INVENTUM ENGINEERING, PC

DRAFT

Remedial Investigation Report

Volume # 2 - Figures

Riverview Innovation & Technology Campus

Brownfield Cleanup Program Site No. C915353

3875 River Road

Tonawanda, New York 14150

August 18, 2023

441 CARLISLE DRIVE
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Figures

A



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SITE LOCATION MAP

RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
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BCP SITE No. C915353

DRAWING BY	RB
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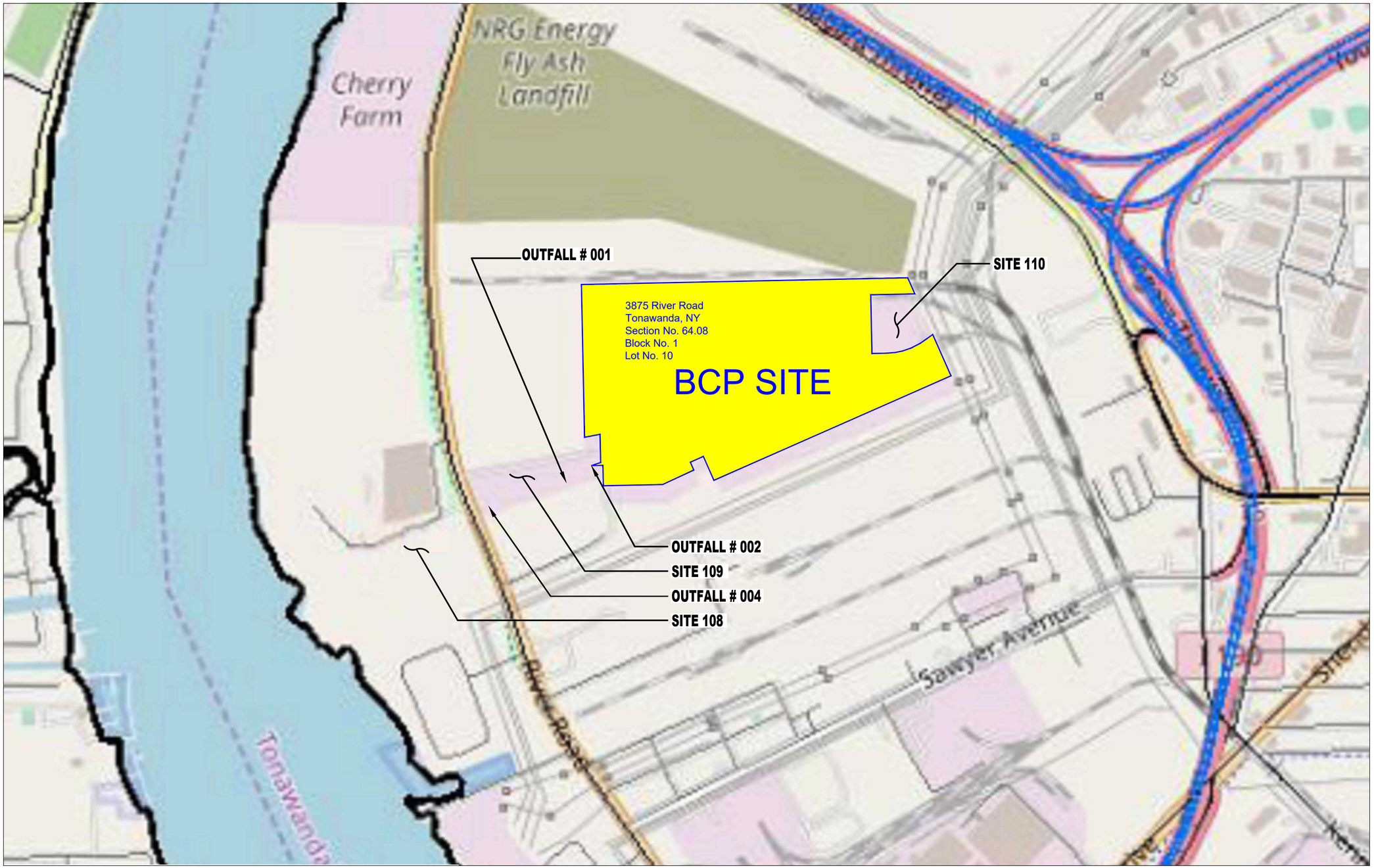
APPROVED	

FIGURE 1 - 1

DRAWING NUMBER



N

Erie County, New York, Interactive Mapping Viewer, www2.erie.gov/gis

64.08-1-10 Section No., Block No., Lot No. (SBL)

Brownfield Site

350 0 175 350 700 1400

1 INCH = 350 FEET (22X34)

D

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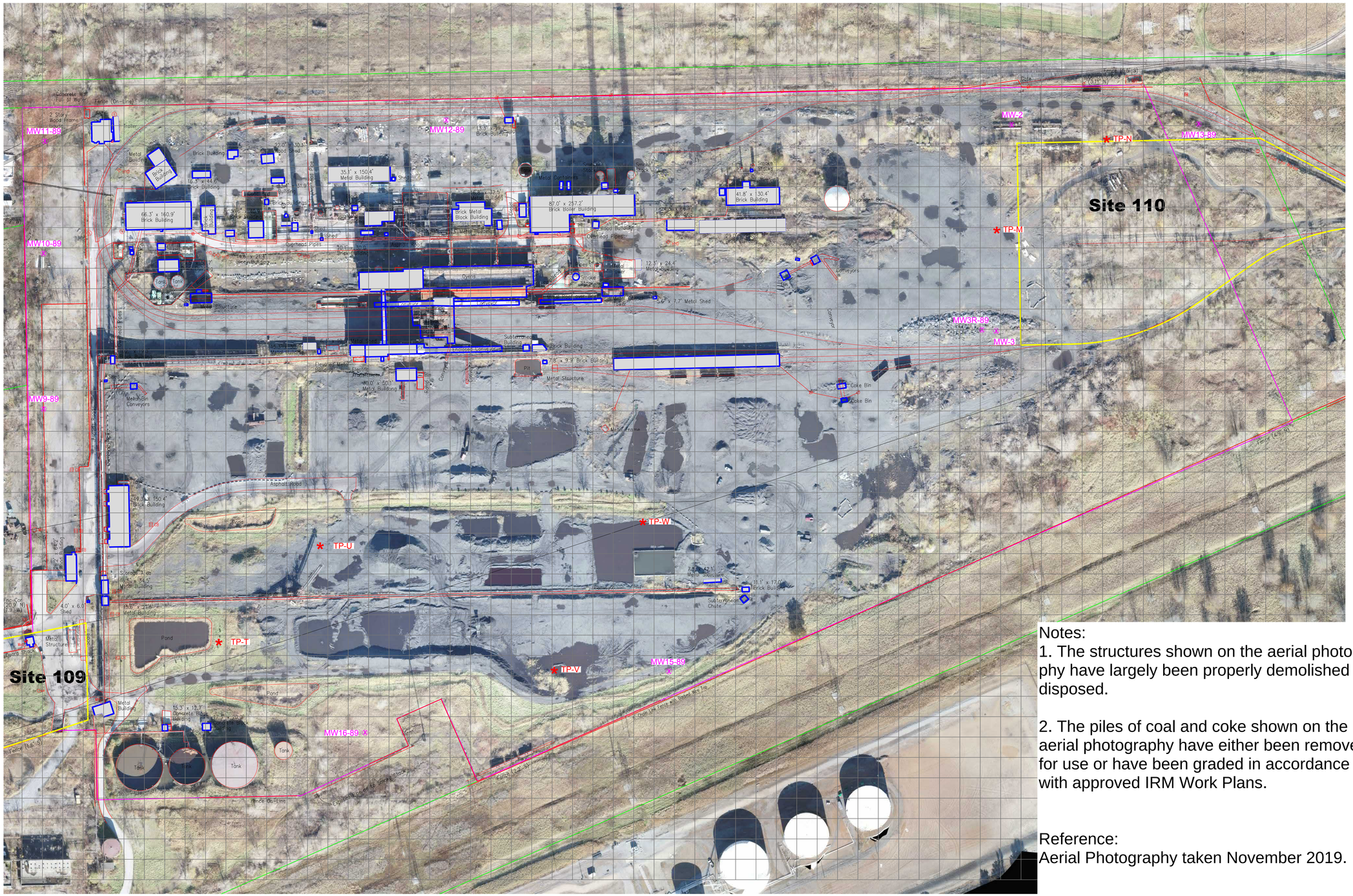
FIGURE 1 - 2

DRAWING NUMBER



Notes:

1. The structures shown on the aerial photography have largely been properly demolished and disposed.

2. The piles of coal and coke shown on the aerial photography have either been removed for use or have been graded in accordance with approved IRM Work Plans.

Reference:
Aerial Photography taken November 2019.

D

100 0 50 100 200 400

1 INCH = 100 FEET (22X34)

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OVERALL SITE GRID

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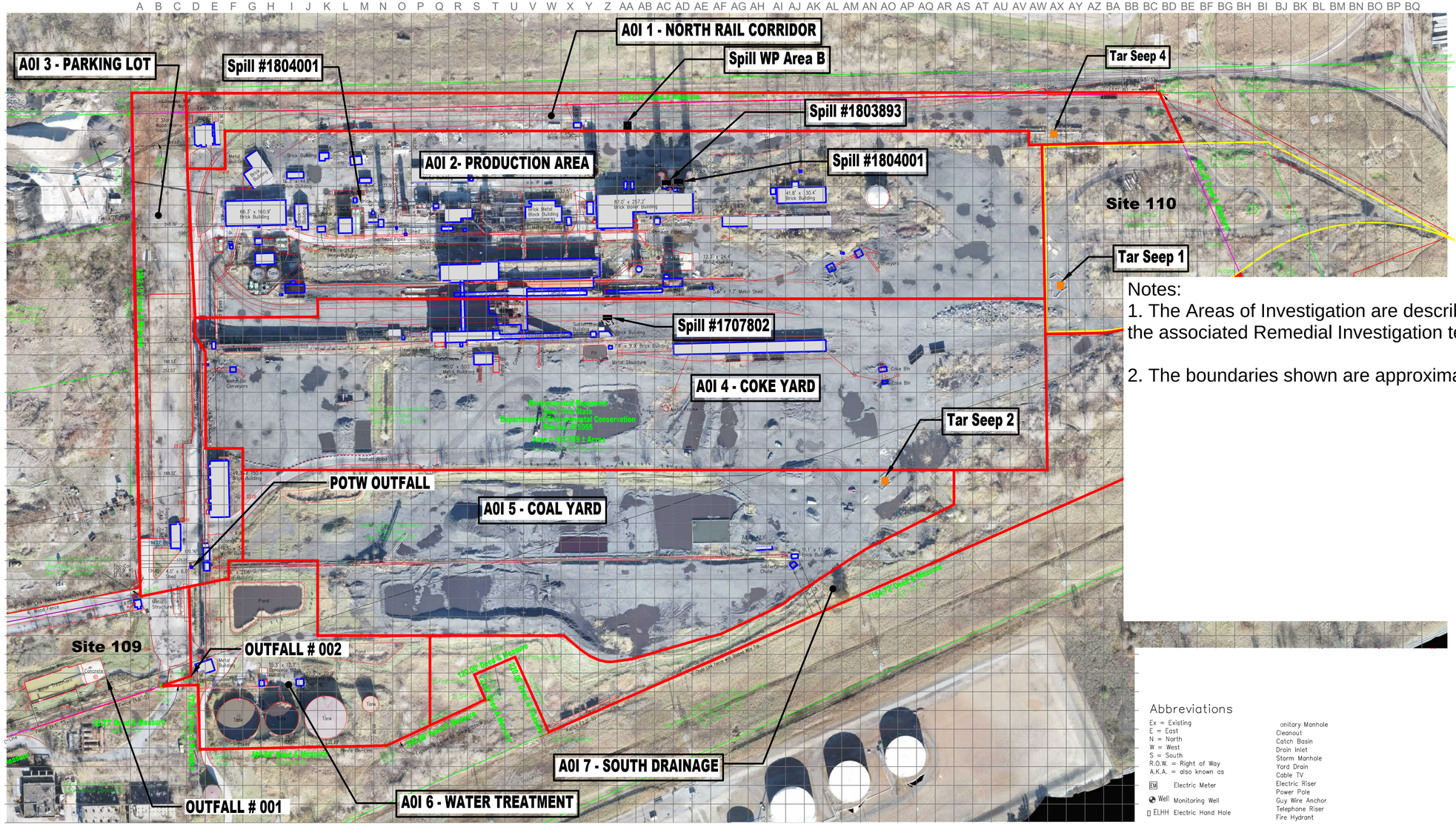
FIGURE 2 - 1

DRAWING NUMBER



Notes:

1. The Areas of Investigation are described in the associated Remedial Investigation text.

2. The boundaries shown are approximate.

Abbreviations

Ex = Existing
E = East
N = North
W = West
S = South
R.O.W. = Right of Way
A.K.A. = also known as
EM Electric Meter
Well Monitoring Well
ELHH Electric Hand Hole

anitary Manhole
Cleanout
Catch Basin
Drain Inlet
Storm Manhole
Yard Drain
Cable TV
Electric Riser
Power Pole
Guy Wire Anchor
Telephone Riser
Fire Hydrant

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

D

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AREAS OF INVESTIGATION (AOI) BOUNDARIES
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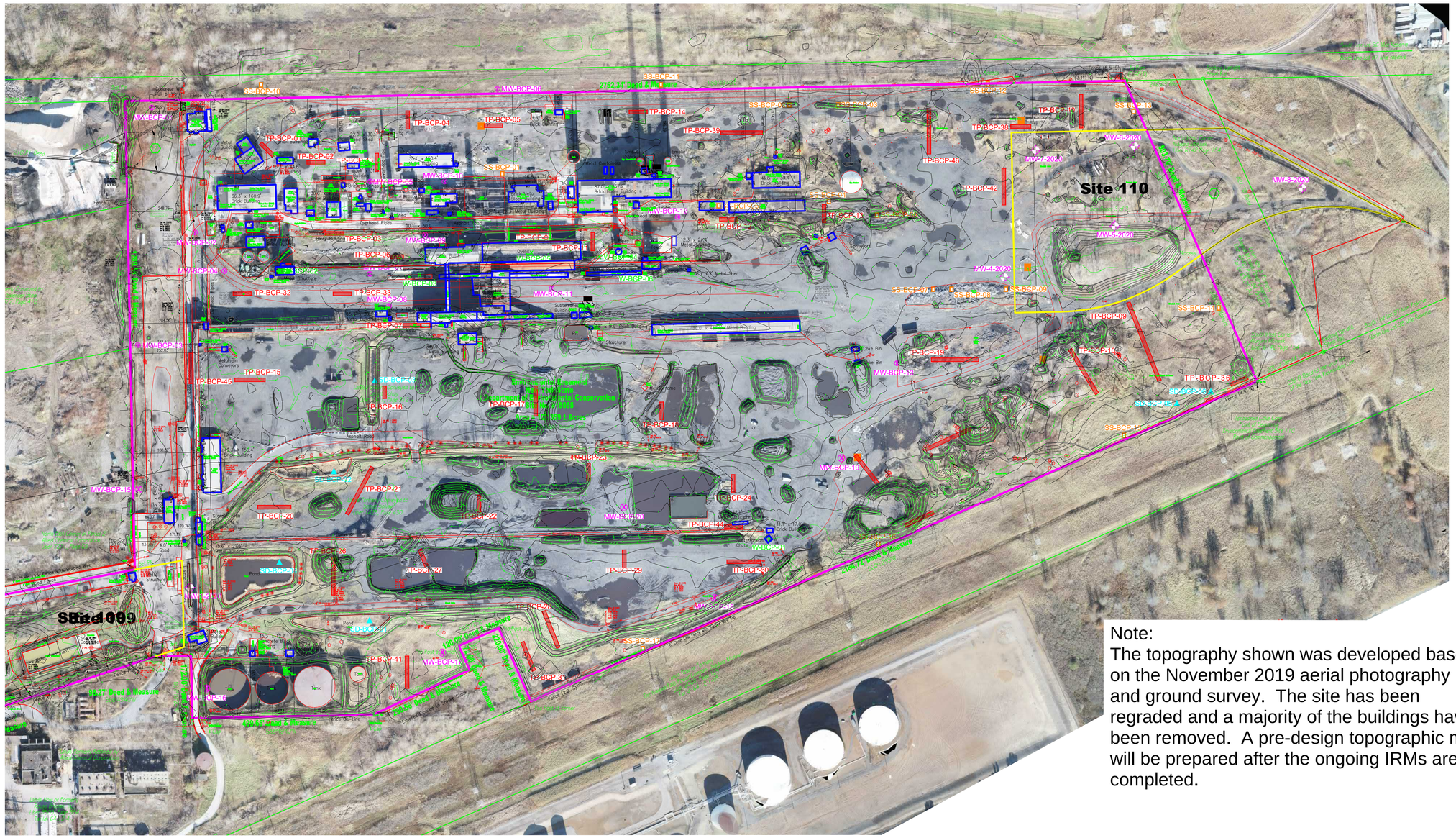
FIGURE 2 - 2

DRAWING NUMBER



Note:
The topography shown was developed based on the November 2019 aerial photography and ground survey. The site has been regraded and a majority of the buildings have been removed. A pre-design topographic map will be prepared after the ongoing IRMs are completed.

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SITE TOPOGRAPHIC MAP

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FIGURE 2 - 3

DRAWING NUMBER



NOTES:

1. Top of Clay elevation contours are referenced to feet above mean sea level based on depth to clay (feet BGS) shown and surveyed ground surface elevation at observation point.
2. Depth to Clay (feet BGS) based the RI test pitting program on the BCP Site, Site 109 and Site 110.

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

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TOP OF CLAY CONTOUR MAP

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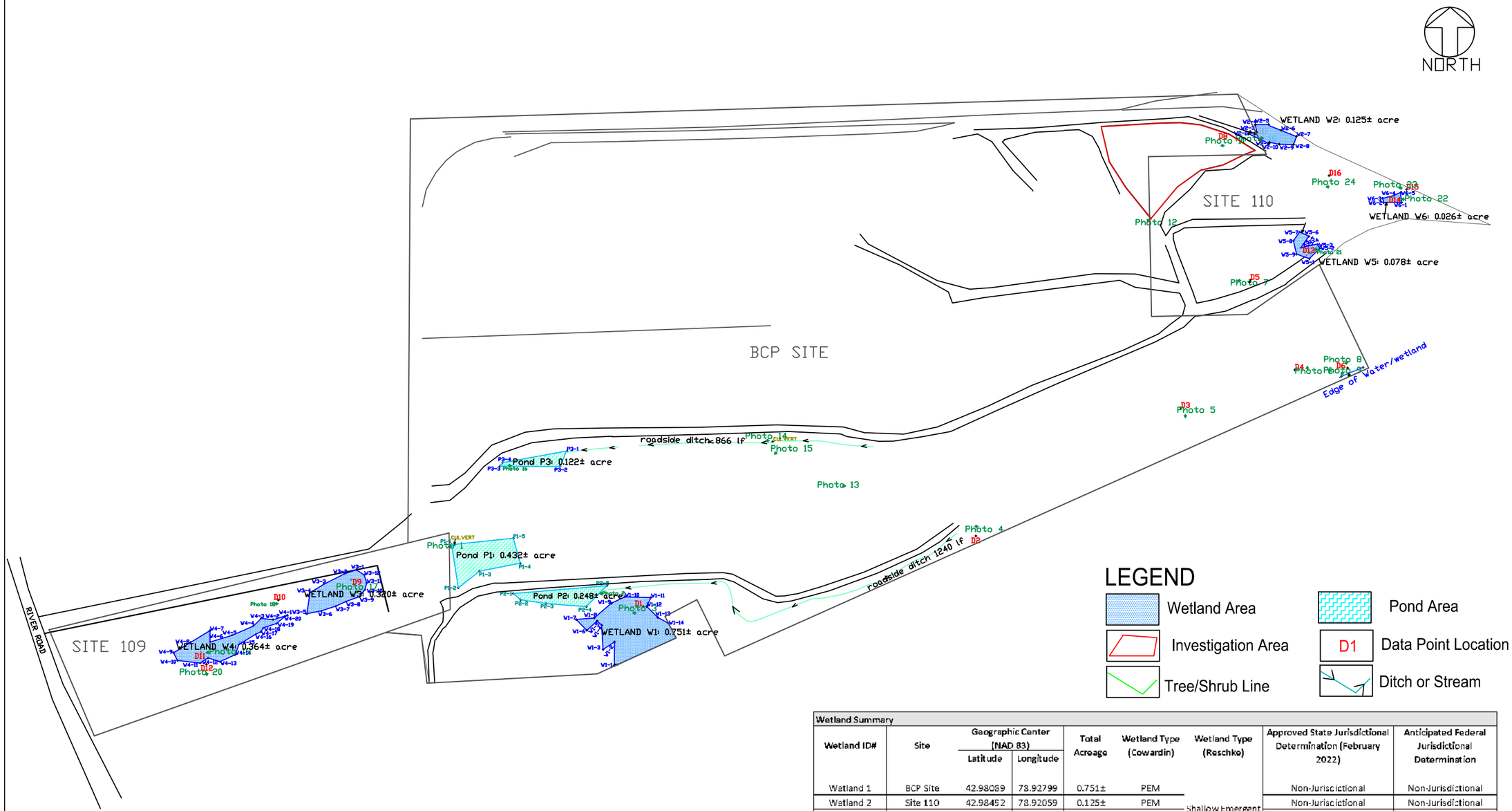
FIGURE 2 - 4

DRAWING NUMBER

SITE MAP



Wetland Summary

Wetland ID#	Site	Geographic Center (NAD 83) Latitude	Geographic Center (NAD 83) Longitude	Total Acreage	Wetland Type (Cowardin)	Wetland Type (Reschke)	Approved State Jurisdictional Determination (February 2022)	Anticipated Federal Jurisdictional Determination
Wetland 1	BCP Site	42.98089	78.92799	0.751±	PEM	Shallow Emergent Marsh	Non-Jurisdictional	Non-Jurisdictional
Wetland 2	Site 110	42.98452	78.92059	0.125±	PEM		Non-Jurisdictional	Non-Jurisdictional
Wetland 3	Site 109	42.98124	78.93131	0.320±	PEM		Non-Jurisdictional	Non-Jurisdictional
Wetland 4	Site 109	42.98075	98.93277	0.364±	PEM		Non Jurisdictional	Non Jurisdictional
Wetland 5	Site 110	42.98357	78.92012	0.078±	PEM		Non-Jurisdictional	Non-Jurisdictional
Wetland 6	Site 110	42.98435	78.91901	0.026±	PEM		Non-Jurisdictional	Non-Jurisdictional

Waterbody Summary

Wetland ID#	Site	Geographic Center (NAD 83) Latitude	Geographic Center (NAD 83) Longitude	Total Acreage	Classification (Cowardin)	Type (Reschke)	Approved State Jurisdictional Determination (February 2022)	Anticipated Federal Jurisdictional Determination
Pond 1	BCP Site	42.9851	78.92966	0.432±	POW	SWPPP Pond	Non-Jurisdictional	Non-Jurisdictional
Pond 2	BCP Site	42.98111	78.92871	0.248±	POW	SWPPP Pond	Non-Jurisdictional	Non-Jurisdictional
Pond 3	BCP Site	42.98229	78.92904	0.122±	POW	SWPPP Pond	Non-Jurisdictional	Non-Jurisdictional

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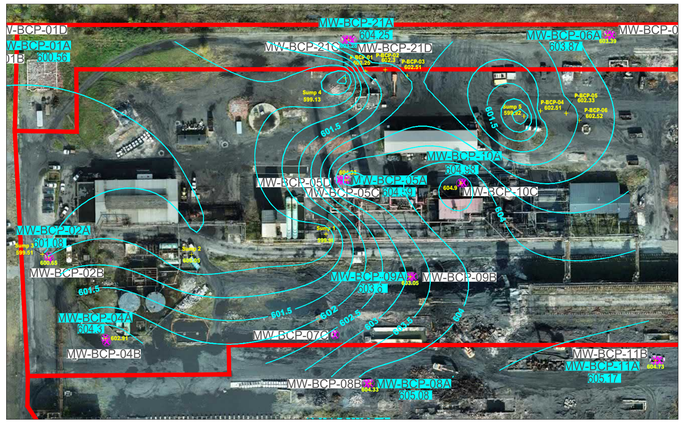
FIGURE 2 - 5

DRAWING NUMBER



Groundwater Contours from June, 2022.

Key:

MW-BCP-11A

A-Zone Monitoring Well label and associated groundwater elevation from September 2021.

000.00

Collection point for June 2022 contour map.

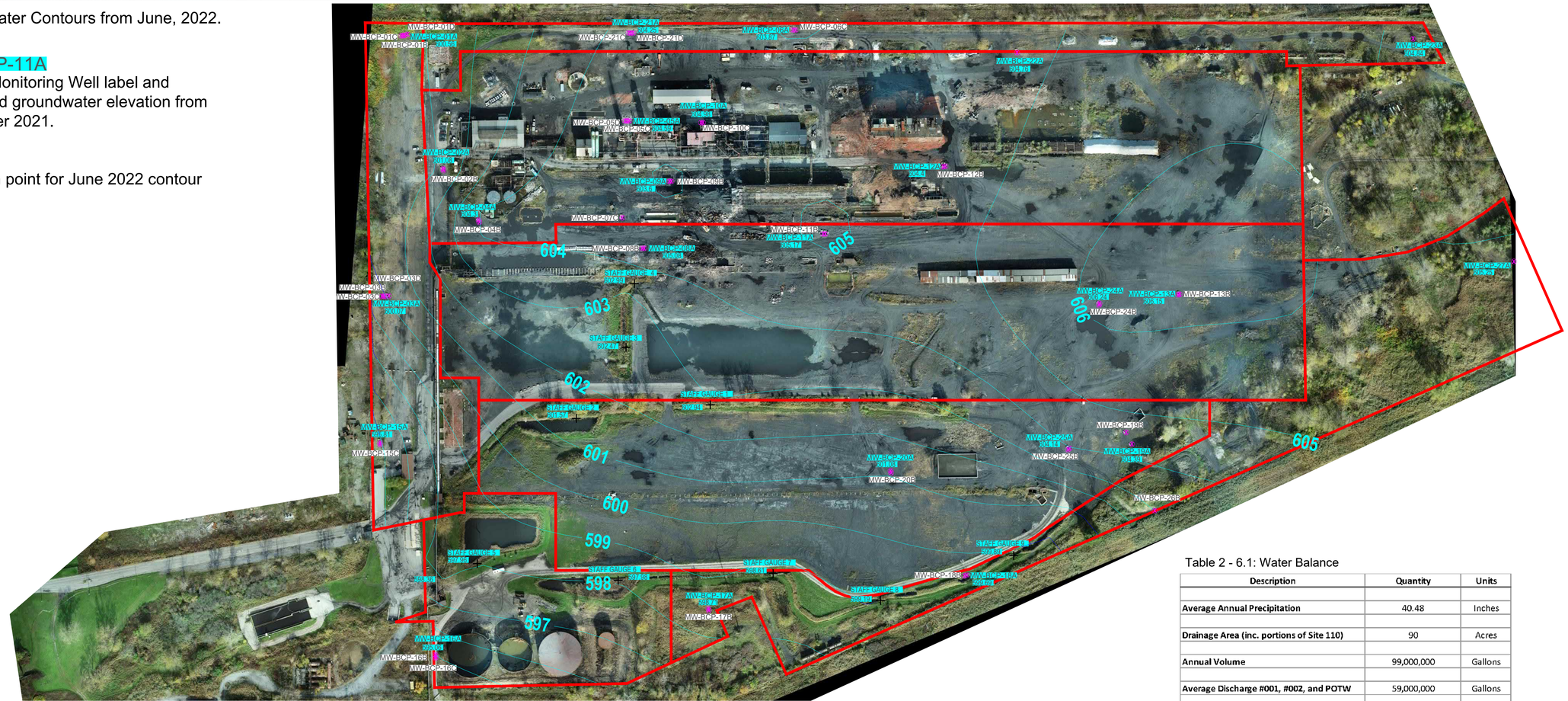


Table 2 - 6.1: Water Balance

Description	Quantity	Units
Average Annual Precipitation	40.48	Inches
Drainage Area (inc. portions of Site 110)	90	Acres
Annual Volume	99,000,000	Gallons
Average Discharge #001, #002, and POTW	59,000,000	Gallons
Average Annual Evapotranspiration	40%	
	40,000,000	Gallons

NOTES:

1. Ground elevations shown are in feet above mean sea level (Feet AMSL).

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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GROUNDWATER CONTOURS - FILL
A ZONE MONITORING WELLS - SEPTEMBER 2021
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FIGURE 2 - 6

DRAWING NUMBER

SITE MAP



NOTES:

1. Groundwater elevations shown are in feet above mean sea level (Feet AMSL).

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

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GROUNDWATER CONTOURS - UPPER CLAY
B-ZONE MONITORING WELLS - SEPTEMBER 2021
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FIGURE 2 - 7

DRAWING NUMBER

SITE MAP



NOTES:

1. Groundwater elevations are shown in feet above mean sea level (Feet AMSL).

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

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GROUNDWATER CONTOURS - LOWER CLAY
C-ZONE MONITORING WELLS - SEPTEMBER 2021
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FIGURE 2 - 8

DRAWING NUMBER

SITE MAP



NOTES: Groundwater elevations are shown in feet above mean sea level (Feet AMSL).

150 0 75 150 300 600

1 INCH = 150 FEET (22X34)

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GROUNDWATER CONTOURS - BEDROCK
D-ZONE MONITORING WELLS - SEPTEMBER 2021
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FIGURE 2 - 9

DRAWING NUMBER

SITE MAP

MW-BCP-01D
MW-BCP-01C
MW-BCP-01A
MW-BCP-01B
SS-BCP-10
TP-BCP-47
TP-BCP-01
TP-BCP-02
MW-BCP-02A
MW-BCP-02B
TP-BCP-03
MW-BCP-04A
MW-BCP-04B
MW-BCP-02
MW-BCP-07C
W-BCP-03
TP-BCP-32
MW-BCP-03D
MW-BCP-03B
MW-BCP-03C
MW-BCP-03A
TP-BCP-45
TP-BCP-15
SD-BCP-03
TP-BCP-16
MW-BCP-15A
MW-BCP-15C
TP-BCP-20
SD-BCP-04
MW-BCP-16A
MW-BCP-16B
MW-BCP-16C
MW-BCP-21C
MW-BCP-21D
MW-BCP-21A
TP-BCP-04
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MW-BCP-09B
TP-BCP-06
MW-BCP-08D
MW-BCP-08B
MW-BCP-08A
TP-BCP-07
TP-BCP-33
MW-BCP-08C
MW-BCP-08A
MW-BCP-06A
MW-BCP-06B
MW-BCP-06C
TP-BCP-14
TP-BCP-39
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SD-BCP-06
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MW-BCP-16C
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SS-BCP-09
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MW-BCP-13A
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TP-BCP-32
MW-BCP-17A
MW-BCP-17B
TP-BCP-40
TP-BCP-46
TP-BCP-38
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SS-BCP-13
SS-BCP-15
SS-BCP-16
SS-BCP-14
SS-BCP-20
MW-BCP-27A
TP-BCP-09
TP-BCP-36
SD-BCP-08
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SD-BCP-09
SS-BCP-18
TP-BCP-34
TP-BCP-25
TAR SEEP NO. 2
MW-BCP-19B
MW-BCP-25A
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SS-BCP-14
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SS-BCP-17
SS-BCP-18
SS-BCP-19
SS-BCP-20
MW-BCP-24A
MW-BCP-24B
MW-BCP-13A
MW-BCP-13B
TP-BCP-19
TP-BCP-09
TP-BCP-36
SD-BCP-08
TP-BCP-10
SD-BCP-09
TP-BCP-34
TP-BCP-25
TAR SEEP NO. 2
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TP-BCP-33
MW-BCP-19B
MW-BCP-25A
MW-BCP-19A
TP-BCP-24
SS-BCP-19
MW-BCP-26B
MW-BCP-26A
MW-BCP-20
TP-BCP-49
TP-BCP-48
TP-BCP-42
TP-BCP-40
TP-BCP-46
TP-BCP-38
MW-BCP-22A
SS-BCP-13
SS-BCP-12
SS-BCP-05
SS-BCP-04
TP-BCP-13
SS-BCP-06
SS-BCP-07
SS-BCP-08
SS-BCP-09
SS-BCP-10
SS-BCP-11
SS-BCP-15
SS-BCP-16
SS-BCP-14
SS-BCP-13
SS-BCP-20
MW-BCP-27A

N

D

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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FIGURE 2 - 11

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N

50 0 25 50 100 200

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D

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FIGURE 2 - 12

DRAWING NUMBER
AOI 1 EAST



D

50 0 25 50 100 200

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N

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FIGURE 2 - 13

DRAWING NUMBER
A0I 2 WEST



50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

DRAWING BY RB

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FIGURE 2 - 14

DRAWING NUMBER

A0I 2 EAST



MATCHLINE A0I 3 SOUTH

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

N

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SAMPLE LOCATIONS - AOI 3 NORTH

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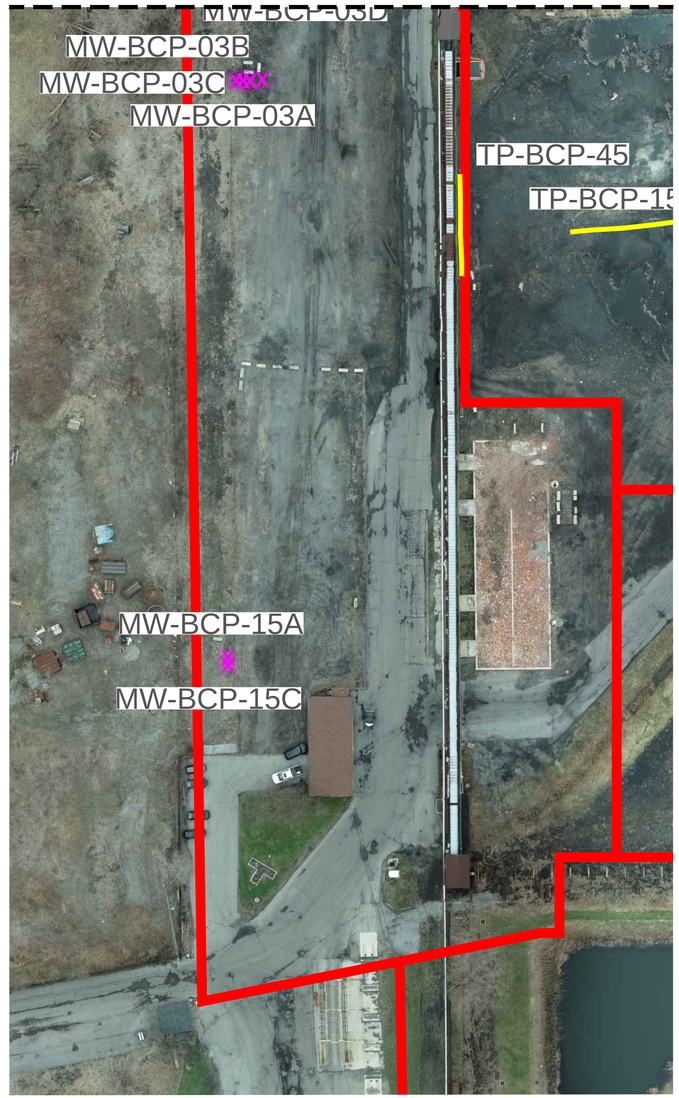
FIGURE 2 - 15

DRAWING NUMBER

A0I 3 NORTH

MATCHLINE A0I 3 NORTH



N

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

DRAWING BY RB

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SAMPLE LOCATIONS - AOI 3 SOUTH

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FIGURE 2 - 16

DRAWING NUMBER

A0I 3 SOUTH



N

D

50 0 25 50 100 200

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FIGURE 2 - 17

DRAWING NUMBER
A0I 4 WEST



N

50 0 25 50 100 200

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D

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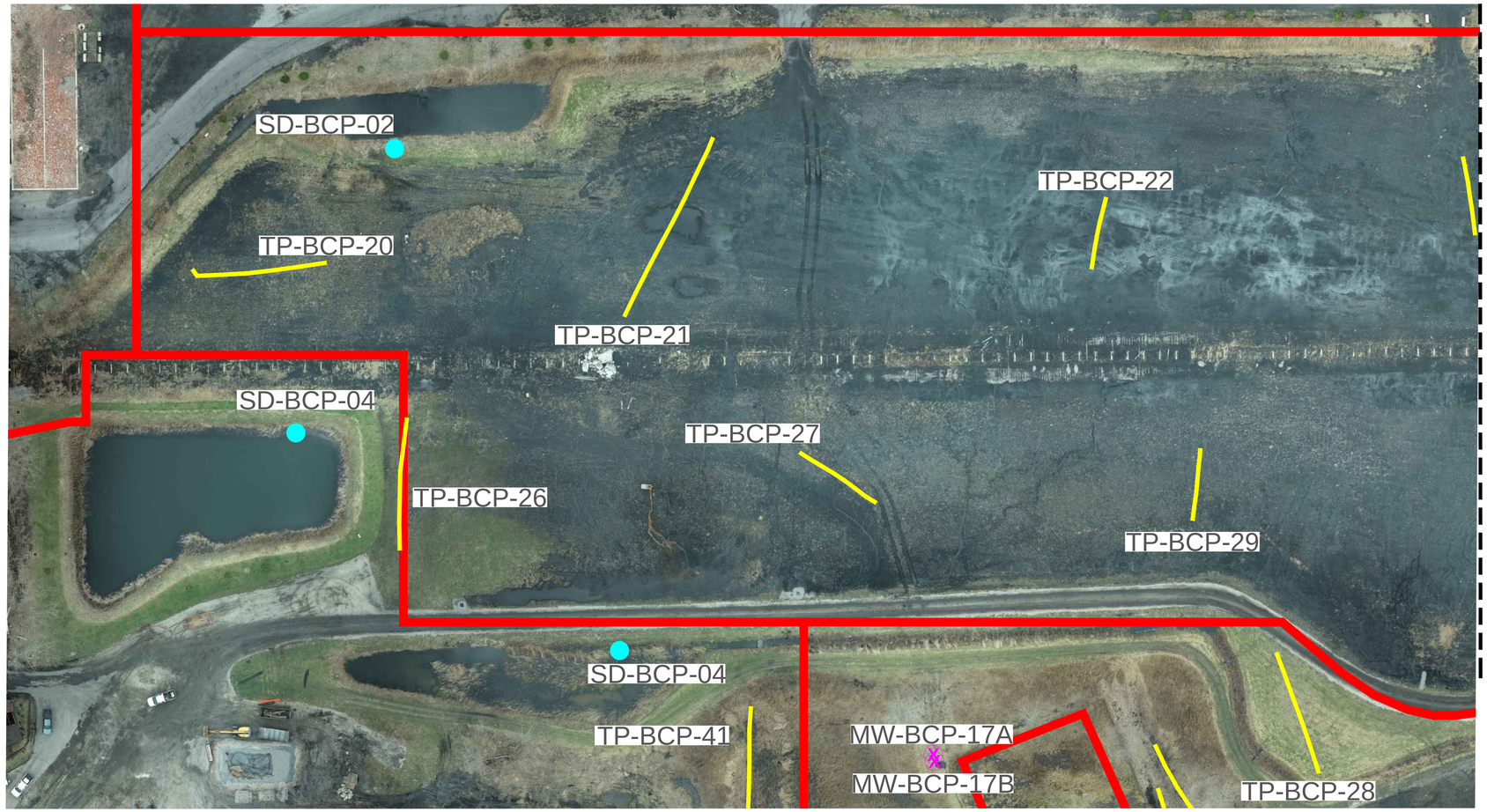
FIGURE 2 - 18

DRAWING NUMBER

A0I 4 EAST



N

150 0 75 150 300 600

1 INCH =150 FEET (22X34)

D

DRAWING BY	RB
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APPROVED	

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FIGURE 2 - 19

DRAWING NUMBER
A0I 5 WEST



150 0 75 150 300 600

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D

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FIGURE 2 - 20

DRAWING NUMBER

A0I 5 EAST



N

D

150 0 75 150 300 600

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DRAWING BY RB

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SAMPLE LOCATIONS - AOI 6

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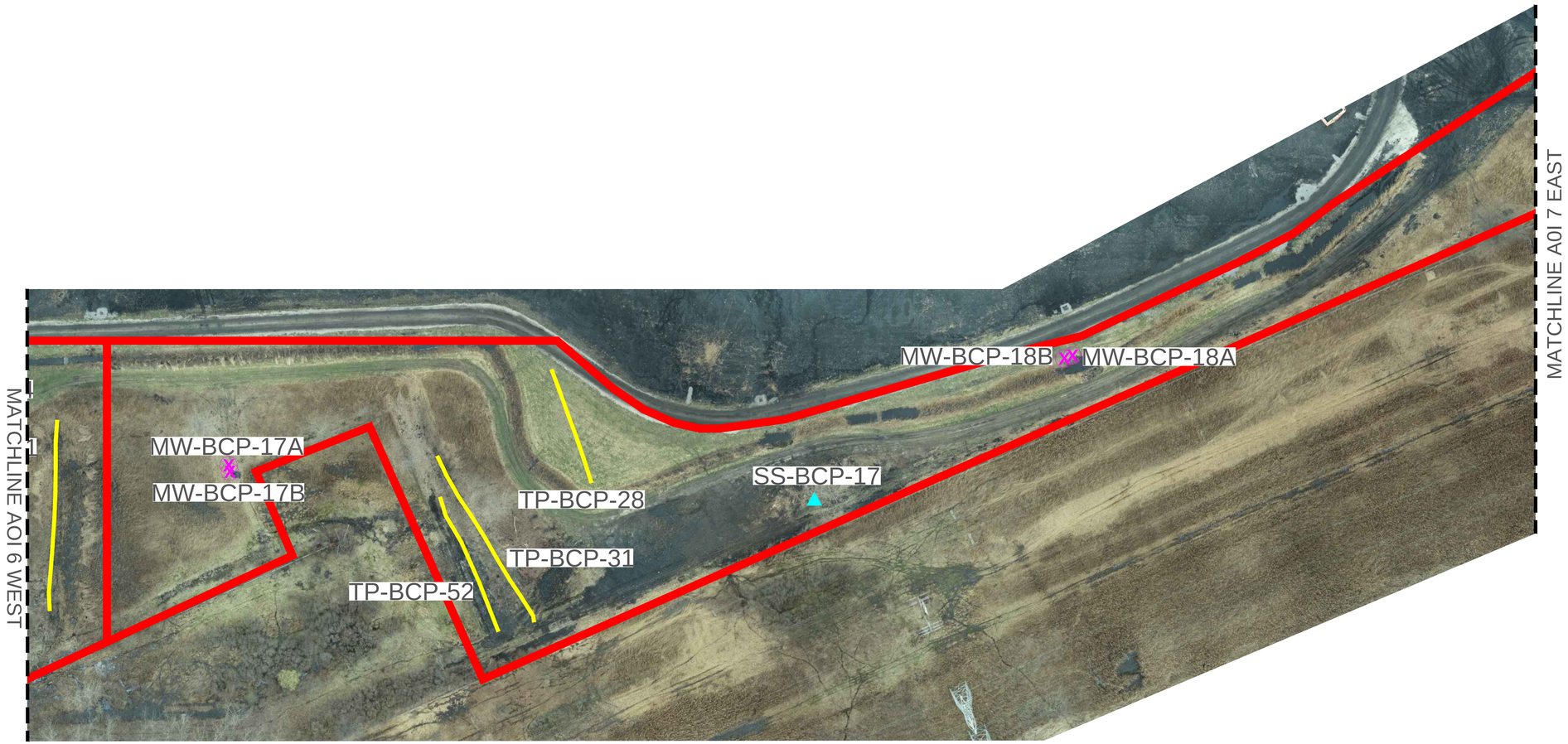
FIGURE 2 - 21

DRAWING NUMBER

A0I 6 WEST



N

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

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FIGURE 2 - 22

DRAWING NUMBER

AOI 7 WEST

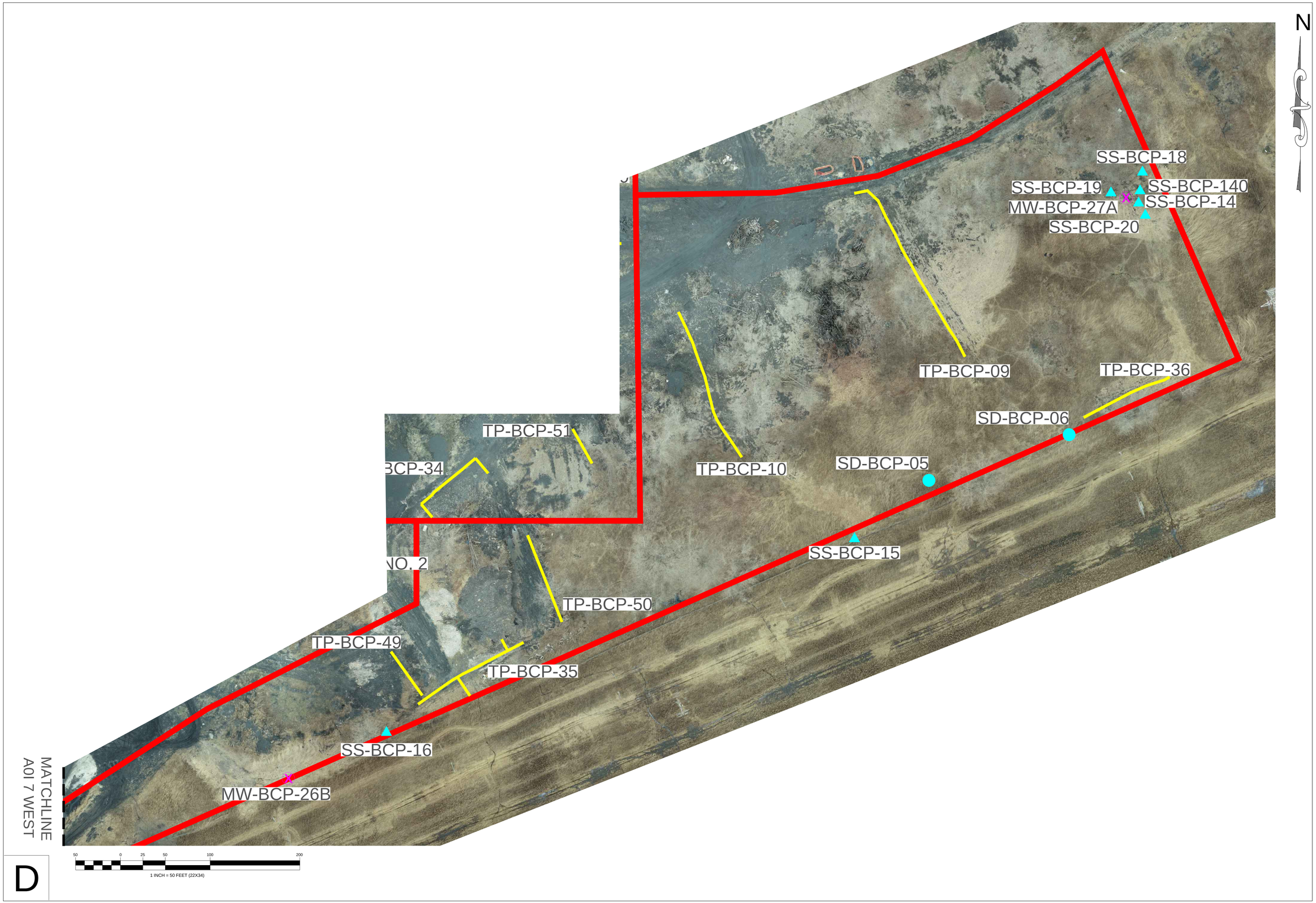

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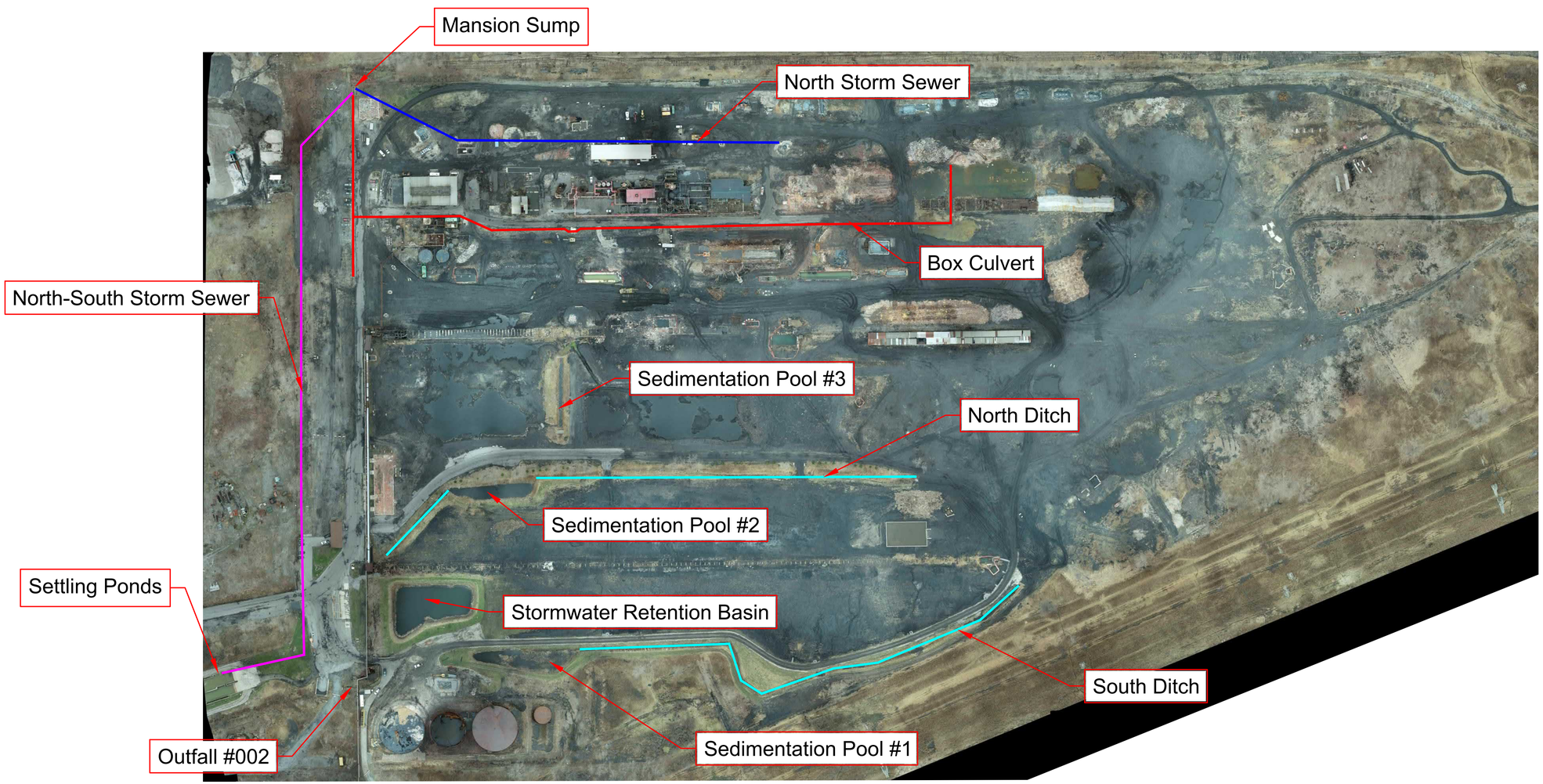
FIGURE 2 - 23

DRAWING NUMBER
A0I 7 EAST



D

150 0 75 150 300 600

1 INCH =150 FEET (22X34)

N

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FIGURE 2-24

DRAWING NUMBER
UTILITIES

The analytes listed on each figure are the analytes that were detected in at least one sample in a given media in that AOI.

The part 375 Soil Cleanup Objectives are listed for both the Commercial and Industrial Criteria.

The Units are the units reported by the laboratory; ug/kg are micrograms per kilogram and mg/kg are milligrams per kilogram.

The sample location is listed above the data. See legend for nomenclature.

The next three cells list the date the sample was collected, the depth of the sample, and the type of material sampled.

Analytes	Part 375 SCOs		Units	MW-BCP-10	
	Commercial	Industrial			
Sample Date:				11/13/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	330000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	550000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	510000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	160000	D
Chrysene	56,000	110,000	ug/kg	340000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	90000	DJ
Fluoranthene	500,000	1,000,000	ug/kg	520000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	470000	D
Pyrene	500,000	1,000,000	ug/kg	510000	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	8.2	J
Copper	270	10,000	mg/kg	24.1	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	1.1	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	4.28	

The numerical value is the concentration in the associated units.

All values above the commercial SCO are highlighted in green.

All values above the industrial SCO are highlighted in pink.

The data qualifiers are listed, when applicable, next to the numerical data, see legend for description.

The analytes listed on each figure are the analytes that were detected in at least one sample in a given media in that AOI.

The Class GA groundwater standards are listed for each detected compound.

The Units are the units reported by the laboratory; ug/L are micrograms per liter and mg/L are milligrams per liter.

The sample location is listed above the data. See legend for nomenclature. Note: (DUP) indicates a duplicate collected at the time the original sample was collected.

The next three cells list the date the sample was collected, the depth of the screened interval, and the type of material in the screened interval.

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05A		MW-BCP-05A (DUP)		MW-BCP-05A		MW-BCP-59A (DUP 05A)	
Sample Date			1/14/2021		1/14/2021		9/23/2021		9/23/2021	
Screen Interval (ft bgs)			3.0 - 5.0		3.0 - 5.0		3.0 - 5.0		3.0 - 5.0	
Screened Formation:			FIll		FIll		FIll		FIll	
TCL VOCs (SW8260C)										
Benzene	1	ug/l	5900		NS		3300		NS	
Ethylbenzene	5	ug/l	190	J	NS		84	J	NS	
Styrene	5	ug/l	<13	U	NS		<5.0	U	NS	
Toluene	5	ug/l	190	J	NS		84	J	NS	
m,p- Xylene	5	ug/l	220	J	NS		110	J	NS	
O-Xylene (1,2 Dimethylbenzene)	5	ug/l	130	J	NS		76	J	NS	
1,4-Dioxane (SW8270D/ BNAS1M)										
1,4 Dioxane (P Dioxane)	1	ug/l	2.2		NS		2.1		2.3	
TCL SVOCs (SW8270D)										
2,4-Dimethylphenol	50	ug/l	77	J	NS		71	J	NS	
Benzo(A)Anthracene	0.002	ug/l	<1.7	U	NS		2.7	J	NS	
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	NS		3.1	J	NS	
Benzo(K)Fluoranthene	0.002	ug/l	<1.8	U	NS		<1.1	U	NS	
Biphenyl (Diphenyl)	5	ug/l	2.4	J	NS		3.5	J	NS	
Chrysene	0.002	ug/l	<1.1	U	NS		2.4	J	NS	
Fluoranthene	50	ug/l	<1.6	U	NS		6.7	J	NS	
Fluorene	50	ug/l	3.1	J	NS		5.3	J	NS	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.9	U	NS		<1.3	U	NS	
Naphthalene	10	ug/l	580	D	NS		1400	D	NS	
Phenol	1	ug/l	8.5	J	NS		4.2	J	NS	
TAL Metals (SW6010)										
Arsenic	25	ug/l	32.4		NS		30.1		NS	
Barium	1,000	ug/l	34.8		NS		50.8		NS	
Beryllium	3	ug/l	<0.13	U	NS		0.3	J	NS	
Cadmium	5	ug/l	<0.35	U	NS		<0.15	U	NS	
Chromium, Total	50	ug/l	16.1		NS		22.7		NS	
Copper	200	ug/l	<3.9	U	NS		4.7	J	NS	
Iron	300	ug/l	1080		NS		4970		NS	
Lead	25	ug/l	<2.1	U	NS		4.5	J	NS	
Magnesium	35,000	ug/l	18200		NS		9110		NS	
Manganese	300	ug/l	32.7		NS		89		NS	
Nickel	100	ug/l	4	J	NS		12.7	J	NS	
Selenium	10	ug/l	<6.4	U	NS		<6.4	U	NS	
Sodium	20,000	ug/l	1810000		NS		1500000		NS	
Thallium	0.5	ug/l	<6.6	U	NS		<6.6	U	NS	
Zinc	2,000	ug/l	<9.4	U	NS		14.8	J	NS	
Cyanide (SW9012B/ KELADA-01)										
Cyanide	0.20	mg/l	751		NS		646		NS	
Pesticides (8081B)										
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	0.021	J	NS		<0.020	UJ	<0.020	UJ
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	0.14		NS		<0.020	UJ	<0.020	UJ
Gamma Bhc (Lindane)	0.05	ug/l	0.14		NS		<0.020	UJ	<0.020	UJ
Chlordane (Technical)	0.05	ug/l	0.17		NS		<0.020	UJ	<0.020	UJ
PFAS (1537)										
Perfluorooctanesulfonic acid (PFOS)	10	ng/l	15	J	NS		17	J	19	.
Perfluorooctanoic acid (PFOA)	10	ng/l	16	J	NS		14		17	
1H,1H,2H,2H-Perfluorooctane sulfonic acid	100	ng/l	<9.5	U	NS		0.64	J	0.98	.
Ammonia (E350.1)										
Nitrogen, Ammonia (As N)	2	mg/l	249		254		232		NS	

The numerical value is the concentration of the associated units.

All values above the Class GA standard are highlighted in pink.

The data qualifiers are listed, when applicable, next to the numerical data, see legend for description

LEGEND

MONITORING WELL
- A - WELL: SHALLOW FILL
- B - WELL: UPPER CLAY
- C - WELL: LOWER CLAY
- D - WELL: BEDROCK

TEST PIT

SURFACE SOIL SAMPLE

SURFACE WATER SAMPLE

MW-BCP- ## - Monitoring Well
TP-BCP- ## - Test Pit
SS-BCP- ## - Shallow Soil or Fill Sample
W-BCP- ## - Grab water sample from a pit, sump, tunnel, or basement
SW-BCP- ## - Surface Water Sample
NS - No Sample - Not all parameters are analyzed in all samples

J - Estimated between the method reporting limit and the method detection limit
U - Not detected above the method detection limit shown
D - Result from a sample that was diluted to allow the analysis
B - Analyte was also detected in the associated method blank
UJ - Analyte was not detected above the estimated method detection limit shown

N

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

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FIGURE 4 - 1

DRAWING NUMBER

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-8 CP-10	
Sample Date:				11/10/2020	
Sample Interval:				0 - 2 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	590	
Benzo(A)Anthracene	5,600	11,000	ug/kg	3300	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	4700	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	5500	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1600	D
Chrysene	56,000	110,000	ug/kg	3700	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	760	DJ
Fluoranthene	500,000	1,000,000	ug/kg	5900	D
Fluorene	500,000	1,000,000	ug/kg	160	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3700	D
Naphthalene	500,000	1,000,000	ug/kg	200	J
Phenanthrene	500,000	1,000,000	ug/kg	2100	D
Pyrene	500,000	1,000,000	ug/kg	5400	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	10.7	N
Lead	1,000	3,900	mg/kg	61.8	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.302	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	0.78	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-21A		MW-BCP-21A	
Sample Date:				6/23/2021		6/23/2021	
Sample Interval:				0 - 1 ft		3 - 4 ft	
Formation:				Fill		Fill	
TCL SVOCs (SW8270D)							
Anthracene	500,000	1,000,000	ug/kg	9400	J	<70	U
Benzo(A)Anthracene	5,600	11,000	ug/kg	19000	J	<62	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	27000	J	<120	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	29000	J	<70	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	8700	J	<68	U
Chrysene	56,000	110,000	ug/kg	22000	J	<62	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	3500	J	<91	U
Fluoranthene	500,000	1,000,000	ug/kg	57000	J	<110	U
Fluorene	500,000	1,000,000	ug/kg	7300	J	<78	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	18000	J	<140	U
Naphthalene	500,000	1,000,000	ug/kg	14000	J	<78	UJ
Phenanthrene	500,000	1,000,000	ug/kg	44000	J	<59	U
Pyrene	500,000	1,000,000	ug/kg	45000	J	<70	U
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	10.1		4.1	
Lead	1,000	3,900	mg/kg	54.2		12	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.2		0.025	J
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	1.39		<0.18	U

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-04	
Sample Date:				11/11/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	580000	D
Benzo(A)Anthracene	5,600	11,000	ug/kg	470000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	520000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	490000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	190000	D
Chrysene	56,000	110,000	ug/kg	450000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	61000	J
Fluoranthene	500,000	1,000,000	ug/kg	1500000	D
Fluorene	500,000	1,000,000	ug/kg	580000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	300000	D
Naphthalene	500,000	1,000,000	ug/kg	1900000	D
Phenanthrene	500,000	1,000,000	ug/kg	1900000	D
Pyrene	500,000	1,000,000	ug/kg	1100000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	3.5	
Lead	1,000	3,900	mg/kg	10.1	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.094	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	17.5	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-06	
Sample Date:				11/11/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	<110	U
Benzo(A)Anthracene	5,600	11,000	ug/kg	260	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	260	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	480	J
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<140	U
Chrysene	56,000	110,000	ug/kg	360	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<120	U
Fluoranthene	500,000	1,000,000	ug/kg	690	
Fluorene	500,000	1,000,000	ug/kg	<89	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	250	J
Naphthalene	500,000	1,000,000	ug/kg	<99	U
Phenanthrene	500,000	1,000,000	ug/kg	370	J
Pyrene	500,000	1,000,000	ug/kg	500	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	14.5	
Lead	1,000	3,900	mg/kg	18.5	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.047	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	9.86	



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-01	
Sample Date:				11/10/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	140000	D
Benzo(A)Anthracene	5,600	11,000	ug/kg	9800	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	15000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	18000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	5800	DJ
Chrysene	56,000	110,000	ug/kg	17000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2500	DJ
Fluoranthene	500,000	1,000,000	ug/kg	26000	D
Fluorene	500,000	1,000,000	ug/kg	12000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	11000	DJ
Naphthalene	500,000	1,000,000	ug/kg	7800	DJ
Phenanthrene	500,000	1,000,000	ug/kg	31000	D
Pyrene	500,000	1,000,000	ug/kg	25000	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	7.5	J
Lead	1,000	3,900	mg/kg	119	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.52	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	0.73	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-47	
Sample Date:				11/10/2020	
Sample Interval:				0 to 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	1800	J
Benzo(A)Anthracene	5,600	11,000	ug/kg	4000	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	5900	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	7700	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	2400	J
Chrysene	56,000	110,000	ug/kg	4300	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1300	U
Fluoranthene	500,000	1,000,000	ug/kg	7600	
Fluorene	500,000	1,000,000	ug/kg	<960	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	5000	
Naphthalene	500,000	1,000,000	ug/kg	2300	J
Phenanthrene	500,000	1,000,000	ug/kg	5100	
Pyrene	500,000	1,000,000	ug/kg	6200	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	NS	
Lead	1,000	3,900	mg/kg	NS	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	NS	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	NS	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-05	
Sample Date:				11/11/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	9200	J
Benzo(A)Anthracene	5,600	11,000	ug/kg	40000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	58000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	72000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	22000	
Chrysene	56,000	110,000	ug/kg	49000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	10000	J
Fluoranthene	500,000	1,000,000	ug/kg	85000	
Fluorene	500,000	1,000,000	ug/kg	4100	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	48000	
Naphthalene	500,000	1,000,000	ug/kg	6000	J
Phenanthrene	500,000	1,000,000	ug/kg	46000	
Pyrene	500,000	1,000,000	ug/kg	73000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	9.4	
Lead	1,000	3,900	mg/kg	1520	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.286	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	4.48	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-14		TP-BCP-14	
Sample Date:				11/10/2020		11/10/2020	
Sample Interval:				0 - 1 ft		0 - 1 ft (DUP)	
Formation:				Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Anthracene	500,000	1,000,000	ug/kg	1100		9300	D
Benzo(A)Anthracene	5,600	11,000	ug/kg	2900		33000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	4000		39000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	6400		48000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1900		16000	D
Chrysene	56,000	110,000	ug/kg	4000		37000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	980		6800	DJ
Fluoranthene	500,000	1,000,000	ug/kg	5500		77000	D
Fluorene	500,000	1,000,000	ug/kg	210	J	4600	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	4900		32000	D
Naphthalene	500,000	1,000,000	ug/kg	1000		3100	DJ
Phenanthrene	500,000	1,000,000	ug/kg	2900		47000	D
Pyrene	500,000	1,000,000	ug/kg	4800		63000	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	7.6	J	8.8	J
Lead	1,000	3,900	mg/kg	42.8		54.9	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.193		0.168	
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	1.58		2.44	

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

D

N

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FILL SAMPLE DATA - AOI 1 WEST
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BCP SITE No. C915353

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FIGURE 4 - 2

DRAWING NUMBER
AOI 1 WEST

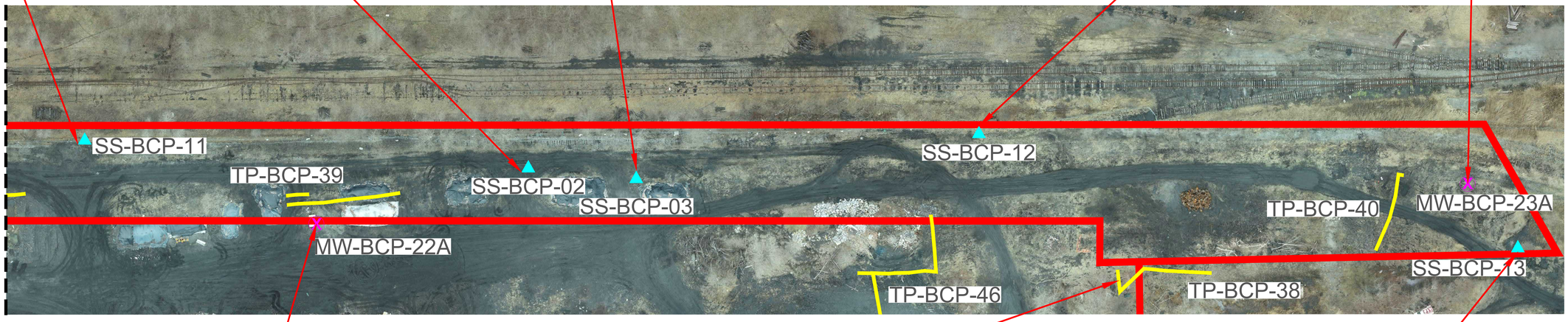
Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-11
			Sample Date:	11/10/2020
			Sample Interval:	0 - 2 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	<149 U
Benzo(A)Anthracene	5,600	11,000	ug/kg	<150 U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<183 U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**298** J
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	<183 U
Chrysene	56,000	110,000	ug/kg	**228** J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<250 U
Fluoranthene	500,000	1,000,000	ug/kg	**278** J
Fluorene	500,000	1,000,000	ug/kg	<110 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<169 U
Naphthalene	500,000	1,000,000	ug/kg	**148** J
Phenanthrene	500,000	1,000,000	ug/kg	**298** J
Pyrene	500,000	1,000,000	ug/kg	**218** J
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**18.5** J
Lead	1,000	3,900	mg/kg	**18.2**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.099**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**2.53**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-02
			Sample Date:	11/11/2020
			Sample Interval:	0 - 1 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**3300** DJ
Benzo(A)Anthracene	5,600	11,000	ug/kg	**10000** D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**10000** D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**10000** D
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**5800** D
Chrysene	56,000	110,000	ug/kg	**12000** D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**2300** DJ
Fluoranthene	500,000	1,000,000	ug/kg	**19000** D
Fluorene	500,000	1,000,000	ug/kg	**910** DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**12000** D
Naphthalene	500,000	1,000,000	ug/kg	**5500** D
Phenanthrene	500,000	1,000,000	ug/kg	**8500** D
Pyrene	500,000	1,000,000	ug/kg	**15000** D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**8.6**
Lead	1,000	3,900	mg/kg	**30.1**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.35**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**2.22**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-03
			Sample Date:	11/11/2020
			Sample Interval:	0 - 1 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**3400** D
Benzo(A)Anthracene	5,600	11,000	ug/kg	**24000** D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**31000** D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**41000** D
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**12000** DJ
Chrysene	56,000	110,000	ug/kg	**25000** D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**3600**
Fluoranthene	500,000	1,000,000	ug/kg	**58000** D
Fluorene	500,000	1,000,000	ug/kg	**670** J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**25000** D
Naphthalene	500,000	1,000,000	ug/kg	**2600**
Phenanthrene	500,000	1,000,000	ug/kg	**11000** DJ
Pyrene	500,000	1,000,000	ug/kg	**40000** D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**9.3**
Lead	1,000	3,900	mg/kg	**46.8**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.2**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**1.47**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-12
			Sample Date:	11/11/2020
			Sample Interval:	0 - 2 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**570**
Benzo(A)Anthracene	5,600	11,000	ug/kg	**1700**
Benzo(A)Pyrene	1,000	1,100	ug/kg	**2600**
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**3300**
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**1100**
Chrysene	56,000	110,000	ug/kg	**2100**
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**450**
Fluoranthene	500,000	1,000,000	ug/kg	**2700**
Fluorene	500,000	1,000,000	ug/kg	<110 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**2000**
Naphthalene	500,000	1,000,000	ug/kg	**420** J
Phenanthrene	500,000	1,000,000	ug/kg	**1900**
Pyrene	500,000	1,000,000	ug/kg	**2600**
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**14.2**
Lead	1,000	3,900	mg/kg	**96.1**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.188**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**1.23**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-23A
			Sample Date:	6/24/2021
			Sample Interval:	0 - 1 ft
			Formation:	Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**27000** J
Benzo(A)Anthracene	5,600	11,000	ug/kg	**91000** D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**93000** J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**110000** J
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**55000** D
Chrysene	56,000	110,000	ug/kg	**81000** D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**12000**
Fluoranthene	500,000	1,000,000	ug/kg	**230000** D
Fluorene	500,000	1,000,000	ug/kg	**12000**
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**63000** D
Naphthalene	500,000	1,000,000	ug/kg	**9300** J
Phenanthrene	500,000	1,000,000	ug/kg	**120000** D
Pyrene	500,000	1,000,000	ug/kg	**180000** D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**7.5** J
Lead	1,000	3,900	mg/kg	**15.9**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.311**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**0.94**



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-22A
			Sample Date:	6/24/2021
			Sample Interval:	0 - 1 ft
			Formation:	Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**310** J
Benzo(A)Anthracene	5,600	11,000	ug/kg	**1000**
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1300**
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**1700**
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**550**
Chrysene	56,000	110,000	ug/kg	**1100**
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**250** J
Fluoranthene	500,000	1,000,000	ug/kg	**1000**
Fluorene	500,000	1,000,000	ug/kg	**130** J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1000**
Naphthalene	500,000	1,000,000	ug/kg	**910** J
Phenanthrene	500,000	1,000,000	ug/kg	**1600**
Pyrene	500,000	1,000,000	ug/kg	**1500**
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**6.7** J
Lead	1,000	3,900	mg/kg	**17.2**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.13**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**1.89**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-38
			Sample Date:	11/4/2020
			Sample Interval:	0 - 1 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Anthracene	500,000	1,000,000	ug/kg	**27000** D
Benzo(A)Anthracene	5,600	11,000	ug/kg	**91000** D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**90000** D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**110000** D
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**39000** D
Chrysene	56,000	110,000	ug/kg	**86000** D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**15000** DJ
Fluoranthene	500,000	1,000,000	ug/kg	**160000** D
Fluorene	500,000	1,000,000	ug/kg	**11000** DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**65000** D
Naphthalene	500,000	1,000,000	ug/kg	**3800**
Phenanthrene	500,000	1,000,000	ug/kg	**95000** D
Pyrene	500,000	1,000,000	ug/kg	**140000** D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**11.6**
Lead	1,000	3,900	mg/kg	**153**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**1.4** J
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**8.34**

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-13	SS-BCP-13	SS-BCP-13
			Sample Date:	11/11/2020	11/11/2020	11/11/2020
			Sample Interval:	0 - 2 in	2 - 6 in	0.5 - 2 ft
			Formation:	Surface Soil	Surface Soil	Shallow Fill
TCL SVOCs (SW8270D)						
Anthracene	500,000	1,000,000	ug/kg	**370** J	NS	**520**
Benzo(A)Anthracene	5,600	11,000	ug/kg	**1300**	NS	**820**
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1400**	NS	**900**
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**2200**	NS	**1300**
Benzo(G,H,I)Fluoranthene	56,000	110,000	ug/kg	**720**	NS	**900** J
Chrysene	56,000	110,000	ug/kg	**1600**	NS	**1200**
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**310** J	NS	**190** J
Fluoranthene	500,000	1,000,000	ug/kg	**2300**	NS	**1300**
Fluorene	500,000	1,000,000	ug/kg	**160** J	NS	<110 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1400**	NS	**570**
Naphthalene	500,000	1,000,000	ug/kg	**380** J	NS	**290** J
Phenanthrene	500,000	1,000,000	ug/kg	**2300**	NS	**2500**
Pyrene	500,000	1,000,000	ug/kg	**2300**	NS	**1300**
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	**13.1**	NS	**8.7**
Lead	1,000	3,900	mg/kg	**585**	NS	**27.7**
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	**0.227**	NS	**0.182**
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	NS	NS	**1.73**

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FIGURE 4 - 3

DRAWING NUMBER
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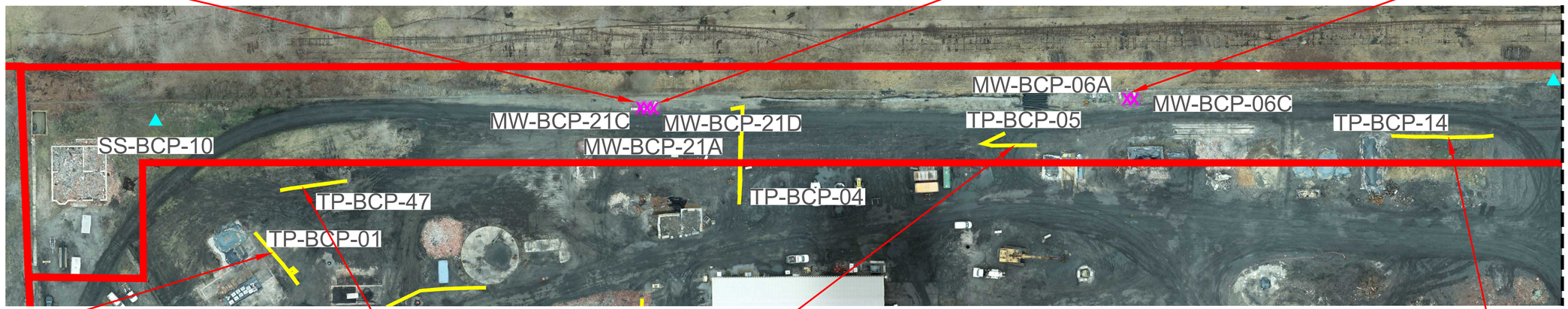
Analytes	Part 375 SCOs		Units	MW-BCP-21A		MW-BCP-21A	
	Commercial	Industrial					
Sample Date:				6/23/2021		6/23/2021	
Sample Interval:				6 - 7 ft		13 - 14 ft	
Formation:				Clay		Clay	
TAL Metals (SW6010)							
Barium	400	10,000	mg/kg	**128**		**98.3**	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	**0.016**	J	<0.015	U
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	<0.17	U	<0.17	U

Analytes	Part 375 SCOs		Units	MW-BCP-21D	
	Commercial	Industrial			
Sample Date:				6/25/2021	
Sample Interval:				45 - 47 ft	
Formation:				Clay	
TAL Metals (SW6010)					
Barium	400	10,000	mg/kg	**131**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	<0.017	U
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.23	U

Analytes	Part 375 SCOs		Units	MW-BCP-06		MW-BCP-06	
	Commercial	Industrial					
Sample Date:				11/11/2020		11/11/2020	
Sample Interval:				5 - 6 ft		8 - 9 ft	
Formation:				Clay		Clay	
TAL Metals (SW6010)							
Barium	400	10,000	mg/kg	**142**		**87.3**	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	**0.027**	J	**0.032**	J
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	<0.17	U	**1.03**	



Analytes	Part 375 SCOs		Units	TP-BCP-01	
	Commercial	Industrial			
Sample Date:				11/10/2020	
Sample Interval:				54 - 54.5 in	
Formation:				Clay	
TAL Metals (SW6010)					
Barium	400	10,000	mg/kg	**127**	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.034**	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.19	U

Analytes	Part 375 SCOs		Units	TP-BCP-47
	Commercial	Industrial		
Sample Date:				11/18/2020
Sample Interval:				35 - 35.5 in
Formation:				Clay
TAL Metals (SW6010)				
Barium	400	10,000	mg/kg	NS
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	NS
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	NS

Analytes	Part 375 SCOs		Units	TP-BCP-04
	Commercial	Industrial		
Sample Date:				11/11/2020
Sample Interval:				62 - 62.5 in
Formation:				Clay
TAL Metals (SW6010)				
Barium	400	10,000	mg/kg	**211**
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.027**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	<0.18

Analytes	Part 375 SCOs		Units	TP-BCP-14	
	Commercial	Industrial			
Sample Date:				11/10/2020	
Sample Interval:				40 - 40.5 in	
Formation:				Clay	
TAL Metals (SW6010)					
Barium	400	10,000	mg/kg	**37.6**	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.036**	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	NS	

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FIGURE 4 - 4

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Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-40		TP-BCP-40	
			Sample Date:	11/4/2020		11/4/2020	
			Sample Interval:	64 - 64.5		DUP (64 - 64.5 in)	
			Formation:	Clay		Clay	
TAL Metals (SW6010)							
Barium	400	10,000	mg/kg	105		134	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.03	J	0.027	J
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	0.22	J	0.24	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-23A	
			Sample Date:	6/24/2021	
			Sample Interval:	5 - 6 ft	
			Formation:	Clay	
TAL Metals (SW6010)					
Barium	400	10,000	mg/kg	234	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.075	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	0.52	



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-22A	
			Sample Date:	6/24/2021	
			Sample Interval:	5 - 6 ft	
			Formation:	Clay	
TAL Metals (SW6010)					
Barium	400	10,000	mg/kg	186	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.028	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.17	U

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-46		TP-BCP-46		TP-BCP-46	
			Sample Date:	11/5/2020		11/5/2020		11/5/2020	
			Sample Interval:	24 - 48 in		46 - 46.5 in		50 - 50.5 in	
			Formation:	Clay		Clay		Clay	
TAL Metals (SW6010)									
Barium	400	10,000	mg/kg	39.3		619		223	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	0.337		3.5		0.032	J
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	13.3		1140		1.59	

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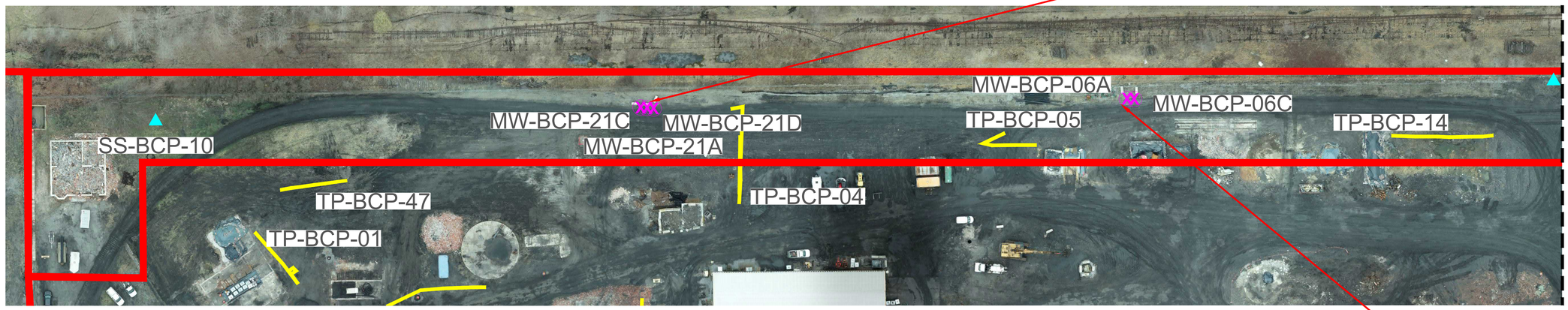
FIGURE 4 - 5

DRAWING NUMBER
A0I 1 EAST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-21A	
		Sample Date	9/24/2021	
		Screen Interval (ft bgs):	2.0 - 5.0	
		Screened Formation:	Fill	
TCL VOCs (SW8260Q)				
Benzene	1	ug/l	1.1	J
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	0.002	ug/l	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Chrysene	0.002	ug/l	<1.2	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U
TAL Metals (SW6010)				
Arsenic	25	ug/l	<5.5	U
Iron	300	ug/l	2550	
Lead	25	ug/l	<2.1	U
Magnesium	35,000	ug/l	28400	
Manganese	300	ug/l	418	
Selenium	10	ug/l	<6.4	U
Sodium	20,000	ug/l	135000	
PFAS (E537)				
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS	
Perfluorobutanoic Acid	100	ng/l	NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	NS	
Cyanide (SW9012B/ KELADA-01)				
Cyanide	0.20	mg/l	<0.040	U
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	3.72	



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05A		MW-BCP-06A		MW-BCP-100A (DUP 06A)	
		Sample Date	1/13/2021		9/22/2021		9/22/2021	
		Screen Interval (ft bgs):	2.0 - 4.0		2.0 - 4.0		2.0 - 4.0	
		Screened Formation:	Fill		Fill		Fill	
TCL VOCs (SW8260C)								
Benzene	1	ug/l	<0.20	U	<0.20	U	<0.20	U
TCL SVOCs (SW8270D)								
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	<1.6	U	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	1.2	J	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	<1.3	U	<1.3	U
Chrysene	0.002	ug/l	<1.1	U	<1.2	U	<1.2	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.8	U	<1.8	U
TAL Metals (SW6010)								
Arsenic	25	ug/l	<5.5	U	23.2		8.8	J
Chromium, Total	50	ug/l	<0.50	U	66.1		31.3	
Copper	200	ug/l	<3.9	U	88.1		41.9	
Iron	300	ug/l	641		97500	J	42900	J
Lead	25	ug/l	<2.1	U	161		70.4	
Manganese	300	ug/l	940		3600		2090	
Selenium	10	ug/l	<6.4	U	<6.4	U	<6.4	U
Cyanide (SW9012B/ KELADA-01)								
Cyanide	0.20	mg/l	0.0071	J	0.045	J	<0.040	U
PFAS (E537)								
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	8.5		13		NS	
Perfluorobutanoic Acid	100	ng/l	24		8.1	J	NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	12		11	J	NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	<0.55	U	0.64	J	NS	
Ammonia (E350.1)								
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS		NS	

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FIGURE 4 - 6

DRAWING NUMBER
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MATCHLINE A0I 1 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-23A	
	Sample Date		9/23/2021	
	Screen Interval (ft bgs):		2.0 - 5.0	
	Screened Formation:		fill	
TCL VOCs (SW8260C)				
Benzene	1	ug/l	<0.20	U
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	0.002	ug/l	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	**1.6**	J
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Chrysene	0.002	ug/l	**1.3**	J
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.9	U
TAL Metals (SW6010)				
Arsenic	25	ug/l	**22.2**	
Iron	300	ug/l	**10100**	
Lead	25	ug/l	**12.5**	J
Magnesium	35,000	ug/l	**27200**	
Manganese	300	ug/l	**1740**	
Selenium	10	ug/l	<4.4	U
Sodium	20,000	ug/l	**88800**	
Cyanide (SW9012B/ M-CA0A-01)				
Cyanide	0.20	mg/l	**0.260**	
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	**1.93**	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-23A	MW-BCP-99A (BCP 23A)	
	Sample Date		9/23/2021	9/23/2021	
	Screen Interval (ft bgs)		2.0 - 5.0	2.0 - 5.0	
	Screened Formation		fill	fill	
TCL VOCs (SW8260C)					
Benzene	1	ug/l	<0.20	U	NS
Chlorobenzene	5	ug/l	<0.20	U	NS
Styrene	5	ug/l	<0.20	U	NS
Toluene	5	ug/l	<0.20	U	NS
m,p-Xylene	5	ug/l	<0.20	U	NS
o-Xylene [1,2-Dimethylbenzene]	5	ug/l	<0.20	U	NS
1,4-Dioxane (SW8270D/SW8270E)					
1,4-Dioxane (P-Dioxane)	0.35	ug/l	NS		NS
TCL SVOCs (SW8270D)					
2,4-Dimethylphenol	50	ug/l	<2.4	UJ	NS
Benzo(A)Anthracene	0.002	ug/l	**4.7**	J	NS
Benzo(B)Fluoranthene	0.002	ug/l	**7.3**	J	NS
Benzo(K)Fluoranthene	0.002	ug/l	**3**	J	NS
Biphenyl (Diphenyl)	5	ug/l	<1.4	UJ	NS
Chrysene	0.002	ug/l	**5.6**	J	NS
Fluoranthene	50	ug/l	**6.8**	J	NS
Fluorene	50	ug/l	<1.2	UJ	NS
Indeno[1,2,3-C,D]Pyrene	0.002	ug/l	**3.3**	J	NS
Naphthalene	10	ug/l	**1.2**	J	NS
Phenol	1	ug/l	<1.0	UJ	NS
TAL Metals (SW6010C)					
Arsenic	25	ug/l	**57.6**		NS
Barium	1,000	ug/l	**154**		NS
Beryllium	3	ug/l	**1.3**	J	NS
Cadmium	5	ug/l	**0.7**	J	NS
Chromium, Total	50	ug/l	**86.2**		NS
Copper	200	ug/l	**102**		NS
Iron	300	ug/l	**51700**		NS
Lead	25	ug/l	**57.8**	J	NS
Magnesium	35,000	ug/l	**18000**		NS
Manganese	300	ug/l	**580**		NS
Nickel	100	ug/l	**84.1**	J	NS
Selenium	10	ug/l	**15.1**		NS
Sodium	20,000	ug/l	**17900**		NS
Zinc	2,000	ug/l	**160**		NS
Cyanide (SW9012B/ M-CA0A-01)					
Cyanide	0.20	mg/l	<0.0	U	NS
Pesticides (EPA 8081)					
Beta BHC [Beta Hexachlorocyclohexane]	0.04	ug/l	NS		NS
Delta BHC [Delta Hexachlorocyclohexane]	0.04	ug/l	NS		NS
Gamma BHC [Lindane]	0.05	ug/l	NS		NS
Chlordane [Technical]	0.05	ug/l	NS		NS
PFAS (537.1)					
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS		NS
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS		NS
1H,1H,2H,2H-Perfluorooctane sulfonic acid	300	ng/l	NS		NS
Ammonia (E350.1)					
Nitrogen, Ammonia (As N)	2	mg/l	0.0424		0.0424

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1 INCH = 50 FEET (22X34)

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FILL ZONE GROUNDWATER DATA - AOI 1 EAST

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FIGURE 4 - 7

DRAWING NUMBER
A0I 1 EAST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-06C		MW-BCP-06C	
	Sample Date		1/13/2021		9/22/2021	
	Screen Interval (ft bgs):		30 - 40		30 - 40	
	Screened Formation:		Lower Clay		Lower Clay	
TCL SVOCs (SW8270D)						
Phenol	1	ug/l	<0.91	U	3.2	J
TAL Metals (SW6010)						
Arsenic	25	ug/l	7	J	25	
Beryllium	3	ug/l	1.8	J	3.5	
Chromium, Total	50	ug/l	61.3		119	
Iron	300	ug/l	46500		107000	J
Lead	25	ug/l	16.3	J	41.6	J
Magnesium	35,000	ug/l	124000		84500	
Manganese	300	ug/l	913		2290	
Sodium	20,000	ug/l	114000		67300	



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-21C	
	Sample Date		9/24/2021	
	Screen Interval (ft bgs):		29 - 39	
	Screened Formation:		Lower Clay	
TCL SVOCs (SW8270D)				
Phenol	1	ug/l	<1.0	U
TAL Metals (SW6010)				
Arsenic	25	ug/l	<5.5	U
Beryllium	3	ug/l	<0.13	U
Chromium, Total	50	ug/l	5	J
Iron	300	ug/l	1320	
Lead	25	ug/l	<2.1	U
Magnesium	35,000	ug/l	168000	
Manganese	300	ug/l	15.1	
Sodium	20,000	ug/l	118000	

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1 INCH = 50 FEET (22X34)

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CLAY ZONE GROUNDWATER DATA- AOI 1 WEST

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FIGURE 4 - 8

DRAWING NUMBER

AOI 1 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-21D	MW-BCP-97D (DUP 21D)
		Sample Date	9/24/2021	9/24/2021
		Borehole Interval (ft bgs):	53.5 - 63.5	53.5 - 63.5
		Formation:	Bedrock	Bedrock
TAL Metals (SW6010)				
Iron	300	ug/l	6780	6550
Magnesium	35,000	ug/l	59000	58000
Sodium	20,000	ug/l	65800	64900



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1 INCH = 50 FEET (22X34)

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BEDROCK ZONE GROUNDWATER DATA - AOI 1 WEST

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FIGURE 4 - 9

DRAWING NUMBER

AOI 1 WEST

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-01
Sample Date:				11/10/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	9800 J
Benzo(A)Pyrene	1,000	1,100	ug/kg	15000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	18000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	5000 DJ
Chrysene	56,000	110,000	ug/kg	17000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2500 DJ
Fluoranthene	500,000	1,000,000	ug/kg	26000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	11000 DJ
Pyrene	500,000	1,000,000	ug/kg	25000 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	7.5 J
Copper	270	10,000	mg/kg	70.5
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.52
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	0.73

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-05
Sample Date:				11/12/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	6200
Benzo(A)Pyrene	1,000	1,100	ug/kg	9000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	11000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	8500 J
Chrysene	56,000	110,000	ug/kg	7300
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1800 J
Fluoranthene	500,000	1,000,000	ug/kg	13000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	7700
Pyrene	500,000	1,000,000	ug/kg	13000
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	4.7
Copper	270	10,000	mg/kg	22.4
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	1.1
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	1.13

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-10
Sample Date:				11/13/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	330000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	550000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	510000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	160000 D
Chrysene	56,000	110,000	ug/kg	340000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	90000 DJ
Fluoranthene	500,000	1,000,000	ug/kg	520000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	470000 D
Pyrene	500,000	1,000,000	ug/kg	510000 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	8.2 J
Copper	270	10,000	mg/kg	241
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	1.1
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	4.28

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-01
Sample Date:				11/18/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	8300
Benzo(A)Pyrene	1,000	1,100	ug/kg	8500
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	12000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	9900 J
Chrysene	56,000	110,000	ug/kg	10000
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2100 J
Fluoranthene	500,000	1,000,000	ug/kg	12000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	9900
Pyrene	500,000	1,000,000	ug/kg	9400
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	3.3
Copper	270	10,000	mg/kg	76.2
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.139
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	1.22

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-08
Sample Date:				11/12/2020
Sample Interval:				0 to 1 ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	12000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	10000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	18000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	8500 D
Chrysene	56,000	110,000	ug/kg	14000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2800 DJ
Fluoranthene	500,000	1,000,000	ug/kg	16000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	7500 D
Pyrene	500,000	1,000,000	ug/kg	15000 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	4.1
Copper	270	10,000	mg/kg	21
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.208
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	1.93

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-02
Sample Date:				11/11/2020
Sample Interval:				9 - 12 in
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	60000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	66000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	67000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	26000 D
Chrysene	56,000	110,000	ug/kg	53000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	9000 DJ
Fluoranthene	500,000	1,000,000	ug/kg	120000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	47000 D
Pyrene	500,000	1,000,000	ug/kg	99000 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	5.3
Copper	270	10,000	mg/kg	31.8
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.310
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	9.83

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-02
Sample Date:				11/16/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	9400
Benzo(A)Pyrene	1,000	1,100	ug/kg	3700 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	4100 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1500
Chrysene	56,000	110,000	ug/kg	3600 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	730 DJ
Fluoranthene	500,000	1,000,000	ug/kg	5100 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	2000 D
Pyrene	500,000	1,000,000	ug/kg	6100 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	0.9 J
Copper	270	10,000	mg/kg	11.8 J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.037
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	2.63

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-04
Sample Date:				11/16/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	19000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	35000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	34000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	12000 D
Chrysene	56,000	110,000	ug/kg	22000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	5600 D
Fluoranthene	500,000	1,000,000	ug/kg	29000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	27000 D
Pyrene	500,000	1,000,000	ug/kg	29000 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	10.4 J
Copper	270	10,000	mg/kg	89.5 J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.202
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	1.19

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-03
Sample Date:				11/12/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	6500 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	10000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	11000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	4300 D
Chrysene	56,000	110,000	ug/kg	13000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2000 D
Fluoranthene	500,000	1,000,000	ug/kg	8000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	9100 D
Pyrene	500,000	1,000,000	ug/kg	7800 D
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	3.2
Copper	270	10,000	mg/kg	16.2
Mercury (SW7471)				
Mercury	2.9	5.7	mg/kg	0.267
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	3.31

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-07
Sample Date:				11/10/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	160 J
Benzo(A)Pyrene	1,000	1,100	ug/kg	430 U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	130 J
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	430 U
Chrysene	56,000	110,000	ug/kg	190 J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	430 U
Fluoranthene	500,000	1,000,000	ug/kg	1500
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	430 U
Pyrene	500,000	1,000,000	ug/kg	1100 J
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	2.4 J
Copper	270	10,000	mg/kg	18.5
Mercury (SW7471)				
Mercury	2.9	5.7	mg/kg	0.019 U
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	0.22 J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-09
Sample Date:				11/17/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	6800
Benzo(A)Pyrene	1,000	1,100	ug/kg	11000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	12000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	9900
Chrysene	56,000	110,000	ug/kg	7300
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2100
Fluoranthene	500,000	1,000,000	ug/kg	10000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	9900
Pyrene	500,000	1,000,000	ug/kg	10000
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	NS
Copper	270	10,000	mg/kg	NS
Mercury (SW7471)				
Mercury	2.9	5.7	mg/kg	0.181
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	1.16

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-11
Sample Date:				11/9/2020
Sample Interval:				0 - 1 Ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	890
Benzo(A)Pyrene	1,000	1,100	ug/kg	1100
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	1600
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	890
Chrysene	56,000	110,000	ug/kg	1300
Dibenz(A,H)Anthracene	560	1,100	ug/kg	260 J
Fluoranthene	500,000	1,000,000	ug/kg	2200
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	860
Pyrene	500,000	1,000,000	ug/kg	1700
TAL Metals (SW6010D)				
Arsenic	16	16	mg/kg	7.2
Copper	270	10,000	mg/kg	99.4
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	1.6
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	0.51 J



50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

N

D

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FILL SAMPLE DATA - AOI 2 WEST
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 4 - 10

DRAWING NUMBER
A0I 2 WEST

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-01
			Sample Date:	11/16/2020
			Sample Interval:	0 - 4 ft
			Formation:	Clay
TCL SVOCs (SW8270D)				
Acenaphthene	500,000	1,000,000	ug/kg	1,100
Acenaphthylene	500,000	1,000,000	ug/kg	1,100
Anthracene	500,000	1,000,000	ug/kg	2,600
Benzo(A)Anthracene	5,600	11,000	ug/kg	6,900
Benzo(A)Pyrene	1,000	1,100	ug/kg	6,400
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	7,900
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	3,600
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	2,600
Chrysene	56,000	110,000	ug/kg	6,900
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1,100
Dibenzofuran	350,000	1,000,000	ug/kg	1,100
Fluoranthene	500,000	1,000,000	ug/kg	13,000
Fluorene	500,000	1,000,000	ug/kg	1,100
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3,600
Naphthalene	500,000	1,000,000	ug/kg	1,100
Phenanthrene	500,000	1,000,000	ug/kg	7,900
Pyrene	500,000	1,000,000	ug/kg	11,000
TAL Metals (SW6010B)				
Arsenic	16	16	mg/kg	3.9
Barium	400	10,000	mg/kg	111
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.052
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	<0.17

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-02
			Sample Date:	11/16/2020
			Sample Interval:	7 - 18 ft
			Formation:	Clay
TCL SVOCs (SW8270D)				
Acenaphthene	500,000	1,000,000	ug/kg	<92
Acenaphthylene	500,000	1,000,000	ug/kg	<110
Anthracene	500,000	1,000,000	ug/kg	<120
Benzo(A)Anthracene	5,600	11,000	ug/kg	<140
Benzo(A)Pyrene	1,000	1,100	ug/kg	<150
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<140
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	<110
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<150
Chrysene	56,000	110,000	ug/kg	<150
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<120
Dibenzofuran	350,000	1,000,000	ug/kg	<71
Fluoranthene	500,000	1,000,000	ug/kg	<150
Fluorene	500,000	1,000,000	ug/kg	<95
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140
Naphthalene	500,000	1,000,000	ug/kg	<110
Phenanthrene	500,000	1,000,000	ug/kg	<110
Pyrene	500,000	1,000,000	ug/kg	<170
TAL Metals (SW6010B)				
Arsenic	16	16	mg/kg	5.5
Barium	400	10,000	mg/kg	163
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.035
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	0.7

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-BCP-03	MW-BCP-04	MW-BCP-05	MW-BCP-06
			Sample Date:	11/17/2020	11/17/2020	11/17/2020	11/24/2020
			Sample Interval:	4 - 7 ft	8 - 10 ft	14 - 18 ft	28 - 34 ft
			Formation:	Clay	Clay	Clay	Clay
TCL SVOCs (SW8270D)							
Acenaphthene	500,000	1,000,000	mg/kg	<93	<1000	<97	<110
Acenaphthylene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Anthracene	500,000	1,000,000	mg/kg	<120	<1000	<120	<130
Benzo(A)Anthracene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Benzo(A)Pyrene	1,000	1,100	mg/kg	<150	<1000	<150	<160
Benzo(B)Fluoranthene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Benzo(G,H,I)Perylene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Benzo(K)Fluoranthene	56,000	110,000	mg/kg	<150	<1000	<150	<160
Chrysene	56,000	110,000	mg/kg	<150	<1000	<150	<160
Dibenz(A,H)Anthracene	560	1,100	mg/kg	<120	<1000	<120	<130
Dibenzofuran	350,000	1,000,000	mg/kg	<71	<1000	<71	<77
Fluoranthene	500,000	1,000,000	mg/kg	<150	<1000	<150	<160
Fluorene	500,000	1,000,000	mg/kg	<95	<1000	<95	<100
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Naphthalene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Phenanthrene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Pyrene	500,000	1,000,000	mg/kg	<170	<1000	<170	<180
TAL Metals (SW6010B)							
Arsenic	16	16	mg/kg	3	5.2	4.6	5.1
Barium	400	10,000	mg/kg	172	167	111	64.6
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.066	0.278	<0.053	<0.054
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	0.42	11.1	0.66 J	2.1 J

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-BCP-07	MW-BCP-08	MW-BCP-09	MW-BCP-10
			Sample Date:	11/17/2020	11/17/2020	11/17/2020	11/24/2020
			Sample Interval:	4 - 7 ft	8 - 10 ft	14 - 18 ft	28 - 34 ft
			Formation:	Clay	Clay	Clay	Clay
TCL SVOCs (SW8270D)							
Acenaphthene	500,000	1,000,000	mg/kg	<93	<1000	<97	<110
Acenaphthylene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Anthracene	500,000	1,000,000	mg/kg	<120	<1000	<120	<130
Benzo(A)Anthracene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Benzo(A)Pyrene	1,000	1,100	mg/kg	<150	<1000	<150	<160
Benzo(B)Fluoranthene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Benzo(G,H,I)Perylene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Benzo(K)Fluoranthene	56,000	110,000	mg/kg	<150	<1000	<150	<160
Chrysene	56,000	110,000	mg/kg	<150	<1000	<150	<160
Dibenz(A,H)Anthracene	560	1,100	mg/kg	<120	<1000	<120	<130
Dibenzofuran	350,000	1,000,000	mg/kg	<71	<1000	<71	<77
Fluoranthene	500,000	1,000,000	mg/kg	<150	<1000	<150	<160
Fluorene	500,000	1,000,000	mg/kg	<95	<1000	<95	<100
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	mg/kg	<140	<1000	<140	<150
Naphthalene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Phenanthrene	500,000	1,000,000	mg/kg	<110	<1000	<110	<120
Pyrene	500,000	1,000,000	mg/kg	<170	<1000	<170	<180
TAL Metals (SW6010B)							
Arsenic	16	16	mg/kg	5.2	4	4.6	5.1
Barium	400	10,000	mg/kg	167	111	64.6	133
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.278	<0.053	<0.054	<0.055
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	11.1	0.66 J	2.1 J	<0.23

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-BCP-10	MW-BCP-11	MW-BCP-12	MW-BCP-13
			Sample Date:	11/17/2020	11/25/2020	11/23/2020	11/25/2020
			Sample Interval:	8 - 11 ft	15 - 18 ft	45 - 48 ft	36-40 ft
			Formation:	Clay	Clay	Clay	Clay
TCL SVOCs (SW8270D)							
Acenaphthene	500,000	1,000,000	ug/kg	170 J	<93 U	<97 U	<93 U
Acenaphthylene	500,000	1,000,000	ug/kg	1900	250 J	<110 U	<93 U
Anthracene	500,000	1,000,000	ug/kg	1100	<110 U	<110 U	<110 U
Benzo(A)Anthracene	5,600	11,000	ug/kg	2900	590 J	<140 U	<130 U
Benzo(A)Pyrene	1,000	1,100	ug/kg	3000	1050 J	<140 U	<130 U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	3000	1340 J	<130 U	<120 U
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	400	<110 U	<140 U	<110 U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	950 J	<150 U	<140 U	<130 U
Chrysene	56,000	110,000	ug/kg	2900	1350 J	<130 U	<120 U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	170 J	<120 U	<120 U	<110 U
Dibenzofuran	350,000	1,000,000	ug/kg	470 J	<71 U	<71 U	<71 U
Fluoranthene	500,000	1,000,000	ug/kg	3800	260 J	<140 U	<130 U
Fluorene	500,000	1,000,000	ug/kg	1600	190 J	<90 U	<83 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	500	<140 U	<130 U	<120 U
Naphthalene	500,000	1,000,000	ug/kg	4600	590 J	<110 U	<93 U
Phenanthrene	500,000	1,000,000	ug/kg	3400	390 J	<110 U	<110 U
Pyrene	500,000	1,000,000	ug/kg	3800	1170 J	<140 U	<130 U
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	5.2 J	5.7	2.7	2.8
Barium	400	10,000	mg/kg	180	108	74.2	70.8
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.111	<0.054 U	<0.053 U	<0.054 U
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	0.28 J	<0.19 U	<0.17 U	<0.17 U

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-03
			Sample Date:	11/17/2020
			Sample Interval:	40 - 80.5 in
			Formation:	Clay
TCL SVOCs (SW8270D)				
Acenaphthene	500,000	1,000,000	ug/kg	<92
Acenaphthylene	500,000	1,000,000	ug/kg	<110
Anthracene	500,000	1,000,000	ug/kg	<120
Benzo(A)Anthracene	5,600	11,000	ug/kg	<140
Benzo(A)Pyrene	1,000	1,100	ug/kg	<150
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<140
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	<110
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<150
Chrysene	56,000	110,000	ug/kg	<150
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<120
Dibenzofuran	350,000	1,000,000	ug/kg	<71
Fluoranthene	500,000	1,000,000	ug/kg	<150
Fluorene	500,000	1,000,000	ug/kg	<95
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140
Naphthalene	500,000	1,000,000	ug/kg	<110
Phenanthrene	500,000	1,000,000	ug/kg	<110
Pyrene	500,000	1,000,000	ug/kg	<170
TAL Metals (SW6010B)				
Arsenic	16	16	mg/kg	5.5
Barium	400	10,000	mg/kg	163
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.035
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	0.7

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-SCP-11	MW-SCP-11	MW-SCP-11
			Sample Date:	11/5/2020	11/5/2020	11/5/2020
			Sample Interval:	10 - 11 ft	14 - 15 ft	20 - 22 ft
			Formation:	Clay	Clay	Clay
TCL SVOCs (SW8270D)						
Acenaphthene	500,000	1,000,000	ug/kg	<88 U	<90 U	<88 U
Acenaphthylene	500,000	1,000,000	ug/kg	<110 U	<110 U	<110 U
Anthracene	500,000	1,000,000	ug/kg	<110 U	<110 U	<110 U
Benzo(A)Anthracene	5,600	11,000	ug/kg	<130 U	<130 U	<130 U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<140 U	<140 U	<140 U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<130 U	<130 U	<130 U
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	<100 U	<100 U	<100 U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<140 U	<140 U	<140 U
Chrysene	56,000	110,000	ug/kg	<140 U	<140 U	<140 U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<110 U	<110 U	<110 U
Dibenzofuran	350,000	1,000,000	ug/kg	<68 U	<68 U	<68 U
Fluoranthene	500,000	1,000,000	ug/kg	<140 U	<140 U	<140 U
Fluorene	500,000	1,000,000	ug/kg	<88 U	<90 U	<88 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<130 U	<130 U	<130 U
Naphthalene	500,000	1,000,000	ug/kg	<100 U	<100 U	<100 U
Phenanthrene	500,000	1,000,000	ug/kg	<100 U	<100 U	<100 U
Pyrene	500,000	1,000,000	ug/kg	<160 U	<160 U	<160 U
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	4.6	4.2	8.9
Barium	400	10,000	mg/kg	101	172	116
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	<0.054 U	<0.054 U	<0.055 U
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	<0.17 U	<0.19 U	<0.20 U

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-05
			Sample Date:	11/17/2020
			Sample Interval:	42 - 82.5 in
			Formation:	Clay
TCL SVOCs (SW8270D)				
Acenaphthene	500,000	1,000,000	mg/kg	<92 U
Acenaphthylene	500,000	1,000,000	mg/kg	<110 U
Anthracene	500,000	1,000,000	mg/kg	<120 U
Benzo(A)Anthracene	5,600	11,000	mg/kg	<140 U
Benzo(A)Pyrene	1,000	1,100	mg/kg	<150 U
Benzo(B)Fluoranthene	5,600	11,000	mg/kg	<140 U
Benzo(G,H,I)Perylene	500,000	1,000,000	mg/kg	<110 U
Benzo(K)Fluoranthene	56,000	110,000	mg/kg	<150 U
Chrysene	56,000	110,000	mg/kg	<150 U
Dibenz(A,H)Anthracene	560	1,100	mg/kg	<120 U
Dibenzofuran	350,000	1,000,000	mg/kg	<71 U
Fluoranthene	500,000	1,000,000	mg/kg	<150 U
Fluorene	500,000	1,000,000	mg/kg	<95 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	mg/kg	<140 U
Naphthalene	500,000	1,000,000	mg/kg	<110 U
Phenanthrene	500,000	1,000,000	mg/kg	<110 U
Pyrene	500,000	1,000,000	mg/kg	<170 U
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	5.3
Barium	400	10,000	mg/kg	142
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	<0.055 U
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	<0.17 U

MW-BCP-01D
MW-BCP-01C
MW-BCP-01A
MW-BCP-01B
SS-BCP-10
MW-BCP-21C
MW-BCP-21D
MW-BCP-21A
MW-BCP-06A
MW-BCP-06
TP-BCP-05
TP-BCP-47
TP-BCP-01
TP-BCP-04
TP-BCP-02
TP-BCP-43
SS-BCP-01
MW-BCP-10A
MW-BCP-05D
MW-BCP-05A
MW-BCP-05C
MW-BCP-10C
MW-BCP-02A
MW-BCP-02B
TP-BCP-03
MW-BCP-09A
MW-BCP-09B
TP-BCP-06
TP-BCP-08
MW-BCP-04A
MW-BCP-04B
MW-BCP-02
MW-BCP-07C
MW-BCP-03
MW-BCP-05
MW-BCP-11B
MW-BCP-11A
TP-BCP-33
MW-BCP-08B
MW-BCP-08A
MATCHLINE A0I 2 EAST

N

50 0 25 50 100 200
1 INCH = 50 FEET (22X34)

D

DRAWING BY: RB
CHECKED:
APPROVED:

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CLAY SAMPLE DATA - AOI 2 WEST
BROWNFIELD CLEANUP PROGRAM SITE
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS
CAMPUS, INC.
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TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
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FIGURE 4 - 11

DRAWING NUMBER
A0I 2 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-06A			MW-BCP-06A (Dup)			MW-BCP-06A			MW-BCP-06A (Dup-06A)		
Sample Date			1/12/2021			1/12/2021			9/22/2021			10/27/2021		
Screen Interval (ft bgs)			1.0 - 5.0			1.0 - 5.0			1.0 - 5.0			1.0 - 5.0		
Screened Formation:			Fill			Fill			Fill			Fill		
TCL VOCs (SW8260C)														
Benzene	1	ug/l	<0.20	U	NS				<0.20	U	NS			
Ethylbenzene	5	ug/l	<0.20	U	NS				<0.20	U	NS			
Styrene	5	ug/l	<0.20	U	NS				<0.20	U	NS			
Toluene	5	ug/l	<0.20	U	NS				<0.20	U	NS			
m,p-Xylene	5	ug/l	<0.20	U	NS				<0.20	U	NS			
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	NS				<0.20	U	NS			
1,4-Dioxane (SW8270D/ 8260C)														
1,4-Dioxane (P-Dioxane)	0.35	ug/l	NS						NS					
TCL SVOCs (SW8270D)														
2,4-Dimethylphenol	50	ug/l	<1.3	U	NS				<1.4	U	NS			
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	NS				2.9	J	NS			
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	NS				3.2	J	NS			
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	NS				2.2	J	NS			
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	NS				<1.4	U	NS			
Chrysene	0.002	ug/l	<1.1	U	NS				2.9	J	NS			
Fluoranthene	50	ug/l	<1.4	U	NS				5.7	J	NS			
Fluorene	50	ug/l	1.5	J	NS				1.5	J	NS			
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<1.6	U	NS				3.2	J	NS			
Naphthalene	10	ug/l	<1.1	U	NS				1.7	J	NS			
Phenol	1	ug/l	<0.91	U	NS				<1.0	U	NS			
TAL Metals (SW6010)														
Arsenic	25	ug/l	NS						NS					
Barium	1,000	ug/l	NS						NS					
Beryllium	3	ug/l	NS						NS					
Cadmium	5	ug/l	NS						NS					
Chromium, Total	50	ug/l	NS						NS					
Copper	200	ug/l	NS						NS					
Iron	300	ug/l	NS						NS					
Lead	25	ug/l	NS						NS					
Magnesium	35,000	ug/l	NS						NS					
Manganese	300	ug/l	NS						NS					
Nickel	100	ug/l	NS						NS					
Selenium	10	ug/l	NS						NS					
Sodium	20,000	ug/l	NS						NS					
Zinc	2,000	ug/l	NS						NS					
Cyanide (SW9012B/ KELADA-01)														
Cyanide	0.20	mg/l	NS						NS					
Pesticides (8081B)														
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	NS						NS					
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	NS						NS					
Gamma Bhc (Lindane)	0.05	ug/l	NS						NS					
Chlordane (Technical)	0.05	ug/l	NS						NS					
PFAS (537)														
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS						NS					
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS						NS					
1H,1H,2H,2H-Perfluorooctane sulfonic acid	100	ng/l	NS						NS					
Ammonia (E350.1)														
Nitrogen, Ammonia (As N)	2	mg/l	NS						0.992					

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05A			MW-BCP-05A (Dup)			MW-BCP-05A			MW-BCP-05A (Dup-05A)		
Sample Date			1/12/2021			1/12/2021			9/23/2021			9/23/2021		
Screen Interval (ft bgs)			5.0 - 9.0			5.0 - 9.0			5.0 - 9.0			5.0 - 9.0		
Screened Formation:			Fill			Fill			Fill			Fill		
TCL VOCs (SW8260C)														
Benzene	1	ug/l	5000		NS				3900		NS			
Ethylbenzene	5	ug/l	190	J	NS				84	J	NS			
Styrene	5	ug/l	<100	U	NS				<8.0	U	NS			
Toluene	5	ug/l	190	J	NS				84	J	NS			
m,p-Xylene	5	ug/l	230	J	NS				180	J	NS			
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	130	J	NS				79	J	NS			
1,4-Dioxane (SW8270D/ 8260C)														
1,4-Dioxane (P-Dioxane)	0.35	ug/l	2.2		NS				2.1		2.0			
TCL SVOCs (SW8270D)														
2,4-Dimethylphenol	50	ug/l	37	J	NS				71	J	NS			
Benzo(A)Anthracene	0.002	ug/l	<2.2	U	NS				2.7	J	NS			
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	NS				3.1	J	NS			
Benzo(K)Fluoranthene	0.002	ug/l	<1.2	U	NS				<1.2	U	NS			
Biphenyl (Diphenyl)	5	ug/l	2.4	J	NS				3.5	J	NS			
Chrysene	0.002	ug/l	<1.2	U	NS				2.4	J	NS			
Fluoranthene	50	ug/l	<1.6	U	NS				4.7	J	NS			
Fluorene	50	ug/l	2.1	J	NS				3.2	J	NS			
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<1.8	U	NS				<1.8	U	NS			
Naphthalene	10	ug/l	280	D	NS				1800	D	NS			
Phenol	1	ug/l	8.8	J	NS				4.2	J	NS			
TAL Metals (SW6010)														
Arsenic	25	ug/l	12.6		NS				30.1		NS			
Barium	1,000	ug/l	148		NS				50.6		NS			
Beryllium	3	ug/l	<0.23	U	NS				0.3	J	NS			
Cadmium	5	ug/l	<0.38	U	NS				<0.38	U	NS			
Chromium, Total	50	ug/l	14.1		NS				22.7		NS			
Copper	200	ug/l	<7.9	U	NS				6.7	J	NS			
Iron	300	ug/l	1080		NS				4070		NS			
Lead	25	ug/l	7.1		NS				6.6	J	NS			
Magnesium	35,000	ug/l	18200		NS				9510		NS			
Manganese	300	ug/l	223		NS				89		NS			
Nickel	100	ug/l	6	J	NS				12.7	J	NS			
Selenium	10	ug/l	<4.4	U	NS				<4.4	U	NS			
Sodium	20,000	ug/l	181,0000		NS				1500000		NS			
Zinc	2,000	ug/l	49.4	U	NS				14.8	J	NS			
Cyanide (SW9012B/ KELADA-01)														
Cyanide	0.20	mg/l	781		NS				848		NS			
Pesticides (8081B)														
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	0.021	J	NS				<0.020	U	<0.020	U		
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	0.14		NS				<0.020	U	<0.020	U		
Gamma Bhc (Lindane)	0.05	ug/l	0.58		NS				<0.020	U	<0.020	U		
Chlordane (Technical)	0.05	ug/l	0.83		NS				<0.020	U	<0.020	U		
PFAS (537)														
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	15	J	ND				17	J	19	J		
Perfluorooctanoic acid (PFOA)	6.7	ng/l	16	J	ND				16	J	17	J		
1H,1H,2H,2H-Perfluorooctane sulfonic acid	100	ng/l	<2.0	U	ND				0.64	J	0.88	J		
Ammonia (E350.1)														
Nitrogen, Ammonia (As N)	2	mg/l	249		254				232		NS			

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-10A	
Sample Date			1/14/2021	
Screen Interval (ft bgs)			3.0 - 5.0	
Screened Formation:			Fill	
TCL VOCs (SW8260C)				
Benzene	1	ug/l	2000	
Ethylbenzene	5	ug/l	75	J
Styrene	5	ug/l	350	
Toluene	5	ug/l	2100	
m,p-Xylene	5	ug/l	1100	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	380	
1,4-Dioxane (SW8270D/ 8260C)				
1,4-Dioxane (P-Dioxane)	0.35	ug/l	0.39	
TCL SVOCs (SW8270D)				
2,4-Dimethylphenol	50	ug/l	2900	J
Benzo(A)Anthracene	0.002	ug/l	<7.9	U
Benzo(B)Fluoranthene	0.002	ug/l	<5.5	U
Benzo(K)Fluoranthene	0.002	ug/l	<5.1	U
Biphenyl (Diphenyl)	5	ug/l	75	J
Chrysene	0.002	ug/l	<5.9	U
Fluoranthene	50	ug/l	<7.3	U
Fluorene	50	ug/l	58	
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<8.8	U
Naphthalene	10	ug/l	5300	D
Phenol	1	ug/l	2100	D
TAL Metals (SW6010)				
Arsenic	25	ug/l	22.1	
Barium	1,000	ug/l	31	
Beryllium	3	ug/l	<0.13	U
Cadmium	5	ug/l	<0.55	U
Chromium, Total	50	ug/l	0.9	J
Copper	200	ug/l	<3.9	U
Iron	300	ug/l	539	
Lead	25	ug/l	<2.1	U
Magnesium	35,000	ug/l	509	J
Manganese	300	ug/l	30.5	
Nickel	100	ug/l	<2.6	U
Selenium	10	ug/l	<5.4	U
Sodium	20,000	ug/l	115000	
Zinc	2,000	ug/l	<9.4	U
Cyanide (SW9012B/ KELADA-01)				
Cyanide	0.20	mg/l	1.48	
Pesticides (8081B)				
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	0.1	J
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	<0.020	U
Gamma Bhc (Lindane)	0.05	ug/l	<0.020	U
Chlordane (Technical)	0.05	ug/l	<0.020	U
PFAS (537)				
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	5.2	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	10	
1H,1H,2H,2H-Perfluorooctane sulfonic acid	100	ng/l	<0.55	U
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-04A			MW-BCP-04A (Dup)			MW-BCP-04A			MW-BCP-04A (Dup-04A)		
Sample Date			1/14/2021			1/14/2021			9/23/2021			9/23/2021		
Screen Interval (ft bgs)			5.0 - 9.0			5.0 - 9.0			5.0 - 9.0			5.0 - 9.0		
Screened Formation:			Fill			Fill			Fill			Fill		
TCL VOCs (SW8260C)														
Benzene	1	ug/l	3900		NS				3100		NS			
Ethylbenzene	5	ug/l	190	J	NS				84	J	NS			
Styrene	5	ug/l	<100	U	NS				<8.0	U	NS			
Toluene	5	ug/l	190	J	NS				84	J	NS			
m,p-Xylene	5	ug/l	230	J	NS				180	J	NS			
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	130	J	NS				79	J	NS			
1,4-Dioxane (SW8270D/ 8260C)														
1,4-Dioxane (P-Dioxane)	0.35	ug/l	2.2		NS				2.1		2.0			
TCL SVOCs (SW8270D)														
2,4-Dimethylphenol	50	ug/l	37	J	NS				71	J	NS			
Benzo(A)Anthracene	0.002	ug/l	<2.2	U	NS				2.7	J	NS			
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	NS				3.1	J	NS			
Benzo(K)Fluoranthene	0.002	ug/l	<1.2	U	NS				<1.2	U	NS			
Biphenyl (Diphenyl)	5	ug/l	2.4	J	NS				3.5	J	NS			
Chrysene	0.002	ug/l	<1.2	U	NS				2.4	J	NS			
Fluoranthene	50	ug/l	<1.6	U	NS				4.7	J	NS			
Fluorene	50	ug/l	2.1	J	NS				3.2	J	NS			
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<1.8	U	NS				<1.8	U	NS			
Naphthalene	10	ug/l	280	D	NS				1800	D	NS			
Phenol	1	ug/l	8.8	J	NS				4.2	J	NS			
TAL Metals (SW6010)														
Arsenic	25	ug/l	12.6		NS				30.1		NS			
Barium	1,000	ug/l	148		NS				50.6		NS			
Beryllium	3	ug/l	<0.23	U	NS				0.3	J	NS			
Cadmium	5	ug/l	<0.38	U	NS				<0.38	U	NS			
Chromium, Total	50	ug/l	14.1		NS				22.7		NS			
Copper	200	ug/l	<7.9	U	NS				6.7	J	NS			
Iron	300	ug/l	1080		NS				4070		NS			
Lead	25	ug/l	7.1		NS				6.6	J	NS			
Magnesium	35,000	ug/l	18200		NS				9510		NS			
Manganese	300	ug/l	223		NS				89		NS			
Nickel	100	ug/l	6	J	NS				12.7	J	NS			
Selenium	10	ug/l	<4.4	U	NS				<4.4	U	NS			
Sodium	20,000	ug/l	181,0000		NS				1500000		NS			
Zinc	2,000	ug/l	49.4	U	NS				14.8	J	NS			
Cyanide (SW9012B/ KELADA-01)														
Cyanide	0.20	mg/l	781		NS				848		NS			
Pesticides (8081B)														
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	0.021	J	NS				<0.020	U	<0.020	U		
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	0.14		NS				<0.020	U	<0.020	U		
Gamma Bhc (Lindane)	0.05	ug/l	0.58		NS				<0.020	U	<0.020	U		
Chlordane (Technical)	0.05	ug/l	0.83		NS				<0.020	U	<0.020	U		
PFAS (537)														
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	15	J	ND				17	J	19	J		
Perfluorooctanoic acid (PFOA)	6.7	ng/l	16	J	ND				16	J	17	J		
1H,1H,2H,2H-Perfluorooctane sulfonic acid	100	ng/l	<2.0	U	ND				0.64	J	0.88	J		
Ammonia (E350.1)														
Nitrogen, Ammonia (As N)	2	mg/l	249		254				232		NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-02B		MW-BCP-02B	
Sample Date			1/12/2021		9/22/2021	
Screen Interval (ft bgs):			0 - 15		0 - 15	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	<5.5	U
Barium	1,000	ug/l	**68.4**		64	
Beryllium	3	ug/l	<0.13	U	<0.13	U
Chromium, Total	50	ug/l	**3.5**	J	<1.4	U
Copper	200	ug/l	<3.9	U	<3.9	U
Iron	300	ug/l	1.12	J	**75.1**	J
Lead	25	ug/l	<2.1	U	<2.1	U
Magnesium	35,000	ug/l	**148000**		**139000**	
Manganese	300	ug/l	**7.9**		**85.2**	
Nickel	100	ug/l	<2.6	U	<2.6	U
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**91500**		**87700**	
Zinc	2,000	ug/l	<9.4	U	**4.7**	J
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	<0.040	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05C		MW-BCP-05C	
Sample Date			1/15/2021		9/23/2021	
Screen Interval (ft bgs):			29 - 39		29 - 39	
Screened Formation:			Lower Clay		Lower Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**12.4**	
Barium	1,000	ug/l	154		**180**	
Beryllium	3	ug/l	**8.9**	J	**8.7**	J
Chromium, Total	50	ug/l	**20.9**		**34.3**	
Copper	200	ug/l	**6.6**	J	**21.6**	
Iron	300	ug/l	**6200**		**15800**	
Lead	25	ug/l	**2.7**	J	**7.5**	J
Magnesium	35,000	ug/l	**153000**		**185000**	
Manganese	300	ug/l	**133**		**271**	
Nickel	100	ug/l	<2.6	U	**7.8**	J
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**79300**		**87500**	
Zinc	2,000	ug/l	**18**	J	**31.6**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	**1.68**	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-09B		MW-BCP-09B	
Sample Date			1/12/2021		9/21/2021	
Screen Interval (ft bgs):			10 - 20		10 - 20	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**5.5**	J
Barium	1,000	ug/l	**87.6**		**98.9**	
Beryllium	3	ug/l	<0.13	U	<0.13	U
Chromium, Total	50	ug/l	**9.5**	J	**4.8**	J
Copper	200	ug/l	<3.9	U	<3.9	U
Iron	300	ug/l	<74	U	**1400**	
Lead	25	ug/l	<2.1	U	<2.1	U
Magnesium	35,000	ug/l	**87900**		**135000**	
Manganese	300	ug/l	**60**		**82.1**	
Nickel	100	ug/l	<2.6	U	<2.6	U
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**66400**		**69800**	
Zinc	2,000	ug/l	<9.4	U	**6.7**	J
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	<0.040	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-10C		MW-BCP-10C	
Sample Date			1/15/2021		9/24/2021	
Screen Interval (ft bgs):			29 - 39		29 - 39	
Screened Formation:			Lower Clay		Lower Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<8.5	U	<8.5	U
Barium	1,000	ug/l	**87.2**		**65.6**	
Beryllium	3	ug/l	<0.13	U	<0.13	U
Chromium, Total	50	ug/l	**1.8**	J	<1.4	U
Copper	200	ug/l	<3.9	U	<3.9	U
Iron	300	ug/l	**597**		**951**	
Lead	25	ug/l	<2.1	U	<2.1	U
Magnesium	35,000	ug/l	**151000**		**35400**	
Manganese	300	ug/l	**73.4**		**51**	
Nickel	100	ug/l	<2.6	U	<2.6	U
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**75500**		**70100**	
Zinc	2,000	ug/l	<9.4	U	**4**	J
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	<0.040	U



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-04B		MW-BCP-04B	
Sample Date			1/12/2021		9/21/2021	
Screen Interval (ft bgs):			15 - 25		15 - 25	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	NS		NS	
Barium	1,000	ug/l	NS		NS	
Beryllium	3	ug/l	NS		NS	
Chromium, Total	50	ug/l	NS		NS	
Copper	200	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Lead	25	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Nickel	100	ug/l	NS		NS	
Selenium	10	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Zinc	2,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0133**		<0.040	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-07C		MW-BCP-07C	
Sample Date			1/12/2021		9/24/2021	
Screen Interval (ft bgs):			30 - 40		30 - 40	
Screened Formation:			Lower Clay		Lower Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	**5.6**	J	**7.8**	J
Barium	1,000	ug/l	**269**		**127**	
Beryllium	3	ug/l	**1.5**	J	**0.4**	J
Chromium, Total	50	ug/l	**48.8**		**12.2**	
Copper	200	ug/l	**40.3**		**9.2**	J
Iron	300	ug/l	**39900**		**11000**	
Lead	25	ug/l	**14.9**		**6.1**	J
Magnesium	35,000	ug/l	**89000**		**51900**	
Manganese	300	ug/l	**799**		**195**	
Nickel	100	ug/l	<2.6	U	**5**	J
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**108000**		**81800**	
Zinc	2,000	ug/l	**107**		**24.4**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	<0.20	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-08B		MW-BCP-08B	
Sample Date			1/12/2021		9/24/2021	
Screen Interval (ft bgs):			15 - 25		15 - 25	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<8.5	U	**16**	
Barium	1,000	ug/l	**85.1**		**186**	
Beryllium	3	ug/l	<0.13	U	**2.7**	
Chromium, Total	50	ug/l	**2.6**	J	**86.7**	
Copper	200	ug/l	<3.9	U	**62.4**	
Iron	300	ug/l	**157**		**84000**	
Lead	25	ug/l	<2.1	U	**33.1**	
Magnesium	35,000	ug/l	**86500**		**194000**	
Manganese	300	ug/l	**117**		**1810**	
Nickel	100	ug/l	<2.6	U	**56.8**	
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**120000**		**77100**	
Zinc	2,000	ug/l	<9.4	U	**199**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0104**		<0.20	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-11B		MW-BCP-11B	
Sample Date			1/15/2021		9/23/2021	
Screen Interval (ft bgs):			15 - 25		15 - 25	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<8.5	U	**82.3**	
Barium	1,000	ug/l	**225**		**2040**	
Beryllium	3	ug/l	<0.13	U	**13.2**	
Chromium, Total	50	ug/l	**8.7**	J	**862**	
Copper	200	ug/l	<3.9	U	**390**	
Iron	300	ug/l	**910**		**444000**	
Lead	25	ug/l	<2.1	U	**227**	
Magnesium	35,000	ug/l	**238000**		**461000**	
Manganese	300	ug/l	**750**		**6430**	
Nickel	100	ug/l	<2.6	U	**362**	
Selenium	10	ug/l	<5.4	U	<5.4	U
Sodium	20,000	ug/l	**102000**		**87200**	
Zinc	2,000	ug/l	<9.4	U	**1110**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0258**		<0.20	U

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50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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CLAY ZONE GROUNDWATER DATA - AOI 2 WEST
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TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

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FIGURE 4 - 13

DRAWING NUMBER
A0I 2 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05D	MW-BCP-05D
		Sample Date	1/14/2021	9/23/2021
		Borehole Interval (ft bgs):	56.0 - 66.0	56.0 - 66.0
		Formation:	Bedrock	Bedrock
TAL Metals (SW6010)				
Iron	300	ug/l	3860	3960
Magnesium	35,000	ug/l	51000	54100
Sodium	20,000	ug/l	52100	58400



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1 INCH = 50 FEET (22X34)

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BEDROCK ZONE GROUNDWATER DATA - AOI 2 WEST

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FIGURE 4 - 14

DRAWING NUMBER

A0I 2 WEST

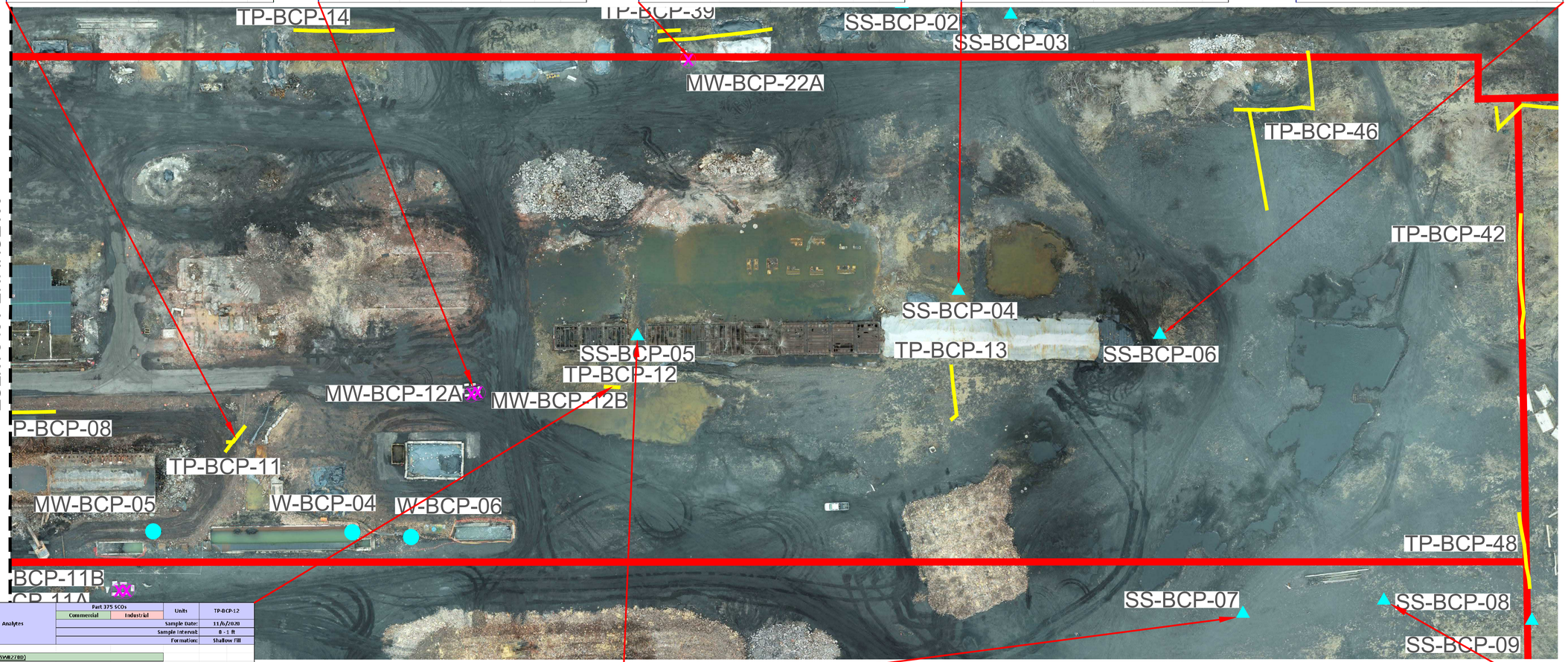
Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-11	
Sample Date:				11/5/2020	
Sample Interval:				0 to 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	7800	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	6100	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	8600	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	2600	D
Chrysene	56,000	110,000	ug/kg	9300	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1600	D
Fluoranthene	500,000	1,000,000	ug/kg	9000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3500	D
Pyrene	500,000	1,000,000	ug/kg	7600	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	12.8	
Copper	270	10,000	mg/kg	31.4	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.035	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	7.01	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-12	
Sample Date:				11/16/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	15000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	19000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	21000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	7500	
Chrysene	56,000	110,000	ug/kg	15000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	3800	J
Fluoranthene	500,000	1,000,000	ug/kg	30000	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	16000	
Pyrene	500,000	1,000,000	ug/kg	24000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	11.6	J
Copper	270	10,000	mg/kg	37.5	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.684	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	1.91	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-22A	
Sample Date:				6/24/2021	
Sample Interval:				0 - 1 ft	
Formation:				Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	1000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	1400	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	1700	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	550	
Chrysene	56,000	110,000	ug/kg	1300	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	250	J
Fluoranthene	500,000	1,000,000	ug/kg	1800	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1000	
Pyrene	500,000	1,000,000	ug/kg	1500	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	5.7	J
Copper	270	10,000	mg/kg	30.1	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.13	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	1.89	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-04	
Sample Date:				11/16/2020	
Sample Interval:				0 - 1 ft	
Formation:				Iron Oxide Pile	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	15000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	10000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	30000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	9700	DJ
Chrysene	56,000	110,000	ug/kg	22000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	4400	DJ
Fluoranthene	500,000	1,000,000	ug/kg	17000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	16000	D
Pyrene	500,000	1,000,000	ug/kg	11000	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	22.3	
Copper	270	10,000	mg/kg	408	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	1.3	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	110	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-06	
Sample Date:				11/16/2020	
Sample Interval:				0 - 1 ft	
Formation:				Iron Oxide Pile	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	8600	
Benzo(A)Pyrene	1,000	1,100	ug/kg	8900	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	15000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	4800	
Chrysene	56,000	110,000	ug/kg	10000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2100	J
Fluoranthene	500,000	1,000,000	ug/kg	17000	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	8100	
Pyrene	500,000	1,000,000	ug/kg	13000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	14.4	
Copper	270	10,000	mg/kg	114	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	1.4	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	20.5	



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-12	
Sample Date:				11/5/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	4600	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	6900	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	8500	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	2900	D
Chrysene	56,000	110,000	ug/kg	5600	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1300	DJ
Fluoranthene	500,000	1,000,000	ug/kg	7000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	5400	D
Pyrene	500,000	1,000,000	ug/kg	6300	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	15.6	
Copper	270	10,000	mg/kg	41.4	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.624	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	13.8	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-05	
Sample Date:				11/16/2020	
Sample Interval:				0 - 1 ft	
Formation:				Iron Oxide Pile	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	1500	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	600	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	3900	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1200	D
Chrysene	56,000	110,000	ug/kg	3500	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	450	J
Fluoranthene	500,000	1,000,000	ug/kg	4000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1400	D
Pyrene	500,000	1,000,000	ug/kg	1000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	1.8	
Copper	270	10,000	mg/kg	21.2	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	2	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	549	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-07	
Sample Date:				11/12/2020	
Sample Interval:				Debris Pile	
Formation:				Shredder Material	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	3800	
Benzo(A)Pyrene	1,000	1,100	ug/kg	2200	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	4900	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<690	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1800	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-08	
Sample Date:				11/12/2020	
Sample Interval:				Debris Pile	
Formation:				Shredder Material	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<1100	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<1300	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<1200	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1100	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<1200	U

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1 INCH = 50 FEET (22X34)

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FILL SAMPLE DATA - AOI 2 EAST

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FIGURE 4 - 15

DRAWING NUMBER

A0I 2 EAST

Analytes	Part 375 SCOs		Units	TP-BCP-11		
	Commercial	Industrial				
			Sample Date:	11/6/2020		
			Sample Interval:	44 - 44.5 in		
			Formation:	Clay		
TCL SVOCs (SW8270D)						
Acenaphthene	500,000	1,000,000	ug/kg	<96	U	
Acenaphthylene	500,000	1,000,000	ug/kg	<120	U	
Anthracene	500,000	1,000,000	ug/kg	<120	U	
Benzo[A]Anthracene	5,600	11,000	ug/kg	<130	U	
Benzo[A]Pyrene	1,000	1,100	ug/kg	<160	U	
Benzo[B]Fluoranthene	5,600	11,000	ug/kg	<150	U	
Benzo[G,H,I]Perylene	500,000	1,000,000	ug/kg	<120	U	
Benzo[K]Fluoranthene	56,000	110,000	ug/kg	<160	U	
Chrysene	56,000	110,000	ug/kg	<160	U	
Dibenz[A,H]Anthracene	560	1,100	ug/kg	<130	U	
Dibenzofuran	350,000	1,000,000	ug/kg	<84	U	
Fluoranthene	500,000	1,000,000	ug/kg	<160	U	
Fluorene	500,000	1,000,000	ug/kg	<99	U	
Indeno[1,2,3-C,D]Pyrene	5,600	11,000	ug/kg	<150	U	
Naphthalene	500,000	1,000,000	ug/kg	<110	U	
Phenanthrene	500,000	1,000,000	ug/kg	<130	U	
Pyrene	500,000	1,000,000	ug/kg	<170	U	
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	<10.1	U	
Barium	400	10,000	mg/kg	121		
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.034		J
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	<0.29	U	J

Analytes	Part 375 SCOs		Units	TP-BCP-12		
	Commercial	Industrial				
			Sample Date:	11/6/2020		
			Sample Interval:	44 - 44.5 in		
			Formation:	Clay		
TCL SVOCs (SW8270D)						
Acenaphthene	500,000	1,000,000	ug/kg	<97	U	
Acenaphthylene	500,000	1,000,000	ug/kg	<120	U	
Anthracene	500,000	1,000,000	ug/kg	<130	U	
Benzo[A]Anthracene	5,600	11,000	ug/kg	<130	U	
Benzo[A]Pyrene	1,000	1,100	ug/kg	<160	U	
Benzo[B]Fluoranthene	5,600	11,000	ug/kg	<150	U	
Benzo[G,H,I]Perylene	500,000	1,000,000	ug/kg	<120	U	
Benzo[K]Fluoranthene	56,000	110,000	ug/kg	<160	U	
Chrysene	56,000	110,000	ug/kg	<160	U	
Dibenz[A,H]Anthracene	560	1,100	ug/kg	<130	U	
Dibenzofuran	350,000	1,000,000	ug/kg	<86	U	
Fluoranthene	500,000	1,000,000	ug/kg	<160	U	
Fluorene	500,000	1,000,000	ug/kg	<100	U	
Indeno[1,2,3-C,D]Pyrene	5,600	11,000	ug/kg	<150	U	
Naphthalene	500,000	1,000,000	ug/kg	<120	U	
Phenanthrene	500,000	1,000,000	ug/kg	<150	U	
Pyrene	500,000	1,000,000	ug/kg	<160	U	
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	3.8		
Barium	400	10,000	mg/kg	65.5		
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.032		J
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	2.38		J

Analytes	Part 375 SCOs		Units	MW-BCP-22A		
	Commercial	Industrial				
			Sample Date:	6/24/2021		
			Sample Interval:	5 - 6 ft		
			Formation:	Clay		
TCL SVOCs (SW8270D)						
Acenaphthene	500,000	1,000,000	ug/kg	<79	U	
Acenaphthylene	500,000	1,000,000	ug/kg	<95	U	
Anthracene	500,000	1,000,000	ug/kg	<79	U	
Benzo[A]Anthracene	5,600	11,000	ug/kg	<62	U	
Benzo[A]Pyrene	1,000	1,100	ug/kg	<120	U	
Benzo[B]Fluoranthene	5,600	11,000	ug/kg	<79	U	
Benzo[G,H,I]Perylene	500,000	1,000,000	ug/kg	<96	U	
Benzo[K]Fluoranthene	56,000	110,000	ug/kg	<68	U	
Chrysene	56,000	110,000	ug/kg	<62	U	
Dibenz[A,H]Anthracene	560	1,100	ug/kg	<91	U	
Dibenzofuran	350,000	1,000,000	ug/kg	<76	U	
Fluoranthene	500,000	1,000,000	ug/kg	<110	U	
Fluorene	500,000	1,000,000	ug/kg	<79	U	
Indeno[1,2,3-C,D]Pyrene	5,600	11,000	ug/kg	<110	U	
Naphthalene	500,000	1,000,000	ug/kg	<79	U	
Phenanthrene	500,000	1,000,000	ug/kg	69		J
Pyrene	500,000	1,000,000	ug/kg	<79	U	
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	8.3		J
Barium	400	10,000	mg/kg	186		J
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.028		J
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	<0.17	U	

Analytes	Part 375 SCOs		Units	TP-BCP-16		TP-BCP-16		TP-BCP-16	
	Commercial	Industrial							
			Sample Date:	11/5/2020		11/5/2020		11/5/2020	
			Sample Interval:	24 - 48 in		46 - 46.5 in		50 - 50.5 in	
			Formation:	Clay		Clay		Clay	
TCL SVOCs (SW8270D)									
Acenaphthene	500,000	1,000,000	ug/kg	<110	U	NS		<94	U
Acenaphthylene	500,000	1,000,000	ug/kg	<130	U	NS		<130	U
Anthracene	500,000	1,000,000	ug/kg	<130	U	NS		<130	U
Benzo(A)Anthracene	5,600	11,000	ug/kg	<140	U	NS		<130	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<170	U	NS		<160	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<160	U	NS		<140	U
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	<130	U	NS		<110	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<170	U	NS		<160	U
Chrysene	56,000	110,000	ug/kg	<170	U	NS		<160	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<140	U	NS		<130	U
Dibenzofuran	350,000	1,000,000	ug/kg	<91	U	NS		<82	U
Fluoranthene	500,000	1,000,000	ug/kg	210	J	NS		<160	U
Fluorene	500,000	1,000,000	ug/kg	<110	U	NS		<96	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<160	U	NS		<140	U
Naphthalene	500,000	1,000,000	ug/kg	210	J	NS		<130	U
Phenanthrene	500,000	1,000,000	ug/kg	170	J	NS		<130	U
Pyrene	500,000	1,000,000	ug/kg	<190	U	NS		<170	U
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	11.3		5.7		2.9	
Barium	400	10,000	mg/kg	39.3		619		223	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	0.337		3.5		0.032	J
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	13.3		1140		1.59	

Analytes	Part 375 SCOs		Units	MW-BCP-12		MW-BCP-12		MW-BCP-12	
	Commercial	Industrial							
			Sample Date:	11/16/2020		11/19/2020		11/19/2020	
			Sample Interval:	5 - 6 ft		8 - 10 ft		24 - 25 ft	
			Formation:	Clay		Clay		Clay	
TCL SVOCs (SW8270D)									
Acenaphthene	500,000	1,000,000	ug/kg	<86	U	<88	U	<110	U
Acenaphthylene	500,000	1,000,000	ug/kg	<110	U	<110	U	<130	U
Anthracene	500,000	1,000,000	ug/kg	<110	U	<110	U	<130	U
Benzo(A)Anthracene	5,600	11,000	ug/kg	<120	U	<120	U	<140	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<140	U	<140	U	<170	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<130	U	<140	U	<160	U
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	<110	U	<110	U	<130	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<140	U	<150	U	<170	U
Chrysene	56,000	110,000	ug/kg	<140	U	<150	U	<170	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<120	U	<120	U	<140	U
Dibenzofuran	350,000	1,000,000	ug/kg	<75	U	<78	U	<92	U
Fluoranthene	500,000	1,000,000	ug/kg	<140	U	<150	U	<170	U
Fluorene	500,000	1,000,000	ug/kg	<86	U	<91	U	<110	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<130	U	<140	U	<160	U
Naphthalene	500,000	1,000,000	ug/kg	<96	U	<110	U	<120	U
Phenanthrene	500,000	1,000,000	ug/kg	<120	U	<120	U	<140	U
Pyrene	500,000	1,000,000	ug/kg	<150	U	<160	U	<190	U
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	2.2	J	4.3		2.9	
Barium	400	10,000	mg/kg	129		71.6		145	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	<0.014	U	<0.015	U	<0.017	U
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	5.71		0.63		1	

Analytes	Part 375 SCOs		Units	TP-BCP-13		TP-BCP-13	
	Commercial	Industrial					
			Sample Date:	11/5/2020		11/5/2020	
			Sample Interval:	18 - 20 in		80 - 82 in	
			Formation:	Clay		Clay	
TCL SVOCs (SW8270D)							
Acenaphthene	500,000	1,000,000	ug/kg	<110	U	<94	U
Acenaphthylene	500,000	1,000,000	ug/kg	150	J	<120	U
Anthracene	500,000	1,000,000	ug/kg	310	J	<120	U
Benzo(A)Anthracene	5,600	11,000	ug/kg	580		<130	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	520		<160	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	1000		<140	U
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	380	J	<120	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	350	J	<160	U
Chrysene	56,000	110,000	ug/kg	880		<160	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<130	U	<130	U
Dibenzofuran	350,000	1,000,000	ug/kg	220	J	<83	U
Fluoranthene	500,000	1,000,000	ug/kg	1300		<160	U
Fluorene	500,000	1,000,000	ug/kg	<120	U	<97	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	460	J	<140	U
Naphthalene	500,000	1,000,000	ug/kg	610		<110	U
Phenanthrene	500,000	1,000,000	ug/kg	800		<130	U
Pyrene	500,000	1,000,000	ug/kg	940		<170	U
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	7		26.7	
Barium	400	10,000	mg/kg	239		143	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.032	J	1.2	
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	20		4.39	

Analytes	Part 375 SCOs		Units	TP-BCP-48-100	
	Commercial	Industrial			
			Sample Date:	11/10/2020	
			Sample Interval:	100 - 100.5 in	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Acenaphthene	500,000	1,000,000	ug/kg	1200000	DJ
Acenaphthylene	500,000	1,000,000	ug/kg	1200000	DJ
Anthracene	500,000	1,000,000	ug/kg	1200000	D
Benzo(A)Anthracene	5,600	11,000	ug/kg	1100000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	1100000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	1100000	D
Benzo(G,H,I)Perylene	500,000	1,000,000	ug/kg	660000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	480000	D
Chrysene	56,000	110,000	ug/kg	950000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	140000	D
Dibenzofuran	350,000	1,000,000	ug/kg	1200000	DJ
Fluoranthene	500,000	1,000,000	ug/kg	3400000	DJ
Fluorene	500,000	1,000,000	ug/kg	1500000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	650000	D
Naphthalene	500,000	1,000,000	ug/kg	15000000	D
Phenanthrene	500,000	1,000,000	ug/kg	5800000	D
Pyrene	500,000	1,000,000	ug/kg	2600000	DJ
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	NS	
Barium	400	10,000	mg/kg	NS	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	NS	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	NS	



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50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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FIGURE 4 - 16

DRAWING NUMBER
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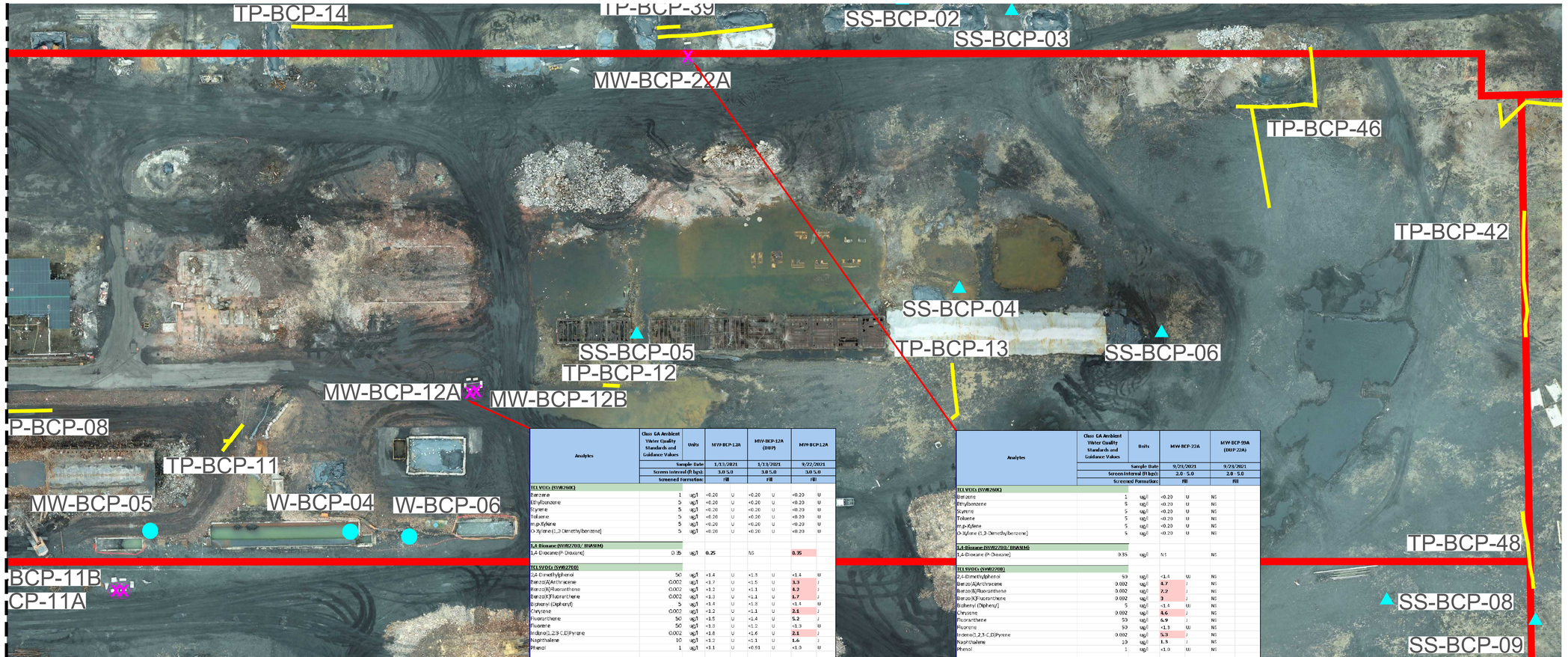

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-12A		MW-BCP-12A (DUP)		MW-BCP-12A
Sample Date			1/13/2021		1/13/2021		9/22/2021
Screen Interval (ft bgs)			3.0 5.0		3.0 5.0		3.0 5.0
Screened Formation:			Fill		Fill		Fill
TCL VOCs (SW8260C)							
Benzene	1	ug/l	<0.20	U	<0.20	U	<0.29 U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U	<0.29 U
Styrene	5	ug/l	<0.20	U	<0.20	U	<0.29 U
Toluene	5	ug/l	<0.20	U	<0.20	U	<0.29 U
m,p-Xylene	5	ug/l	<0.20	U	<0.20	U	<0.29 U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	<0.20	U	<0.29 U
1,4-Dioxane (SW8270D/ 8ISESIM)							
1,4-Dioxane (P-Dioxane)	0.35	ug/l	**0.25**		NS		**0.35**
TCL SVOCs (SW8270D)							
2,4-Dimethylphenol	50	ug/l	<1.4	U	<1.5	U	<1.4 U
Benzo(A)Anthracene	0.002	ug/l	<1.7	U	<1.5	U	**3.3** J
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	<1.1	U	**4.2** J
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	<1.1	U	**1.7** J
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	<1.3	U	<1.4 U
Chrysene	0.002	ug/l	<1.2	U	<1.1	U	**2.1** J
Fluoranthene	50	ug/l	<1.5	U	<1.4	U	**5.2** J
Fluorene	50	ug/l	<1.3	U	<1.2	U	<1.3 U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.4	U	**2.1** J
Naphthalene	10	ug/l	<1.2	U	<1.1	U	**1.6** J
Phenol	1	ug/l	<1.1	U	<0.93	U	<1.0 U
TAL Metals (SW6010)							
Arsenic	25	ug/l	<8.5	U	NS		**7.4** J
Barium	1,000	ug/l	**141**		NS		**191**
Beryllium	3	ug/l	<0.38	U	NS		**0.4** J
Cadmium	5	ug/l	<0.35	U	NS		<0.35 U
Chromium, Total	50	ug/l	<0.59	U	NS		**0.4** J
Copper	200	ug/l	<3.9	U	NS		**0.1** J
Iron	300	ug/l	**1620**		NS		**11000** J
Lead	25	ug/l	<2.1	U	NS		**23.2** J
Magnesium	35,000	ug/l	**18400**		NS		**28800**
Manganese	300	ug/l	**360**		NS		**717**
Nickel	100	ug/l	<2.6	U	NS		<2.6 U
Selenium	10	ug/l	<6.4	U	NS		<6.4 U
Sodium	20,000	ug/l	**67000**		NS		**93500**
Zinc	2,000	ug/l	<9.4	U	NS		**82.1**
Cyanide (SW9012B/ 8014DA-01)							
Cyanide	0.20	mg/l	**0.347**	J	**0.302**	J	**0.78**
Pesticides (8081B)							
Beta BHC (Beta Hexachlorocyclohexane)	0.04	ug/l	<0.020	U	NS		<0.021 U
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	<0.020	U	NS		<0.021 U
Gamma Bhc (Lindane)	0.05	ug/l	<0.020	U	NS		<0.021 U
Chlordane (Technical)	0.05	ug/l	<0.020	U	NS		<0.021 U
PFAS (537)							
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	<0.44	U	NS		**1.2** J
Perfluorooctanoic acid (PFOA)	6.7	ng/l	3.2		NS		**6.5** J
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	<0.55	U	NS		**200** J
Ammonia (E350.1)							
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS		NS

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-22A		MW-BCP-99A (DUP-22A)	
Sample Date			9/25/2021		9/25/2021	
Screen Interval (ft bgs):			2.0 - 5.0		2.0 - 5.0	
Screened Formation:			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	<0.20	U	NS	
Ethylbenzene	5	ug/l	<0.20	U	NS	
Styrene	5	ug/l	<0.20	U	NS	
Toluene	5	ug/l	<0.20	U	NS	
m,p-Xylene	5	ug/l	<0.20	U	NS	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	NS	
1,4-Dioxane (SW8270D/ 8ISESIM)						
1,4-Dioxane (P-Dioxane)	0.35	ug/l	NS		NS	
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	<1.4	U	NS	
Benzo(A)Anthracene	0.002	ug/l	**4.7**	J	NS	
Benzo(B)Fluoranthene	0.002	ug/l	**7.2**	J	NS	
Benzo(K)Fluoranthene	0.002	ug/l	**3**	J	NS	
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	NS	
Chrysene	0.002	ug/l	**4.6**	J	NS	
Fluoranthene	50	ug/l	**6.9**	J	NS	
Fluorene	50	ug/l	<1.3	U	NS	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	**5.3**	J	NS	
Naphthalene	10	ug/l	**1.3**	J	NS	
Phenol	1	ug/l	<1.0	U	NS	
TAL Metals (SW6010)						
Arsenic	25	ug/l	**67.4**		NS	
Barium	1,000	ug/l	**854**		NS	
Beryllium	3	ug/l	**1.3**	J	NS	
Cadmium	5	ug/l	**0.7**	J	NS	
Chromium, Total	50	ug/l	**46.3**		NS	
Copper	200	ug/l	**102**		NS	
Iron	300	ug/l	**61700**		NS	
Lead	25	ug/l	**37.4**	J	NS	
Magnesium	35,000	ug/l	**49300**		NS	
Manganese	300	ug/l	**885**		NS	
Nickel	100	ug/l	**24.1**	J	NS	
Selenium	10	ug/l	**15.1**		NS	
Sodium	20,000	ug/l	**17600**		NS	
Zinc	2,000	ug/l	**78.9**		NS	
Cyanide (SW9012B/ 8014DA-01)						
Cyanide	0.20	mg/l	<0.16	U	NS	
Pesticides (8081B)						
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	NS		NS	
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	NS		NS	
Gamma Bhc (Lindane)	0.05	ug/l	NS		NS	
Chlordane (Technical)	0.05	ug/l	NS		NS	
PFAS (537)						
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS		NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS		NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	NS		NS	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	**0.904**		**0.908**	

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1 INCH = 50 FEET (22X34)

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FILL ZONE GROUNDWATER DATA - AOI 2 EAST
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
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FIGURE 4 - 17

DRAWING NUMBER
A0I 2 EAST



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-12B		MW-BCP-12B	
Sample Date			1/14/2021		9/22/2021	
Screen Interval (ft bgs):			15 - 25		15 - 25	
Screened Formation:			Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	<5.5	U
Barium	1,000	ug/l	**72.9**		**110**	
Beryllium	3	ug/l	<0.13	U	**0.2**	J
Chromium, Total	50	ug/l	**2.2**	J	**8.7**	J
Copper	200	ug/l	<3.9	U	**5.3**	J
Iron	300	ug/l	**998**		**2550**	J
Lead	25	ug/l	<2.1	U	<2.1	U
Magnesium	35,000	ug/l	**115000**		**130000**	
Manganese	300	ug/l	**52**		**70.8**	
Nickel	100	ug/l	<2.6	U	<2.6	U
Selenium	10	ug/l	<6.4	U	<6.4	U
Sodium	20,000	ug/l	**52000**		**56400**	
Zinc	2,000	ug/l	<9.4	U	**8**	J
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**1.41**		**1.60**	

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1 INCH = 50 FEET (22X34)

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CLAY ZONE GROUNDWATER DATA - AOI 2 EAST

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TONAWANDA, NEW YORK 14150
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FIGURE 4 - 18

DRAWING NUMBER
A0I 2 EAST

Analytes	Part 375 SCOs		Units	MW-BCP-01			MW-BCP-01		MW-BCP-01	
	Commercial	Industrial								
Sample Date:				10/28/2020			10/28/2020		10/28/2020	
Sample Interval:				0 - 2 in			2 - 6 in		0 - 1 ft	
Formation:				Surface Soil			Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)										
Benzo(A)Anthracene	5,600	11,000	ug/kg	**24000**	D	NS			**750**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**27000**	D	NS			**1000**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**28000**	D	NS			**1200**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**4500**	DJ	NS			**150**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**18000**	D	NS			**610**	
TAL Metals (SW6010)										
Barium	400	10,000	mg/kg	**59.4**		NS			**92.6**	

Analytes	Part 375 SCOs		Units	SS-BCP-10	
	Commercial	Industrial			
Sample Date:				11/10/2020	
Sample Interval:				0 - 2 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Anthracene	500,000	1,000,000	ug/kg	**590**	
Benzo(A)Anthracene	5,600	11,000	ug/kg	**3340**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**4700**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**5540**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**1640**	D
Chrysene	56,000	110,000	ug/kg	**3780**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**760**	DJ
Fluoranthene	500,000	1,000,000	ug/kg	**5980**	D
Fluorene	500,000	1,000,000	ug/kg	**160**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**3740**	D
Naphthalene	500,000	1,000,000	ug/kg	**200**	J
Phenanthrene	500,000	1,000,000	ug/kg	**2180**	D
Pyrene	500,000	1,000,000	ug/kg	**5480**	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**18.7**	M
Lead	1,000	3,900	mg/kg	**61.0**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.302**	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	**0.78**	

Analytes	Part 375 SCOs		Units	MW-BCP-02
	Commercial	Industrial		
Sample Date:				11/16/2020
Sample Interval:				0 - 1 ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	**3400**
Benzo(A)Pyrene	1,000	1,100	ug/kg	**3700** D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**4100** D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**1500**
Chrysene	56,000	110,000	ug/kg	**3600** D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**730** DJ
Fluoranthene	500,000	1,000,000	ug/kg	**5100** D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**2800** D
Pyrene	500,000	1,000,000	ug/kg	**6100** D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	**8.9** J
Copper	270	10,000	mg/kg	**44.8** J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	**0.037**
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	**2.63**

Analytes	Part 375 SCOs		Units	MW-BCP-03			MW-BCP-03		MW-BCP-03	
	Commercial	Industrial								
Sample Date:				10/27/2020			10/27/2020		10/27/2020	
Sample Interval:				0 - 2 in			2 - 6 in		0.5 - 1 ft	
Formation:				Surface Soil			Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)										
Benzo(A)Anthracene	5,600	11,000	ug/kg	**2900**		NS			**460**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**4100**		NS			**790**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**5100**	D	NS			**910**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**740**	DJ	NS			**140**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**3400**	D	NS			**660**	
TAL Metals (SW6010)										
Barium	400	10,000	mg/kg	**146**		NS			**846**	

Analytes	Part 375 SCOs		Units	TP-BCP-45
	Commercial	Industrial		
Sample Date:				11/12/2020
Sample Interval:				0 - 1 ft
Formation:				Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	**2000**
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1800**
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**3400**
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**480** J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1800**



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1 INCH = 50 FEET (22X34)

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FIGURE 4 - 19

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Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-BCP-03		MW-BCP-03		MW-BCP-03	
Sample Date:				10/27/2020		10/27/2020		10/27/2020	
Sample Interval:				0 - 2 in		2 - 6 in		0.5 - 1 ft	
Formation:				Surface Soil		Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	2900		NS		460	
Benzo(A)Pyrene	1,000	1,100	ug/kg	4100		NS		790	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	5100	D	NS		910	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	740	DJ	NS		140	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3400	D	NS		660	
TAL Metals (SW6010)									
Barium	400	10,000	mg/kg	146		NS		846	

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	MW-BCP-15		MW-BCP-15		MW-BCP-15		MW-BCP-15		MW-BCP-15	
Sample Date:				10/29/2020		10/29/2020		10/29/2020		10/29/2020		10/29/2020	
Sample Interval:				0 - 2 in		DUP (0 - 2 in)		2 - 6 in		DUP (2 - 6 in)		0.5 - 1 ft	
Formation:				Surface Soil		Surface Soil		Surface Soil		Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)													
Benzo(A)Anthracene	5,600	11,000	ug/kg	3500	J	1300		NS		NS		1200	
Benzo(A)Pyrene	1,000	1,100	ug/kg	3500	J	2100		NS		NS		1500	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	4400	J	2500		NS		NS		1700	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	480	J	<330	UJ	NS		NS		220	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	2200	J	1500		NS		NS		850	
TAL Metals (SW6010)													
Barium	400	10,000	mg/kg	147		158		NS		NS		1140	

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-45	
Sample Date:				11/12/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	2000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	1800	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	3400	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	480	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1800	

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FIGURE 4 - 20

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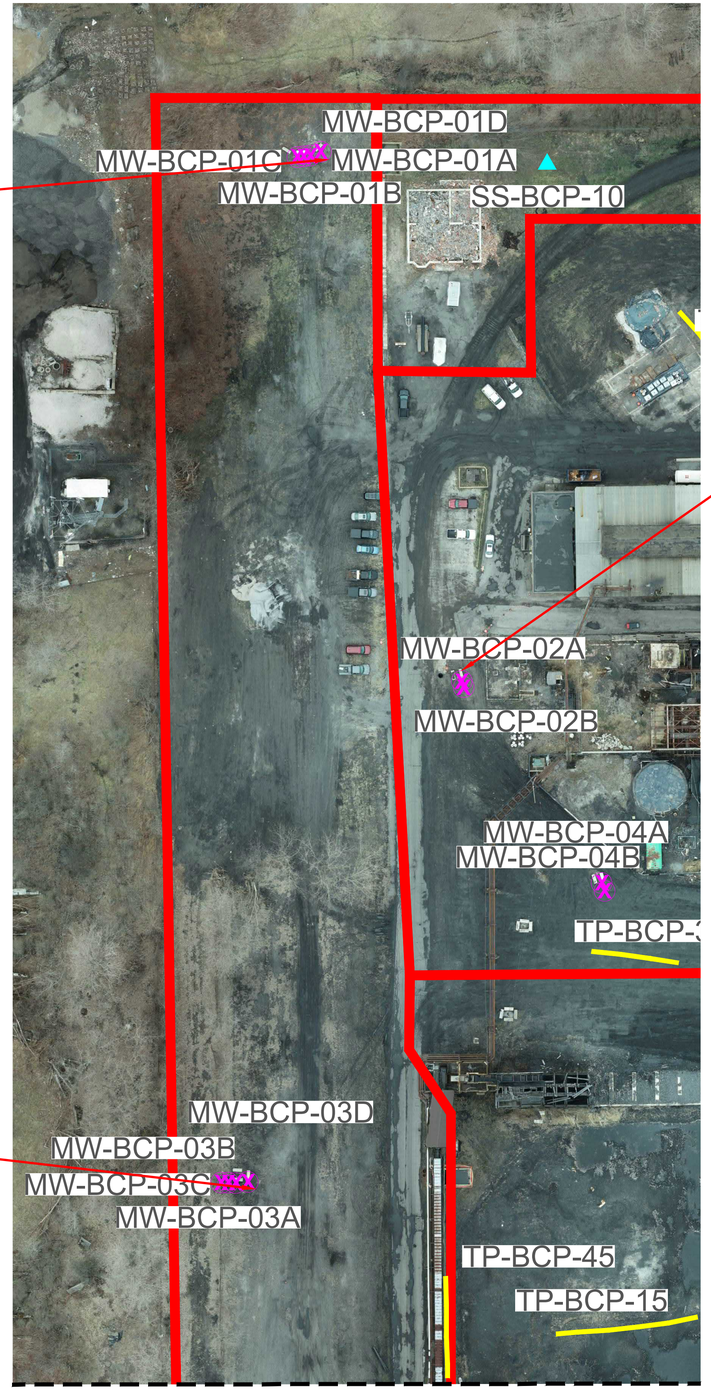
Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-01A		MW-BCP-01A (DUP)		MW-BCP-01A		MW-BCP-01A	
Sample Date			1/12/2021		1/12/2021		9/21/2021		10/27/2021	
Screen Interval (ft bgs):			1.5 - 3.5		1.5 - 3.5		1.5 - 3.5		1.5 - 3.5	
Screened Formation:			Fill		Fill		Fill		Fill	
TAL Metals (SW6010)										
Iron	300	ug/l	657		NS		<61	U	NS	
Magnesium	35,000	ug/l	38000		NS		56800		NS	
Manganese	300	ug/l	51.9		NS		34.3		NS	
Sodium	20,000	ug/l	8090		NS		15700		NS	
PFAS (E537)										
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	0.73	J	0.72	J	1	J	NS	
Perfluorobutanoic Acid	100	ng/l	66		64		390	J	NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	4.4		4		7.7	J	NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	<0.55	U	<0.55	U	<0.55	U	NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-03A		MW-BCP-03A (DUP)		MW-BCP-03A		MW-BCP-03A	
Sample Date			1/12/2021		1/12/2021		9/21/2021		10/27/2021	
Screen Interval (ft bgs):			1.5 - 3.5		1.5 - 3.5		1.5 - 3.5		1.5 - 3.5	
Screened Formation:			Fill		Fill		Fill		Fill	
TAL Metals (SW6010)										
Iron	300	ug/l	NS		NS		NS		NS	
Magnesium	35,000	ug/l	NS		NS		NS		NS	
Manganese	300	ug/l	NS		NS		NS		NS	
Sodium	20,000	ug/l	NS		NS		NS		NS	
PFAS (E537)										
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS		NS		NS		NS	
Perfluorobutanoic Acid	100	ng/l	NS		NS		NS		NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS		NS		NS		NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	NS		NS		NS		NS	



MATCHLINE A0I 3 SOUTH

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-02A		MW-BCP-02A (DUP)		MW-BCP-02A		MW-BCP-02A	
Sample Date			1/12/2021		1/12/2021		9/22/2021		10/27/2021	
Screen Interval (ft bgs):			3.0 - 5.0		3.0 - 5.0		3.0 - 5.0		3.0 - 5.0	
Screened Formation:			Fill		Fill		Fill		Fill	
TCL VOCs (SW8260C)										
Benzene	1	ug/l	<0.20	U	NS		<0.20	U	NS	
Ethylbenzene	5	ug/l	<0.20	U	NS		<0.20	U	NS	
Styrene	5	ug/l	<0.20	U	NS		<0.20	U	NS	
Toluene	5	ug/l	<0.20	U	NS		<0.20	U	NS	
m,p-Xylene	5	ug/l	<0.20	U	NS		<0.20	U	NS	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	NS		<0.20	U	NS	
1,4-Dioxane (SW8270D/ BNASIM)										
1,4-Dioxane (P-Dioxane)	0.35	ug/l	NS		NS		NS		NS	
TCL SVOCs (SW8270D)										
2,4-Dimethylphenol	50	ug/l	<1.3	U	NS		<1.5	U	NS	
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	NS		<1.7	U	NS	
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	NS		<1.3	U	NS	
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	NS		<1.4	U	NS	
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	NS		<1.5	U	NS	
Chrysene	0.002	ug/l	<1.1	U	NS		<1.3	U	NS	
Fluoranthene	50	ug/l	<1.4	U	NS		<1.6	U	NS	
Fluorene	50	ug/l	<1.2	U	NS		<1.4	U	NS	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	NS		<1.9	U	NS	
Naphthalene	10	ug/l	<1.1	U	NS		<1.3	U	NS	
Phenol	1	ug/l	<0.91	U	NS		<1.1	U	NS	
TAL Metals (SW6010)										
Arsenic	25	ug/l	<5.5	U	<5.5	U	<5.5	U	NS	
Barium	1,000	ug/l	42.3		44		59.2		NS	
Beryllium	3	ug/l	<0.13	U	<0.13	U	<0.13	U	NS	
Cadmium	5	ug/l	<0.35	U	<0.35	U	<0.35	U	NS	
Chromium, Total	50	ug/l	<0.59	U	<0.59	U	<1.4	U	NS	
Copper	200	ug/l	<3.9	U	<3.9	U	<3.9	U	NS	
Iron	300	ug/l	2670		2910		2420	J	NS	
Lead	25	ug/l	5.8	J	<2.1	U	<2.1	U	NS	
Magnesium	35,000	ug/l	22300		22500		35600		NS	
Manganese	300	ug/l	807		829		687		NS	
Nickel	100	ug/l	<2.6	U	<2.6	U	<2.6	U	NS	
Selenium	10	ug/l	<6.4	U	<6.4	U	<6.4	U	NS	
Sodium	20,000	ug/l	324000		325000		162000		NS	
Zinc	2,000	ug/l	<9.4	U	<9.4	U	10.6	J	NS	
Cyanide (SW9012B/ KELADA-01)										
Cyanide	0.20	mg/l	0.031		NS		<0.040	U	NS	
Pesticides (8081B)										
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	NS		NS		NS		NS	
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	NS		NS		NS		NS	
Gamma Bhc (Lindane)	0.05	ug/l	NS		NS		NS		NS	
Chlordane (Technical)	0.05	ug/l	NS		NS		NS		NS	
PFAS (E537)										
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	NS		NS		NS		NS	
Perfluorooctanoic acid (PFOA)	6.7	ng/l	NS		NS		NS		NS	
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	100	ng/l	NS		NS		NS		NS	
Ammonia (E350.1)										
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS		NS		0.993	

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FIGURE 4 - 21

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MATCHLINE A0I 3 NORTH



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-03A	MW-BCP-03A (DUP)	MW-BCP-03A	MW-BCP-03A
		Sample Date	1/12/2021	1/12/2021	9/21/2021	10/27/2021
		Screen Interval (ft bgs):	1.5 - 3.5	1.5 - 3.5	1.5 - 3.5	1.5 - 3.5
		Screened Formation:	Fill	Fill	Fill	Fill
TAL Metals (SW6010)						
Iron	300	ug/l	NS	NS	NS	NS
Magnesium	35,000	ug/l	NS	NS	NS	NS
Manganese	300	ug/l	NS	NS	NS	NS
Sodium	20,000	ug/l	NS	NS	NS	NS
PFAS (E537)						
Perfluorobutanoic Acid	100	ng/l	NS	NS	NS	NS

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-15A		MW-BCP-15A (DUP)
		Sample Date	1/12/2021		1/12/2021
		Screen Interval (ft bgs):	1.5 - 3.5		1.5 - 3.5
		Screened Formation:	Fill		Fill
TAL Metals (SW6010)					
Iron	300	ug/l	<61	U	1480
Magnesium	35,000	ug/l	74700		336000
Manganese	300	ug/l	618		277
Sodium	20,000	ug/l	68100		116000
PFAS (E537)					
Perfluorobutanoic Acid	100	ng/l	NS		NS

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1 INCH = 50 FEET (22X34)

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FIGURE 4 - 22

DRAWING NUMBER

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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-01B		MW-BCP-01B		MW-BCP-01C		MW-BCP-01C	
		Sample Date	1/12/2021		9/21/2021		1/12/2021		9/22/2021	
		Screen Interval (ft bgs):	10 - 20		10 - 20		29 - 39		29 - 39	
		Screened Formation:	Upper Clay		Upper Clay		Lower Clay		Lower Clay	
TAL Metals (SW6010)										
Iron	300	ug/l	113		<61	U	9480		15700	J
Magnesium	35,000	ug/l	143000		146000		144000		150000	
Sodium	20,000	ug/l	35200		31800		82300		70900	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-03B		MW-BCP-03B		MW-BCP-03C		MW-BCP-03C	
		Sample Date	1/12/2021		9/21/2021		1/12/2021		9/21/2021	
		Screen Interval (ft bgs):	14 - 24		14 - 24		29 - 39		29 - 39	
		Screened Formation:	Upper Clay		Upper Clay		Lower Clay		Lower Clay	
TAL Metals (SW6010)										
Iron	300	ug/l	NS		NS		NS		NS	
Magnesium	35,000	ug/l	NS		NS		NS		NS	
Sodium	20,000	ug/l	NS		NS		NS		NS	



MATCHLINE A0I 3 SOUTH

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-02B		MW-BCP-02B	
		Sample Date	1/12/2021		9/22/2021	
		Screen Interval (ft bgs):	0 - 15		0 - 15	
		Screened Formation:	Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	<5.5	U
Barium	1,000	ug/l	66.4		64	
Beryllium	3	ug/l	<0.13	U	<0.13	U
Chromium, Total	50	ug/l	3.5	J	<1.4	U
Copper	200	ug/l	<3.9	U	<3.9	U
Iron	300	ug/l	112		75.1	J
Lead	25	ug/l	<2.1	U	<2.1	U
Magnesium	35,000	ug/l	148000		173000	
Manganese	300	ug/l	73		85.2	
Nickel	100	ug/l	<2.6	U	<2.6	U
Selenium	10	ug/l	<6.4	U	<6.4	U
Sodium	20,000	ug/l	91500		87100	
Zinc	2,000	ug/l	<9.4	U	4.7	J
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	<0.040	U

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CLAY ZONE GROUNDWATER DATA - AOI 3 NORTH

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FIGURE 4 - 23

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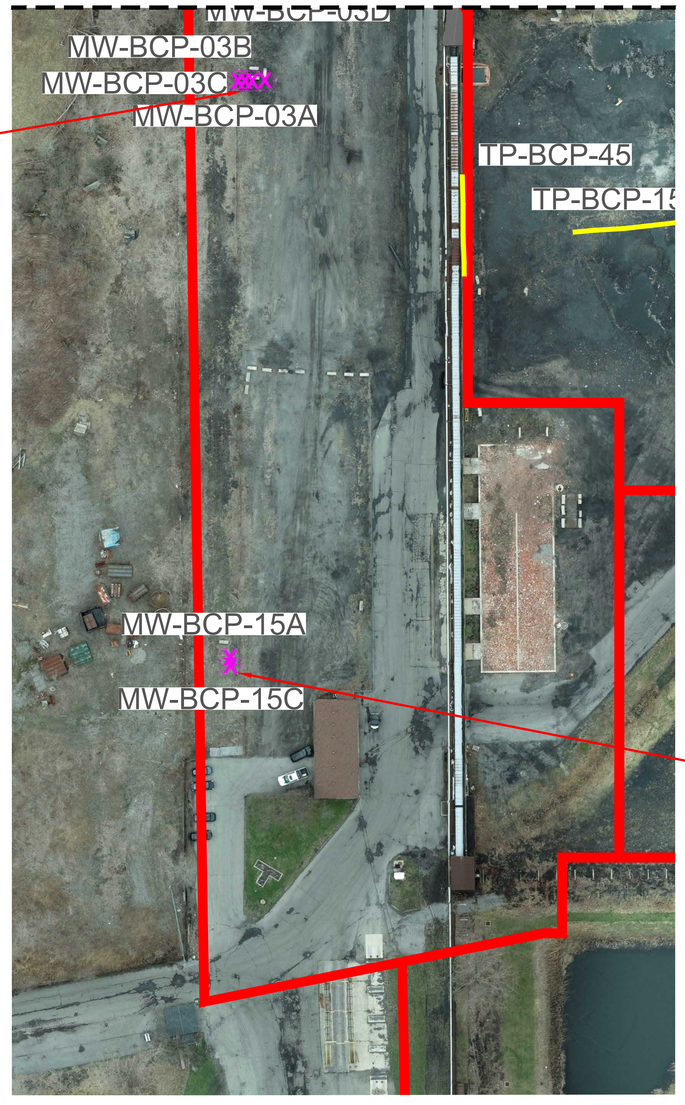
A0I 3 NORTH

MATCHLINE A0I 3 NORTH



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-03B	MW-BCP-03B	MW-BCP-03C	MW-BCP-03C
		Sample Date	1/12/2021	9/21/2021	1/12/2021	9/21/2021
		Screen Interval (ft bgs):	14 - 24	14 - 24	29 - 39	29 - 39
		Screened Formation:	Upper Clay	Upper Clay	Lower Clay	Lower Clay
TAL Metals (SW6010)						
Iron	300	ug/l	NS	NS	NS	NS
Magnesium	35,000	ug/l	NS	NS	NS	NS
Sodium	20,000	ug/l	NS	NS	NS	NS

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-15C	MW-BCP-15C
		Sample Date	1/12/2021	9/21/2021
		Screen Interval (ft bgs):	29 - 39	29 - 39
		Screened Formation:	Lower Clay	Lower Clay
TAL Metals (SW6010)				
Iron	300	ug/l	838	1250
Magnesium	35,000	ug/l	349000	371000
Sodium	20,000	ug/l	120000	140000

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1 INCH = 50 FEET (22X34)

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CLAY ZONE GROUNDWATER DATA - AOI 3 SOUTH

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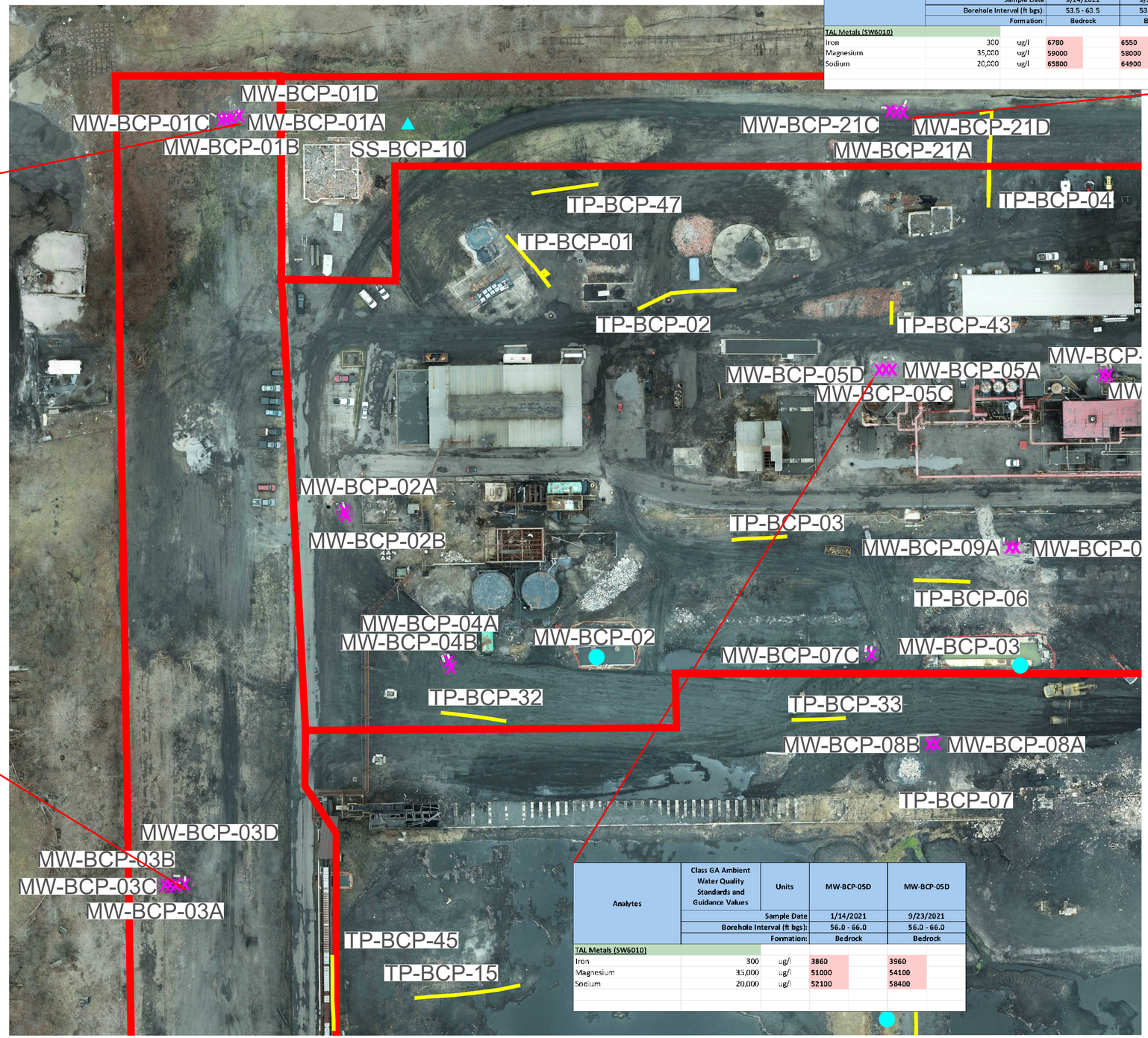
FIGURE 4 - 24

DRAWING NUMBER

A0I 3 SOUTH



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-01D	MW-BCP-101A (DUP 01D)
		Sample Date	9/21/2021	9/21/2021
		Borehole Interval (ft bgs):	55.5 - 65.5	55.5 - 65.5
		Formation:	Bedrock	Bedrock
TAL Metals (SW6010)				
Iron	300	ug/l	1130	1150
Magnesium	35,000	ug/l	10500	15900
Sodium	20,000	ug/l	78100	75200

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-03D
		Sample Date	9/21/2021
		Borehole Interval (ft bgs):	54.5 - 64.5
		Formation:	Bedrock
TAL Metals (SW6010)			
Iron	300	ug/l	6730
Magnesium	35,000	ug/l	138000
Sodium	20,000	ug/l	157000

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-05D	MW-BCP-05D
		Sample Date	1/14/2021	9/23/2021
		Borehole Interval (ft bgs):	56.0 - 66.0	56.0 - 66.0
		Formation:	Bedrock	Bedrock
TAL Metals (SW6010)				
Iron	300	ug/l	3860	3960
Magnesium	35,000	ug/l	51000	54100
Sodium	20,000	ug/l	52100	58400

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-21D	MW-BCP-97D (DUP 21D)
		Sample Date	9/24/2021	9/24/2021
		Borehole Interval (ft bgs):	53.5 - 63.5	53.5 - 63.5
		Formation:	Bedrock	Bedrock
TAL Metals (SW6010)				
Iron	300	ug/l	6780	6550
Magnesium	35,000	ug/l	59000	58000
Sodium	20,000	ug/l	65800	64900

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BEDROCK ZONE GROUNDWATER DATA - AOI 3

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FIGURE 4 - 25

DRAWING NUMBER

A0I 3 NORTH

Analytes	Part 375 SCOs		Units	TP-BCP-45	
	Commercial	Industrial			
			Sample Date:	11/12/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**2000**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1800**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**3400**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**480**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1800**	

Analytes	Part 375 SCOs		Units	TP-BCP-07	
	Commercial	Industrial			
			Sample Date:	11/17/2020	
			Sample Interval:	0 to 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**13000**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**17000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**18000**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**3000**	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**13000**	D

Analytes	Part 375 SCOs		Units	MW-BCP-08	
	Commercial	Industrial			
			Sample Date:	11/10/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**1800**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**2200**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**3200**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**370**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1300**	



Analytes	Part 375 SCOs		Units	SD-BCP-03	
	Commercial	Industrial			
			Sample Date:	11/17/2020	
			Sample Interval:	Sediment	
			Formation:	Sediment Pond #003	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**730**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**780**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**850**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<190	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**400**	J

Analytes	Part 375 SCOs		Units	TP-BCP-16	
	Commercial	Industrial			
			Sample Date:	11/12/2020	
			Sample Interval:	0 to 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<1100	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1700**	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**1900**	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1100	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**1300**	J

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50 0 25 50 100 200
1 INCH = 50 FEET (22X34)

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FIGURE 4 - 26

DRAWING NUMBER
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Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-13	
			Sample Date:	11/5/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	32000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	27000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	32000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	3400	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	17000	DJ

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-07	
			Sample Date:	11/12/2020	
			Sample Interval:	Debris Pile	
			Formation:	Shredder Material	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	3800	
Benzo(A)Pyrene	1,000	1,100	ug/kg	2200	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	4900	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<690	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1800	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-08	
			Sample Date:	11/12/2020	
			Sample Interval:	Debris Pile	
			Formation:	Shredder Material	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<1100	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<1300	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<1200	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1100	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<1200	U

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-09	
			Sample Date:	11/12/2020	
			Sample Interval:	Debris Pile	
			Formation:	Shredder Material	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	1600	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	1800	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	2700	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1100	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1400	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-24A	
			Sample Date:	6/22/2021	
			Sample Interval:	0 - 1 ft	
			Formation:	Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	3600	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	4700	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	5900	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	790	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3800	J



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-24		TP-BCP-24	
			Sample Date:	11/13/2020		11/13/2020	
			Sample Interval:	0 - 1 ft		DUP @ 0 - 1 ft)	
			Formation:	Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	7400	D	5400	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	8800	D	6000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	10000	D	7100	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	3400	D	2500	D
Chrysene	56,000	110,000	ug/kg	7800	D	5300	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1700	DJ	1300	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	6300	D	4500	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	16	J	48.3	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-25A	
			Sample Date:	6/22/2021	
			Sample Interval:	0 - 1 ft	
			Formation:	Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	4500	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	5000	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	5500	J
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1800	J
Chrysene	56,000	110,000	ug/kg	4900	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1600	UJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3200	J
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	4.5	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-25	
			Sample Date:	10/26/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	7800	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	8100	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	10000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	3300	D
Chrysene	56,000	110,000	ug/kg	8600	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1500	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	5400	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	5.6	J

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FIGURE 4 - 27

DRAWING NUMBER
AOI 4 EAST

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-24A	
			Sample Date:	6/22/2021	
			Sample Interval:	11 - 12 ft	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Pyrene	1,000	1,100	ug/kg	<110	U
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**3.9**	J
Copper	270	10,000	mg/kg	**23.3**	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	<0.014	U
Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	**0.18**	J

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-13	
			Sample Date:	11/5/2020	
			Sample Interval:	17 - 18 ft	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Pyrene	1,000	1,100	ug/kg	**910**	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**3.7**	
Copper	270	10,000	mg/kg	**21.1**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.057**	
Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.19	U



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-25A		MW-BCP-25A	
			Sample Date:	6/22/2021		6/22/2021	
			Sample Interval:	6 - 7 ft		9 - 10 ft	
			Formation:	Clay		Clay	
TCL SVOCs (SW8270D)							
Benzo(A)Pyrene	1,000	1,100	ug/kg	<110	U	<110	U
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	**6.9**	J	**7.5**	J
Copper	270	10,000	mg/kg	**24.4**	J	**25.6**	J
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	**0.018**	J	**0.019**	J
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	<0.17	U	**0.24**	J

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FIGURE 4 - 28

DRAWING NUMBER
A0I 4 EAST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-08A		MW-BCP-08A	
Sample Date:			1/12/2021		9/24/2021	
Screen Interval (ft bgs):			2.0 - 7.0		2.0 - 7.0	
Screened Formation:			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	<0.20	U	<0.20	U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U
Styrene	5	ug/l	<0.20	U	<0.20	U
Toluene	5	ug/l	<0.20	U	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U	<0.20	U
o-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	<0.20	U
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	<1.4	U	<1.4	U
Acenaphthene	20	ug/l	<1.4	U	<1.4	U
Anthracene	50	ug/l	<1.3	U	<1.3	U
Benzo(A)Anthracene	0.002	ug/l	<1.6	U	<1.6	U
Benzo(b)Fluoranthene	0.002	ug/l	<1.2	U	**1.6**	J
Benzo(k)Fluoranthene	0.002	ug/l	<1.3	U	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	<1.4	UJ
Chrysene	0.002	ug/l	<1.2	U	**1.2**	J
Fluoranthene	50	ug/l	<1.5	U	**2.5**	J
Fluorene	50	ug/l	<1.3	U	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U	<1.8	U
Naphthalene	10	ug/l	<1.2	U	<1.2	U
Phenanthrene	50	ug/l	<1.4	U	**2.4**	J
Phenol	1	ug/l	<1.0	U	<1.0	U
Pyrene	50	ug/l	<1.5	U	**2**	J
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**28.3**	
Chromium, Total	50	ug/l	<0.56	U	**16.4**	
Iron	300	ug/l	**10300**		**35700**	
Lead	25	ug/l	<2.1	U	**22.1**	J
Manganese	300	ug/l	**1330**		**1150**	
Sodium	20,000	ug/l	**119000**		**84800**	
Mercury (SW7470)						
Mercury	0.7	ug/l	<0.077	U	**0.172**	J
Cyanide (SW9012B/ MTADA-01)						
Cyanide	0.20	mg/l	**0.0309**		<0.038	U
PCBs (8082A)						
PCB-1248 (Aroclor 1248)	0.09	ug/l	NS		NS	
Herbicides (SW8151A)						
Silvex (2,4,5-TP)	0.26	ug/l	NS		NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-11A		MW-BCP-11A	
Sample Date:			1/14/2021		9/23/2021	
Screen Interval (ft bgs):			2.0 - 7.0		2.0 - 7.0	
Screened Formation:			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	**0.21**	J	<0.20	U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U
Styrene	5	ug/l	<0.20	U	<0.20	U
Toluene	5	ug/l	<0.20	U	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U	<0.20	U
o-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	<0.20	U
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	<1.5	UJ	<1.4	U
Acenaphthene	20	ug/l	<1.4	U	<1.4	U
Anthracene	50	ug/l	<1.3	U	<1.3	U
Benzo(A)Anthracene	0.002	ug/l	<1.7	U	**3.1**	J
Benzo(b)Fluoranthene	0.002	ug/l	<1.2	U	**3.7**	J
Benzo(k)Fluoranthene	0.002	ug/l	<1.3	U	**1.5**	J
Biphenyl (Diphenyl)	5	ug/l	<1.5	U	<1.4	U
Chrysene	0.002	ug/l	<1.3	U	**2.7**	J
Fluoranthene	50	ug/l	<1.6	U	**3.5**	J
Fluorene	50	ug/l	<1.3	U	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.9	U	<1.8	U
Naphthalene	10	ug/l	<1.3	U	<1.2	U
Phenanthrene	50	ug/l	<1.4	U	**1.7**	J
Phenol	1	ug/l	<1.1	U	<1.0	U
Pyrene	50	ug/l	<1.5	U	**2.8**	J
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**23**	
Chromium, Total	50	ug/l	<0.59	U	**50.7**	
Iron	300	ug/l	**605**		**49000**	
Lead	25	ug/l	<2.1	U	**30.4**	J
Manganese	300	ug/l	**1660**		**785**	
Sodium	20,000	ug/l	**101000**		**144000**	
Mercury (SW7470)						
Mercury	0.7	ug/l	<0.077	U	<0.077	U
Cyanide (SW9012B/ MTADA-01)						
Cyanide	0.20	mg/l	**0.0075**		<0.040	U
PCBs (8082A)						
PCB-1248 (Aroclor 1248)	0.09	ug/l	NS		NS	
Herbicides (SW8151A)						
Silvex (2,4,5-TP)	0.26	ug/l	NS		NS	

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1 INCH = 50 FEET (22X34)

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FIGURE 4 - 29

DRAWING NUMBER
A0I 4 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-24A		
Sample Date			9/25/2021		
Screen Interval (ft bgs)			5.5 - 8.5		
Screened Formation			Fill		
TCL VOCs (SW8260C)					
Benzene	1	ug/l	<0.26	U	
Ethylbenzene	5	ug/l	<0.26	U	
Styrene	5	ug/l	<0.26	U	
Toluene	5	ug/l	<0.26	U	
m,p-Xylene	5	ug/l	<0.26	U	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.26	U	
TCL SVOCs (SW8270D)					
2,4-Dimethylphenol	50	ug/l	<1.4	U	
Acenaphthene	20	ug/l	<1.4	U	
Anthracene	50	ug/l	<1.3	U	
Benzo(A)Anthracene	0.002	ug/l	<1.6	U	
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U	
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	
Chrysene	0.002	ug/l	<1.2	U	
Fluoranthene	50	ug/l	<1.5	U	
Fluorene	50	ug/l	<1.3	U	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	
Naphthalene	10	ug/l	<1.2	U	
Phenanthrene	50	ug/l	<1.4	U	
Phenol	1	ug/l	<1.6	U	
Pyrene	50	ug/l	<1.8	U	
TAL Metals (SW6010)					
Arsenic	25	ug/l	<5.5	U	
Chromium, Total	50	ug/l	<1.4	U	
Iron	300	ug/l	**13300**		
Lead	25	ug/l	<2.1	U	
Manganese	300	ug/l	**574**		
Sodium	20,000	ug/l	**38000**		
Mercury (SW7470)					
Mercury	0.7	ug/l	<0.077	U	
Cyanide (SW9012B/ KELADA-01)					
Cyanide	0.20	mg/l	**0.078**		
PCBs (8082A)					
PCB-1248 (Aroclor 1248)	0.09	ug/l	<0.50	UJ	
Herbicides (SW8151A)					
Silvex (2,4,5-TP)	0.26	ug/l	<0.12	U	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-13A		MW-BCP-13A	
Sample Date			1/13/2021		9/22/2021	
Screen Interval (ft bgs)			5.5 - 7.5		5.5 - 7.5	
Screened Formation			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	**370**		**1700**	
Ethylbenzene	5	ug/l	**21**	J	**26**	J
Styrene	5	ug/l	**24**	J	**33**	J
Toluene	5	ug/l	**250**		**420**	
m,p-Xylene	5	ug/l	**210**	J	**230**	J
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	**83**	J	**100**	J
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	**95**		**1200**	
Acenaphthene	20	ug/l	**21**		**42**	J
Anthracene	50	ug/l	**17**		**190**	
Benzo(A)Anthracene	0.002	ug/l	**2.1**	J	**130**	
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	**100**	
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U	**37**	J
Biphenyl (Diphenyl)	5	ug/l	**68**		**130**	
Chrysene	0.002	ug/l	**1.8**	J	**110**	
Fluoranthene	50	ug/l	**13**		**360**	
Fluorene	50	ug/l	**110**		**340**	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	**60**	J
Naphthalene	10	ug/l	**9200**	D	**14000**	D
Phenanthrene	50	ug/l	**92**		**700**	
Phenol	1	ug/l	**11**		**660**	
Pyrene	50	ug/l	**8**	J	**270**	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**22.1**	
Chromium, Total	50	ug/l	<0.59	U	**7.2**	J
Iron	300	ug/l	**40200**		**76800**	
Lead	25	ug/l	<2.1	U	**25.5**	J
Manganese	300	ug/l	**1890**		**2620**	
Sodium	20,000	ug/l	**38800**		**92200**	
Mercury (SW7478)						
Mercury	0.7	ug/l	**0.084**	J	**4.4**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.178**	J	**5.59**	
PCBs (8082A)						
PCB-1248 (Aroclor 1248)	0.09	ug/l	**1**		<0.50	U
Herbicides (SW8151A)						
Silvex (2,4,5-TP)	0.26	ug/l	**0.33**	J	<0.12	UJ



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GROUNDWATER DATA - AOI 4 EAST

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FIGURE 4 - 30

DRAWING NUMBER
A0I 4 EAST



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-08B		MW-BCP-08B	
	Sample Date		1/12/2021		9/24/2021	
	Screen Interval (ft bgs):		15 - 25		15 - 25	
	Screened Formation:		Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**16**	
Barium	1,000	ug/l	**85.1**		**486**	
Beryllium	3	ug/l	<0.13	U	**2.7**	J
Chromium, Total	50	ug/l	**2.6**	J	**86.7**	
Copper	200	ug/l	<3.9	U	**62.4**	
Iron	300	ug/l	**157**		**84000**	
Lead	25	ug/l	<2.1	U	**33.1**	J
Magnesium	35,000	ug/l	**86500**		**194000**	
Manganese	300	ug/l	**117**		**1810**	
Nickel	100	ug/l	<2.6	U	**56.8**	
Selenium	10	ug/l	<6.4	U	<6.4	U
Sodium	20,000	ug/l	**120000**		**77100**	
Zinc	2,000	ug/l	<9.4	U	**199**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0104**		<0.20	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-11B		MW-BCP-11B	
	Sample Date		1/15/2021		9/23/2021	
	Screen Interval (ft bgs):		15 - 25		15 - 25	
	Screened Formation:		Upper Clay		Upper Clay	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**82.3**	
Barium	1,000	ug/l	**225**		**2040**	
Beryllium	3	ug/l	<0.13	U	**13.2**	
Chromium, Total	50	ug/l	**0.7**	J	**462**	
Copper	200	ug/l	<3.9	U	**398**	
Iron	300	ug/l	**910**		**444000**	
Lead	25	ug/l	<2.1	U	**227**	
Magnesium	35,000	ug/l	**238000**		**461000**	
Manganese	300	ug/l	**750**		**6430**	
Nickel	100	ug/l	<2.6	U	**362**	
Selenium	10	ug/l	<6.4	U	<6.4	U
Sodium	20,000	ug/l	**102000**		**87200**	
Zinc	2,000	ug/l	<9.4	U	**1110**	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0258**		<0.08	U

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FIGURE 4 - 31

DRAWING NUMBER

A0I 4 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-24B	
	Sample Date		9/23/2021	
	Screen Interval (ft bgs):		16 - 34	
	Screened Formation:		Upper Clay	
TCL VOCs (SW8260C)				
Benzene	1	ug/l	<0.20	U
Ethylbenzene	5	ug/l	<0.20	U
Styrene	5	ug/l	<0.20	U
Toluene	5	ug/l	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U
TCL SVOCs (SW8270D)				
2,4-Dimethylphenol	50	ug/l	<1.4	U
Acenaphthene	20	ug/l	<1.4	U
Anthracene	50	ug/l	<1.3	U
Benzo(a)Anthracene	0.002	ug/l	<1.5	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U
Chrysene	0.002	ug/l	<1.2	U
Fluoranthene	50	ug/l	<1.5	U
Fluorene	50	ug/l	<1.3	U
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<1.8	U
Naphthalene	10	ug/l	<1.2	U
Phenanthrene	50	ug/l	<1.4	U
Phenol	1	ug/l	<1.9	U
Pyrene	50	ug/l	<1.5	U
TAL Metals (SW6010)				
Arsenic	25	ug/l	**23.9**	
Barium	1,000	ug/l	**525**	
Beryllium	3	ug/l	**3.5**	
Cadmium	5	ug/l	**0.5**	J
Chromium, Total	50	ug/l	**112**	
Copper	200	ug/l	**82.5**	
Iron	300	ug/l	**103000**	
Lead	25	ug/l	**45.4**	J
Magnesium	35,000	ug/l	**218000**	
Manganese	300	ug/l	**2100**	
Nickel	100	ug/l	**84.3**	
Selenium	10	ug/l	<6.4	U
Sodium	20,000	ug/l	**50300**	
Zinc	2,000	ug/l	**278**	
Mercury (SW7470)				
Mercury	0.7	ug/l	**0.159**	J
Cyanide (SW9012B/KELADA-01)				
Cyanide	0.20	mg/l	<0.08	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-13B		MW-BCP-13B	
	Sample Date		1/11/2021		9/22/2021	
	Screen Interval (ft bgs):		20 - 30		20 - 30	
	Screened Formation:		Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	**1300**		**310**	
Ethylbenzene	5	ug/l	**78**	J	**37**	J
Styrene	5	ug/l	**58**	J	**46**	J
Toluene	5	ug/l	**970**		**280**	
m,p-Xylene	5	ug/l	**950**		**460**	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	**398**		**180**	J
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	**520**	J	**94**	
Acenaphthene	20	ug/l	**19**		**43**	J
Anthracene	50	ug/l	**28**		**210**	
Benzo(a)Anthracene	0.002	ug/l	**3.6**	J	**110**	
Benzo(B)Fluoranthene	0.002	ug/l	**2.7**	J	**100**	
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	**56**	J
Biphenyl (Diphenyl)	5	ug/l	**59**		**110**	
Chrysene	0.002	ug/l	**2.4**	J	**120**	
Fluoranthene	50	ug/l	**17**		**370**	
Fluorene	50	ug/l	**51**		**350**	
Indeno(1,2,3-CD)Pyrene	0.002	ug/l	<1.6	U	**68**	J
Naphthalene	10	ug/l	**12000**	D	**19000**	D
Phenanthrene	50	ug/l	**89**		**740**	
Phenol	1	ug/l	**95**		**26**	J
Pyrene	50	ug/l	**12**		**270**	
TAL Metals (SW6010)						
Arsenic	25	ug/l	<5.5	U	**198**	
Barium	1,000	ug/l	**255**		**4850**	
Beryllium	3	ug/l	**8.6**	J	**29.3**	
Cadmium	5	ug/l	<0.35	U	**14.2**	
Chromium, Total	50	ug/l	**71**		**1880**	
Copper	200	ug/l	**12.6**	J	**950**	
Iron	300	ug/l	**15200**		**1250000**	J
Lead	25	ug/l	**7.5**	J	**680**	
Magnesium	35,000	ug/l	**187000**		**665000**	
Manganese	300	ug/l	**3838**		**20000**	
Nickel	100	ug/l	<2.6	U	**838**	
Selenium	10	ug/l	<6.4	U	**16.8**	
Sodium	20,000	ug/l	**76500**		**61000**	
Zinc	2,000	ug/l	**47.8**		**2770**	
Mercury (SW7470)						
Mercury	0.7	ug/l	**0.674**		**5.4**	
Cyanide (SW9012B/KELADA-01)						
Cyanide	0.20	mg/l	**1.74**		**0.79**	

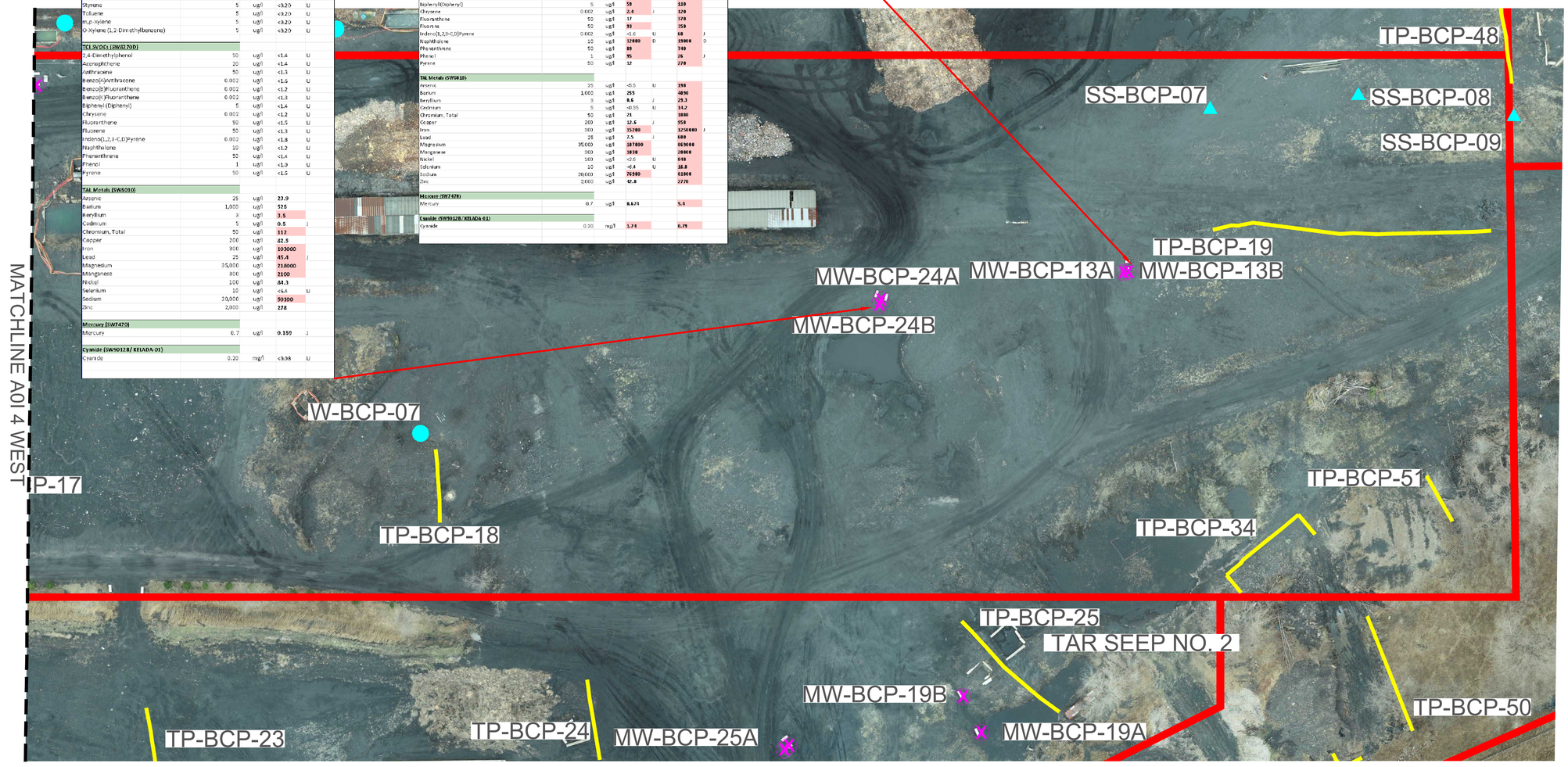

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FIGURE 4 - 32

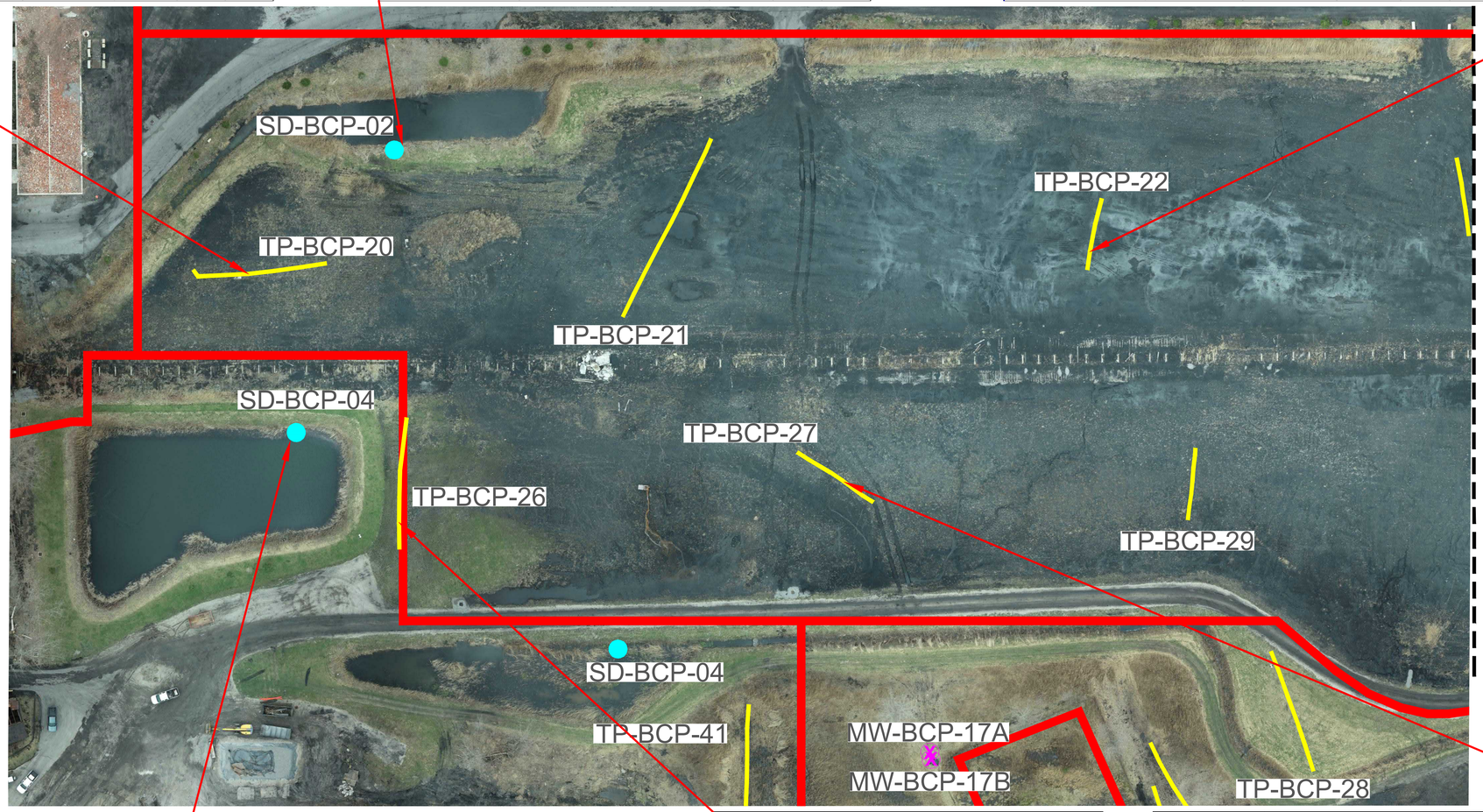
DRAWING NUMBER

A0I 4 EAST

Analytes	Part 375 SCOs		Units	TP-BCP-20	
	Commercial	Industrial			
Sample Date:				11/9/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**260000**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**470000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**410000**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**150000**	DJ
Chrysene	56,000	110,000	ug/kg	**270000**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**71000**	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**310000**	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**3.7**	

Analytes	Part 375 SCOs		Units	SD-BCP-02	
	Commercial	Industrial			
Sample Date:				11/17/2020	
Sample Interval:				Sediment	
Formation:				Sediment Pond #002	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**670**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1100**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**1100**	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**410**	J
Chrysene	56,000	110,000	ug/kg	**720**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**150**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**630**	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**5**	

Analytes	Part 375 SCOs		Units	TP-BCP-22		TP-BCP-22	
	Commercial	Industrial					
Sample Date:				11/16/2020		11/16/2020	
Sample Interval:				0 to 1 ft		DUP (0 to 1 ft)	
Formation:				Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	**5500**	D	**8600**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**7800**	D	**12000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**7500**	D	**11000**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**2600**	D	**4000**	D
Chrysene	56,000	110,000	ug/kg	**5800**		**8300**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**1300**	DJ	**2000**	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**5300**	D	**8400**	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	**6**		**5.3**	



Analytes	Part 375 SCOs		Units	SD-BCP-04		SD-BCP-04	
	Commercial	Industrial					
Sample Date:				11/17/2020		11/17/2020	
Sample Interval:				Sediment		DUP (Sediment)	
Formation:				SW Basin		SW Basin	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	<130	U	<140	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<160	U	<170	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<150	U	<160	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<130	U	<140	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<150	U	<160	U

Analytes	Part 375 SCOs		Units	TP-BCP-26	
	Commercial	Industrial			
Sample Date:				11/9/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**17000**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**24000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**24000**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**8800**	D
Chrysene	56,000	110,000	ug/kg	**16000**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**4100**	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**18000**	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**5.9**	

Analytes	Part 375 SCOs		Units	TP-BCP-27		TP-BCP-27	
	Commercial	Industrial					
Sample Date:				11/16/2020		11/16/2020	
Sample Interval:				0 to 1 ft		DUP (0 to 1 ft)	
Formation:				Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	**8900**	D	**8700**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**14000**	D	**14000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**13000**	D	**14000**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**4500**		**4700**	
Chrysene	56,000	110,000	ug/kg	**10000**	D	**9400**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**2400**	D	**2400**	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**10000**	D	**10000**	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	**6.5**		**6.5**	

50 0 25 50 100 200

1 INCH =50 FEET (22X34)

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FIGURE 4 - 33

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Analytes	Part 375 SCOs		Units	MW-BCP-25A	
	Commercial	Industrial			
Sample Date:				6/22/2021	
Sample Interval:				0 - 1 ft	
Formation:				Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	4500	J
Benzo(A)Pyrene	1,000	1,100	ug/kg	5000	J
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	5500	J
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1800	J
Chrysene	56,000	110,000	ug/kg	4900	J
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<1600	UJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	3200	J
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	4.5	J

Analytes	Part 375 SCOs		Units	MW-BCP-19	
	Commercial	Industrial			
Sample Date:				11/5/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	25000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	32000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	34000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	13000	D
Chrysene	56,000	110,000	ug/kg	27000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	4100	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	19000	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	NS	

Analytes	Part 375 SCOs		Units	TP-BCP-25	
	Commercial	Industrial			
Sample Date:				10/29/2020	
Sample Interval:				0 - 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	7800	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	8100	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	10000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	3300	D
Chrysene	56,000	110,000	ug/kg	8600	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1500	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	5400	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	5.6	J



Analytes	Part 375 SCOs		Units	TP-BCP-24		TP-BCP-24	
	Commercial	Industrial					
Sample Date:				11/13/2020		11/13/2020	
Sample Interval:				0 - 1 ft		DUP (0 - 1 ft)	
Formation:				Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	7400	D	5400	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	8800	D	6000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	10000	D	7100	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	3400	D	2500	D
Chrysene	56,000	110,000	ug/kg	7800	D	5300	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1700	DJ	1300	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	6300	D	4500	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	16	J	40.3	J

Analytes	Part 375 SCOs		Units	TP-BCP-44		TP-BCP-44	
	Commercial	Industrial					
Sample Date:				11/13/2020		11/13/2020	
Sample Interval:				0 - 1 ft		DUP (0 - 1 ft)	
Formation:				Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	10000	D	16000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	14000	D	19000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	15000	D	20000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	5100	D	7400	D
Chrysene	56,000	110,000	ug/kg	11000	D	16000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2500	D	3800	DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	10000	D	13000	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	7.3	J	4.4	J

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1 INCH =50 FEET (22X34)

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FIGURE 4 - 34

DRAWING NUMBER
A0I 5 EAST

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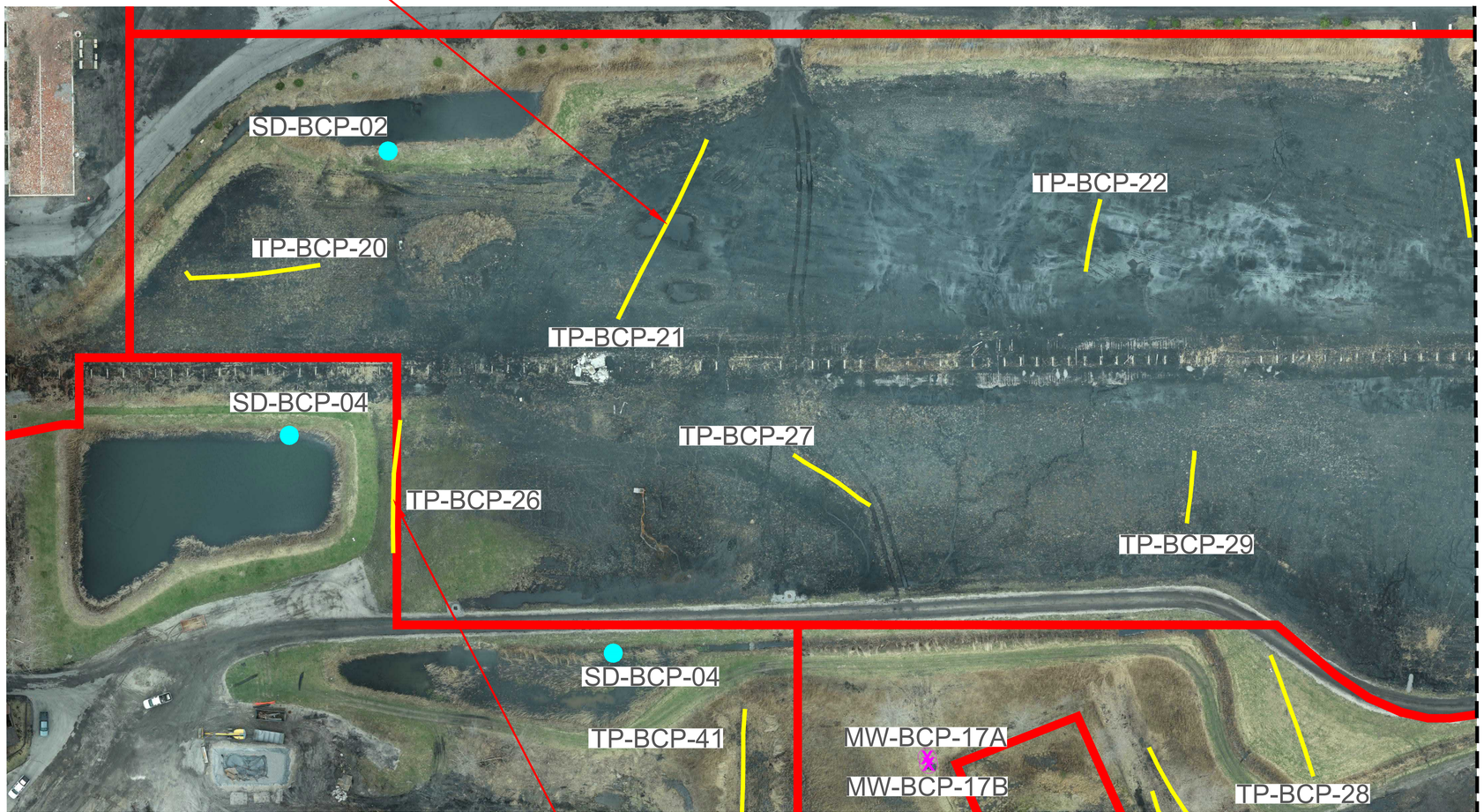
Analytes	Part 375 SCOs		Units	TP-BCP-21	
	Commercial	Industrial			
			Sample Date:	11/6/2020	
			Sample Interval:	57 - 57.5 in	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Pyrene	1,000	1,100	ug/kg	<170	U
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**3.4**	
Copper	270	10,000	mg/kg	**12.1**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.071**	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.21	UJ



Analytes	Part 375 SCOs		Units	TP-BCP-26	
	Commercial	Industrial			
			Sample Date:	11/5/2020	
			Sample Interval:	30 - 30.5 in	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Pyrene	1,000	1,100	ug/kg	<160	U
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**4.6**	
Copper	270	10,000	mg/kg	**20.8**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.025**	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.19	UJ

50 0 25 50 100 200

1 INCH =50 FEET (22X34)

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FIGURE 4 - 35

DRAWING NUMBER
A0I 5 WEST

Analytes	Part 375 SCOs		Units	MW-BCP-20		MW-BCP-20		MW-BCP-20	
	Commercial	Industrial	Sample Date:	11/6/2020		11/6/2020		11/6/2020	
			Sample Interval:	18 - 20 ft		5.5 - 7 ft		9 - 10 ft	
			Formation:	Clay		Clay		Clay	
TCL SVOCs (SW8270D)									
Benzo(A)Pyrene	1,000	1,100	ug/kg	<150	U	<160	U	<150	U
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	**2.7**		**5.9**		**3.1**	
Copper	270	10,000	mg/kg	**21**		**23.8**		**20.1**	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	NS		NS		NS	
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	<0.17	UJ	<0.18	UJ	<0.17	UJ

Analytes	Part 375 SCOs		Units	MW-BCP-19		MW-BCP-19		MW-BCP-19	
	Commercial	Industrial	Sample Date:	11/5/2020		11/5/2020		11/5/2020	
			Sample Interval:	6.8 - 8 ft		10 - 11 ft		18 - 20 ft	
			Formation:	Clay		Clay		Clay	
TCL SVOCs (SW8270D)									
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1600**	D	**290**	J	<160	U
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	NS		NS		NS	
Copper	270	10,000	mg/kg	NS		NS		NS	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	**0.035**	J	<0.015	U	<0.015	U
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	**0.83**		**0.29**		<0.17	U

Analytes	Part 375 SCOs		Units	TP-BCP-25		TP-BCP-25	
	Commercial	Industrial	Sample Date:	10/29/2020		10/29/2020	
			Sample Interval:	3 - 3.5 ft		5 - 5.2 ft	
			Formation:	Clay		Clay	
TCL SVOCs (SW8270D)							
Benzo(A)Pyrene	1,000	1,100	ug/kg	**2300**		<150	U
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	**32.7**	J	**3.9**	J
Copper	270	10,000	mg/kg	**499**	J	**21.5**	J
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	**5.1**		<0.015	U
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	**1160**		**9.77**	



Analytes	Part 375 SCOs		Units	TP-BCP-44	
	Commercial	Industrial	Sample Date:	11/13/2020	
			Sample Interval:	66 - 66.5 in	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Pyrene	1,000	1,100	ug/kg	<170	U
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**3.5**	J
Copper	270	10,000	mg/kg	**22.4**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.018**	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.17	U

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1 INCH =50 FEET (22X34)

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FIGURE 4 - 36

DRAWING NUMBER
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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-20A		MW-BCP-20A	
Sample Date			1/15/2021		9/22/2021	
Screen Interval (ft bgs):			2.0 - 5.0		2.0 - 5.0	
Screened Formation:			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	<0.20	U	<0.20	U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U
Styrene	5	ug/l	<0.20	U	<0.20	U
Toluene	5	ug/l	<0.20	U	<0.20	U
m,p-Xylene	5	ug/l	**0.51**	J	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	**0.5**	J	<0.20	U
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	<1.4	U	<1.4	U
Benzo(A)Anthracene	0.002	ug/l	<1.7	U	**2**	J
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	**1.7**	J
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	<1.4	U
Chrysene	0.002	ug/l	<1.2	U	**1.9**	J
Fluorene	50	ug/l	<1.3	U	**1.7**	J
Naphthalene	10	ug/l	<1.2	U	**2.8**	J
Phenanthrene	50	ug/l	<1.4	U	**4.7**	J
Phenol	1	ug/l	<1.1	U	<1.0	U
TAL Metals (SW6010)						
Iron	300	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.022**		<0.040	U
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-25A
Sample Date			9/23/2021
Screen Interval (ft bgs):			2.0 - 6.0
Screened Formation:			Fill
TAL Metals (SW6010)			
Iron	300	ug/l	**5810**
Magnesium	35,000	ug/l	**25500**
Manganese	300	ug/l	**1520**
Sodium	20,000	ug/l	**40800**
Cyanide (SW9012B/ KELADA-01)			
Cyanide	0.20	mg/l	**1.32**



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-18A		MW-BCP-18A	
Sample Date			1/13/2021		9/22/2021	
Screen Interval (ft bgs):			2.0 - 4.0		2.0 - 4.0	
Screened Formation:			Fill		Fill	
TCL SVOCs (SW8270D)						
Anthracene	50	ug/l	<1.2	U	<1.4	U
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	<1.7	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	<1.9	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U	<1.4	U
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	<1.5	U
Chrysene	0.002	ug/l	<1.1	U	<1.8	U
Fluoranthene	50	ug/l	<1.4	U	<1.6	U
Fluorene	50	ug/l	<1.2	U	<1.4	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.9	U
Naphthalene	10	ug/l	<1.1	U	<1.8	U
Pentachlorophenol	1	ug/l	<8.9	U	<11	U
Phenanthrene	50	ug/l	<1.3	U	<1.5	U
Phenol	1	ug/l	<0.91	U	<1.1	U
Pyrene	50	ug/l	<1.3	U	<1.6	U
TAL Metals (SW6010)						
Arsenic	25	ug/l	NS		NS	
Chromium, Total	50	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Lead	25	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Mercury (SW7470)						
Mercury	0.7	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.88**		**0.248**	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-19A		MW-BCP-19A	
Sample Date			1/12/2021		9/22/2021	
Screen Interval (ft bgs):			4.0 - 6.0		4.0 - 6.0	
Screened Formation:			Fill		Fill	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	**220**		**190**	
Ethylbenzene	5	ug/l	**18**	J	**11**	J
Styrene	5	ug/l	<5.0	U	**10**	J
Toluene	5	ug/l	**190**		**82**	J
m,p-Xylene	5	ug/l	**940**		**230**	
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	**220**		**160**	
TCL SVOCs (SW8270D)						
2,4-Dimethylphenol	50	ug/l	**860**	D	**750**	D
Benzo(A)Anthracene	0.002	ug/l	<1.7	U	**9.4**	J
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U	**2.4**	J
Biphenyl (Diphenyl)	5	ug/l	**37**		**46**	
Chrysene	0.002	ug/l	<1.3	U	**2.1**	J
Fluorene	50	ug/l	**54**		**96**	
Naphthalene	10	ug/l	**5800**	D	**6200**	D
Phenanthrene	50	ug/l	**41**		**87**	
Phenol	1	ug/l	**270**		**8.7**	J
TAL Metals (SW6010)						
Iron	300	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**12.8**		NS	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		**11.1**	

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1 INCH =50 FEET (22X34)

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FIGURE 4 - 37

DRAWING NUMBER
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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-19B		MW-BCP-19B	
	Sample Date		1/12/2021		9/22/2021	
	Screen Interval (ft bgs):		18 - 28		18 - 28	
	Screened Formation:		Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	28	J	<10	U
Chloroform	7	ug/l	12	J	<12	U
Ethylbenzene	5	ug/l	14	J	<10	U
Toluene	5	ug/l	59	J	21	J
m,p-Xylene	5	ug/l	120	J	78	J
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	150	J	46	J
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	0.002	ug/l	15		9.4	
Benzo(B)Fluoranthene	0.002	ug/l	13		8.3	J
Benzo(K)Fluoranthene	0.002	ug/l	5	J	3.5	J
Biphenyl (Diphenyl)	5	ug/l	33		42	
Chrysene	0.002	ug/l	13		10	
Fluoranthene	50	ug/l	56		45	
Fluorene	50	ug/l	87		110	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	6.2	J	4.3	J
Naphthalene	10	ug/l	6800	D	5300	D
Phenanthrene	50	ug/l	130		140	
Phenol	1	ug/l	7.2	J	<1.0	U
TAL Metals (SW6010)						
Chromium, Total	50	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	6.23		NS	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		2.49	



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-20B		MW-BCP-20B	
	Sample Date		1/14/2021		9/22/2021	
	Screen Interval (ft bgs):		10 - 20		10 - 20	
	Screened Formation:		Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	<0.20	U	<0.20	U
Chloroform	7	ug/l	<0.24	U	<0.24	U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U
Toluene	5	ug/l	<0.20	U	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	<0.20	U
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	0.002	ug/l	<1.6	U	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.2	U	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U	<1.4	U
Chrysene	0.002	ug/l	<1.2	U	<1.2	U
Fluoranthene	50	ug/l	<1.5	U	<1.5	U
Fluorene	50	ug/l	<1.3	U	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U	<1.8	U
Naphthalene	10	ug/l	<1.2	U	<1.2	U
Phenanthrene	50	ug/l	<1.4	U	<1.4	U
Phenol	1	ug/l	<0.99	U	<1.0	U
TAL Metals (SW6010)						
Chromium, Total	50	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	<0.0040	U	NS	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		<0.040	U

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-25B	
	Sample Date		9/23/2021	
	Screen Interval (ft bgs):		14 - 24	
	Screened Formation:		Upper Clay	
TCL VOCs (SW8260C)				
Benzene	1	ug/l	<0.20	U
Chloroform	7	ug/l	<0.24	U
Ethylbenzene	5	ug/l	<0.20	U
Toluene	5	ug/l	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	0.002	ug/l	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U
Chrysene	0.002	ug/l	<1.2	U
Fluoranthene	50	ug/l	<1.5	U
Fluorene	50	ug/l	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U
Naphthalene	10	ug/l	<1.2	U
Phenanthrene	50	ug/l	<1.4	U
Phenol	1	ug/l	<1.0	U
TAL Metals (SW6010)				
Chromium, Total	50	ug/l	51.7	
Iron	300	ug/l	37300	
Magnesium	35,000	ug/l	244000	
Manganese	300	ug/l	866	
Sodium	20,000	ug/l	72700	
Cyanide (SW9012B / KELADA-01)				
Cyanide	0.20	mg/l	0.208	
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	NS	

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FIGURE 4 - 38

DRAWING NUMBER
A0I 5 EAST

Analytes	Part 375 SCOs		Units	SD-BCP-04		SD-BCP-04	
	Commercial	Industrial					
Sample Date:				11/17/2020		11/17/2020	
Sample Interval:				Sediment		DUP (Sediment)	
Formation:				SW Basin		SW Basin	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	<130	U	<140	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<160	U	<170	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<150	U	<160	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<130	U	<140	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<150	U	<160	U

Analytes	Part 375 SCOs		Units	SD-BCP-01	
	Commercial	Industrial			
Sample Date:				11/17/2020	
Sample Interval:				Sediment	
Formation:				Sediment Pond #001	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**880**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**1300**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**1400**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**190**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**750**	



Analytes	Part 375 SCOs		Units	MW-BCP-16		MW-BCP-16		MW-BCP-16	
	Commercial	Industrial							
Sample Date:				11/3/2020		11/3/2020		11/3/2020	
Sample Interval:				0 - 2 in		2 - 6 in		0.5 - 1 ft	
Formation:				Surface Soil		Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	**450**	J	NS		**14000**	
Benzo(A)Pyrene	1,000	1,100	ug/kg	**720**		NS		**19000**	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**790**		NS		**20000**	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<140	U	NS		**2400**	J
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**480**		NS		**11000**	

Analytes	Part 375 SCOs		Units	TP-BCP-41	
	Commercial	Industrial			
Sample Date:				10/28/2020	
Sample Interval:				0 to 1 ft	
Formation:				Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**9700**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**14000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**15000**	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**2300**	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**8300**	D

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1 INCH =50 FEET (22X34)

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FIGURE 4 - 39

DRAWING NUMBER
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Analytes	Part 375 SCOs		Units	MW-BCP-16		MW-BCP-16		MW-BCP-16		MW-BCP-16	
	Commercial	Industrial									
Sample Date:				11/3/2020		11/3/2020		11/3/2020		11/3/2020	
Sample Interval:				4.5 - 6 ft		7.5 - 9 ft		20 - 21 ft		30 - 31 ft	
Formation:				Clay		Clay		Clay		Clay	
TCL SVOCs (SW8270D)											
Benzo(A)Anthracene	5,600	11,000	ug/kg	<130	U	<140	U	<130	U	<130	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<160	U	<170	U	<160	U	<170	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<150	U	<160	U	<150	U	<150	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<130	U	<140	U	<130	U	<140	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<150	U	<160	U	<150	U	<150	U

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1 INCH =50 FEET (22X34)

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FIGURE 4 - 40

DRAWING NUMBER
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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-16A		MW-BCP-16A	
	Sample Date		1/12/2021		9/21/2021	
	Screen Interval (ft bgs):		2.5 - 4.5		2.5 - 4.5	
	Screened Formation:		Fill		Fill	
TAL Metals (SW6010)						
Iron	300	ug/l	177		1130	J
Magnesium	35,000	ug/l	206000		360000	
Manganese	300	ug/l	1650		2030	
Sodium	20,000	ug/l	909000		1570000	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	0.0053		<0.040	U

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FIGURE 4 - 41

DRAWING NUMBER

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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-16B	MW-BCP-16B	MW-BCP-16C	MW-BCP-16C
		Sample Date	1/12/2021	9/21/2021	1/12/2021	9/21/2021
		Screen Interval (ft bgs):	10 - 20	10 - 20	29 - 39	29 - 39
		Screened Formation:	Upper Clay	Upper Clay	Lower Clay	Lower Clay
TAL Metals (SW6010)						
Iron	300	ug/l	164	3050	399	1480
Magnesium	35,000	ug/l	438000	461000	325000	318000
Sodium	20,000	ug/l	122000	139000	108000	132000

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1 INCH =50 FEET (22X34)

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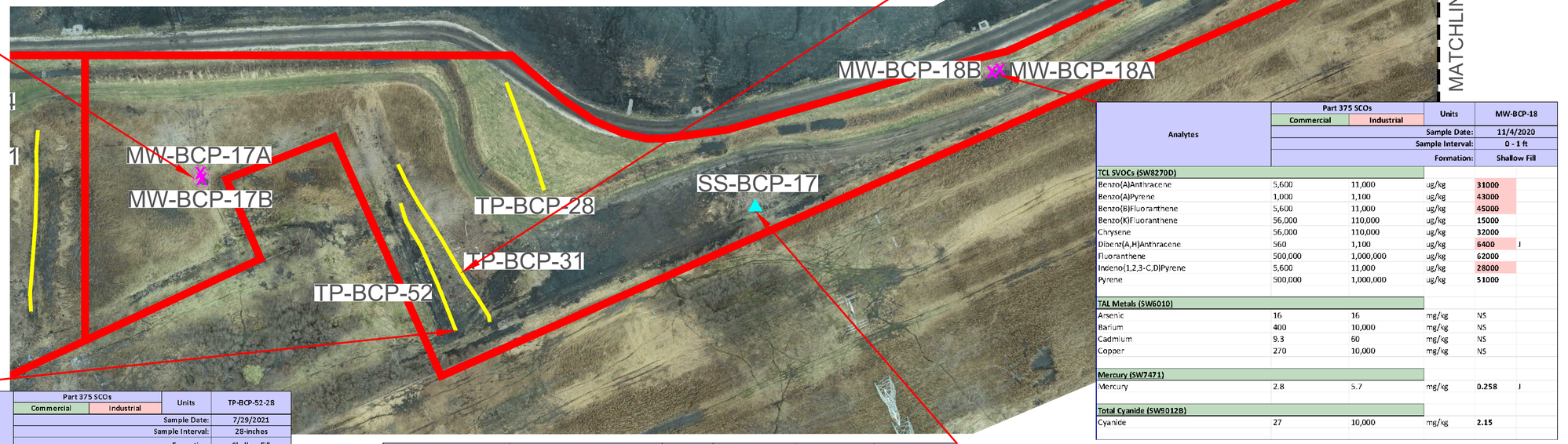
FIGURE 4 - 42

DRAWING NUMBER

AOI 6

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-17		MW-BCP-17		MW-BCP-17	
			Sample Date:	10/30/2020		11/2/2020		11/2/2020	
			Sample Interval:	0 - 2 in		2 - 6 in		0.5 - 1 ft	
			Formation:	Surface Soil		Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	6300	D	NS		6400	
Benzo(A)Pyrene	1,000	1,100	ug/kg	9700	D	NS		10000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	10000	D	NS		11000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	3700	D	NS		3800	
Chrysene	56,000	110,000	ug/kg	7100	D	NS		7500	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	1400	DJ	NS		1500	
Fluoranthene	500,000	1,000,000	ug/kg	9500	D	NS		8500	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	6000	D	NS		6200	
Pyrene	500,000	1,000,000	ug/kg	9100	D	NS		8500	
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	9.7	J	NS		11.6	J
Barium	400	10,000	mg/kg	91.6		NS		92.8	
Cadmium	9.3	60	mg/kg	0.511	J	NS		0.28	J
Copper	270	10,000	mg/kg	18.4	J	NS		18.1	J
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	0.046		NS		0.025	J
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	NS		NS		<0.17	U

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-31	
			Sample Date:	10/29/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	9200	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	17000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	16000	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	6200	
Chrysene	56,000	110,000	ug/kg	11000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	2500	D
Fluoranthene	500,000	1,000,000	ug/kg	14000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	11000	D
Pyrene	500,000	1,000,000	ug/kg	13000	D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	11.7	J
Barium	400	10,000	mg/kg	96.4	
Cadmium	9.3	60	mg/kg	0.301	J
Copper	270	10,000	mg/kg	42.1	J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.04	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	0.3	J



Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	MW-BCP-18	
			Sample Date:	11/4/2020	
			Sample Interval:	0 - 1 ft	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	31000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	43000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	45000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	15000	
Chrysene	56,000	110,000	ug/kg	32000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	6400	J
Fluoranthene	500,000	1,000,000	ug/kg	62000	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	28000	
Pyrene	500,000	1,000,000	ug/kg	51000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	NS	
Barium	400	10,000	mg/kg	NS	
Cadmium	9.3	60	mg/kg	NS	
Copper	270	10,000	mg/kg	NS	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.258	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	2.15	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	TP-BCP-52-28	
			Sample Date:	7/29/2021	
			Sample Interval:	28-inches	
			Formation:	Shallow Fill	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	200000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	240000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	240000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	99000	
Chrysene	56,000	110,000	ug/kg	200000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	30000	J
Fluoranthene	500,000	1,000,000	ug/kg	510000	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	130000	
Pyrene	500,000	1,000,000	ug/kg	380000	
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	18	
Barium	400	10,000	mg/kg	85	
Cadmium	9.3	60	mg/kg	0.548	J
Copper	270	10,000	mg/kg	18.8	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.054	
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	0.67	

Analytes	Part 375 SCOs Commercial	Part 375 SCOs Industrial	Units	SS-BCP-17		SS-BCP-17		SS-BCP-17	
			Sample Date:	11/13/2020		11/13/2020		11/13/2020	
			Sample Interval:	0 - 2 in		2 - 6 in		0.5 - 2 ft	
			Formation:	Surface Soil		Surface Soil		Shallow Fill	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	2600	D	NS		32000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	3100	D	NS		36000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	3700		NS		43000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1300	D	NS		18000	
Chrysene	56,000	110,000	ug/kg	3000	D	NS		43000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	540	DJ	NS		6500	DJ
Fluoranthene	500,000	1,000,000	ug/kg	5700	D	NS		120000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	2100	D	NS		29000	D
Pyrene	500,000	1,000,000	ug/kg	4800	D	NS		85000	
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	12		NS		7.8	
Barium	400	10,000	mg/kg	91.7		NS		57.8	
Cadmium	9.3	60	mg/kg	<0.279	U	NS		<0.264	U
Copper	270	10,000	mg/kg	21.2		NS		14.8	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	0.046		NS		0.042	
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	NS		NS		0.21	J

50 0 25 50 100 200
1 INCH = 50 FEET (22X34)

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FILL SAMPLE DATA - AOI 7 WEST
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
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FIGURE 4 - 43

DRAWING NUMBER
A0I 7 WEST

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-10		TP-BCP-10	
			Sample Date:	11/3/2020		11/3/2020	
			Sample Interval:	0 - 1 ft		DUP (0 - 1 ft)	
			Formation:	Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	31000		23000	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	44000		33000	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	47000		35000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	15000		12000	
Chrysene	56,000	110,000	ug/kg	36000		25000	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	6800	J	5300	DJ
Fluoranthene	500,000	1,000,000	ug/kg	61000		45000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	31000		25000	D
Pyrene	500,000	1,000,000	ug/kg	54000		41000	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	48.6		19.8	
Barium	400	10,000	mg/kg	122		134	
Cadmium	9.3	60	mg/kg	1.9		1.8	
Copper	270	10,000	mg/kg	178		121	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	1.1	J	0.963	J
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	1.31		3.28	

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	SD-BCP-05
			Sample Date:	11/12/2020
			Sample Interval:	Sediment
			Formation:	Suspect Wetland
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	<320 U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<490 U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<370 U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<490 U
Chrysene	56,000	110,000	ug/kg	<490 U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<330 U
Fluoranthene	500,000	1,000,000	ug/kg	<430 U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<370 U
Pyrene	500,000	1,000,000	ug/kg	<430 U
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	21.3
Barium	400	10,000	mg/kg	54.8
Cadmium	9.3	60	mg/kg	13.5
Copper	270	10,000	mg/kg	48.9
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.199
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	5.33

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-09
			Sample Date:	11/12/2020
			Sample Interval:	0 to 1 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	2700 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	3500 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	4100 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1300 D
Chrysene	56,000	110,000	ug/kg	3100 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	540
Fluoranthene	500,000	1,000,000	ug/kg	5200 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	2400
Pyrene	500,000	1,000,000	ug/kg	4500 D
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	15.1 J
Barium	400	10,000	mg/kg	3290
Cadmium	9.3	60	mg/kg	1.4
Copper	270	10,000	mg/kg	146 J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.227
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	2.66

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-50-35	TP-BCP-50-51
			Sample Date:	7/28/2021	7/28/2021
			Sample Interval:	35-inches	51-inches
			Formation:	Shallow Fill	Shallow Fill
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	16000 J	45000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	20000	47000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	20000	51000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	8000 J	18000 D
Chrysene	56,000	110,000	ug/kg	18000	44000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	3900 J	6300
Fluoranthene	500,000	1,000,000	ug/kg	24000	110000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	16000 J	29000 J
Pyrene	500,000	1,000,000	ug/kg	24000	83000 D
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	10.6	29.2
Barium	400	10,000	mg/kg	168	109
Cadmium	9.3	60	mg/kg	0.626	1.5
Copper	270	10,000	mg/kg	56.4	119
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	1.8	6.4
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	43	123

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-35
			Sample Date:	11/2/2020
			Sample Interval:	0 - 1 ft
			Formation:	Shallow Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	2800 DJ
Benzo(A)Pyrene	1,000	1,100	ug/kg	3200 DJ
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	3500 DJ
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	1200 J
Chrysene	56,000	110,000	ug/kg	2900 DJ
Dibenz(A,H)Anthracene	560	1,100	ug/kg	490 DJ
Fluoranthene	500,000	1,000,000	ug/kg	6600 DJ
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	2100 J
Pyrene	500,000	1,000,000	ug/kg	5600 DJ
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	12.1 J
Barium	400	10,000	mg/kg	102
Cadmium	9.3	60	mg/kg	0.591 J
Copper	270	10,000	mg/kg	42.2 J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	0.091
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	4.16

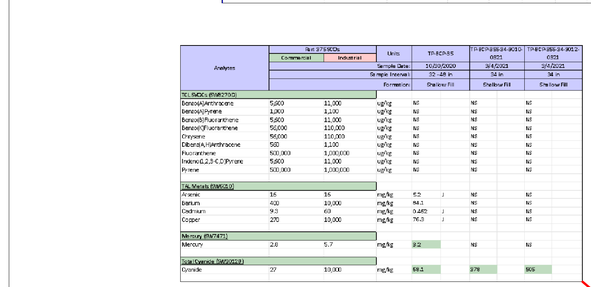
Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-SW-01		TP-BCP-SW-02		TP-BCP-SW-03	
			Sample Date:	7/28/2021		7/27/2021		7/28/2021	
			Sample Interval:	20-inches		48-inches		75-inches	
			Formation:	Shallow Fill		Shallow Fill		Shallow Fill	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	52000	D	6700		<52	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	57000	D	7000		<120	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	110000	J	10000		<70	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	55000	D	3500		<67	U
Chrysene	56,000	110,000	ug/kg	95000	D	6600		<61	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	21000	D	1500	J	<61	U
Fluoranthene	500,000	1,000,000	ug/kg	130000	D	9200		<110	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	120000		6800		<140	U
Pyrene	500,000	1,000,000	ug/kg	120000	D	6600		<69	U
TAL Metals (SW6010)									
Arsenic	16	16	mg/kg	11.9		7.2		6.9	
Barium	400	10,000	mg/kg	129		108		115	
Cadmium	9.3	60	mg/kg	0.549	J	0.405	J	0.235	J
Copper	270	10,000	mg/kg	43.7		170		10.8	
Mercury (SW7471)									
Mercury	2.8	5.7	mg/kg	0.221		16.8		0.03	J
Total Cyanide (SW9012B)									
Cyanide	27	10,000	mg/kg	6.46		566		4.4	

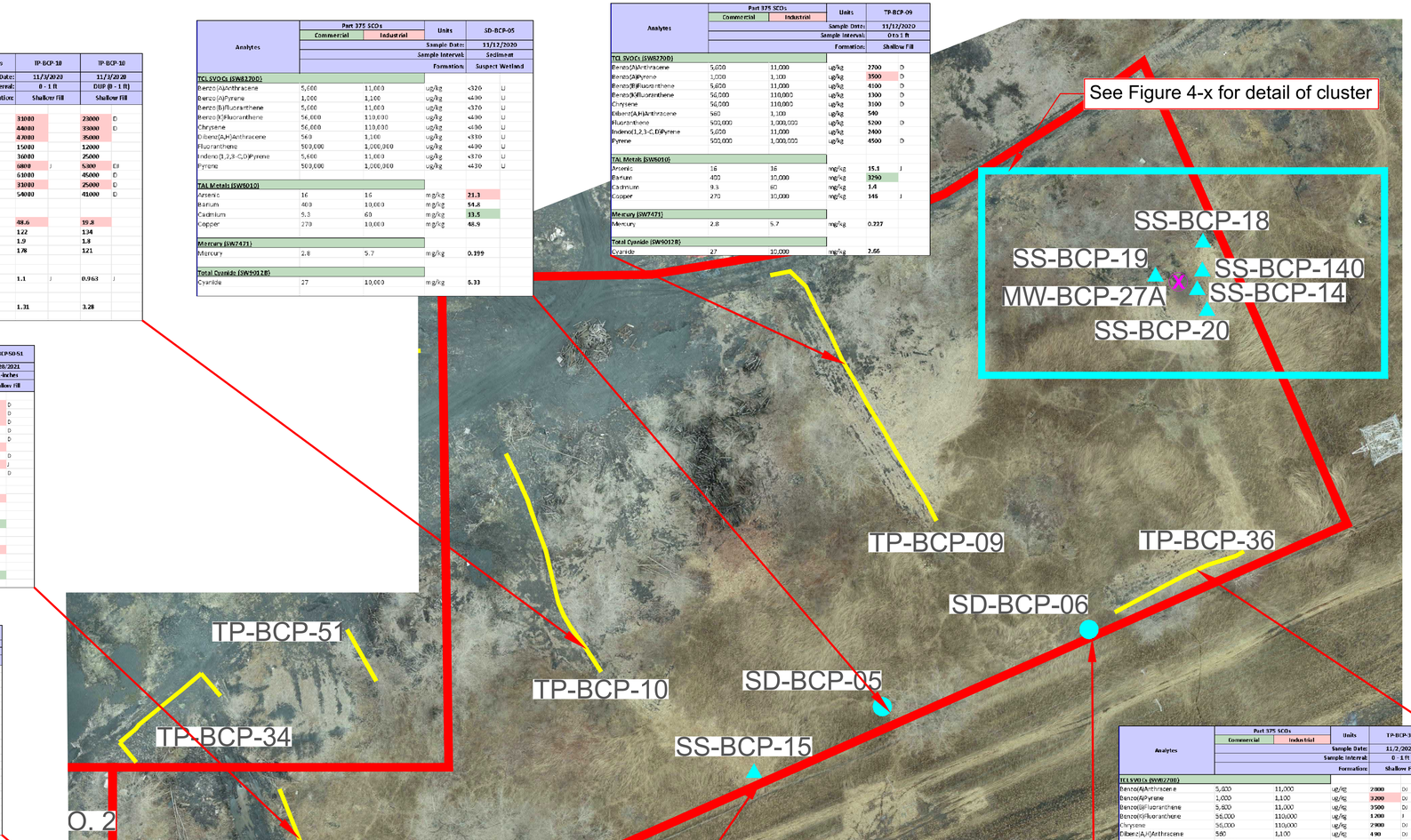
Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	SD-BCP-06	SD-BCP-06
			Sample Date:	11/12/2020	11/12/2020
			Sample Interval:	Sediment	DUP (Sediment)
			Formation:	Suspect Wetland	Suspect Wetland
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<750 U	NS
Benzo(A)Pyrene	1,000	1,100	ug/kg	<920 U	NS
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<860 U	NS
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<920 U	NS
Chrysene	56,000	110,000	ug/kg	<920 U	NS
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<750 U	NS
Fluoranthene	500,000	1,000,000	ug/kg	<920 U	NS
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<850 U	NS
Pyrene	500,000	1,000,000	ug/kg	<1000 U	NS
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	7.4	NS
Barium	400	10,000	mg/kg	83.5	NS
Cadmium	9.3	60	mg/kg	11	NS
Copper	270	10,000	mg/kg	292	NS
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	<0.055 U	NS
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	5.2	NS

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	SS-BCP-16	SS-BCP-16	SS-BCP-16
			Sample Date:	11/12/2020	11/12/2020	11/12/2020
			Sample Interval:	0 - 2 ft	2 - 6 ft	6.5 - 7.5
			Formation:	Surface Soil	Surface Soil	Shallow Fill
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	5,600	11,000	ug/kg	200000 D	NS	320000 D
Benzo(A)Pyrene	1,000	1,100	ug/kg	350000 D	NS	680000 D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	310000 D	NS	600000 D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	120000 D	NS	230000 D
Chrysene	56,000	110,000	ug/kg	210000 D	NS	370000 D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	52000 DJ	NS	100000 DJ
Fluoranthene	500,000	1,000,000	ug/kg	270000 D	NS	520000 D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	180000 D	NS	400000 D
Pyrene	500,000	1,000,000	ug/kg	260000 D	NS	510000 D
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	5.6	NS	7.1
Barium	400	10,000	mg/kg	33	NS	56.3
Cadmium	9.3	60	mg/kg	0.46 J	NS	0.375
Copper	270	10,000	mg/kg	48.4	NS	30.1
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.406	NS	0.038
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	NS	NS	2.15

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	SS-BCP-15	SS-BCP-15	SS-BCP-15
			Sample Date:	11/17/2020	11/17/2020	11/17/2020
			Sample Interval:	0 - 2 ft	2 - 6 ft	6.5 - 7.5
			Formation:	Surface Soil	Surface Soil	Shallow Fill
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	5,600	11,000	ug/kg	1100	NS	2400
Benzo(A)Pyrene	1,000	1,100	ug/kg	1900	NS	3600
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	2300	NS	4400
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	680 J	NS	1600
Chrysene	56,000	110,000	ug/kg	1200	NS	2200
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<150 U	NS	510
Fluoranthene	500,000	1,000,000	ug/kg	1800	NS	4000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	1200	NS	2500
Pyrene	500,000	1,000,000	ug/kg	1700	NS	3500
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	24.6	NS	12.7
Barium	400	10,000	mg/kg	28.8	NS	53.3
Cadmium	9.3	60	mg/kg	1.5	NS	0.722
Copper	270	10,000	mg/kg	52.6	NS	24.5
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.227	NS	0.04
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	NS	NS	41.8

Analytes	Part 375 SCOs: Commercial	Part 375 SCOs: Industrial	Units	TP-BCP-SW-04 (BCD)	TP-BCP-SW-04 (BCD)
			Sample Date:	11/20/2020	3/4/2021
			Sample Interval:	32 -48 in	34 in
			Formation:	Shallow Fill	Shallow Fill
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	NS	NS
Benzo(A)Pyrene	1,000	1,100	ug/kg	NS	NS
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	NS	NS
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	NS	NS
Chrysene	56,000	110,000	ug/kg	NS	NS
Dibenz(A,H)Anthracene	560	1,100	ug/kg	NS	NS
Fluoranthene	500,000	1,000,000	ug/kg	NS	NS
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	NS	NS
Pyrene	500,000	1,000,000	ug/kg	NS	NS
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	6.2 J	NS
Barium	400	10,000	mg/kg	84.3	NS
Cadmium	9.3	60	mg/kg	0.482 J	NS
Copper	270	10,000	mg/kg	76.3	NS
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.2	NS
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	59.2	378







50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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FILL SAMPLE DATA - AOI 7 EAST
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 4 - 44

DRAWING NUMBER
AOI 7 EAST

Analytes	Part 375 SCOs		Units	SS-BCP-19	SS-BCP-19	SS-BCP-19
	Commercial	Industrial				
Sample Date:				7/27/2021	7/27/2021	7/27/2021
Sample Interval:				0 - 2 in	2 - 4 in	2 - 6 in
Formation:				Surface Soil	Surface Soil	Surface Soil
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	5,600	11,000	ug/kg	17000	26000	17000
Benzo(A)Pyrene	1,000	1,100	ug/kg	26000	25000	25000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	25000	34000	31000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	11000	13000	10000
Chrysene	56,000	110,000	ug/kg	20000	28000	21000
Dibenz(A,H)Anthracene	560	1,100	ug/kg	9300	6600 J	6700
Fluoranthene	500,000	1,000,000	ug/kg	29000	55000	31000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	20000	28000	19000
Pyrene	500,000	1,000,000	ug/kg	23000	45000	26000
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	13.5 J	17.2 J	13.1 J
Barium	400	10,000	mg/kg	107	152	103
Cadmium	9.3	60	mg/kg	0.101 J	0.355 J	0.118 J
Copper	270	10,000	mg/kg	92.1 J	147 J	98.6 J
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	0.75	1.5	0.859
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	26.4	52.2	20.5

Analytes	Part 375 SCOs		Units	SS-BCP-18	SS-BCP-18	SS-BCP-18
	Commercial	Industrial				
Sample Date:				7/27/2021	7/27/2021	7/27/2021
Sample Interval:				0 - 2 in	2 - 4 in	2 - 6 in
Formation:				Surface Soil	Surface Soil	Surface Soil
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	5,600	11,000	ug/kg	39000	120000	9300
Benzo(A)Pyrene	1,000	1,100	ug/kg	45000	130000	11000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	58000	190000	12000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	16000	49000	4100
Chrysene	56,000	110,000	ug/kg	37000	130000	8400
Dibenz(A,H)Anthracene	560	1,100	ug/kg	6800 J	17000 J	1700
Fluoranthene	500,000	1,000,000	ug/kg	53000	330000	19000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	29000	64000	7200
Pyrene	500,000	1,000,000	ug/kg	78000	220000	15000
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	5.5 J	9.0 J	13.1 J
Barium	400	10,000	mg/kg	132	157	141
Cadmium	9.3	60	mg/kg	1.2	0.589 J	0.452 J
Copper	270	10,000	mg/kg	78.3 J	89.3 J	95.8 J
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	2.5	0.759	1.2
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	8.4	8.8	6.87

Analytes	Part 375 SCOs		Units	SS-BCP-140	SS-BCP-140	SS-BCP-140
	Commercial	Industrial				
Sample Date:				7/27/2021	7/27/2021	7/27/2021
Sample Interval:				0 - 2 in	2 - 4 in	2 - 6 in
Formation:				Surface Soil	Surface Soil	Surface Soil
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	5,600	11,000	ug/kg	21000	41000	15000
Benzo(A)Pyrene	1,000	1,100	ug/kg	26000	48000	18000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	29000	51000	21000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	11000	21000	7100
Chrysene	56,000	110,000	ug/kg	21000	42000	15000
Dibenz(A,H)Anthracene	560	1,100	ug/kg	3900 J	6500 J	2800
Fluoranthene	500,000	1,000,000	ug/kg	48000	120000	31000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	18000	38000	13000
Pyrene	500,000	1,000,000	ug/kg	35000	83000	26000
TAL Metals (SW6010)						
Arsenic	16	16	mg/kg	11.1 J	11.2 J	8.5 J
Barium	400	10,000	mg/kg	121	203	129
Cadmium	9.3	60	mg/kg	0.592 J	0.161 J	0.219 J
Copper	270	10,000	mg/kg	66 J	95.8 J	51.6 J
Mercury (SW7471)						
Mercury	2.8	5.7	mg/kg	3.3	4	2.4
Total Cyanide (SW9012B)						
Cyanide	27	10,000	mg/kg	7.93	35.8	6.59

Analytes	Part 375 SCOs		Units	SS-BCP-14	SS-BCP-14	SS-BCP-14	
	Commercial	Industrial					
Sample Date:				11/17/2020	11/17/2020	11/17/2020	
Sample Interval:				0 - 2 in	2 - 6 in	0.5 - 2 ft	
Formation:				Surface Soil	Surface Soil	Shallow Fill	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	32000 D	NS	32000	
Benzo(A)Pyrene	1,000	1,100	ug/kg	42000 D	NS	38000	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	48000 D	NS	47000	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	16000	NS	17000	D
Chrysene	56,000	110,000	ug/kg	36000 D	NS	35000	D
Dibenz(A,H)Anthracene	560	1,100	ug/kg	7300	NS	7600	
Fluoranthene	500,000	1,000,000	ug/kg	56000 D	NS	73000	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	30000	NS	32000	D
Pyrene	500,000	1,000,000	ug/kg	49000 D	NS	60000	D
TAL Metals (SW6010)							
Arsenic	16	16	mg/kg	9.9	NS	37.0	
Barium	400	10,000	mg/kg	89.6	NS	81.1	
Cadmium	9.3	60	mg/kg	0.484 J	NS	0.915	
Copper	270	10,000	mg/kg	62.8	NS	49.4	
Mercury (SW7471)							
Mercury	2.8	5.7	mg/kg	0.531	NS	191	
Total Cyanide (SW9012B)							
Cyanide	27	10,000	mg/kg	NS	NS	294	

Analytes	Part 375 SCOs		Units	MW-BCP-27A
	Commercial	Industrial		
Sample Date:				6/24/2021
Sample Interval:				0 - 1 ft
Formation:				Fill
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	5,600	11,000	ug/kg	17000
Benzo(A)Pyrene	1,000	1,100	ug/kg	23000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	29000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	10000
Chrysene	56,000	110,000	ug/kg	19000
Dibenz(A,H)Anthracene	560	1,100	ug/kg	4200 J
Fluoranthene	500,000	1,000,000	ug/kg	32000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	19000
Pyrene	500,000	1,000,000	ug/kg	26000
TAL Metals (SW6010)				
Arsenic	16	16	mg/kg	5.6 J
Barium	400	10,000	mg/kg	184 J
Cadmium	9.3	60	mg/kg	0.304 J
Copper	270	10,000	mg/kg	136 J
Mercury (SW7471)				
Mercury	2.8	5.7	mg/kg	3.5
Total Cyanide (SW9012B)				
Cyanide	27	10,000	mg/kg	5.58

Analytes	Part 375 SCOs		Units	SS-BCP-20	SS-BCP-20
	Commercial	Industrial			
Sample Date:				7/27/2021	7/27/2021
Sample Interval:				0 - 2 in	2 - 6 in
Formation:				Surface Soil	Surface Soil
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	40000	97000
Benzo(A)Pyrene	1,000	1,100	ug/kg	66000	130000
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	73000	140000
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	26000	44000
Chrysene	56,000	110,000	ug/kg	53000	110000
Dibenz(A,H)Anthracene	560	1,100	ug/kg	10000	17000 J
Fluoranthene	500,000	1,000,000	ug/kg	100000	230000
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	46000	86000
Pyrene	500,000	1,000,000	ug/kg	83000	180000
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	8.2 J	10.2 J
Barium	400	10,000	mg/kg	76.7	81.8
Cadmium	9.3	60	mg/kg	0.384 J	0.365 J
Copper	270	10,000	mg/kg	43.4 J	58.6 J
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	0.22	0.216
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	4.2	4.94



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30 0 15 30 60 120

1 INCH = 30 FEET (22X34)

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SS-BCP-14 AREA
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

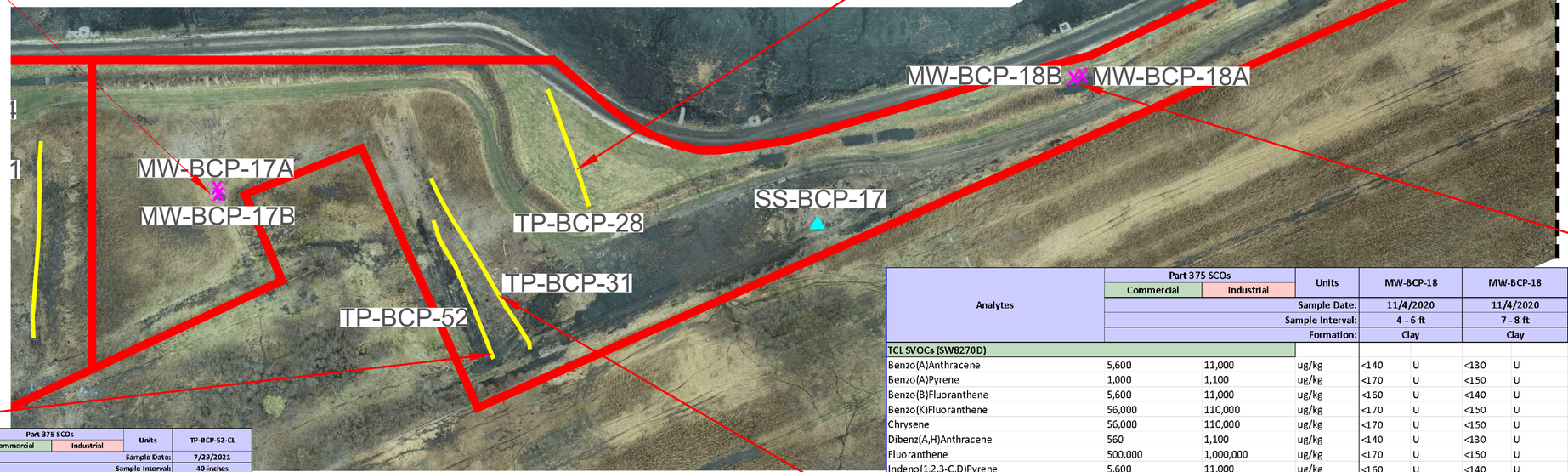
INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 4 - 45

DRAWING NUMBER
AOI 7 EAST

Analytes	Part 375 SCOs		Units	MW-BCP-17		MW-BCP-17	
	Commercial	Industrial					
Sample Date:				11/2/2020		11/2/2020	
Sample Interval:				5 - 7 ft		8 - 10 ft	
Formation:				Clay		Clay	
TCL SVOCs (SW8270D)							
Benzo(A)Anthracene	5,600	11,000	ug/kg	<140	U	<160	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<170	U	<200	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<160	U	<180	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<170	U	<200	U
Chrysene	56,000	110,000	ug/kg	<170	U	<200	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<140	U	<160	U
Fluoranthene	500,000	1,000,000	ug/kg	<170	U	<200	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<160	U	<180	U
Naphthalene	500,000	1,000,000	ug/kg	<130	U	<140	U
Phenanthrene	500,000	1,000,000	ug/kg	<140	U	<160	U
Pyrene	500,000	1,000,000	ug/kg	<190	U	<220	U

Analytes	Part 375 SCOs		Units	TP-BCP-28	
	Commercial	Industrial			
Sample Date:				10/30/2020	
Sample Interval:				30 - 36 in	
Formation:				Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<130	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<150	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<140	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<150	U
Chrysene	56,000	110,000	ug/kg	<150	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<130	U
Fluoranthene	500,000	1,000,000	ug/kg	<150	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140	U
Naphthalene	500,000	1,000,000	ug/kg	<110	U
Phenanthrene	500,000	1,000,000	ug/kg	<120	U
Pyrene	500,000	1,000,000	ug/kg	<170	U



Analytes	Part 375 SCOs		Units	MW-BCP-18		MW-BCP-18		MW-BCP-18	
	Commercial	Industrial							
Sample Date:				11/4/2020		11/4/2020		11/4/2020	
Sample Interval:				4 - 6 ft		7 - 8 ft		18 - 20 ft	
Formation:				Clay		Clay		Clay	
TCL SVOCs (SW8270D)									
Benzo(A)Anthracene	5,600	11,000	ug/kg	<140	U	<130	U	<120	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<170	U	<150	U	<150	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<160	U	<140	U	<140	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<170	U	<150	U	<150	U
Chrysene	56,000	110,000	ug/kg	<170	U	<150	U	<150	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<140	U	<130	U	<120	U
Fluoranthene	500,000	1,000,000	ug/kg	<170	U	<150	U	<150	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<160	U	<140	U	<140	U
Naphthalene	500,000	1,000,000	ug/kg	<120	U	<110	U	<110	U
Phenanthrene	500,000	1,000,000	ug/kg	<140	U	<120	U	<120	U
Pyrene	500,000	1,000,000	ug/kg	<190	U	<170	U	<160	U

Analytes	Part 375 SCOs		Units	TP-BCP-52-CL	
	Commercial	Industrial			
Sample Date:				7/29/2021	
Sample Interval:				40-inches	
Formation:				Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<81	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<110	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<88	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<86	U
Chrysene	56,000	110,000	ug/kg	<60	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<89	U
Fluoranthene	500,000	1,000,000	ug/kg	<110	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140	U
Pyrene	500,000	1,000,000	ug/kg	<88	U
TAL Metals (SW6010)					
Arsenic	16	16	mg/kg	**4.9**	
Barium	400	10,000	mg/kg	**154**	
Cadmium	9.3	60	mg/kg	**1.2**	
Copper	270	10,000	mg/kg	**21.3**	
Mercury (SW7471)					
Mercury	2.8	5.7	mg/kg	**0.04**	J
Total Cyanide (SW9012B)					
Cyanide	27	10,000	mg/kg	<0.18	U

Analytes	Part 375 SCOs		Units	TP-BCP-31	
	Commercial	Industrial			
Sample Date:				10/29/2020	
Sample Interval:				24-inches	
Formation:				Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	**250000**	D
Benzo(A)Pyrene	1,000	1,100	ug/kg	**250000**	D
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	**230000**	D
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	**91000**	DJ
Chrysene	56,000	110,000	ug/kg	**210000**	DJ
Dibenz(A,H)Anthracene	560	1,100	ug/kg	**31000**	DJ
Fluoranthene	500,000	1,000,000	ug/kg	**740000**	D
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	**130000**	D
Naphthalene	500,000	1,000,000	ug/kg	**1700000**	D
Phenanthrene	500,000	1,000,000	ug/kg	**1100000**	D
Pyrene	500,000	1,000,000	ug/kg	**510000**	D

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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CLAY SAMPLE DATA - AOI 7 WEST

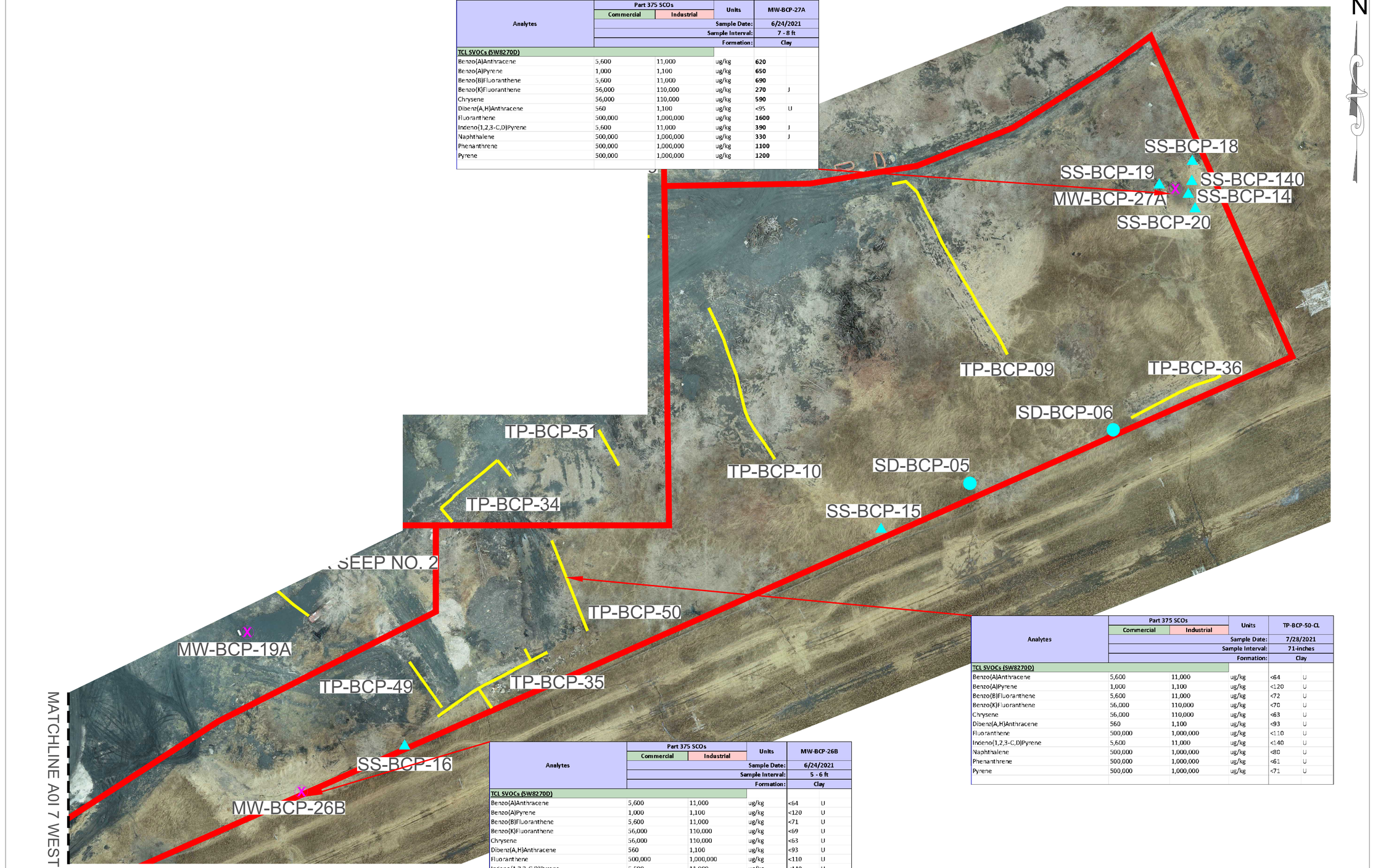
RIVERVIEW INNOVATION & TECHNOLOGY CAMPUS, INC.
3875 RIVER ROAD
TONAWANDA, NEW YORK 14150
BCP SITE No. C915353

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 4 - 46

DRAWING NUMBER
A0I 7 WEST

Analytes	Part 375 SCOs		Units	MW-BCP-27A	
	Commercial	Industrial			
			Sample Date:	6/24/2021	
			Sample Interval:	7 - 8 ft	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	620	
Benzo(A)Pyrene	1,000	1,100	ug/kg	650	
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	690	
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	270	J
Chrysene	56,000	110,000	ug/kg	590	
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<95	U
Fluoranthene	500,000	1,000,000	ug/kg	1600	
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	390	J
Naphthalene	500,000	1,000,000	ug/kg	330	J
Phenanthrene	500,000	1,000,000	ug/kg	1100	
Pyrene	500,000	1,000,000	ug/kg	1200	



Analytes	Part 375 SCOs		Units	TP-BCP-50-CL	
	Commercial	Industrial			
			Sample Date:	7/28/2021	
			Sample Interval:	71-inches	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<64	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<120	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<72	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<70	U
Chrysene	56,000	110,000	ug/kg	<63	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<93	U
Fluoranthene	500,000	1,000,000	ug/kg	<110	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140	U
Naphthalene	500,000	1,000,000	ug/kg	<80	U
Phenanthrene	500,000	1,000,000	ug/kg	<61	U
Pyrene	500,000	1,000,000	ug/kg	<71	U

Analytes	Part 375 SCOs		Units	MW-BCP-26B	
	Commercial	Industrial			
			Sample Date:	6/24/2021	
			Sample Interval:	5 - 6 ft	
			Formation:	Clay	
TCL SVOCs (SW8270D)					
Benzo(A)Anthracene	5,600	11,000	ug/kg	<64	U
Benzo(A)Pyrene	1,000	1,100	ug/kg	<120	U
Benzo(B)Fluoranthene	5,600	11,000	ug/kg	<71	U
Benzo(K)Fluoranthene	56,000	110,000	ug/kg	<69	U
Chrysene	56,000	110,000	ug/kg	<63	U
Dibenz(A,H)Anthracene	560	1,100	ug/kg	<93	U
Fluoranthene	500,000	1,000,000	ug/kg	<110	U
Indeno(1,2,3-C,D)Pyrene	5,600	11,000	ug/kg	<140	U
Naphthalene	500,000	1,000,000	ug/kg	<80	UJ
Phenanthrene	500,000	1,000,000	ug/kg	<61	U
Pyrene	500,000	1,000,000	ug/kg	<71	U

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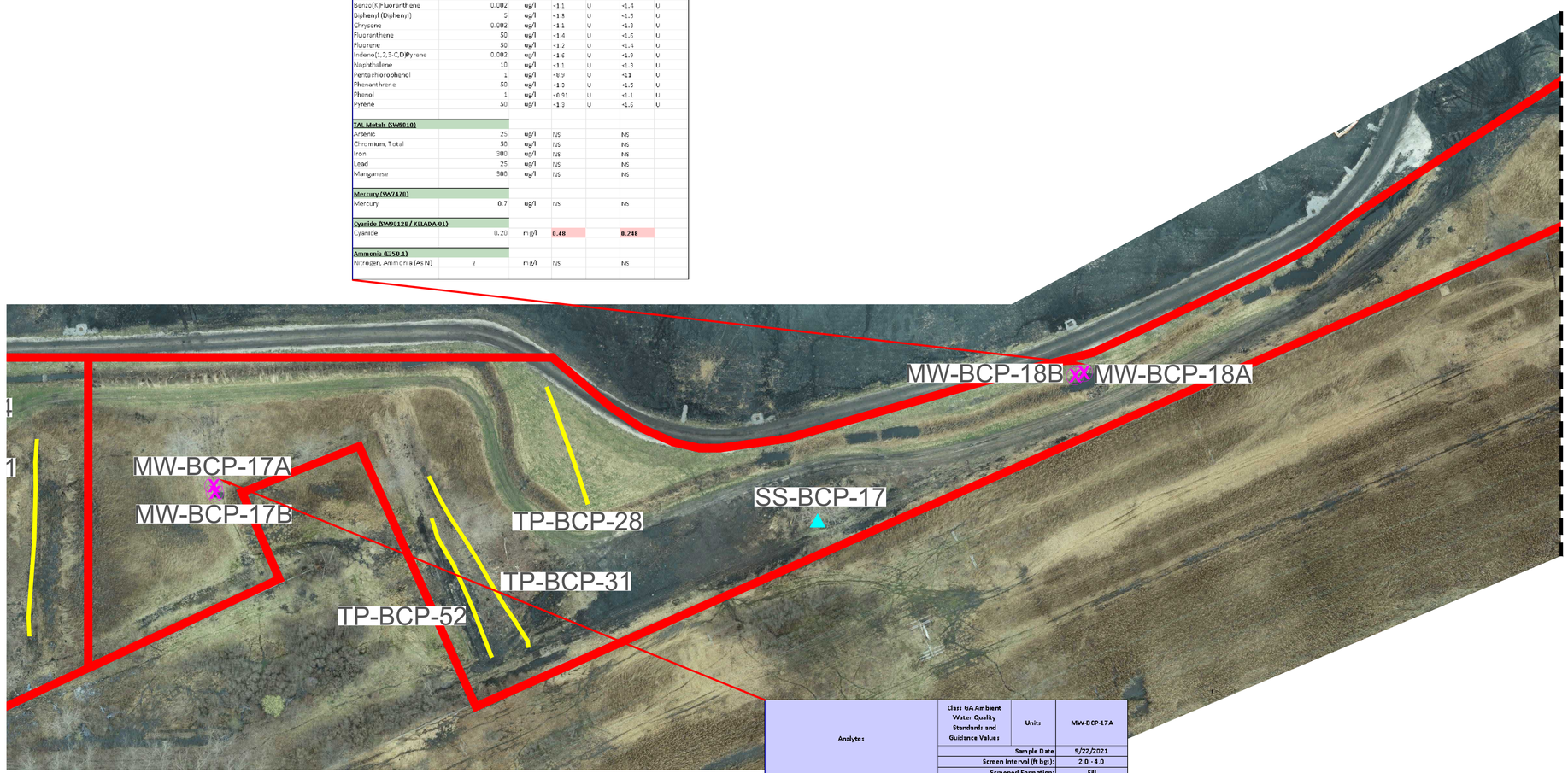
FIGURE 4 - 47

DRAWING NUMBER
A0I 7 EAST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-18A		MW-BCP-18A	
Sample Date			1/13/2021		9/22/2021	
Screen Interval (ft bg):			2.0 - 4.0		2.0 - 4.0	
Screened Formation:			Fill		Fill	
TCL SVOCs (SW8270D)						
Anthracene	50	ug/l	<1.2	U	<1.4	U
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	<1.7	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	<1.3	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	<1.4	U
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	<1.5	U
Chrysene	0.002	ug/l	<1.1	U	<1.3	U
Fluoranthene	50	ug/l	<1.4	U	<1.6	U
Fluorene	50	ug/l	<1.2	U	<1.4	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.9	U
Naphthalene	10	ug/l	<1.1	U	<1.3	U
Pentachlorophenol	1	ug/l	<8.9	U	<11	U
Phenanthrene	50	ug/l	<1.3	U	<1.5	U
Phenol	1	ug/l	<0.91	U	<1.1	U
Pyrene	50	ug/l	<1.3	U	<1.6	U
TAL Metals (SW6010)						
Arsenic	25	ug/l	NS		NS	
Chromium, Total	50	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Lead	25	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Mercury (SW7470)						
Mercury	0.7	ug/l	NS		NS	
Cyanide (SW9012B / KELADA-01)						
Cyanide	0.20	mg/l	0.48		0.248	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS	



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-17A	
Sample Date			9/22/2021	
Screen Interval (ft bg):			2.0 - 4.0	
Screened Formation:			Fill	
TCL SVOCs (SW8270D)				
Anthracene	50	ug/l	<1.9	U
Benzo(A)Anthracene	0.002	ug/l	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U
Chrysene	0.002	ug/l	<1.2	U
Fluoranthene	50	ug/l	<1.5	U
Fluorene	50	ug/l	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U
Naphthalene	10	ug/l	<1.2	U
Pentachlorophenol	1	ug/l	<9.7	U
Phenanthrene	50	ug/l	<1.4	U
Phenol	1	ug/l	<1.0	U
Pyrene	50	ug/l	<1.5	U
TAL Metals (SW6010)				
Arsenic	25	ug/l	NS	
Chromium, Total	50	ug/l	NS	
Iron	300	ug/l	NS	
Lead	25	ug/l	NS	
Manganese	300	ug/l	NS	
Mercury (SW7470)				
Mercury	0.7	ug/l	NS	
Cyanide (SW9012B/ KELADA-01)				
Cyanide	0.20	mg/l	<0.040	U
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	NS	

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

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FIGURE 4 - 48

DRAWING NUMBER
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Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-27A		MW-BCP-27A	
		Sample Date	9/24/2021		11/15/2021	
		Screen Interval (ft bgs):	3.0 - 5.5		3.0 - 5.5	
		Screened Formation:	Fill		Fill	
TCL SVOCs (SW8270D)						
Anthracene	50	ug/l	52	J	53	
Benzo(A)Anthracene	0.002	ug/l	68	J	98	
Benzo(B)Fluoranthene	0.002	ug/l	77	J	120	
Benzo(K)Fluoranthene	0.002	ug/l	27	J	37	
Biphenyl (Diphenyl)	5	ug/l	7	J	7.7	J
Chrysene	0.002	ug/l	67	J	77	
Fluoranthene	50	ug/l	200	J	220	
Fluorene	50	ug/l	60	J	52	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	40	J	76	
Naphthalene	10	ug/l	84		67	
Pentachlorophenol	1	ug/l	<9.7	U	1.2	J
Phenanthrene	50	ug/l	180	J	190	
Phenol	1	ug/l	<1.0	U	<0.57	U
Pyrene	50	ug/l	140	J	160	
TAL Metals (SW6010)						
Arsenic	25	ug/l	74.4		16	
Chromium, Total	50	ug/l	67.4		8	J
Iron	300	ug/l	192000		106000	
Lead	25	ug/l	472		120	
Manganese	300	ug/l	847		661	
Mercury (SW7470)						
Mercury	0.7	ug/l	4.6		3.82	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	9.25		16.0	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	5.90		11.4	

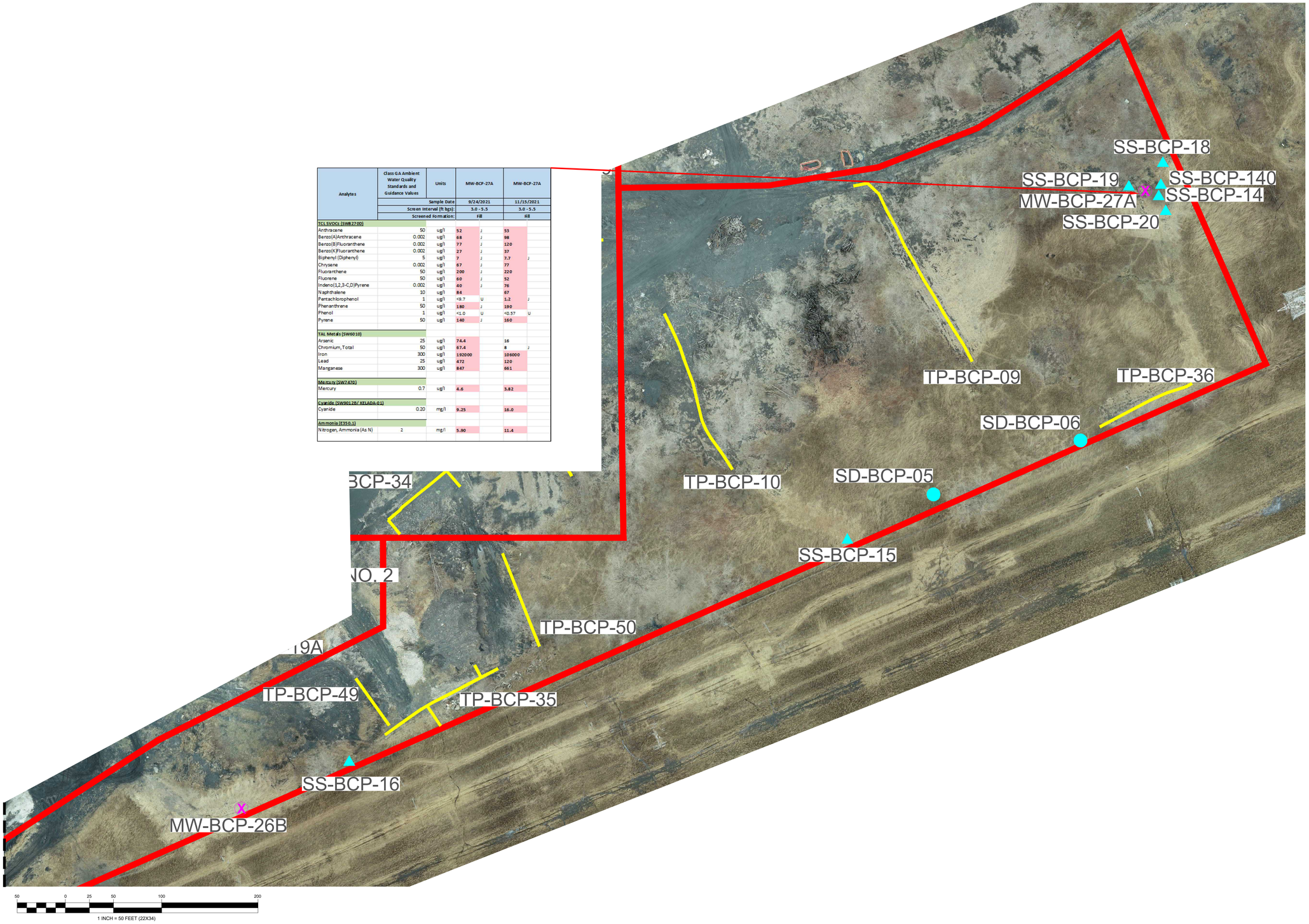

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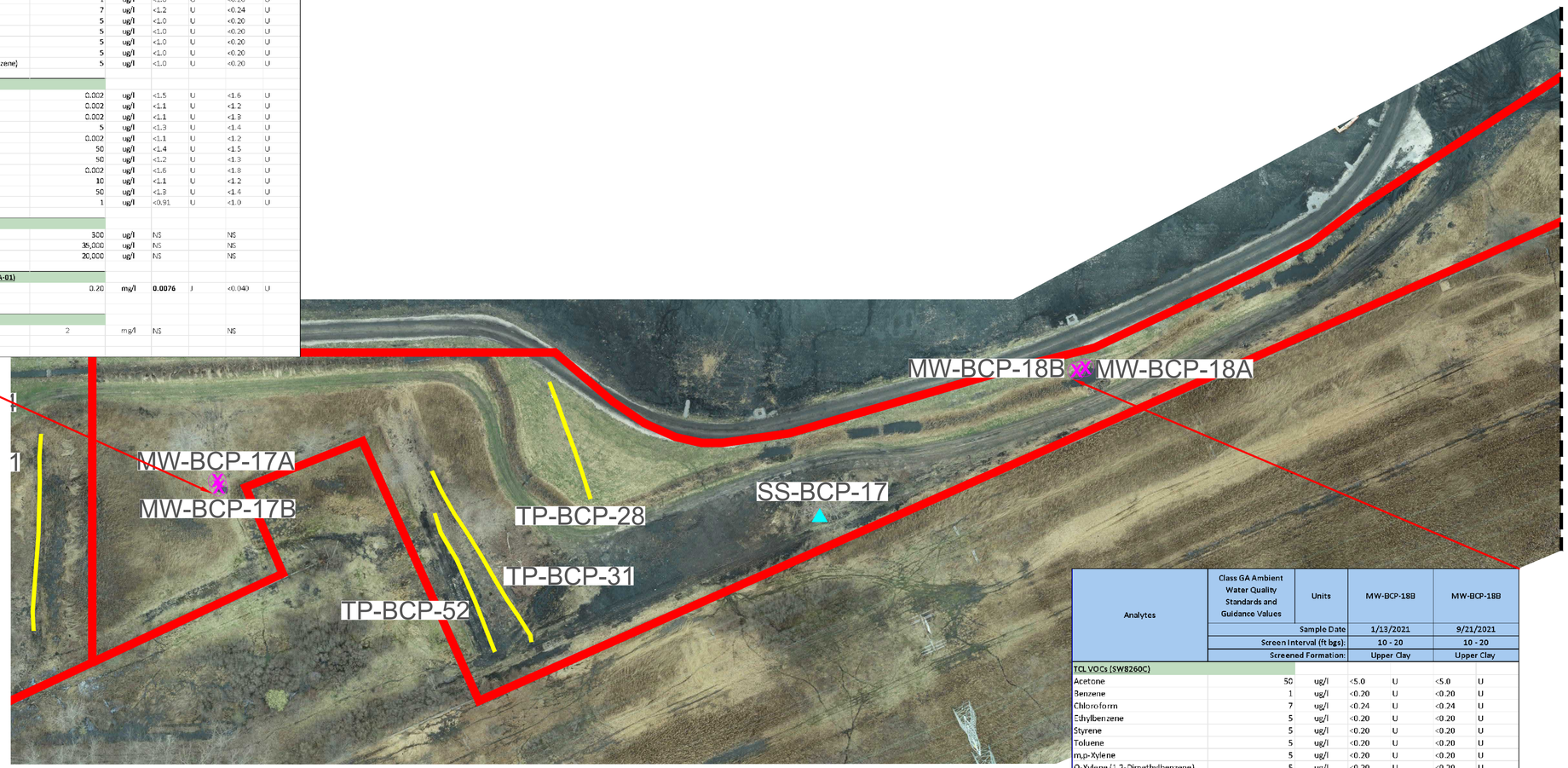
FIGURE 4 - 49

DRAWING NUMBER
A0I 7 EAST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-17B		MW-BCP-17B	
Sample Date			1/13/2021		9/21/2021	
Screen Interval (ft bgs):			10 - 20		10 - 20	
Screened Formation:			Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Acetone	50	ug/l	**110**		<5.0	U
Benzene	1	ug/l	<1.0	U	<0.20	U
Chloroform	7	ug/l	<1.2	U	<0.24	U
Ethylbenzene	5	ug/l	<1.0	U	<0.20	U
Styrene	5	ug/l	<1.0	U	<0.20	U
Toluene	5	ug/l	<1.0	U	<0.20	U
m,p-Xylene	5	ug/l	<1.0	U	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<1.0	U	<0.20	U
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	<1.4	U
Chrysene	0.002	ug/l	<1.1	U	<1.2	U
Fluoranthene	50	ug/l	<1.4	U	<1.5	U
Fluorene	50	ug/l	<1.2	U	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.8	U
Naphthalene	10	ug/l	<1.1	U	<1.2	U
Phenanthrene	50	ug/l	<1.3	U	<1.4	U
Phenol	1	ug/l	<0.91	U	<1.0	U
TAL Metals (SW6010)						
Iron	300	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0076**	J	<0.040	U
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS	



Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-18B		MW-BCP-18B	
Sample Date			1/13/2021		9/21/2021	
Screen Interval (ft bgs):			10 - 20		10 - 20	
Screened Formation:			Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Acetone	50	ug/l	<5.0	U	<5.0	U
Benzene	1	ug/l	<0.20	U	<0.20	U
Chloroform	7	ug/l	<0.24	U	<0.24	U
Ethylbenzene	5	ug/l	<0.20	U	<0.20	U
Styrene	5	ug/l	<0.20	U	<0.20	U
Toluene	5	ug/l	<0.20	U	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U	<0.20	U
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	0.002	ug/l	<1.5	U	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.1	U	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.1	U	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.3	U	<1.4	U
Chrysene	0.002	ug/l	<1.1	U	<1.2	U
Fluoranthene	50	ug/l	<1.4	U	<1.5	U
Fluorene	50	ug/l	<1.2	U	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.6	U	<1.8	U
Naphthalene	10	ug/l	<1.1	U	<1.2	U
Phenanthrene	50	ug/l	<1.3	U	<1.4	U
Phenol	1	ug/l	<0.91	U	<1.0	U
TAL Metals (SW6010)						
Iron	300	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	**0.0305**	J	**0.046**	J
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		NS	

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50 0 25 50 100 200
1 INCH = 50 FEET (22X34)

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FIGURE 4 - 50

DRAWING NUMBER
A0I 7 WEST

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-19B		MW-BCP-19B	
Sample Date			1/12/2021		9/22/2021	
Screen Interval (ft bgs):			10 -20		10 -20	
Screened Formation:			Upper Clay		Upper Clay	
TCL VOCs (SW8260C)						
Benzene	1	ug/l	28	J	<10	U
Chloroform	7	ug/l	12	J	<12	U
Ethylbenzene	5	ug/l	14	J	<10	U
Toluene	5	ug/l	59	J	21	J
m,p-Xylene	5	ug/l	190	J	70	J
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	150	J	46	J
TCL SVOCs (SW8270D)						
Benzo(A)Anthracene	0.002	ug/l	15		9.4	
Benzo(B)Fluoranthene	0.002	ug/l	13		8.3	J
Benzo(K)Fluoranthene	0.002	ug/l	5	J	3.9	J
Biphenyl (Diphenyl)	5	ug/l	38		42	
Chrysene	0.002	ug/l	13		10	
Fluoranthene	50	ug/l	56		45	
Fluorene	50	ug/l	87		110	
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	6.2	J	4.3	J
Naphthalene	10	ug/l	6000	D	5300	D
Phenanthrene	50	ug/l	130		140	
Phenol	1	ug/l	7.2	J	<1.0	U
TAL Metals (SW6010)						
Chromium, Total	50	ug/l	NS		NS	
Iron	300	ug/l	NS		NS	
Magnesium	35,000	ug/l	NS		NS	
Manganese	300	ug/l	NS		NS	
Sodium	20,000	ug/l	NS		NS	
Cyanide (SW9012B/ KELADA-01)						
Cyanide	0.20	mg/l	6.23		NS	
Ammonia (E350.1)						
Nitrogen, Ammonia (As N)	2	mg/l	NS		2.49	

Analytes	Class GA Ambient Water Quality Standards and Guidance Values	Units	MW-BCP-26B	
Sample Date			9/22/2021	
Screen Interval (ft bgs):			9 - 19	
Screened Formation:			Upper Clay	
TCL VOCs (SW8260C)				
Acetone	50	ug/l	<5.0	U
Benzene	1	ug/l	<0.20	U
Chloroform	7	ug/l	<0.24	U
Ethylbenzene	5	ug/l	<0.20	U
Styrene	5	ug/l	<0.20	U
Toluene	5	ug/l	<0.20	U
m,p-Xylene	5	ug/l	<0.20	U
O-Xylene (1,2-Dimethylbenzene)	5	ug/l	<0.20	U
TCL SVOCs (SW8270D)				
Benzo(A)Anthracene	0.002	ug/l	<1.6	U
Benzo(B)Fluoranthene	0.002	ug/l	<1.2	U
Benzo(K)Fluoranthene	0.002	ug/l	<1.3	U
Biphenyl (Diphenyl)	5	ug/l	<1.4	U
Chrysene	0.002	ug/l	<1.2	U
Fluoranthene	50	ug/l	<1.5	U
Fluorene	50	ug/l	<1.3	U
Indeno(1,2,3-C,D)Pyrene	0.002	ug/l	<1.8	U
Naphthalene	10	ug/l	<1.2	U
Phenanthrene	50	ug/l	<1.4	U
Phenol	1	ug/l	<1.0	U
TAL Metals (SW6010)				
Iron	300	ug/l	1480	J
Magnesium	35,000	ug/l	359000	
Sodium	20,000	ug/l	99600	
Cyanide (SW9012B/ KELADA-01)				
Cyanide	0.20	mg/l	0.093	
Ammonia (E350.1)				
Nitrogen, Ammonia (As N)	2	mg/l	NS	

SS-BCP-18
SS-BCP-19
SS-BCP-140
MW-BCP-27A
SS-BCP-14
SS-BCP-20
TP-BCP-09
TP-BCP-36
SD-BCP-06
TP-BCP-51
TP-BCP-34
TP-BCP-10
SD-BCP-05
SS-BCP-15
TP-BCP-25
TAR SEEP NO. 2
MW-BCP-19B
MW-BCP-19A
TP-BCP-50
P-25B
TP-BCP-49
TP-BCP-35
SS-BCP-16
MW-BCP-26B
MATCHLINE A0I 7 WEST

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FIGURE 4 - 51

DRAWING NUMBER
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50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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FIGURE 4 - 52

DRAWING NUMBER
AOI 1 WEST

N

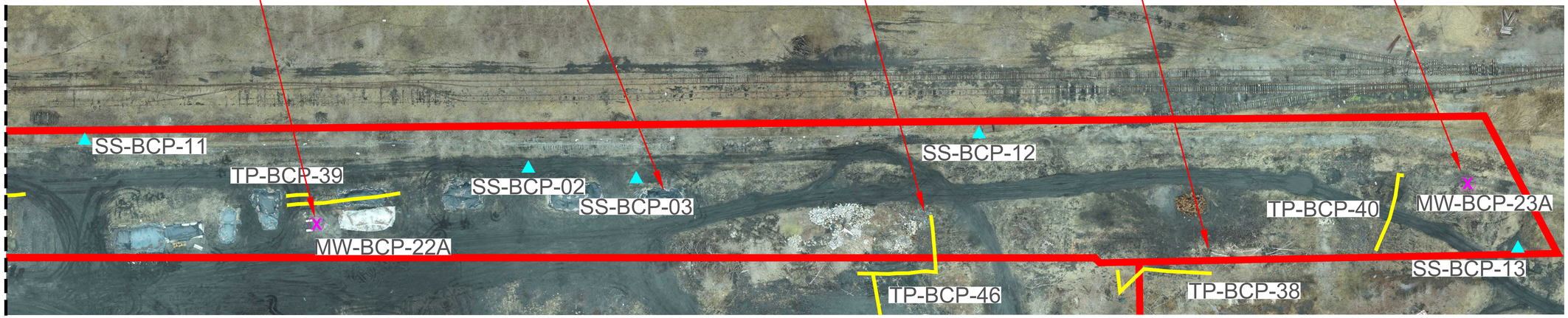
PAHs and metals in groundwater

USEPA Stockpile - PAHs and mercury

Cyanide impacted shallow groundwater

Surface PAHs at former Bethlehem Collector Main location

PAHs in shallow groundwater



50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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FIGURE 4 - 53

DRAWING NUMBER
A0I 1 EAST

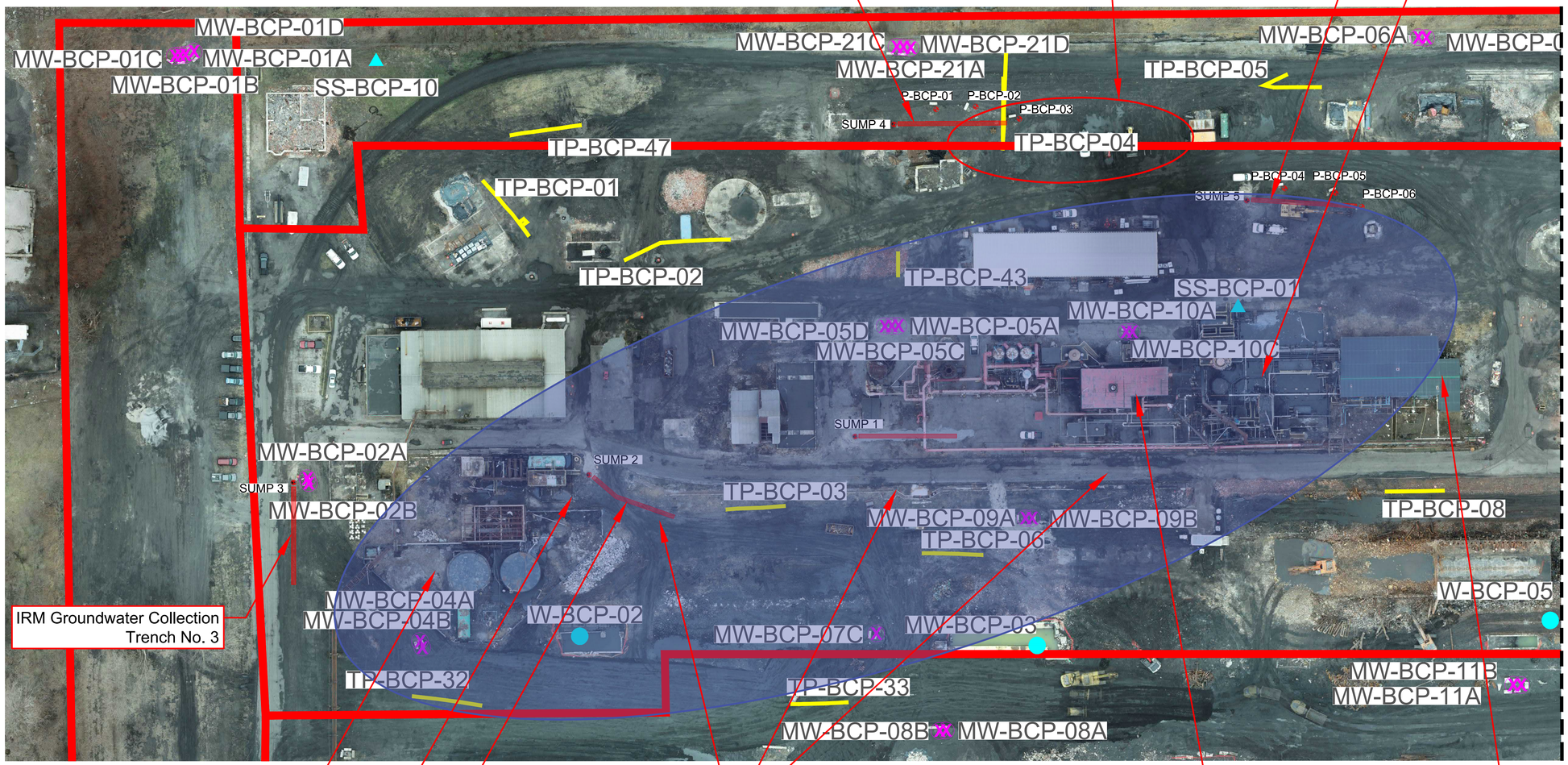

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FIGURE 4 - 54

DRAWING NUMBER
A0I 2 WEST

TPH at southeast corner of former Compressor Building

COG Pipelines to Town, City, and Huntley

Debris field - impacted shallow groundwater

N

MATCHLINE A0I 2 WEST

TP-BCP-14

TP-BCP-39

SS-BCP-02

SS-BCP-03

MW-BCP-22A

TP-BCP-46

TP-BCP-42

SS-BCP-04

SS-BCP-05

TP-BCP-12

TP-BCP-13

SS-BCP-06

MW-BCP-12A

MW-BCP-12B

P-BCP-08

TP-BCP-11

W-BCP-05

W-BCP-04

W-BCP-06

BCP-11B

CP-11A

TP-BCP-43

SS-BCP-07

SS-BCP-08

SS-BCP-09

Cyanide in shallow groundwater

Quench Pit water addressed by IRM

Purifier Box contents

Iron Oxide Pile Contents

Industrial debris and high PAHs to the top of clay

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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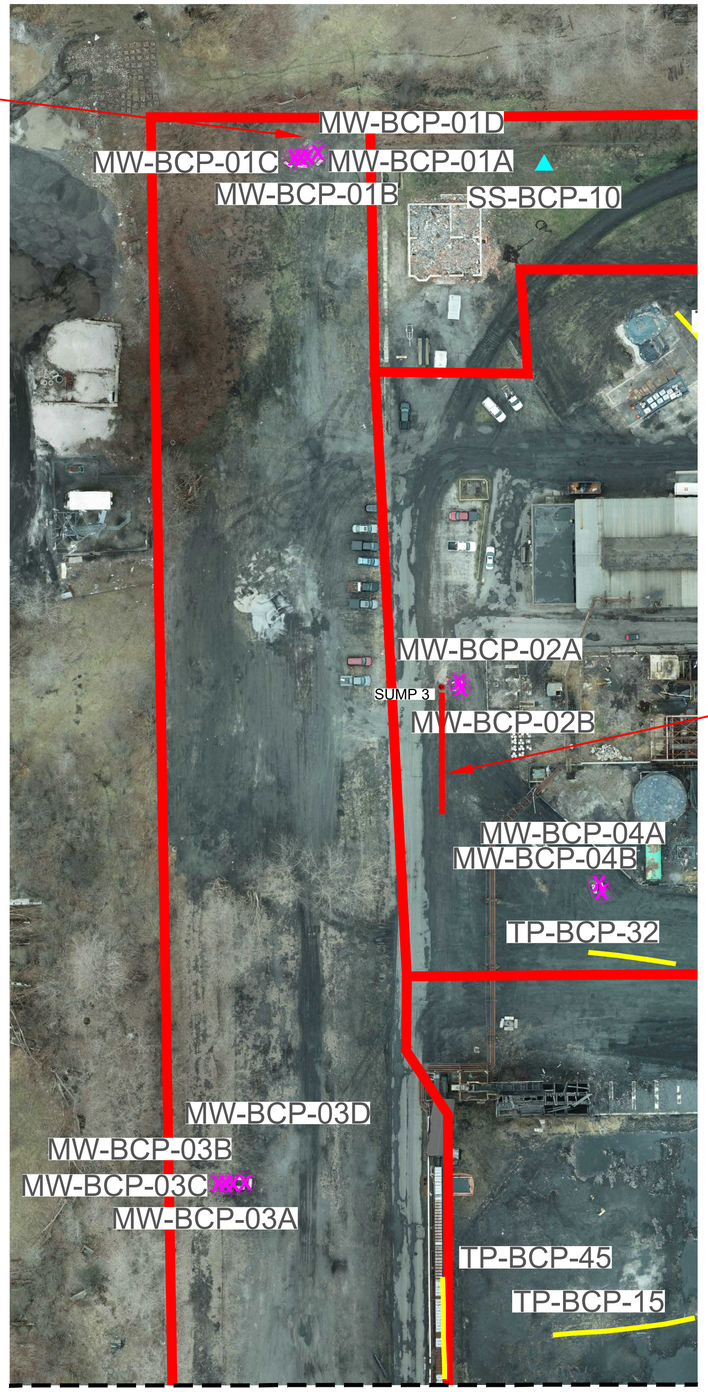
FIGURE 4 - 55

DRAWING NUMBER
A0I 2 EAST



MATCHLINE A0I 3 SOUTH

N

50 0 25 50 100 200

1 INCH = 50 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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FIGURE 4 - 56

DRAWING NUMBER
A0I 3 NORTH



N

50 0 25 50 100 200

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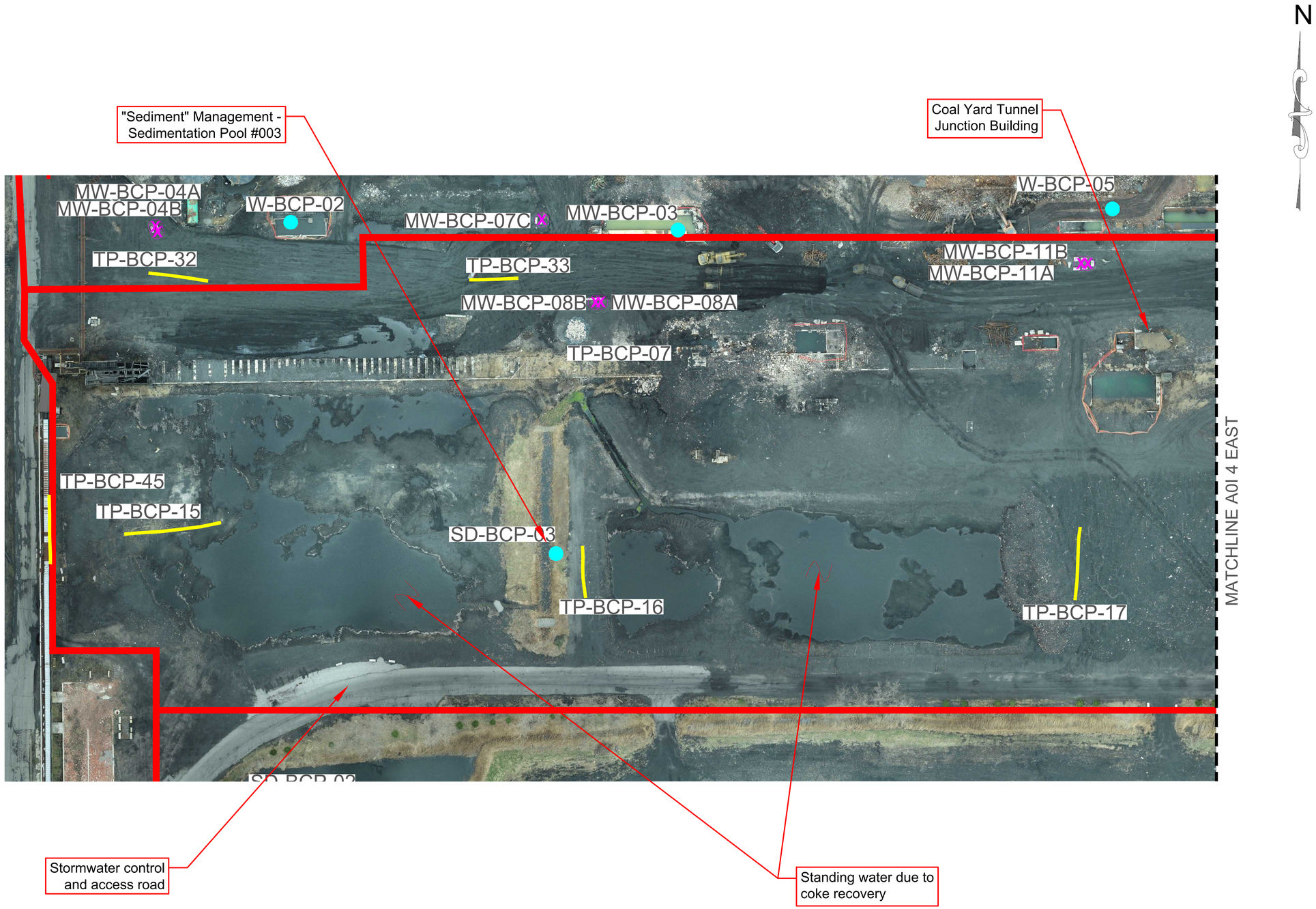
FIGURE 4 - 57

DRAWING NUMBER
A0I 3 SOUTH



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1 INCH = 50 FEET (22X34)

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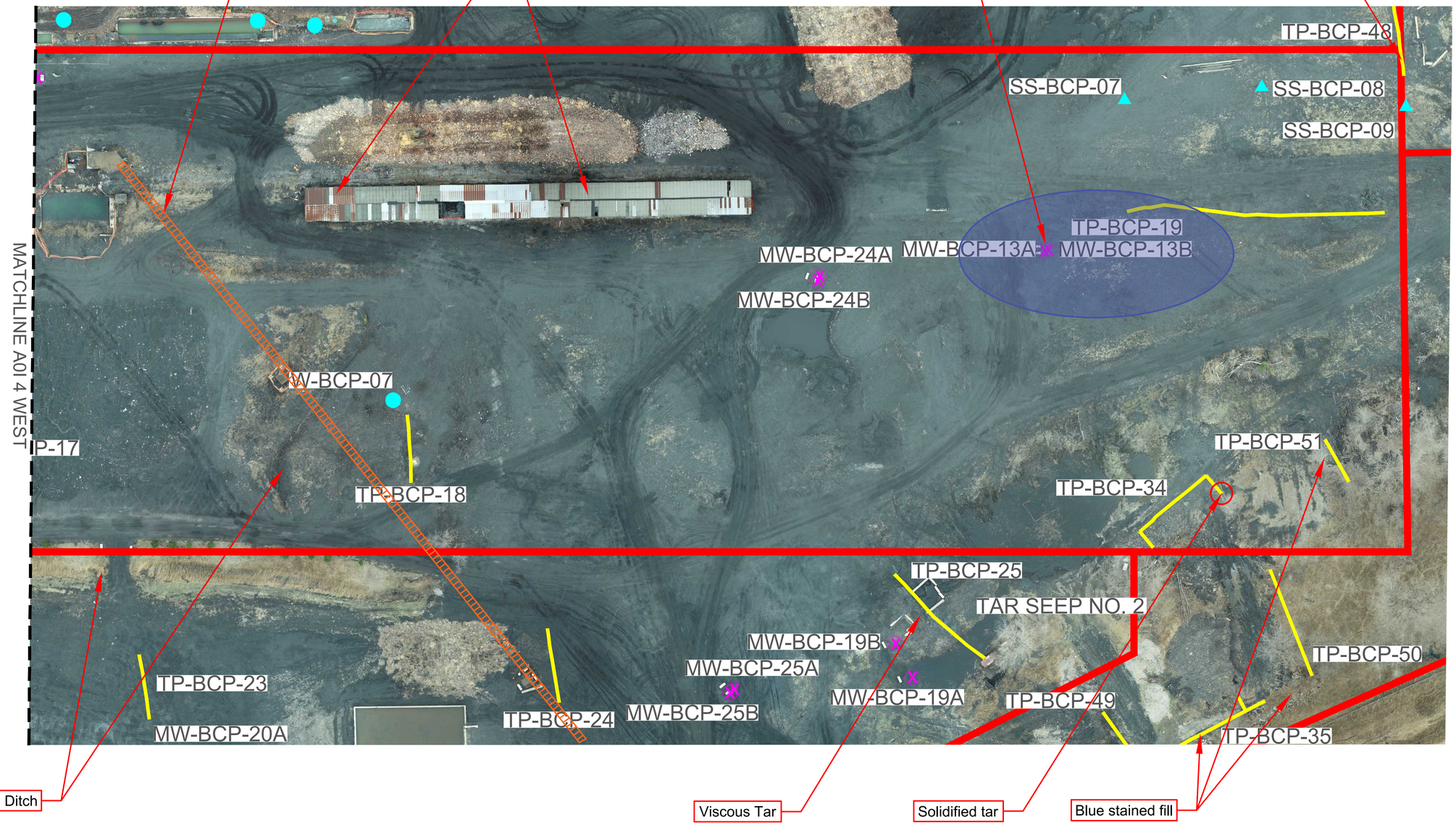
FIGURE 4 - 58

DRAWING NUMBER

A0I 4 WEST



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1 INCH = 50 FEET (22X34)

Reference: Aerial Photography by Niagara Boundary, March 2022

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FIGURE 4 - 59

DRAWING NUMBER
AOI 4 EAST



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50 0 25 50 100 200

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FIGURE 4 - 60

DRAWING NUMBER
A0I 5 WEST



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FIGURE 4 - 61

DRAWING NUMBER
A0I 5 EAST



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FIGURE 4 - 62

DRAWING NUMBER

AOI 6

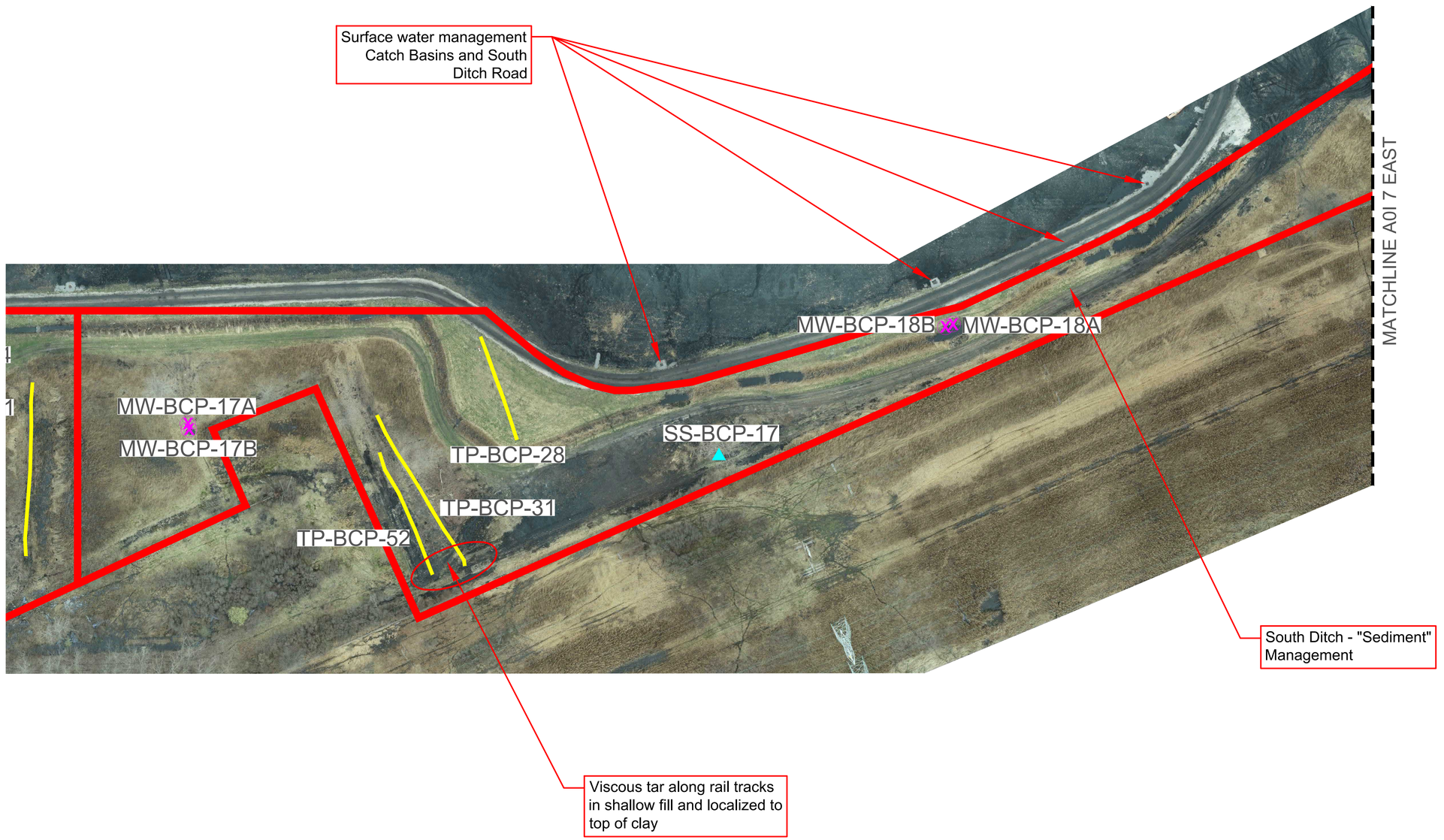

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FIGURE 4 - 63

DRAWING NUMBER
A0I 7 WEST

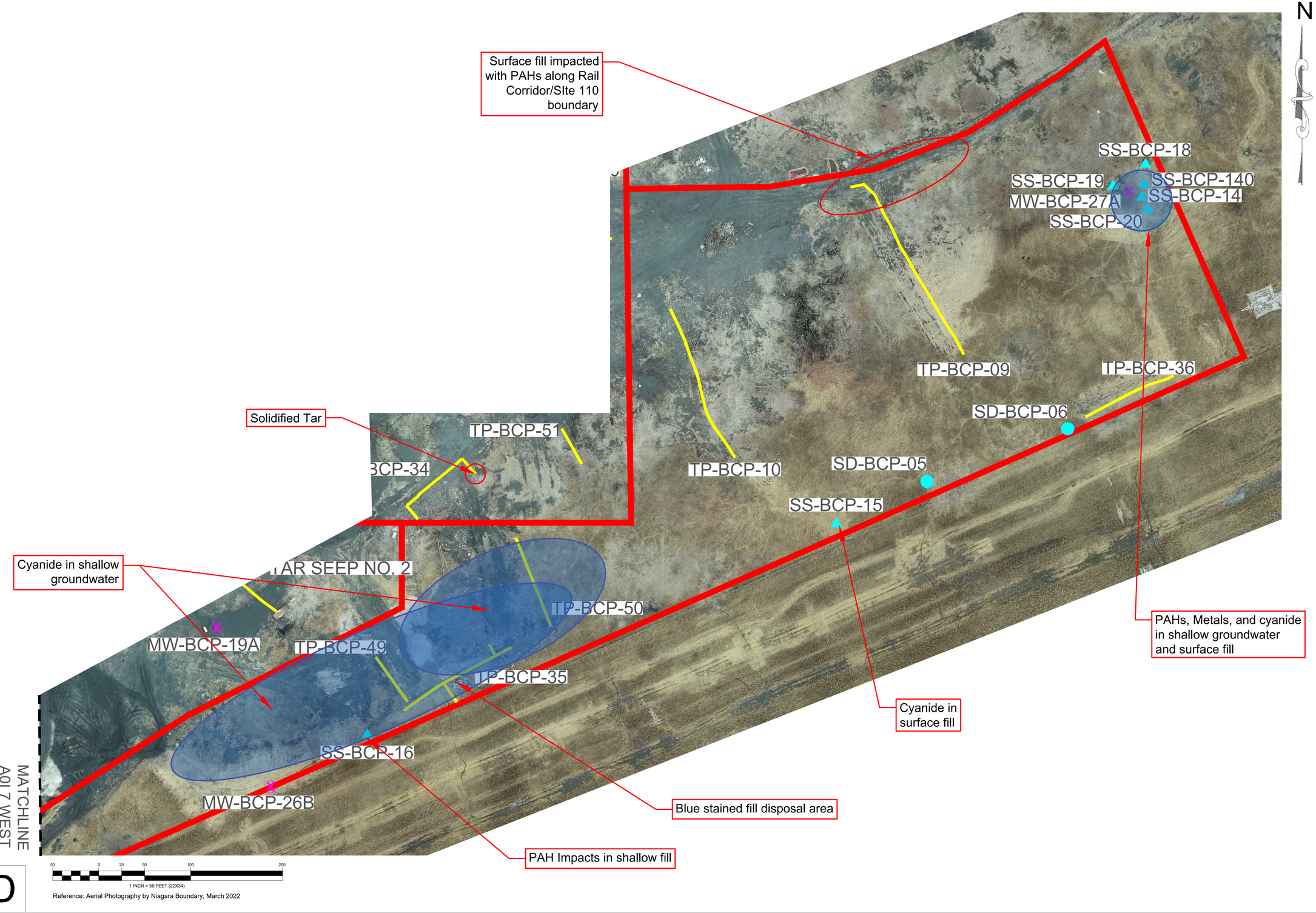

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FIGURE 4 - 64

DRAWING NUMBER
A0I 7 EAST