



June 15, 2021

Benjamin McPherson, P.E.
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270 Michigan Avenue
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Subject: Supplemental Remedial Investigation Activities
Riverview Innovation & Technology Campus
3875 River Road
Town of Tonawanda, New York
Site No. C9153353

Dear McPherson,

As you know Inventum Engineering, P.C. (Inventum), supported by Ontario Specialty Contracting (OSC) has been diligently working to complete the Remedial Investigation and the Remedial Investigation Report (RIR) for the Riverview Innovation & Technology Campus, Inc. (RITC) Brownfield Cleanup Program (BCP) Site (#C9153535) in the Town of Tonawanda, New York. The Remedial Investigation Work Plan (RIWP) had been developed to complete a comprehensive investigation of the Brownfield Cleanup Program (BCP) Site at 3875 River Road, Town of Tonawanda, New York, but recognized that the data would drive the overall site characterization.

A single bedrock monitoring well was installed. The groundwater data for this well contained no constituents that are considered coke making related above the Class GA Groundwater Standards. As stated in the RIWP it was intended that multiple bedrock wells be considered after the analytical data for the single bedrock well at MW-BCP-05D in the production area (AOI2) was reviewed. The RIWP stated that three additional deep wells at the site were anticipated to define water quality and provide an estimate of flow direction in the underlying bedrock.

Inventum is on schedule for an internal draft of the RIR this month and the data were predictably good, especially given the integrity of the clay. In order to present a complete RIR Inventum would like to fill the following identified data gaps:

- There is only one bedrock well. Inventum is proposing three more deep “D” zone to characterize the bedrock groundwater quality;
- The mounds of fill around TP-BCP-35 prevented complete delineation of the blue fill. We are proposing to delineate the extent of the blue fill;



Photograph 1: TP-BCP-35 – Typical Layer of Blue Stained Fill

Two Monitoring well clusters west of the Tar Seeps and debris areas had elevated concentrations of Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) that were not representative of the detected concentrations away from the production area (AOI2). While these are believed to be localized, two additional well clusters would further define the extent of this water bearing zone and its quality;

- The detection of concentrations of constituents on Site 110 appear to extend onto the BCP Site and additional wells are proposed to delineate the potential extent of compounds both north and south of Site 110;
- An additional well south of MW-BCP-19 and west of TP-BCP35 (blue fill) is recommended to understand shallow groundwater quality; and
- Historic drawings identify the Huntley gas supply line crossing the Plastics/BCP Site boundary near TP-BCP-31. Some have suggested there may have been a tar line in the same vicinity, although no document was found, and pipes were not encountered in TP-BCP-31. A test pit is being proposed along the property line to determine if any abandoned pipes are located in this area.

We are proposing to conduct the supplemental investigation activities as a field change request under the existing RIWP.

The proposed scope of work includes the following:



1. North Rail Corridor (AOI1)
 - a. A monitoring well cluster labeled MW-BCP-21 A, C, and D located north of the MW-BCP-05 cluster. This would be a three well cluster (a shallow, medium-deep, and deep) that is intended to bound the constituents detected at MW-BCP-05 along the property line. Three soil/fill samples will be collected from the MW-BCP-21D boring consisting of a fill sample, clay at 4-feet below the fill/clay interface, and the C-screen interval (Approximately 30 to 40-feet bgs). The samples will be analyzed as shown in Table 1.
 - b. A shallow monitoring well (MW-BCP-23A) at the east end of AOI1 to put a northern and eastern boundary limit for the constituents detected in MW-06-2020 on Site 110. Three samples will be collected; one at the ground surface, a fill sample, and a clay sample at the clay/fill interface. The samples will be analyzed in accordance with Table 1.
2. Production Area (AOI2)
 - a. A single shallow Monitoring Well (MW-BCP-22A) west of the former compressor building in an area downgradient of TP-BCP-46. Water samples from TP-BCP-46 contained elevated concentrations for semi-volatile organic compounds (SVOCs) and cyanide. Two samples will be collected; one in the fill and one sample from the clay at the clay/fill interface. The samples will be analyzed for the suite of constituents in Table 1.
3. Parking Lot (AOI3)
 - a. Two deep wells adjacent to monitoring well clusters MW-BCP-01 and MW-BCP-03. The Deep wells will create a complete four stage cluster at each location, allow estimation of groundwater macro flow direction in the bedrock, and will provide additional property line data. Soil samples are not required in these borings.
4. Coke Yard (AOI4)
 - a. One shallow and one medium depth well (MW-BCP-24 A and B) downgradient of the two well MW-BCP-13 cluster. The boring for MW-BCP-13 was the only well set in a boring that encountered low viscosity Tar. Both the shallow and medium depth well groundwater samples contained constituents that exceeded the Class GA groundwater standards. Two samples will be collected; one from the fill and one from the clay at the clay/fill interface. The samples will be analyzed in accordance with Table 1.
5. Coal Yard (AOI5)
 - a. One Shallow and one Medium depth well (MW-BCP-25A and B) downgradient of the two well MW-BCP-19 cluster. Both the shallow and medium depth well groundwater samples contained constituents that exceeded the Class GA groundwater standards. Two samples will be collected; one from fill and one from the clay at the clay/fill interface. The samples will be analyzed in accordance with Table 1.
6. South Drainage (AOI7)
 - a. Relocation of portions of the large stockpiles along the south property line north of the TP-BCP-35 location. The materials will remain in the vicinity of the current piles but will be moved to the north and east, away from the



property line and away from the suspected area of the blue fill. The movement of the fill piles will provide an opportunity to visually classify the materials in those piles.

- b. Two test pits (TP-BCP-49 and TP-BCP-50) to define the limits of the blue stained fill identified in TP-BCP-35. Three samples will be collected from each test pit consisting of a ground surface sample, stained material sample, and a clay sample below the stained material. The samples will be analyzed in accordance with the parameters in Table 2 using both Analytical Methods for Cyanide (Free and Insoluble).
 - c. One test pit (TP-BCP-51) extending from the southeast corner of TP-BCP-34 to determine if any mobile tar exists in this area.
 - d. One Test Pit (TP-BCP-52) along the property line with the former Plastics plant east of the flare. The test pit will be excavated to investigate the elevated PAHs detected in TP-BCP-31 and to attempt to determine if the former tar and gas lines still exit at this location. The test pit will start at the former south rail line as the pipes appear to have been installed within 3- to 5-feet of the track.
 - e. Installation of a Shallow and Medium depth monitoring well (MW-BCP-26 A and B) downgradient and along the property line from the blue stained fill deposit. This well will bound the constituents detected in samples from MW-BCP-19 A and B (which included cyanide). Two samples will be collected; one sample from fill and one sample from the clay at the clay/fill interface. The samples will be analyzed in accordance with Table 1.
Note: If blue stained fill is noted in the boring, the boring will be advanced until non-stained fill is encountered, and a sample will be collected for cyanide analysis. The well cluster will then be moved further west and installed in borings with no blue staining.
 - f. One Shallow monitoring well (MW-BCP-27A) at the east property line. This well will provide property line data and bound the data from the Site 110 monitoring wells.
7. Ground and Surface Water Elevation Measurements
- a. In collaboration with Parsons, a complete set of ground and surface water measurements will be collected on the same day from the monitoring wells on the BCP Site (60 monitoring wells), the surface water staff gauges on the BCP Site (9), and the monitoring wells on Sites 109 and 110.
8. Groundwater Quality Testing
- a. Collection of a complete round of groundwater samples from all monitoring wells. The samples will include the existing monitoring wells and the supplemental monitoring wells. The supplemental well samples will be tested for the suite of parameters in accordance with Table 1 of this work plan and the existing RI Monitoring Wells will be tested in accordance with the suite of parameters in Table 5 in the RIWP. All sampling and testing will be in accordance with the protocols in the approved RIWP.
 - b. The samples from three medium depth wells (MW-BCP-01B, MW-BCP-03B, and MW-BCP-21 C) will be sampled for both total and filtered metals.
 - c. Monitoring wells MW-BCP-24 A and B and MW-BCP-25 A and B will be sampled for natural attenuation parameters:



Field Parameters:

DO
ORP
pH

Groundwater Chemistry:

Total nitrogen
Nitrate
Total iron
Dissolved Iron
Ferrous iron
Sulfate
Sulfide
Methane
Total organic carbon
Chloride
Alkalinity

The driller that conducted the RI sampling is available June 21th. By conducting this work in this time frame we believe the overall project schedule can be expedited as it will allow production of a more complete RIR this year for your review and comments. The target date would be October 2021 for a draft RIR.

Please let us know what you think of the approach and scope.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "John P. Black", is centered on a light yellow rectangular background.

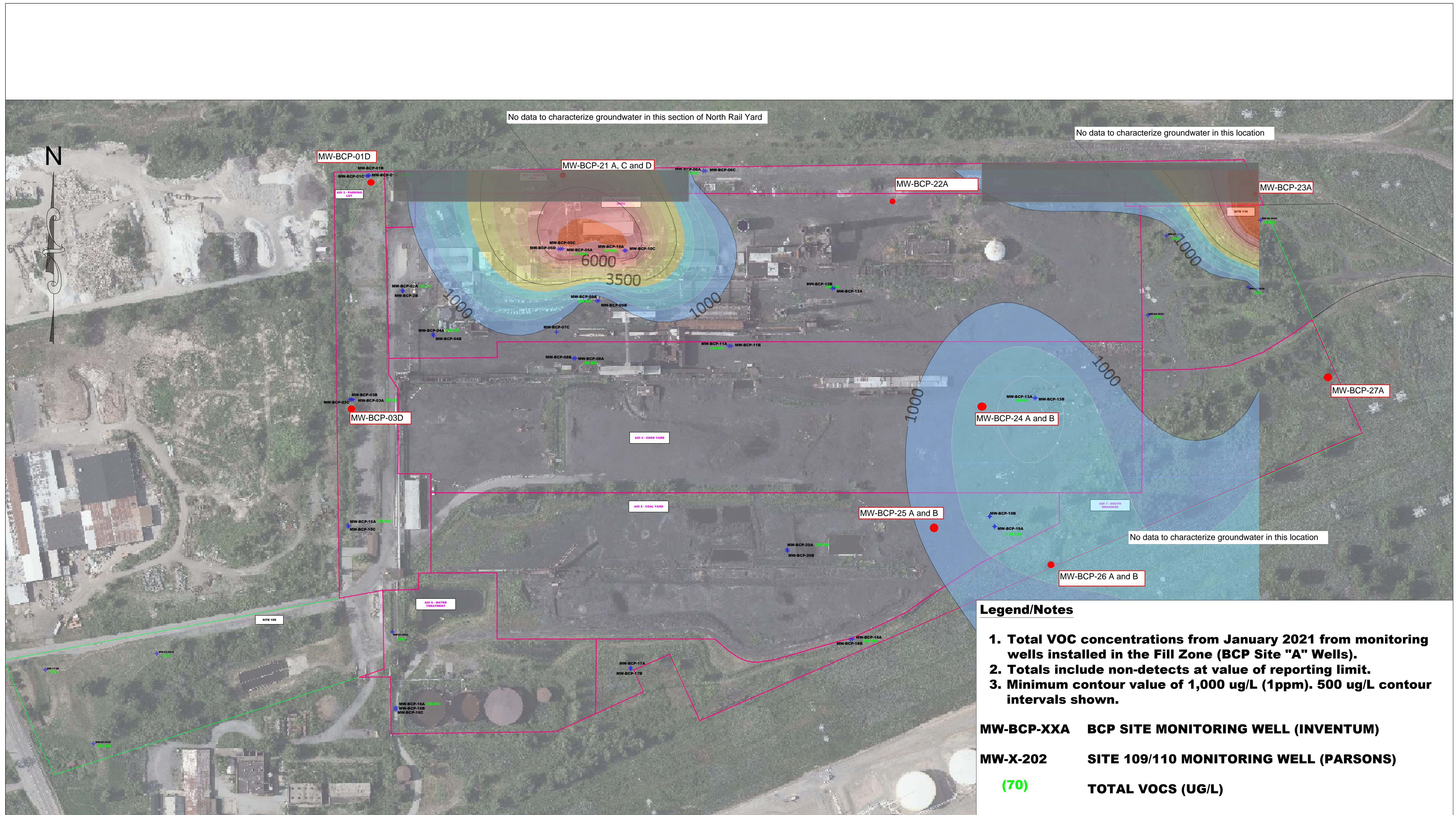
John P. Black
Partner

Attachments



Table - 2
 Supplemental Test Pits
 Remedial Investigation
 Riverview Innovation Technology Campus, Inc.
 Town of Tonawanda, New York

Plant Subsection AOI	Cell Location	Sample ID	Rationale/Specific Requirements	Test Pit Depth	Soil Samples	Sample Depth	Soil Sample Analysis													
				(Feet)	Formation		VOCs	SVOCs	Cyanide	PCBs	Metals	Mercury	Pesticides/Herbi- cides	PFAS & 1,4- Dioxane						
	Supplemental RI Sampling																			
AOI 7 - South Drainage	AR23 to AS24	TP-BCP-49	Assess Western extent of the blue fill	5	Shallow fill	0 - 1 feet	1	1	1		1	1								
					Blue Fill	TBD	1	1	1		1	1								
					Clay	Top of Clay	1	1	1		1	1								
AOI 7 - South Drainage	AX21 to AZ19	TP-BCP-50	Assess Eastern extent of the blue fill	5	Shallow fill	0 - 1 feet	1	1	1		1	1								
					Blue Fill	TBD	1	1	1		1	1								
					Clay	Top of Clay	1	1	1		1	1								
AOI 7 - South Drainage	BA14 to BB18	TP-BCP-51	Assess Southern Extent of Hard Tar in TP-BCP-36	5	Shallow fill	0 - 1 feet	1	1	1		1	1								
					Clay	Top of Clay	1	1	1		1	1								
AOI 7 - South Drainage	W34 to U31	TP-BCP-52	Investigate Area of former Tar pipeline.	5	Shallow fill	0 - 1 feet	1	1	1		1	1								
					Clay	Top of Clay	1	1	1		1	1								
Totals							10	10	10	0	10	10	0	0	0	0	0	0	0	



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PROPOSED PHASE 1A MONITORING WELLS
 PERCHED WATER ISOCONCENTRATION MAP - "A" ZONE
 TOTAL VOCs (ug/L)

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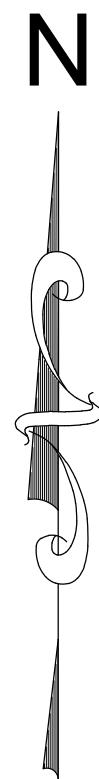
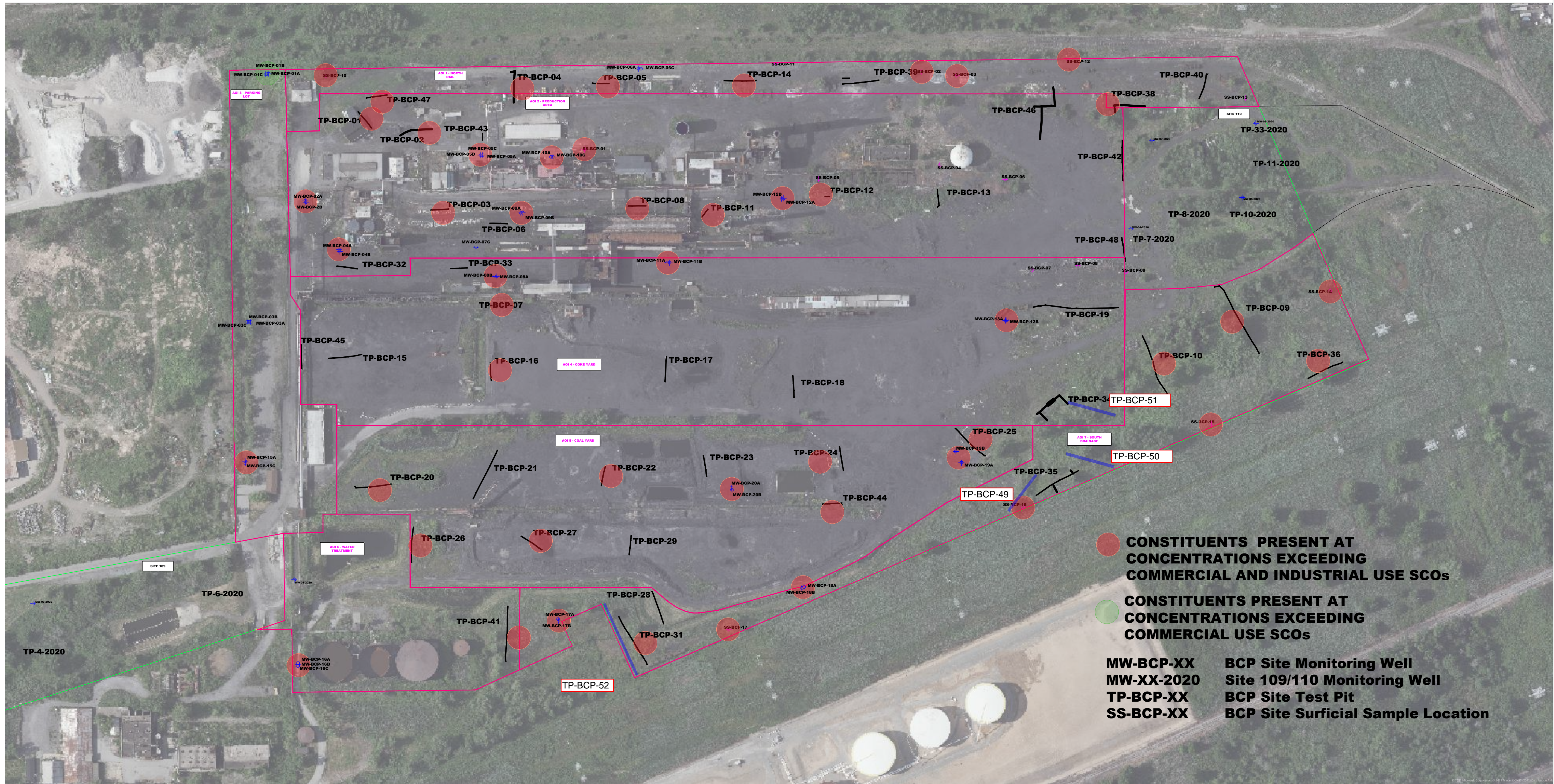
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FIGURE 1
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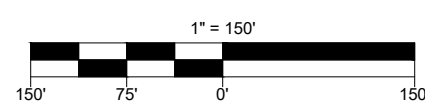
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1" = 200'

200' 100' 0' 200'



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Soil Cleanup Objective Exceedances - SVOCs
 Fill Soils
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- CONSTITUENTS PRESENT AT CONCENTRATIONS EXCEEDING COMMERCIAL AND INDUSTRIAL USE SCOs
- CONSTITUENTS PRESENT AT CONCENTRATIONS EXCEEDING COMMERCIAL USE SCOs
- MW-BCP-XX** BCP Site Monitoring Well
- MW-XX-2020** Site 109/110 Monitoring Well
- TP-BCP-XX** BCP Site Test Pit
- SS-BCP-XX** BCP Site Surficial Sample Location

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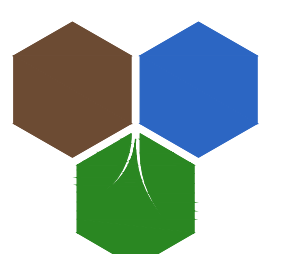


FIGURE X1 (3)

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