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From: John Black <john.black@inventumeng.com>
Sent: Tuesday, April 11, 2023 4:26 PM
To: Mcpherson, Benjamin J (DEC); Martin, Angela L (HEALTH)
Cc: Roxanne Birx; Peter Zaffram
Subject: Test Pits
Attachments: PDIWP Tables Rev 3 02 07 2023 _ TPs Before Lifting Slabs.xlsx; Figure 2-1 Addtl TPs April 2023.pdf

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Ben,

The test pits we are hoping to start next week are included in the attached figure and table. If we make good progress, I added TPs TP-BCP-66 to TP-BCP-70 as options while I have access to the excavator.

The plan is to fly in Monday night to Tuesday morning depending on how the baby is doing (I have a grandson due on Thursday)

I will update my travel and the TP schedule as it firms up.

John

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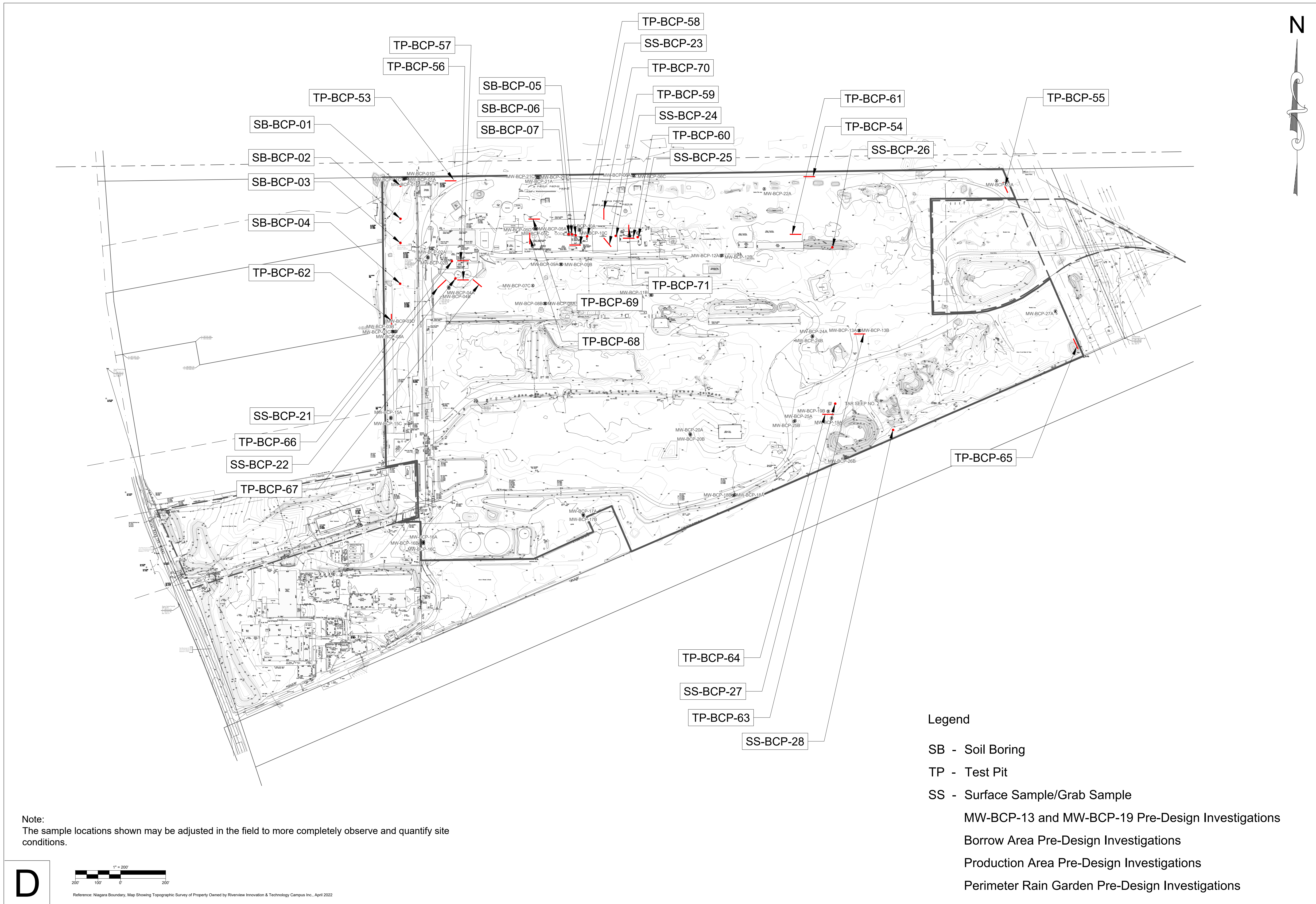
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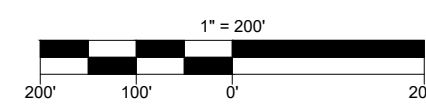
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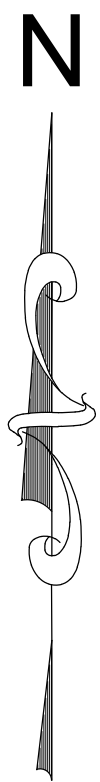


Note:
 The sample locations shown may be adjusted in the field to more completely observe and quantify site conditions.

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Reference: Niagara Boundary, Map Showing Topographic Survey of Property Owned by Riverview Innovation & Technology Campus Inc., April 2022



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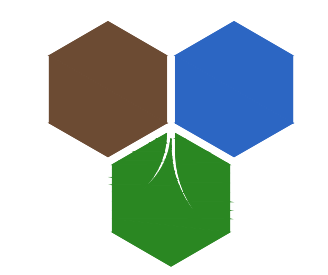


FIGURE 2 - 1
 APRIL 2023



Table 2-3
 Test Pits and Soil Borings
 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	Ammonia	Pesticides/Herbicides	PFAS	Geotechnical Parameters
AOI 1 - North Rail Corridor		TP-BCP-53	Northeastern entrance of proposed retention pond	8	Shallow fill	0 - 1 feet	Observation Only - Quantity of Fill to be relocated. Shift to east if in Cover Test Plot borrow pit.									
			Upper Clay Quality		Clay	Top of Clay	1	1	1	1	1	1		1	1	1
AOI 1 - North Rail Corridor		TP-BCP-54	Assess the soil/fill along the north property line	5	Shallow fill	0 - 1 feet	Observation Only - Quantity of Fill to be relocated.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 1 - North Rail Corridor		TP-BCP-55	Assess the soils in the Northeast Corner for removal	5	Shallow fill	0 - 1 feet	Observation Only - Quantity of Fill to be relocated.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-56	Assess extent of impacted fill in Light Oil Area	5	Shallow fill	0 - 1 feet	Quantity of Fill to be relocated, presence and extent of NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-57	Assess extent of impacted fill in Weak Ammonia Tank Area	5	Shallow fill	0 - 1 feet	Quantity of Fill to be relocated, presence and extent of NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-58	Assess extent of impacted fill in Exhauster Building Area	5	Shallow fill	0 - 1 feet	Quantity of Fill to be relocated, presence and extent of NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-59	Assess extent of impacted fill in Tar Management Area	5	Shallow fill	0 - 1 feet	Quantity of Fill to be relocated, presence and extent of NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-60	Assess extent of impacted fill in Pump House Area		Shallow fill	0 - 1 feet	See Sampling and Analysis Work Plan, Former Pump House									
					Clay	Top of Clay										
AOI 2 - Production Area		TP-BCP-61	Assess extent of impacted fill in Compressor Building Area	5	Shallow fill	0 - 1 feet	Quantity of Fill to be relocated, presence and extent of NAPL suspected based on former tank location.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									



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				(Feet)	Formation		VOCs	SVOCs	Cyanide	PCBs	Metals	Mercury	Ammonia	Pesticides/Herbicides	PFAS	Geotechnical Parameters
AOI 3 - Parking Lot		TP-BCP-62	Property Line west of Coke Wharf	5	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated along property line									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 4 - Coke Yard		TP-BCP-63	Downgradient of MW-BCP-13B	30	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated									
					Clay	Screen Depth	1	1	1			1	1			
AOI 5 - Coal Yard		TP-BCP-64	Downgradient of MW-BCP-19B	20	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated									
					Clay	Screen Depth	1	1	1			1	1			
AOI 7 - South Drainage		TP-BCP-65	Southeast corner, fill removal area	5	Surface Soil	0 - 1 feet	Observation Only - Quantity of Fill to be relocated.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-66	West of Light Oil Area	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-67	East of Light Oil Area	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-68	North of Collection Trench, Near MW-BCP-5A if Safe	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-69	West of Green Warehouse	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL. Near TP-BCP-43 heading west. Note: Very high odor and NAPL in TP-BCP-43.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-70	North of Tar Management Area	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL north of Tar Management Area. If viscous tar or NAPL, add east west section to define quantity.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									
AOI 2 - Production Area		TP-BCP-71	North of Pump House.	5	Shallow fill	0 - 1 feet	Observation Only - Extent of Tar and NAPL. Could be heat exchanger pads from Wash Oil cooling. If NAPL, add east west section to define quantity.									
					Clay	Top of Clay	Observation Only - Assess Potential Clay/Fill Interface Impact									



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				(Feet)	Formation		VOCs	SVOCs	Cyanide	PCBs	Metals	Mercury	Ammonia	Pesticides/Herbicides	PFAS	Geotechnical Parameters
AOI 3 - Parking Lot		SB-BCP-01	Clay Borrow Evaluation	25	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated from borrow area									
					Clay	2-, 7-, 12- and 17-feet below top of clay	4	4		4	4			4	1	1
AOI 3 - Parking Lot		SB-BCP-02	Clay Borrow Evaluation	25	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated from borrow area									
					Clay	2-, 7-, 12- and 17-feet below top of clay	4	4		4	4			4	1	1
AOI 3 - Parking Lot		SB-BCP-03	Clay Borrow Evaluation	25	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated from borrow area									
					Clay	2-, 7-, 12- and 17-feet below top of clay	4	4		4	4			4	1	1
AOI 3 - Parking Lot		SB-BCP-04	Clay Borrow Evaluation	25	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated from borrow area									
					Clay	2-, 7-, 12- and 17-feet below top of clay	4	4		4	4			4	1	1



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				(Feet)	Formation		VOCs	SVOCs	Cyanide	PCBs	Metals	Mercury	Ammonia	Pesticides/Herbicides	PFAS	Geotechnical Parameters
AOI 2 - Former Production Area		SB-BCP-05	Secondary Cooler Sump Investigation (Outside Sump)	40	Shallow fill	N/A	Observation Only - Quantity of Fill to be relocated to remove sump									
					Clay	15, and 40-ftbgs	2	2	2	2	2	2	1	0	0	0
AOI 2 - Former Production Area		SB-BCP-06	Secondary Cooler Sump Investigation (Through Gravel Fill)	40	Gravel Fill	N/A	Observation Only - Quantity of Fill to be relocated to decontaminate sump									
					Residual	Below Fill	1	1	1	1	1	1	1	0	0	0
AOI 2 - Former Production Area		SB-BCP-07	Western Sump Investigation (Residual Only)	25	Aqueous Phase	N/A	Observation Only - Volume of water to be treated, note any color or sheen									
					Clay	25-ftbgs	1	1	1	1	1	1	1	0	0	0
Totals							22	24	8	22	22	8	7	18	4	4