**	**90**	**1.3**	**1.3 J**	0.3
Naphthalene	**12**	**12**	**500**	**1000**	0.12 J	--	ND	9.5 J	ND	ND	0.59 J	ND	ND	**32**	ND	0.32 J	ND
Phenanthrene	**100**	**100**	**500**	**1000**	2.8	--	ND	48	0.39 J	3	21	ND	ND	**460**	4.1	2.2	0.5
Pyrene	**100**	**100**	**500**	**1000**	1.7	--	ND	26	0.32 J	4	17	1.1 J	1.3 J	**380**	2.2	1.4 J	0.29 J
Total PAHs	**--**	**--**	**--**	**--**	14.64 J	--	0	225.2 J	1.86 J	26.24 J	124.19 J	3.6 J	5.54 J	2695	26.3 J	18.16 J	3.945 J
Metals - mg/Kg																	
Arsenic	**--**	**13**	**16**	**16**	**15.1**	--	**17**	5.6	**16.5**	7.7 F1	6.8	6.9	3.6	**23.4**	7.4	**14.4**	**21.7**
Barium	**--**	**350**	**400**	**10000**	96.1	--	137	92.4	240	177	130	102	116	**1210**	67	141	99.3
Cadmium	**--**	**2.5**	**9.3**	**60**	0.74	--	0.49	0.37	0.52	0.56 F1	0.42	0.57	0.22 J	**2.6**	0.47	0.22	**7.6**
Chromium	**--**	**30**	**1500**	**6800**	**49.5**	--	10.3	14.7	22.5	12 F2	26.3	**30.2**	7	8.1 B	10.6 B	**34.5 B**	**1620 B**
Lead	**--**	**63**	**1000**	**3900**	**130**	--	**137**	57.9	**175**	**568 F2**	**151**	**424**	44.1	**402**	**113**	**249**	**799**
Mercury	**--**	**0.18**	**2.8**	**5.7**	**2.4**	--	**0.25**	0.12	**1.8**	**0.65 F1**	**0.2**	**0.47**	0.041	**0.32**	**0.77**	**0.068**	0.085
Selenium	**--**	**3.9**	**1500**	**6800**	ND	--	0.97 J	ND	ND	1.3 J F1	ND	0.97 J	0.93 J	2.2 J	ND	ND	ND
Silver	**--**	**2**	**1500**	**6800**	ND	--	ND	ND	0.76	ND	--	ND	ND	ND	0.53 J	ND	**4 J**
Polychlorinated biphenyls (PCBs) - mg/Kg																	
Total PCBs	**--**	**0.1**	**1**	**25**	ND	ND	ND	ND	--	ND	--	--	--	--	--	--	--

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.
2. Values per NYSDEC CP-51 Soil Cleanup Levels (SCLs) for petroleum impacted sites.
3. Values per NYSDEC Part 375 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; Parameter not analyzed for.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
F1 = MS and/or MSD recovery is outside acceptance limits.
F2 = MS/MSD RPD exceeds control limits.
vs = Reported analyte concentrations are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035A-L.
B = Compound was found in blank and sample.

Bold	= Result exceeds Unrestricted Use SCOs and/or CP-51 SCL.
Bold	= Result exceeds Commercial Use SCOs.
Bold	= Result exceeds Industrial use SCOs.

Project No: B0476-018-001

Borehole Number: SP SB-10

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Gravel and Subbase***					0.1		
	-0.5 0.5	***Fill - Black Granular*** Black, moist, mostly medium grained granular fines and sand, some medium plastic fines, some red brick, some coal and cinders, no odor.							
	-1.0 1.0	***Fill - Sandy Lean Clay*** Black, moist, mostly medium plastic fines, some fine sand, some red brick, some cinders, some wood ties, medium toughness, medium density, no odor.			73%		0.1		
							0.1		
	-4.0 4.0	***Native - Lean Clay*** Dark grey, moist to wet at 6 fbgs, mostly medium plastic fines, trace fine sand, medium density, medium toughness to soft, no odor.					0.1		
5.0							0.0		Water level
					88%		0.0		
							0.0		
	-8.0 8.0	***Native - Poorly Graded Sand with Clay*** Brown, wet, mostly fine sand, some medium plastic fines, no odor.					0.0		
							0.0		
10.0					38%		0.0		
							0.0		
	-12.0 12.0	End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-14

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 / 50 / 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0 / 0.0	Ground Surface							
		Asphalt and Subbase							
	-1.0 / 1.0	***Fill - Black Granular*** Black, moist to wet at 4 fbgs, mostly medium grained granular material, some fine sand, some coal, some cinders, trace red brick, no odor.			85%		0.0 0.0 0.0 0.0	Sample Location	Water level
	-2.5 / 2.5	Lean clay lens from 2.5-3 fbgs.							
5.0	-5.0 / 5.0	***Native - Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.			94%		0.0 0.0 0.0 0.0		
	-8.0 / 8.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-15

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 / 50 / 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt and Subbase***					0.0		
	-0.8 / 0.8	***Fill - Black Granular*** Black, moist, mostly medium grained granular material, some fine sand, some coal, some cinders, trace red brick, trace slag, no odor.			71%		0.0		
							0.0		
	-3.5 / 3.5	***Fill - Lean Clay*** Dark brown, moist, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.					0.0		
5.0	-5.0 / 5.0	***Fill - Black Granular*** Black, moist to wet at 6 fbgs, mostly medium grained granular material, some fine sand, some coal, some cinders, trace red brick, trace slag, no odor.			88%		0.0		Water level
							0.0		
	-6.5 / 6.5	***Native - Lean to Sandy Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace/some fine sand, medium density, medium toughness, no odor.					0.0		
	-8.0 / 8.0	End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-16

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 / 50 / 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt and Subbase***					0.0		
	-0.5 / 0.5	***Fill - Poorly Graded Sand*** Black, moist, mostly fine sand, trace slag, trace coal, no odor.			71%		0.0		
							0.0		
	-3.5 / 3.5	***Fill - Lean Clay*** Dark brown, moist, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.					0.0		
5.0	-5.0 / 5.0	***Fill - Black Granular*** Black, moist to wet at 6 fbgs, mostly medium grained granular material, some fine sand, some coal, some cinders, trace red brick, trace slag, no odor.			88%		0.0		Water level
							0.0		
	-6.5 / 6.5	***Native - Lean to Sand Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace/some fine sand, medium density, medium toughness, no odor.					0.0		
	-8.0 / 8.0	End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-17

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt and Subbase***							
	-0.5								
	0.5	***Fill - Urban Fill*** Dark brown, mostly fine sand, layers of red brick, concrete, ash, cinders, no odor.			48%		0.0 0.0 0.0 0.0	Sample location	
5.0							0.0		Water level
	-5.5								
	5.5	***Native - Lean to Sandy Lean Clay*** Dark brown, moist to wet at 5 fbgs, mostly medium plastic fines, trace/some fine sand, medium toughness, medium density, no odor.			81%		0.0 0.0 0.0		
	-8.0								
	8.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-18

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 / 50 / 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt and Subbase***							
	-0.5 / 0.5	***Fill - Black Granular*** Black, moist, mostly medium grained granular materials, some coal, some cinders, some fine sand, no odor.					0.0		
	-2.0 / 2.0	***Fill - Lean Clay*** Dark brown, moist, trace fine sand, medium density, medium toughness, no odor. Coal lens from 2-2.5 fbgs			75%		0.0	Sample location	
	-3.5 / 3.5	***Fill - Poorly Graded Sand*** Black, moist to wet at 4 fbgs, mostly fine sand, some red brick, some wood, trace cinders, no odor.					0.0		Water level
5.0							0.0		
	-6.0 / 6.0	***Native - Lean Clay*** Reddish brown, wet, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.			58%		0.0		
							0.0		
	-8.0 / 8.0	End of Borehole					0.0		

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-19

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0	Ground Surface							
	0.0	***Asphalt and Subbase***							
	-0.5								
	0.5	***Fill - Black Granular*** Black, moist to wet at 4 fbgs, mostly medium grained granular materials, some coal, some cinders, some slag fragments, some fine sand, no odor.			79%		0.0 0.0 0.0 0.0	Sample location	Water level
5.0	-5.5								
	5.5	***Native - Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.			96%		0.0 0.0 0.0 0.0		
	-8.0								
	8.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-20

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0 / 0.0	Ground Surface							
	0.0 / 0.0	***Asphalt and Subbase***					0.0		
	-0.5 / 0.5	***Fill - Black Granular*** Black, moist to wet at 4 fbgs, mostly medium grained granular materials, some coal, some cinders, some fine sand, no odor.			52%		0.0		
							0.0		
							0.0		
5.0	-5.0 / 5.0	***Native - Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.			81%		0.0		
							0.0		
							0.0		
	-8.0 / 8.0	End of Borehole					0.0		

Water level

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

Project No: B0476-018-001

Borehole Number: SP SB-21

Project: Phase II

A.K.A.:

Client: Buffalo Riverworks LLC

Logged By: CMS

Site Location: 305, 323, 339 Ganson Street

Checked By: BWM

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

SUBSURFACE PROFILE			SAMPLE						
Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Sample No.	SPT N-Value	Recovery (%)	Symbol	PID VOCs ppm (0 – 50 – 100)	Lab Sample	Well Completion Details or Remarks
0.0	0.0 / 0.0	Ground Surface							
		Asphalt and Subbase							
	-0.5 / 0.5	***Fill - Black Granular*** Black, moist to wet at 4 fbgs, mostly medium grained granular materials, some coal, some cinders, some fine sand, no odor.			85%		0.0 0.0 0.0 0.0		Water level
5.0	-5.0 / 5.0	***Native - Lean Clay*** Dark brown, wet, mostly medium plastic fines, trace fine sand, medium density, medium toughness, no odor.			77%		0.0 0.0 0.0 0.0		
	-8.0 / 8.0	End of Borehole							

Drilled By: Trec Environmental
Drill Rig Type: 54LT
Drill Method: Direct Push
Comments:
Drill Date(s): 5/9/2019

Hole Size: 2"
Stick-up:
Datum:

Sheet: 1 of 1

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-153404-1
Client Project/Site: Benchmark - Ganson St.

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Lackawanna, New York 14218

Attn: Bryan Mayback

Joseph V. Giacomazza

Authorized for release by:
5/30/2019 3:10:33 PM
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: Benchmark Env. Eng. & Science, PLLC
Job ID: 480-153404-1
Project/Site: Benchmark - Ganson St.

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.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: 480-153404-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-153404-1

Comments
No additional comments.

Receipt
The samples were received on 5/10/2019 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6º C.

GC/MS Semi VOA
Method(s) 8270D: The following samples were diluted due to color, appearance and viscosity: SP-SB-12 1-3FT (480-153404-1) and SP-SB-14 2-4FT (480-153404-3). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following samples were diluted due to color and appearance: SP-SB-17 1-4FT (480-153404-4) and SP-SB-18 1-3FT (480-153404-5). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following samples required a dilution due to physical characteristics: SP-SB-12 1-3FT (480-153404-1) and SP-SB-14 2-4FT (480-153404-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Metals
Method(s) 6010C: The following sample was diluted due to the presence of Total Manganese which interferes with Silver, Chromium, and Selenium: SP-SB-12 1-3FT (480-153404-1). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample was diluted due to the nature of the sample matrix: SP-SB-19 1-4FT (480-153404-6). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample was diluted due to the presence of Total Manganese which interferes with Silver, Chromium, and Selenium: SP-SB-19 1-4FT (480-153404-6). Elevated reporting limits (RLs) are provided.

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

Organic Prep
Method(s) 3550C: Due to the matrix, the initial volume(s) used for the following sample deviated from the standard procedure: SP-SB-18 1-3FT (480-153404-5). The reporting limits (RLs) have been adjusted proportionately.

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-12 1-3FT — Lab Sample ID: 480-153404-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	5900	J	9200	920	ug/Kg	50	☼	8270D	Total/NA
Benzo[a]pyrene	5300	J	9200	1400	ug/Kg	50	☼	8270D	Total/NA
Benzo[b]fluoranthene	7600	J	9200	1500	ug/Kg	50	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3300	J	9200	980	ug/Kg	50	☼	8270D	Total/NA
Benzo[k]fluoranthene	3700	J	9200	1200	ug/Kg	50	☼	8270D	Total/NA
Chrysene	6200	J	9200	2100	ug/Kg	50	☼	8270D	Total/NA
Fluoranthene	13000		9200	980	ug/Kg	50	☼	8270D	Total/NA
Fluorene	1200	J	9200	1100	ug/Kg	50	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3300	J	9200	1100	ug/Kg	50	☼	8270D	Total/NA
Pyrene	10000		9200	1100	ug/Kg	50	☼	8270D	Total/NA
Phenanthrene	7900	J	9200	1400	ug/Kg	50	☼	8270D	Total/NA
Arsenic	12.6		2.2	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	91.9		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J	0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Chromium	394	B	1.1	0.45	mg/Kg	2	☼	6010C	Total/NA
Lead	213		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Silver	0.53	J	1.3	0.45	mg/Kg	2	☼	6010C	Total/NA
Mercury	0.24		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SP-SB-13 1-3FT — Lab Sample ID: 480-153404-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	100	J	200	30	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	68	J	200	26	ug/Kg	1	☼	8270D	Total/NA
Anthracene	260		200	50	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	820		200	20	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	730		200	30	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	910		200	32	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	500		200	21	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	330		200	26	ug/Kg	1	☼	8270D	Total/NA
Chrysene	810		200	45	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	150	J	200	36	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	1600		200	21	ug/Kg	1	☼	8270D	Total/NA
Fluorene	120	J	200	24	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	460		200	25	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	51	J	200	26	ug/Kg	1	☼	8270D	Total/NA
Pyrene	1400		200	24	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	1000		200	30	ug/Kg	1	☼	8270D	Total/NA
Arsenic	6.6		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	87.2		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.099	J	0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Chromium	17.7	B	0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Lead	145		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.13		0.024	0.0096	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SP-SB-14 2-4FT — Lab Sample ID: 480-153404-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	49000		24000	3500	ug/Kg	100	☼	8270D	Total/NA
Acenaphthylene	27000		24000	3100	ug/Kg	100	☼	8270D	Total/NA
Anthracene	140000		24000	5800	ug/Kg	100	☼	8270D	Total/NA
Benzo[a]anthracene	190000		24000	2400	ug/Kg	100	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample ID: SP-SB-14 2-4FT (Continued)
Lab Sample ID: 480-153404-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	170000		24000	3500	ug/Kg	100	☼	8270D	Total/NA
Benzo[b]fluoranthene	210000		24000	3700	ug/Kg	100	☼	8270D	Total/NA
Benzo[g,h,i]perylene	100000		24000	2500	ug/Kg	100	☼	8270D	Total/NA
Benzo[k]fluoranthene	82000		24000	3100	ug/Kg	100	☼	8270D	Total/NA
Chrysene	190000		24000	5300	ug/Kg	100	☼	8270D	Total/NA
Dibenz(a,h)anthracene	31000		24000	4200	ug/Kg	100	☼	8270D	Total/NA
Fluoranthene	460000		24000	2500	ug/Kg	100	☼	8270D	Total/NA
Fluorene	84000		24000	2800	ug/Kg	100	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	90000		24000	2900	ug/Kg	100	☼	8270D	Total/NA
Naphthalene	32000		24000	3100	ug/Kg	100	☼	8270D	Total/NA
Pyrene	380000		24000	2800	ug/Kg	100	☼	8270D	Total/NA
Phenanthrene	460000		24000	3500	ug/Kg	100	☼	8270D	Total/NA
Arsenic	23.4		2.9	0.57	mg/Kg	1	☼	6010C	Total/NA
Barium	1210		0.71	0.16	mg/Kg	1	☼	6010C	Total/NA
Cadmium	2.6		0.29	0.043	mg/Kg	1	☼	6010C	Total/NA
Chromium	8.1	B	0.71	0.29	mg/Kg	1	☼	6010C	Total/NA
Lead	402		1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Selenium	2.2	J	5.7	0.57	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.32		0.026	0.011	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SP-SB-17 1-4FT
Lab Sample ID: 480-153404-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	180	J	950	140	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	200	J	950	120	ug/Kg	5	☼	8270D	Total/NA
Anthracene	610	J	950	230	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	2300		950	95	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	2200		950	140	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	2700		950	150	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1400		950	100	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1400		950	120	ug/Kg	5	☼	8270D	Total/NA
Chrysene	2400		950	210	ug/Kg	5	☼	8270D	Total/NA
Dibenz(a,h)anthracene	420	J	950	170	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	4700		950	100	ug/Kg	5	☼	8270D	Total/NA
Fluorene	190	J	950	110	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300		950	120	ug/Kg	5	☼	8270D	Total/NA
Pyrene	4100		950	110	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	2200		950	140	ug/Kg	5	☼	8270D	Total/NA
Arsenic	7.4		2.3	0.45	mg/Kg	1	☼	6010C	Total/NA
Barium	67.0		0.57	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.47		0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Chromium	10.6	B	0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	113		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Silver	0.53	J	0.68	0.23	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.77		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SP-SB-18 1-3FT
Lab Sample ID: 480-153404-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	440	J	1800	230	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	1500	J	1800	180	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	1800		1800	260	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SP-SB-18 1-3FT (Continued)
Lab Sample ID: 480-153404-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	2300		1800	280	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1600	J	1800	190	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	1100	J	1800	230	ug/Kg	5	☼	8270D	Total/NA
Chrysene	1700	J	1800	400	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	2500		1800	190	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300	J	1800	220	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	320	J	1800	230	ug/Kg	5	☼	8270D	Total/NA
Pyrene	2200		1800	210	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	1400	J	1800	260	ug/Kg	5	☼	8270D	Total/NA
Arsenic	14.4		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	141		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.22		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	34.5	B	0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	249		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.068		0.022	0.0088	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SP-SB-19 1-4FT
Lab Sample ID: 480-153404-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	32	J	180	24	ug/Kg	1	☼	8270D	Total/NA
Anthracene	81	J	180	45	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	330		180	18	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	360		180	27	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	480		180	29	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	340		180	19	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	240		180	24	ug/Kg	1	☼	8270D	Total/NA
Chrysene	370		180	41	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	590		180	19	ug/Kg	1	☼	8270D	Total/NA
Fluorene	32	J	180	21	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	300		180	22	ug/Kg	1	☼	8270D	Total/NA
Pyrene	500		180	21	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	290		180	27	ug/Kg	1	☼	8270D	Total/NA
Arsenic	21.7		11.0	2.2	mg/Kg	5	☼	6010C	Total/NA
Barium	99.3		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	7.6		1.1	0.17	mg/Kg	5	☼	6010C	Total/NA
Chromium	1620	B	5.5	2.2	mg/Kg	10	☼	6010C	Total/NA
Lead	799		5.5	1.3	mg/Kg	5	☼	6010C	Total/NA
Silver	4.0	J	6.6	2.2	mg/Kg	10	☼	6010C	Total/NA
Mercury	0.085		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SP-SB-12 1-3FT
Lab Sample ID: 480-153404-1

Date Collected: 05/09/19 10:30
Matrix: Solid
Date Received: 05/10/19 10:05
Percent Solids: 91.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		9200	1400	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Acenaphthylene	ND		9200	1200	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Anthracene	ND		9200	2300	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Benzo[a]anthracene	**5900**	**J**	9200	920	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Benzo[a]pyrene	**5300**	**J**	9200	1400	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Benzo[b]fluoranthene	**7600**	**J**	9200	1500	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Benzo[g,h,i]perylene	**3300**	**J**	9200	980	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Benzo[k]fluoranthene	**3700**	**J**	9200	1200	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Chrysene	**6200**	**J**	9200	2100	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Dibenz(a,h)anthracene	ND		9200	1600	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Fluoranthene	**13000**		9200	980	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Fluorene	**1200**	**J**	9200	1100	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Indeno[1,2,3-cd]pyrene	**3300**	**J**	9200	1100	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Naphthalene	ND		9200	1200	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Pyrene	**10000**		9200	1100	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50
Phenanthrene	**7900**	**J**	9200	1400	ug/Kg	☼	05/16/19 16:00	05/19/19 17:34	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*158*	*X*	*54 - 120*	*05/16/19 16:00*	*05/19/19 17:34*	*50*
2-Fluorobiphenyl	*86*		*60 - 120*	*05/16/19 16:00*	*05/19/19 17:34*	*50*
2-Fluorophenol (Surr)	*74*		*52 - 120*	*05/16/19 16:00*	*05/19/19 17:34*	*50*
Phenol-d5 (Surr)	*71*		*54 - 120*	*05/16/19 16:00*	*05/19/19 17:34*	*50*
p-Terphenyl-d14 (Surr)	*98*		*65 - 121*	*05/16/19 16:00*	*05/19/19 17:34*	*50*
Nitrobenzene-d5 (Surr)	*128*	*X*	*53 - 120*	*05/16/19 16:00*	*05/19/19 17:34*	*50*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.6**		2.2	0.45	mg/Kg	☼	05/14/19 14:09	05/16/19 23:53	1
Barium	**91.9**		0.56	0.12	mg/Kg	☼	05/14/19 14:09	05/16/19 23:53	1
Cadmium	**0.14**	**J**	0.22	0.034	mg/Kg	☼	05/14/19 14:09	05/16/19 23:53	1
Chromium	**394**	**B**	1.1	0.45	mg/Kg	☼	05/14/19 14:09	05/18/19 00:02	2
Lead	**213**		1.1	0.27	mg/Kg	☼	05/14/19 14:09	05/16/19 23:53	1
Selenium	ND		9.0	0.90	mg/Kg	☼	05/14/19 14:09	05/18/19 00:02	2
Silver	**0.53**	**J**	1.3	0.45	mg/Kg	☼	05/14/19 14:09	05/18/19 00:02	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.24**		0.022	0.0088	mg/Kg	☼	05/17/19 15:00	05/17/19 16:07	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-13 1-3FT

Date Collected: 05/09/19 11:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-2

Matrix: Solid
Percent Solids: 82.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	100	J	200	30	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Acenaphthylene	68	J	200	26	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Anthracene	260		200	50	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Benzo[a]anthracene	820		200	20	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Benzo[a]pyrene	730		200	30	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Benzo[b]fluoranthene	910		200	32	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Benzo[g,h,i]perylene	500		200	21	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Benzo[k]fluoranthene	330		200	26	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Chrysene	810		200	45	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Dibenz(a,h)anthracene	150	J	200	36	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Fluoranthene	1600		200	21	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Fluorene	120	J	200	24	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Indeno[1,2,3-cd]pyrene	460		200	25	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Naphthalene	51	J	200	26	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Pyrene	1400		200	24	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1
Phenanthrene	1000		200	30	ug/Kg	☼	05/16/19 16:00	05/19/19 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*99*		*54 - 120*	*05/16/19 16:00*	*05/19/19 18:02*	*1*
2-Fluorobiphenyl	*103*		*60 - 120*	*05/16/19 16:00*	*05/19/19 18:02*	*1*
2-Fluorophenol (Surr)	*85*		*52 - 120*	*05/16/19 16:00*	*05/19/19 18:02*	*1*
Phenol-d5 (Surr)	*87*		*54 - 120*	*05/16/19 16:00*	*05/19/19 18:02*	*1*
p-Terphenyl-d14 (Surr)	*112*		*65 - 121*	*05/16/19 16:00*	*05/19/19 18:02*	*1*
Nitrobenzene-d5 (Surr)	*90*		*53 - 120*	*05/16/19 16:00*	*05/19/19 18:02*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		2.4	0.48	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Barium	87.2		0.60	0.13	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Cadmium	0.099	J	0.24	0.036	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Chromium	17.7	B	0.60	0.24	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Lead	145		1.2	0.29	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Selenium	ND		4.8	0.48	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1
Silver	ND		0.72	0.24	mg/Kg	☼	05/14/19 14:09	05/16/19 23:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.024	0.0096	mg/Kg	☼	05/17/19 15:00	05/17/19 16:11	1

Client Sample ID: SP-SB-14 2-4FT
Lab Sample ID: 480-153404-3

Date Collected: 05/09/19 11:30
Matrix: Solid
Date Received: 05/10/19 10:05
Percent Solids: 71.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	49000		24000	3500	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Acenaphthylene	27000		24000	3100	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Anthracene	140000		24000	5800	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Benzo[a]anthracene	190000		24000	2400	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Benzo[a]pyrene	170000		24000	3500	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Benzo[b]fluoranthene	210000		24000	3700	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Benzo[g,h,i]perylene	100000		24000	2500	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Benzo[k]fluoranthene	82000		24000	3100	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Chrysene	190000		24000	5300	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Dibenz(a,h)anthracene	31000		24000	4200	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Fluoranthene	460000		24000	2500	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Fluorene	84000		24000	2800	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Indeno[1,2,3-cd]pyrene	90000		24000	2900	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Naphthalene	32000		24000	3100	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Pyrene	380000		24000	2800	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100
Phenanthrene	460000		24000	3500	ug/Kg	☼	05/16/19 16:00	05/19/19 18:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*0*	*X*	*54 - 120*	*05/16/19 16:00*	*05/19/19 18:30*	*100*
2-Fluorobiphenyl	*92*		*60 - 120*	*05/16/19 16:00*	*05/19/19 18:30*	*100*
2-Fluorophenol (Surr)	*75*		*52 - 120*	*05/16/19 16:00*	*05/19/19 18:30*	*100*
Phenol-d5 (Surr)	*75*		*54 - 120*	*05/16/19 16:00*	*05/19/19 18:30*	*100*
p-Terphenyl-d14 (Surr)	*123*	*X*	*65 - 121*	*05/16/19 16:00*	*05/19/19 18:30*	*100*
Nitrobenzene-d5 (Surr)	*177*	*X*	*53 - 120*	*05/16/19 16:00*	*05/19/19 18:30*	*100*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	23.4		2.9	0.57	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Barium	1210		0.71	0.16	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Cadmium	2.6		0.29	0.043	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Chromium	8.1	B	0.71	0.29	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Lead	402		1.4	0.34	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Selenium	2.2	J	5.7	0.57	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1
Silver	ND		0.86	0.29	mg/Kg	☼	05/14/19 14:09	05/17/19 00:00	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.32		0.026	0.011	mg/Kg	☼	05/17/19 15:00	05/17/19 16:12	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-17 1-4FT

Date Collected: 05/09/19 13:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-4

Matrix: Solid
Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	180	J	950	140	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Acenaphthylene	200	J	950	120	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Anthracene	610	J	950	230	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Benzo[a]anthracene	2300		950	95	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Benzo[a]pyrene	2200		950	140	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Benzo[b]fluoranthene	2700		950	150	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Benzo[g,h,i]perylene	1400		950	100	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Benzo[k]fluoranthene	1400		950	120	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Chrysene	2400		950	210	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Dibenz(a,h)anthracene	420	J	950	170	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Fluoranthene	4700		950	100	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Fluorene	190	J	950	110	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Indeno[1,2,3-cd]pyrene	1300		950	120	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Naphthalene	ND		950	120	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Pyrene	4100		950	110	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5
Phenanthrene	2200		950	140	ug/Kg	☼	05/16/19 16:00	05/19/19 18:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*54 - 120*	*05/16/19 16:00*	*05/19/19 18:58*	*5*
2-Fluorobiphenyl	*100*		*60 - 120*	*05/16/19 16:00*	*05/19/19 18:58*	*5*
2-Fluorophenol (Surr)	*86*		*52 - 120*	*05/16/19 16:00*	*05/19/19 18:58*	*5*
Phenol-d5 (Surr)	*85*		*54 - 120*	*05/16/19 16:00*	*05/19/19 18:58*	*5*
p-Terphenyl-d14 (Surr)	*111*		*65 - 121*	*05/16/19 16:00*	*05/19/19 18:58*	*5*
Nitrobenzene-d5 (Surr)	*89*		*53 - 120*	*05/16/19 16:00*	*05/19/19 18:58*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		2.3	0.45	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Barium	67.0		0.57	0.12	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Cadmium	0.47		0.23	0.034	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Chromium	10.6	B	0.57	0.23	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Lead	113		1.1	0.27	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Selenium	ND		4.5	0.45	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1
Silver	0.53	J	0.68	0.23	mg/Kg	☼	05/14/19 14:09	05/17/19 00:04	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.77		0.022	0.0088	mg/Kg	☼	05/17/19 15:00	05/17/19 16:14	1

Client Sample ID: SP-SB-18 1-3FT
Lab Sample ID: 480-153404-5

Date Collected: 05/09/19 13:30
Matrix: Solid
Date Received: 05/10/19 10:05
Percent Solids: 91.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1800	260	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Acenaphthylene	**440**	**J**	1800	230	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Anthracene	ND		1800	440	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Benzo[a]anthracene	**1500**	**J**	1800	180	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Benzo[a]pyrene	**1800**		1800	260	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Benzo[b]fluoranthene	**2300**		1800	280	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Benzo[g,h,i]perylene	**1600**	**J**	1800	190	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Benzo[k]fluoranthene	**1100**	**J**	1800	230	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Chrysene	**1700**	**J**	1800	400	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Fluoranthene	**2500**		1800	190	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Fluorene	ND		1800	210	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Indeno[1,2,3-cd]pyrene	**1300**	**J**	1800	220	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Naphthalene	**320**	**J**	1800	230	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Pyrene	**2200**		1800	210	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5
Phenanthrene	**1400**	**J**	1800	260	ug/Kg	☼	05/16/19 16:00	05/19/19 19:26	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*54 - 120*	*05/16/19 16:00*	*05/19/19 19:26*	*5*
2-Fluorobiphenyl	*94*		*60 - 120*	*05/16/19 16:00*	*05/19/19 19:26*	*5*
2-Fluorophenol (Surr)	*77*		*52 - 120*	*05/16/19 16:00*	*05/19/19 19:26*	*5*
Phenol-d5 (Surr)	*81*		*54 - 120*	*05/16/19 16:00*	*05/19/19 19:26*	*5*
p-Terphenyl-d14 (Surr)	*105*		*65 - 121*	*05/16/19 16:00*	*05/19/19 19:26*	*5*
Nitrobenzene-d5 (Surr)	*92*		*53 - 120*	*05/16/19 16:00*	*05/19/19 19:26*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**14.4**		2.2	0.44	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Barium	**141**		0.55	0.12	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Cadmium	**0.22**		0.22	0.033	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Chromium	**34.5**	**B**	0.55	0.22	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Lead	**249**		1.1	0.26	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Selenium	ND		4.4	0.44	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1
Silver	ND		0.66	0.22	mg/Kg	☼	05/14/19 14:09	05/17/19 00:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.068**		0.022	0.0088	mg/Kg	☼	05/17/19 15:00	05/17/19 16:15	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-19 1-4FT

Date Collected: 05/09/19 14:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-6

Matrix: Solid
Percent Solids: 92.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		180	27	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Acenaphthylene	**32**	**J**	180	24	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Anthracene	**81**	**J**	180	45	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Benzo[a]anthracene	**330**		180	18	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Benzo[a]pyrene	**360**		180	27	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Benzo[b]fluoranthene	**480**		180	29	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Benzo[g,h,i]perylene	**340**		180	19	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Benzo[k]fluoranthene	**240**		180	24	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Chrysene	**370**		180	41	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Dibenz(a,h)anthracene	ND		180	32	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Fluoranthene	**590**		180	19	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Fluorene	**32**	**J**	180	21	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Indeno[1,2,3-cd]pyrene	**300**		180	22	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Naphthalene	ND		180	24	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Pyrene	**500**		180	21	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1
Phenanthrene	**290**		180	27	ug/Kg	☼	05/16/19 16:00	05/19/19 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*54 - 120*	*05/16/19 16:00*	*05/19/19 19:53*	*1*
2-Fluorobiphenyl	*103*		*60 - 120*	*05/16/19 16:00*	*05/19/19 19:53*	*1*
2-Fluorophenol (Surr)	*85*		*52 - 120*	*05/16/19 16:00*	*05/19/19 19:53*	*1*
Phenol-d5 (Surr)	*86*		*54 - 120*	*05/16/19 16:00*	*05/19/19 19:53*	*1*
p-Terphenyl-d14 (Surr)	*114*		*65 - 121*	*05/16/19 16:00*	*05/19/19 19:53*	*1*
Nitrobenzene-d5 (Surr)	*90*		*53 - 120*	*05/16/19 16:00*	*05/19/19 19:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**21.7**		11.0	2.2	mg/Kg	☼	05/14/19 14:09	05/18/19 00:21	5
Barium	**99.3**		0.55	0.12	mg/Kg	☼	05/14/19 14:09	05/18/19 00:17	1
Cadmium	**7.6**		1.1	0.17	mg/Kg	☼	05/14/19 14:09	05/18/19 00:21	5
Chromium	**1620**	**B**	5.5	2.2	mg/Kg	☼	05/14/19 14:09	05/18/19 10:29	10
Lead	**799**		5.5	1.3	mg/Kg	☼	05/14/19 14:09	05/18/19 00:21	5
Selenium	ND		44.1	4.4	mg/Kg	☼	05/14/19 14:09	05/18/19 10:29	10
Silver	**4.0**	**J**	6.6	2.2	mg/Kg	☼	05/14/19 14:09	05/18/19 10:29	10

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.085**		0.021	0.0086	mg/Kg	☼	05/17/19 15:00	05/17/19 16:16	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (54-120)	FBP (60-120)	2FP (52-120)	PHL (54-120)	TPHd14 (65-121)	NBZ (53-120)
480-153404-1	SP-SB-12 1-3FT	158 X	86	74	71	98	128 X
480-153404-2	SP-SB-13 1-3FT	99	103	85	87	112	90
480-153404-3	SP-SB-14 2-4FT	0 X	92	75	75	123 X	177 X
480-153404-4	SP-SB-17 1-4FT	86	100	86	85	111	89
480-153404-5	SP-SB-18 1-3FT	76	94	77	81	105	92
480-153404-6	SP-SB-19 1-4FT	94	103	85	86	114	90
LCS 480-473254/2-A	Lab Control Sample	95	84	68	72	103	73
MB 480-473254/1-A	Method Blank	83	93	81	82	108	82

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)

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

Lab Sample ID: MB 480-473254/1-A
Matrix: Solid
Analysis Batch: 473588

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 473254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Acenaphthylene	ND		170	22	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Anthracene	ND		170	42	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Benzo[a]anthracene	ND		170	17	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Benzo[a]pyrene	ND		170	25	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Chrysene	ND		170	38	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Fluoranthene	ND		170	18	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Fluorene	ND		170	20	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Naphthalene	ND		170	22	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Pyrene	ND		170	20	ug/Kg		05/16/19 16:00	05/19/19 14:43	1
Phenanthrene	ND		170	25	ug/Kg		05/16/19 16:00	05/19/19 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*54 - 120*	*05/16/19 16:00*	*05/19/19 14:43*	*1*
2-Fluorobiphenyl	*93*		*60 - 120*	*05/16/19 16:00*	*05/19/19 14:43*	*1*
2-Fluorophenol (Surr)	*81*		*52 - 120*	*05/16/19 16:00*	*05/19/19 14:43*	*1*
Phenol-d5 (Surr)	*82*		*54 - 120*	*05/16/19 16:00*	*05/19/19 14:43*	*1*
p-Terphenyl-d14 (Surr)	*108*		*65 - 121*	*05/16/19 16:00*	*05/19/19 14:43*	*1*
Nitrobenzene-d5 (Surr)	*82*		*53 - 120*	*05/16/19 16:00*	*05/19/19 14:43*	*1*

Lab Sample ID: LCS 480-473254/2-A
Matrix: Solid
Analysis Batch: 473588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 473254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1650	1510		ug/Kg		91	62 - 120
Acenaphthylene	1650	1560		ug/Kg		94	58 - 121
Anthracene	1650	1780		ug/Kg		108	62 - 120
Benzo[a]anthracene	1650	1710		ug/Kg		103	65 - 120
Benzo[a]pyrene	1650	1750		ug/Kg		106	64 - 120
Benzo[b]fluoranthene	1650	1760		ug/Kg		106	64 - 120
Benzo[g,h,i]perylene	1650	1750		ug/Kg		106	45 - 145
Benzo[k]fluoranthene	1650	1890		ug/Kg		114	65 - 120
Chrysene	1650	1790		ug/Kg		108	64 - 120
Dibenz(a,h)anthracene	1650	1850		ug/Kg		112	54 - 132
Fluoranthene	1650	1850		ug/Kg		112	62 - 120
Fluorene	1650	1610		ug/Kg		97	63 - 120
Indeno[1,2,3-cd]pyrene	1650	1780		ug/Kg		108	56 - 134
Naphthalene	1650	1360		ug/Kg		82	55 - 120
Pyrene	1650	1800		ug/Kg		109	61 - 133
Phenanthrene	1650	1730		ug/Kg		105	60 - 120

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

Lab Sample ID: LCS 480-473254/2-A
Matrix: Solid
Analysis Batch: 473588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 473254

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	95		54 - 120
2-Fluorobiphenyl	84		60 - 120
2-Fluorophenol (Surr)	68		52 - 120
Phenol-d5 (Surr)	72		54 - 120
p-Terphenyl-d14 (Surr)	103		65 - 121
Nitrobenzene-d5 (Surr)	73		53 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-472749/1-A
Matrix: Solid
Analysis Batch: 473384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 472749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.40	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Barium	ND		0.50	0.11	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Cadmium	ND		0.20	0.030	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Chromium	0.430	J	0.50	0.20	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Lead	ND		1.0	0.24	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Selenium	ND		4.0	0.40	mg/Kg		05/14/19 14:09	05/16/19 23:06	1
Silver	ND		0.60	0.20	mg/Kg		05/14/19 14:09	05/16/19 23:06	1

Lab Sample ID: LCDSRM 480-472749/25-A
Matrix: Solid
Analysis Batch: 474084

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 472749

Analyte			Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			221	170.5		mg/Kg		77.1	63.8 - 119.0	12	20
Barium			288	235.0		mg/Kg		81.6	70.5 - 117.4	10	20
Cadmium			153	115.6		mg/Kg		75.6	68.6 - 115.0	12	20
Chromium			179	141.5		mg/Kg		79.0	65.4 - 121.2	15	20
Lead			74.5	70.49		mg/Kg		94.6	67.8 - 130.3	10	20
Selenium			54.4	40.76		mg/Kg		74.9	53.3 - 130.0	15	20
Silver			75.5	57.81		mg/Kg		76.6	66.6 - 121.7	20	20

Lab Sample ID: LCSSRM 480-472749/2-A
Matrix: Solid
Analysis Batch: 473384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 472749

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			221	191.7		mg/Kg		86.8	63.8 - 119.0
Barium			288	259.8		mg/Kg		90.2	70.5 - 117.4

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

Lab Sample ID: LCSSRM 480-472749/2-A
Matrix: Solid
Analysis Batch: 473384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 472749

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	153	130.7		mg/Kg		85.4	68.6 - 115.0
Chromium	179	164.0		mg/Kg		91.6	65.4 - 121.2
Lead	74.5	78.12		mg/Kg		104.9	67.8 - 130.3
Selenium	54.4	47.28		mg/Kg		86.9	53.3 - 130.0
Silver	75.5	70.99		mg/Kg		94.0	66.6 - 121.7

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-473457/1-A
Matrix: Solid
Analysis Batch: 473490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 473457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0082	mg/Kg		05/17/19 15:00	05/17/19 15:56	1

Lab Sample ID: LCSSRM 480-473457/2-A ^5
Matrix: Solid
Analysis Batch: 473490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 473457

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	4.85	4.01		mg/Kg		82.6	46.0 - 107.0

QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Job ID: 480-153404-1
Project/Site: Benchmark - Ganson St.

GC/MS Semi VOA

Prep Batch: 473254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	3550C	
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	3550C	
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	3550C	
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	3550C	
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	3550C	
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	3550C	
MB 480-473254/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-473254/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 473588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	8270D	473254
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	8270D	473254
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	8270D	473254
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	8270D	473254
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	8270D	473254
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	8270D	473254
MB 480-473254/1-A	Method Blank	Total/NA	Solid	8270D	473254
LCS 480-473254/2-A	Lab Control Sample	Total/NA	Solid	8270D	473254

Metals

Prep Batch: 472749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	3050B	
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	3050B	
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	3050B	
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	3050B	
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	3050B	
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	3050B	
MB 480-472749/1-A	Method Blank	Total/NA	Solid	3050B	
LCDSRM 480-472749/25-A	Lab Control Sample Dup	Total/NA	Solid	3050B	
LCSSRM 480-472749/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 473384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	6010C	472749
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	6010C	472749
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	6010C	472749
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	6010C	472749
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	6010C	472749
MB 480-472749/1-A	Method Blank	Total/NA	Solid	6010C	472749
LCSSRM 480-472749/2-A	Lab Control Sample	Total/NA	Solid	6010C	472749

Prep Batch: 473457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	7471B	
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	7471B	
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	7471B	
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	7471B	
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 473457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	7471B	
MB 480-473457/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-473457/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 473490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	7471B	473457
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	7471B	473457
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	7471B	473457
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	7471B	473457
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	7471B	473457
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	7471B	473457
MB 480-473457/1-A	Method Blank	Total/NA	Solid	7471B	473457
LCSSRM 480-473457/2-A ^5	Lab Control Sample	Total/NA	Solid	7471B	473457

Analysis Batch: 473623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	6010C	472749
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	6010C	472749
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	6010C	472749

Analysis Batch: 473671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	6010C	472749

Analysis Batch: 474084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCDSRM 480-472749/25-A	Lab Control Sample Dup	Total/NA	Solid	6010C	472749

General Chemistry

Analysis Batch: 474905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-153404-1	SP-SB-12 1-3FT	Total/NA	Solid	Moisture	
480-153404-2	SP-SB-13 1-3FT	Total/NA	Solid	Moisture	
480-153404-3	SP-SB-14 2-4FT	Total/NA	Solid	Moisture	
480-153404-4	SP-SB-17 1-4FT	Total/NA	Solid	Moisture	
480-153404-5	SP-SB-18 1-3FT	Total/NA	Solid	Moisture	
480-153404-6	SP-SB-19 1-4FT	Total/NA	Solid	Moisture	
480-153404-1 DU	SP-SB-12 1-3FT	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-12 1-3FT
Date Collected: 05/09/19 10:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Client Sample ID: SP-SB-12 1-3FT
Date Collected: 05/09/19 10:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-1
Matrix: Solid
Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		50	473588	05/19/19 17:34	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473384	05/16/19 23:53	AMH	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		2	473623	05/18/19 00:02	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:07	BMB	TAL BUF

Client Sample ID: SP-SB-13 1-3FT
Date Collected: 05/09/19 11:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Client Sample ID: SP-SB-13 1-3FT
Date Collected: 05/09/19 11:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-2
Matrix: Solid
Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		1	473588	05/19/19 18:02	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473384	05/16/19 23:57	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:11	BMB	TAL BUF

Client Sample ID: SP-SB-14 2-4FT
Date Collected: 05/09/19 11:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-14 2-4FT
Date Collected: 05/09/19 11:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-3
Matrix: Solid
Percent Solids: 71.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		100	473588	05/19/19 18:30	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473384	05/17/19 00:00	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:12	BMB	TAL BUF

Client Sample ID: SP-SB-17 1-4FT
Date Collected: 05/09/19 13:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Client Sample ID: SP-SB-17 1-4FT
Date Collected: 05/09/19 13:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-4
Matrix: Solid
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		5	473588	05/19/19 18:58	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473384	05/17/19 00:04	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:14	BMB	TAL BUF

Client Sample ID: SP-SB-18 1-3FT
Date Collected: 05/09/19 13:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Client Sample ID: SP-SB-18 1-3FT
Date Collected: 05/09/19 13:30
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-5
Matrix: Solid
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		5	473588	05/19/19 19:26	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473384	05/17/19 00:19	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:15	BMB	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Ganson St.

Job ID: 480-153404-1

Client Sample ID: SP-SB-19 1-4FT
Date Collected: 05/09/19 14:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	474905	05/28/19 11:17	KEK1	TAL BUF

Client Sample ID: SP-SB-19 1-4FT
Date Collected: 05/09/19 14:00
Date Received: 05/10/19 10:05

Lab Sample ID: 480-153404-6
Matrix: Solid
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			473254	05/16/19 16:00	SGD	TAL BUF
Total/NA	Analysis	8270D		1	473588	05/19/19 19:53	PJQ	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		1	473623	05/18/19 00:17	AMH	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		5	473623	05/18/19 00:21	AMH	TAL BUF
Total/NA	Prep	3050B			472749	05/14/19 14:09	EMB	TAL BUF
Total/NA	Analysis	6010C		10	473671	05/18/19 10:29	AMH	TAL BUF
Total/NA	Prep	7471B			473457	05/17/19 15:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	473490	05/17/19 16:16	BMB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Job ID: 480-153404-1
Project/Site: Benchmark - Ganson St.

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Job ID: 480-153404-1
Project/Site: Benchmark - Ganson St.

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
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	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 = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Job ID: 480-153404-1
Project/Site: Benchmark - Ganson St.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-153404-1	SP-SB-12 1-3FT	Solid	05/09/19 10:30	05/10/19 10:05	
480-153404-2	SP-SB-13 1-3FT	Solid	05/09/19 11:00	05/10/19 10:05	
480-153404-3	SP-SB-14 2-4FT	Solid	05/09/19 11:30	05/10/19 10:05	
480-153404-4	SP-SB-17 1-4FT	Solid	05/09/19 13:00	05/10/19 10:05	
480-153404-5	SP-SB-18 1-3FT	Solid	05/09/19 13:30	05/10/19 10:05	
480-153404-6	SP-SB-19 1-4FT	Solid	05/09/19 14:00	05/10/19 10:05	

TestAmerica Buffalo
10 Hazelwood Drive

Amherst, NY 14228
Phone: 716.691.2600 Fax: 716.691.7991

Chain of Custody Record

304690

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: BRYAN MAYBACK	Site Contact: CHAD SCHUSTER	Date: 5/10/19	COC No:
Company Name: BENCHMARK ENV. ENG. & SCI	Tel/Fax:	Lab Contact: BRIAN FISCHER	Carrier:	1 of 1 COCs
Address: 2558 HAMBURG TURNPIKE	Analysis Turnaround Time			Sampler: CMS
City/State/Zip: BUFFALO, NY 14218	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 716-856-0599	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: GANSON ST PARCELS	☐ 1 week STD			
Site: GANSON ST PARCELS	☐ 2 days			Job / SDG No.:
P O # 30476-018-001	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PAHs	RCRA METALS	Sample Specific Notes:
SP-SB-12 1-3 Ft	5/9/19	1030	G	Soil	1			X	X	
SP-SB-13 1-3Ft		1100						X	X	
SP-SB-14 2-4Ft		1130						X	X	
SP-SB-17 1-4Ft		1300						X	X	
SP-SB-18 1-3Ft		1330						X	X	
SP-SB-19 1-4Ft		1400						X	X	

480-153404 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

#1 ICE

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 3/6 Corr'd: _____ Therm ID No.: #1

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Chad M Schuster	BENCHMARK	5/10/19 1605		TABUFFALO	5/10/19 1605
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

5/30/2019

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-153404-1

Login Number: 153404
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins 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.	N/A	
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	BENCHMARK
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	