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Our Project: 11208041

September 02, 2021

Mr. Zachary Sasnow
Corrective Action Project Manager – U.S EPA, Region 5
77 West Jackson Boulevard DW-8J
Chicago, Illinois
60604 3590

Additional IU-H Soil Sampling Results Summary
EPA ID#MID 041 793 340
RACER Nodular Facility – Saginaw, Michigan

Dear Mr. Sasnow

This letter presents the results of the Additional IU-H Soil Sampling at Revitalizing Auto Communities Environmental Response Trust's (RACER's) Former Nodular Industrial Lands (Site) in Saginaw, Michigan. The field sampling was completed on June 29, 2021 in accordance with the Scope of Work approved by the United States Environmental Protection Agency (U.S. EPA) on June 4, 2021 (SOW).

The following figures, tables and attachments were prepared in support of the results summary:

Figure 1	Soil Sample Locations
Table 1	Borehole Completion and Sampling Summary
Attachment A	Field Stratigraphic Logs
Attachment B-1	Screened Soil Results Summary – SB-1-21 Area
Attachment B-2	Screened Soil Results Summary – SB-2-21 Area
Attachment C-1	Ecological Screening Results – SB-1-21 Area
Attachment C-2	Ecological Screening Results – SB-2-21 Area
Attachment D	Data Validation Memorandum and Laboratory Analytical Report

1. Background

In response to the April 20, 2018 Soil Evaluation Memorandum, U.S. EPA provided comments on August 31, 2018 noting two previous sample locations at the south end of IU-H (IU-H South) that warranted further investigation; SB-05542 (herein referred to as Area 1) and MW-05443 (herein referred to as Area 2). A response to U.S. EPA comments was submitted November 26, 2018 identifying that the two areas would be further investigated. Area 1 and Area 2 are presented in Figure 1.

The 4-6 feet below ground surface (ft BGS) interval in soil boring SB-05542 (Area 1) was sampled on June 13, 2000 and was the only sample listed in GHD's Soil Evaluation Memorandum dated April 20, 2018 that was analyzed for Petroleum Hydrocarbons (PHCs). Analytical results identified detections of diesel and lube oil PHCs in the soil in this sample. As part of the same sampling event, SB-05542 was also tested for Volatile Organic Carbons (VOCs) in the 4-6 ft BGS interval but had no detections. The other sampling intervals at this location (0-2 ft BGS and 2-4 ft BGS) were not analyzed for PHCs or VOCs.

Soil samples collected from MW-05443 (Area 2) during installation in 1998 had a cyanide detection of 3.3 mg/kg which exceeded the DRAFT 2017 Non-Residential Michigan Department of Environment, Great Lakes, and Energy (EGLE) Part 201 criteria for Non-Residential Infinite Source Volatile Soil Inhalation Criteria (1.9 mg/kg) in the 0-2 ft BGS interval. Due to the high detection limit, vertical delineation was not possible with the currently available data. Note the draft 2017 criteria were not adopted.

2. Field Sampling Procedure

GHD initially mobilized to the Site on June 21, 2021 to complete the SOW; however, shallow refusal (approximately 2 ft BGS) was encountered at both locations. Additional equipment was required to complete the SOW and as a result the soil sampling was rescheduled for June 29, 2021. Upon remobilization, boreholes were completed using direct push technology (Geoprobe). At locations where shallow concrete was encountered, concrete was cored, and boreholes advanced through the concrete. In total, 8 soil borings were completed as presented in Figure 1. Field stratigraphic logs are presented Attachment A. Borehole depths and sampling intervals are summarized in Table 1.

Table 1 Borehole Completion and Sampling Summary

Borehole	Total Depth	Sample Interval #1		Sample Interval #2		Sample Interval #3	
		Depth	Analyzed	Depth	Analyzed	Depth	Analyzed
	(ft BGS)	(ft BGS)	(Y/N)	(ft BGS)	(Y/N)	(ft BGS)	(Y/N)
SB-1-21-I	13	0-2	Y	4-6	Y	10-12	Y
SB-1-21-II	5 (refusal)	0-2	Y	4-5	Y	--	--
SB-1-21-III	13	0-2	Y	4-6	Y	10-12	Y
SB-1-21-IV	13	0-2	Y	4-6	Y	10-12	Y
SB-2-21-I	4 (refusal)	0-1.3	Y	3-4	Y	--	--
SB-2-21-II	7 (refusal)	0-1.3	Y	4-6	Y	--	--
SB-2-21-III	4 (refusal)	0-1.3	Y	3-4	Y	--	--
SB-2-21-IV	4 (refusal)	0-1.3	Y	3-4	Y	--	--

SB-1-21 Area

At the approximate location of former soil boring SB-05542, one investigative location was advanced (SB-1-21-I) along with three 10-foot step-outs borings (SB-1-21-II, SB-1-21-III and SB-1-21-IV). At all locations concrete was encountered at approximately 2ft BGS; secondary refusal was encountered at SB-1-21-II at 5 ft BGS and the borehole was terminated. The remaining three locations were terminated following contact with native materials at approximately 13 ft BGS. All samples were submitted to Eurofins TestAmerica's North Canton, Ohio Laboratory for Semi-Volatile Organic Compounds (SVOCs) analysis, with step-out samples placed on hold. Shallow soil samples were also submitted for analysis of Total Organic Carbon (TOC) and Black Carbon. Table 1 presents a summary the final sample analyzes performed. Discussion of the rationale for which samples were analyzed is presented in Section 3.

Throughout the investigation, no indications of impact were encountered outside of the proposed sampling intervals (PID readings, visible staining, or other indicators) and therefore no additional discretionary sampling was conducted. PID readings were all zero and therefore no samples were submitted for analysis of VOCs.

SB-2-21 Area

At the approximate location of monitoring well MW-05443, one investigative location was advanced (SB-2-21-I) along with three 10-foot step-outs borings (SB-2-21-II, SB-2-21-III and SB-2-21-IV). At all locations concrete was encountered approximately 1.3ft BGS; secondary refusal was encountered at all locations at 4-7 ft BGS and the boreholes were terminated. All samples were submitted to Eurofins TestAmerica's North Canton, Ohio Laboratory for Total Cyanide analysis, with step-out samples placed on hold. Shallow soil samples were also submitted for analysis of TOC and Black Carbon. Table 1 presents a summary the final sample analyzes performed. Discussion of the rationale for which samples were analyzed is presented in Section 3.

Throughout the investigation, no indications of impact were encountered outside of the proposed sampling intervals (PID readings, visible staining, or other indicators) and therefore no additional discretionary sampling was conducted.

3. Screening Levels

Soil sample results from each location were compared to the following EGLE non-residential clean-up criteria requirements for response activity (December 30, 2013):

a. Residential/Non-Residential Statewide Default Background Levels
b. Non-Residential Soil Volatilization to Indoor Air Inhalation Criteria
c. Non-Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC)
d. Non-Residential Finite VSIC for 5-meter source thickness
e. Non-Residential Finite VSIC for 2-meter source thickness
f. Particulate Soil Inhalation Criteria
g. Direct Contact Criteria

In addition, the samples collected from the 0 to 2 ft BGS interval were also screened against Ecological Screening Values (ESVs) for risks to aquatic benthos, consistent with the January 4, 2019 Ecological Screening Assessment for Isolated Wetlands Recently Formed in IU G which include:

a. U.S. EPA Final Chronic Values (FCVs) from 2003 and 2008
b. Region 4 ESVs

Note that the screening levels above are functions of TOC, and the average TOC for the SVOC-sampled location of 1.4% was used to derive ESVs for detected PAHs and phenol. Hence, the actual ESVs used in this screening might be slightly different from those used in the 2019 screening.

4. Results Summary

Soil sampling was completed in the vicinity of SB-05542 and MW-05443, as presented in Figure 1. The soil sample results, screened against the EGLE non-residential cleanup criteria requirements for response activity (December 30, 2013), for the SB-1-21 Area and the SB-2-21 Area are presented in Attachment B-1 and B-2, respectively. The ecological screening results for the SB-1-21 Area and the SB-2-21 area are presented in Attachment C-1 and C-2, respectively. The data validation memorandum is presented in Attachment D.

The following sections summarize the results.

4.1 SB-1-21 Area Results

Soil samples in the vicinity of SB-05542 were analyzed for SVOCs, TOC, and Black Carbon. Samples from SB-1-21-I were initially analyzed; however, due to SVOC detections within the samples at SB-1-21-I, the remaining held samples were also analyzed.

No exceedances of EGLE non-residential clean-up criteria were identified.

One constituent (phenol) nominally exceeded, by 2.6% the Region 4 ESV (0.244 mg/kg) in one of four shallow (0-2 ft BGS) soil samples. The concentration of phenol within the shallow soil samples at SB-1-21-I, SB-1-21-II, SB-1-21-III, and SB-1-21-IV respectively are 0.25, 0.16, 0.081, and non-detect at a concentration of 0.058 mg/kg. The average concentration of phenol across the samples is 0.13 mg/kg (assuming ½ detection level for a non-detect result). The mean screening quotient (SQ; concentration/ESV) for the area is 0.7 and max SQ is 1.0. Note that the ESV is a function of organic carbon, but this screening level was not adjusted upward to account for the detectable concentration of black carbon. As described elsewhere, black carbon has much higher binding capacity for organic substances than other types of organic matter.

It is also unlikely that the phenol would even be in the biologically active zone for aquatic benthos, which is the basis of the ESV. Phenol will typically not persist in surface soils or sediments, consequently the results are likely representative of soil/sediments below the biologically active zone (0 - 0.5 ft BGS). Furthermore, the location of the phenol sample which nominally exceeded the ESV is central to the region characterized by the step-out samples; thereby limiting the potential vertical extent of any elevated concentrations.

As a result, no ecological or human health risks are anticipated, and no further action is recommended.

4.2 SB-2-21 Area Results

Soil samples in the vicinity of MW-05443 were analyzed for Total Cyanide, TOC, and Black Carbon. Samples from SB-2-21-I were initially analyzed; however, due to Total Cyanide detection within the samples at SB-2-21-I, the remaining held samples were also analyzed.

All Total Cyanide results were above Statewide Default Background Levels; however, no other exceedances of EGLE non-residential clean-up criteria or ecological screening values were identified.

No sediment ESV for Total Cyanide could be found. However, Total Cyanide in sediments includes the toxic free cyanide, which is usually quite rare, along with non-toxic bound simple cyanides and metallo- and organo-cyanide complexes. Free cyanides, in general, "are not persistent in the environment due to their volatility, low adsorption to sediment particles, and high water-solubility" (WDNR 2003)[1]. Therefore, if significant amounts of free cyanide were contained in sediments, these would not be expected to persist without significant ongoing sources.

Therefore, no ecological or human health risks are anticipated, and no further action is recommended.

[1] WDNR. 2003. Consensus-Based Sediment Quality Guidelines: Recommendations for Use & Application. Wisconsin Department of Natural Resources. December, 2003.

5. Conclusions

Across both areas, only one nominal exceedance of screening levels was identified within the analyzed constituents (phenol). The average concentration of phenol was below the of ESV. Therefore, there are no Site-related concentrations in soil that represent a potential for significant exposure to on- or off-site receptors.

In conclusion, no further action is warranted for these two areas.

Should you have any questions, please do not hesitate to call.

Regards

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Engineer

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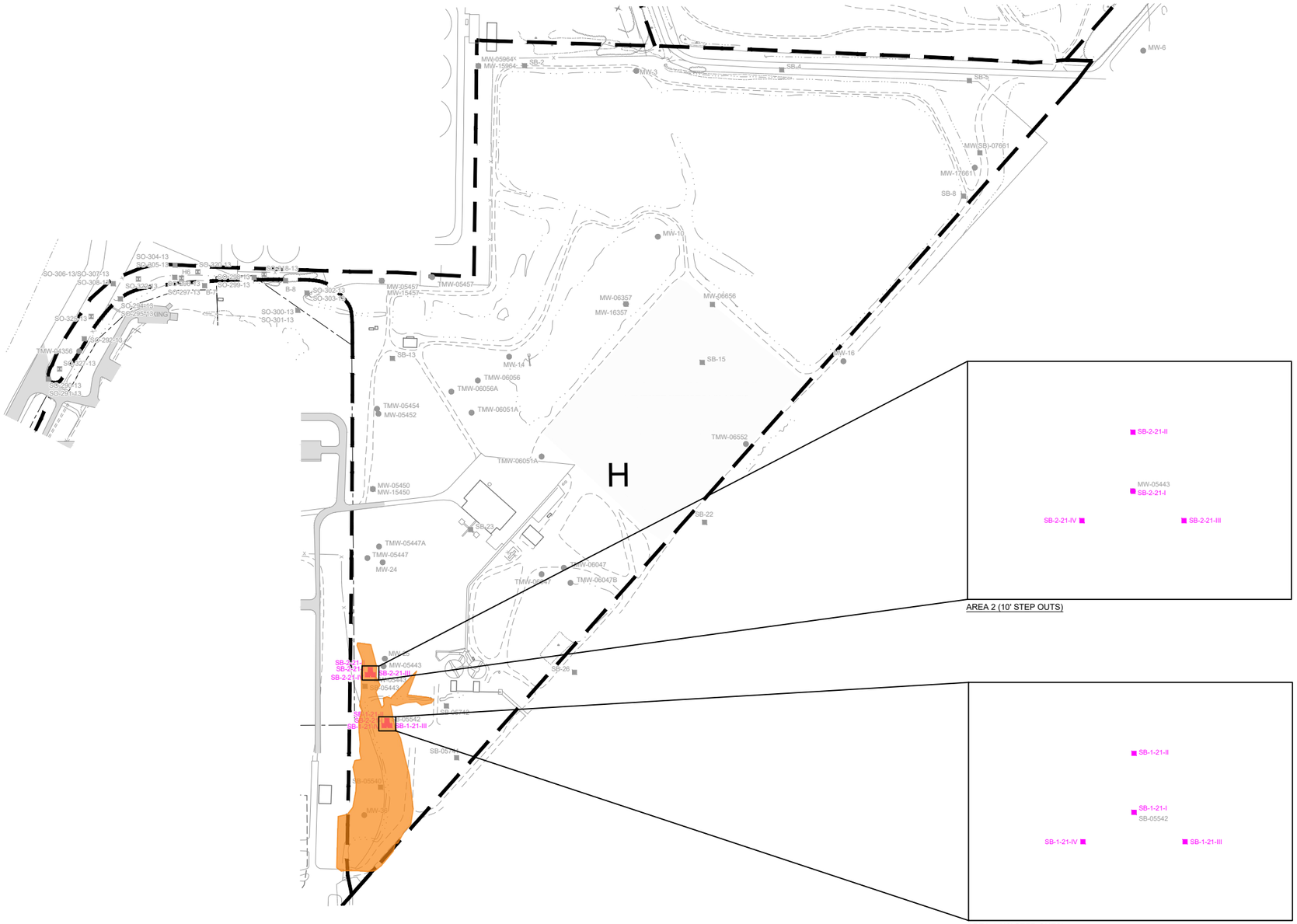
john-eric.pardys@ghd.com

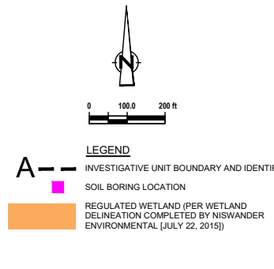
JEP/kf/9

Encl.

Copy to: Dave Favero, RACER
Michael Tomka, GHD

AREA	ANALYTES
SB-1-21	SVOCs
SB-2-21	Cyanide





KEY MAP

0 100.0 200 ft

LEGEND

A — INVESTIGATIVE UNIT BOUNDARY AND IDENTIFIER

SOIL BORING LOCATION

REGULATED WETLAND (PER WETLAND DELINEATION COMPLETED BY NISWANDER ENVIRONMENTAL (JULY 22, 2015))

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

RACER
NODULAR IRON INDUSTRIAL LAND

SAGINAW, MICHIGAN

SOIL BORING LOCATIONS

GHD

Source Reference:
MICHIGAN STATE PLANE SOUTH, NAD 83 USING INTERNATIONAL FEET, NGVD 88
TOPO - SANBORN, 1996

Project Manager:	Reviewed By:	Date:	
M.T.	J.E.P.	MAY 2021	
Scale: 1" = 50'	**Project N°:** 11208041	**Report N°:** SASNOW-09	**Drawing N°:** figure 1

Attachments

Attachment A

Field Stratigraphic Logs

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-1-21-1
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoeviemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		2	foundry sand black, med grain, debris,		geoprobe							0-2	0.0		
2		3	concrete												
3			foundry sand												
4		5	moist to wet									4-6	0.0		
		11.5													
												10-12	0.0		
11.5		13	grey sand, wet, shells, trace silt + gravel												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-1-21-11
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoevemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		2	foundry sand black, med grain, debris		geoprobe							0-2	0.0		
2		4	concrete												
4		5	foundry sand									4-5	0.0		
	5		refusal												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-1-21-111
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoevemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		2	foundry sand black, med grain, debris		geoprobe							0-2	0.0		
2		3	concrete												
3			foundry sand												
4		5	wet									4-6	0.0		
		11													
												10-12	0.0		
11		13	grey sand, wet, trace silt + gravel, shells												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-1-21-IV
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hevenmeyer

Stratigraphic Intervals (Depths in ft/m BGS) From	At	To	Sample Description: Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors. Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	Penetration Record Split Spoon Blows (Record N-Values & Recoveries) 6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		2	foundry sand black, med grain, debris		geoprobe							0-2	0.0		
2		3	concrete												
3			foundry sand												
4		5	wet									4-6	0.0		
	5	12	moist to dry												
												10-12	0.0		
12		13	grey sand, wet, shells trace silt + gravel												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-2-21-1
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoeiemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details												
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)								Chemical Analysis	Grain Size/ Other Analysis
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)		
0		1.3	foundry sand black, med grain, debris		geoprobe							0-1.3	0.0		
1.3		3	concrete												
3		4	foundry sand									3-4	0.0		
	4		refusal												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-2-21-11
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoeiemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details												
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors. Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To		Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		1.3	foundry sand, black,		geoprobe							0-1.3	0.0		
			med grain, debris												
1.3		3	concrete												
3			foundry sand									4-6	0.0		
4		5	wet												
		7													
	7		refusal												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation: SB-2-21-111
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Hoeiemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		1.3	foundry sand black, med grain, debris		geoprobe							0-1.3	0.0		
1.3		3	concrete												
3		4	foundry sand									3-4	0.0		
	4		refusal												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Stratigraphy Log (Overburden)
(Form SP-14)
Page 1 of 1

Project name: RacerTrust Nodular
Project number: 11208041
Client:
Location: Saginaw, MI

Drilling contractor: GHD
Driller:
Surface elevation:
Weather (A.M.):
(P.M.):

Hole designation:
Date/Time started: 6/29/21
Date/Time completed:
Drilling method: geoprobe
GHD supervisor: S. Heiemeyer

Stratigraphic Intervals (Depths in ft/m BGS)			Sample Description	Sample Details											
			Order of descriptors: Soil type symbol(s) - primary component(s), (nature of deposit), secondary components, relative density/consistency, grain size/plasticity, gradation/structure, colour, moisture content, supplementary descriptors.			Penetration Record Split Spoon Blows (Record N-Values & Recoveries)									
From	At	To	Note: Plasticity determination requires the addition of moisture if the sample is too dry to roll (indicate if moisture was added or not).	Sample Number	Sampling Method	6"	6"	6"	6"	N	R	Sample Interval	PID/FID (ppm)	Chemical Analysis	Grain Size/ Other Analysis
0		1.3	foundry sand black, med grain, debris		geoprobe							0-1.3	0.0		
1.3		3	concrete												
3		4	foundry sand									3-4	0.0		
	4		refusal												

Notes and Comments

Depth of borehole caving _____ Depth of first groundwater encounter _____ Topsoil thickness _____
Water level in open borehole on completion _____ After _____ Hours _____
Notes: _____

Attachment B

Screened Soil Results Summary

Attachment B-1

SB-1-21 Area

Table B-1

Screened Soil Results Summary – SB-1-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Sample Location:									SB-1-21-IA	SB-1-21-IB	SB-1-21-IC	SB-1-21-IIA
Sample ID:									S-11208041-062921-SSH-12IIA	S-11208041-062921-SSH-12IIB	S-11208041-062921-SSH-12IIC	S-11208041-062921-SSH-12IIIA
Sample Date:									06/29/2021	06/29/2021	06/29/2021	06/29/2021
Sample Depth:									(0-2) ft BGS	(4-6) ft BGS	(10-12) ft BGS	(0-2) ft BGS
Parameters	**Units**	**RES/NonRES / Statewide Default Background Level a**	**Non_RES/Ambient Air_Finite VSIC_2M Srce Thickness b**	**Non_RES/Ambient Air_Finite VSIC_5M Thickness c**	**Non_RES/Ambient Air_InfiniteSrceVolatileSoilInhalation d**	**Non_RES/Direct Contact e**	**Non_RES/IndoorAir_SoilVolatilization_IndAirInhalation f**	**Non_RES/Particulate Soil Inhalation g**				
SVOCs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.12 U	0.11 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	73000	-	10000000	0.17 U	0.17 U	0.18 U	0.17 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	3300	-	1300000	0.17 U	0.17 U	0.18 U	0.17 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	3900	-	2300000	0.17 U	0.17 U	0.18 U	0.17 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	36000	-	2100000	0.17 U	0.17 U	0.18 U	0.17 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	0.38 U	0.38 U	0.41 U	0.37 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	220	-	20000	0.23 U	0.23 U	0.25 U	0.22 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	0.23 U	0.23 U	0.25 U	0.22 U
2-Chloronaphthalene	mg/kg	-	-	-	-	180000	-	-	0.058 U	0.058 U	0.061 U	0.056 U
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	800	530000	0.058 U	0.058 U	0.061 U	0.056 U
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	4900	290000	0.19	0.14	0.024	0.21
2-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.23 U	0.23 U	0.25 U	0.22 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.23 U	0.25 U	0.22 U
2-Nitrophenol	mg/kg	-	-	-	-	2000	-	-	0.058 U	0.058 U	0.061 U	0.056 U
3&4-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.46 U	0.46 U	0.49 U	0.45 U
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	30	-	8200	0.12 U	0.12 U	0.12 U	0.11 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.23 U	0.25 U	0.22 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	260	-	59000	0.38 U	0.38 U	0.41 U	0.37 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.058 U	0.058 U	0.061 U	0.056 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	15000	-	-	0.17 U	0.17 U	0.18 U	0.17 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	0.17 U	0.17 U	0.18 U	0.17 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.058 U	0.058 U	0.061 U	0.056 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.23 U	0.25 U	0.22 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	0.38 U	0.38 U	0.41 U	0.37 U
Acenaphthene	mg/kg	-	97000	97000	97000	130000	350000	6200000	0.017 U	0.017 U	0.018 U	0.017 U
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	3000	1000000	0.017 U	0.017 U	0.018 U	0.017 U
Acetophenone	mg/kg	-	52000	52000	52000	150000	210000	14000000	0.12 U	0.12 U	0.12 U	0.11 U
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	1000000	29000000	0.017 U	0.017	0.018 U	0.017 U
Atrazine	mg/kg	-	-	-	-	330	-	-	0.23 U	0.23 U	0.25 U	0.22 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.12 U	0.11 U
Benzo(a)anthracene	mg/kg	-	-	-	-	80	-	-	0.026	0.053	0.018 U	0.03
Benzo(a)pyrene	mg/kg	-	-	-	-	8	-	1900	0.025	0.1	0.018	0.028
Benzo(b)fluoranthene	mg/kg	-	-	-	-	80	-	-	0.046	0.11	0.021	0.052
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	7000	-	350000	0.035	0.081	0.038	0.037
Benzo(k)fluoranthene	mg/kg	-	-	-	-	800	-	-	0.017 U	0.041	0.018 U	0.017 U
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	0.058 U	0.058 U	0.061 U	0.056 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.12 U	0.11 U
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	44	12000	0.12 U	0.12 U	0.12 U	0.11 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	12000	-	890000	0.081 U	0.081 U	0.086 U	0.078 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	120000	-	21000000	0.081 U	0.081 U	0.086 U	0.078 U
Caprolactam	mg/kg	-	-	-	-	310000	-	290000	0.38 U	0.38 U	0.41 U	0.37 U
Carbazole	mg/kg	-	-	-	-	2400	-	78000	0.058 U	0.058 U	0.061 U	0.056 U
Chrysene	mg/kg	-	-	-	-	8000	-	-	0.039	0.06	0.018 U	0.045
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	8	-	-	0.017 U	0.021	0.018 U	0.017 U
Dibenzofuran	mg/kg	-	160	160	160	-	3600	2900	0.058 U	0.058 U	0.061 U	0.056 U
Diethyl phthalate	mg/kg	-	-	-	-	550000	-	1500000	0.081 U	0.081 U	0.086 U	0.078 U
Dimethyl phthalate	mg/kg	-	-	-	-	1000000	-	1500000	0.081 U	0.081 U	0.086 U	0.078 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	87000	-	1500000	0.081 U	0.081 U	0.086 U	0.078 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	20000	-	14000000	0.081 U	0.081 U	0.086 U	0.078 U
Fluoranthene	mg/kg	-	880000	880000	890000	130000	1000000	4100000	0.045	0.062	0.018 U	0.057
Fluorene	mg/kg	-	150000	150000	150000	87000	1000000	4100000	0.017 U	0.017 U	0.018 U	0.017 U
Hexachlorobenzene	mg/kg	-	56	56	56	37	220	8500	0.017 U	0.017 U	0.018 U	0.017 U
Hexachlorobutadiene	mg/kg	-	460	460	460	470	710	180000	0.058 U	0.058 U	0.061 U	0.056 U
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	6700	56	5900	0.38 U	0.38 U	0.41 U	0.37 U
Hexachloroethane	mg/kg	-	1400	1400	660	730	79	100000	0.058 U	0.058 U	0.061 U	0.056 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	80	-	-	0.017 U	0.068	0.024	0.02
Isophorone	mg/kg	-	-	-	-	22000	-	8200000	0.058 U	0.058 U	0.061 U	0.056 U
Naphthalene	mg/kg	-	350	350	350	52000	470	88000	0.13	0.17	0.018 U	0.13
Nitrobenzene	mg/kg	-	64	64	64	340	170	21000	0.12 U	0.12 U	0.12 U	0.11 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	5.4	-	2000	0.058 U	0.058 U	0.061 U	0.056 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	7800	-	2800000	0.058 U	0.058 U	0.061 U	0.056 U
Pentachlorophenol	mg/kg	-	-	-	-	320	-	130000	0.17 U	0.17 U	0.18 U	0.17 U
Phenanthrene	mg/kg	-	190	190	190	5200	5100	2900	0.12	0.12	0.018 U	0.11
Phenol	mg/kg	-	-	-	-	230000	-	18000000	0.25	0.065	0.061 U	0.16
Pyrene	mg/kg	-	780000	780000	780000	84000	1000000	2900000	0.037	0.054	0.018 U	0.048
Wet												
Black carbon	mg/kg	-	-	-	-	-	-	-	2600	-	-	3100
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	9300	-	-	14000

Footnotes:
U Not detected at the associated reporting limit.

Table B-1

Screened Soil Results Summary – SB-1-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Sample Location:									**SB-1-21-IIB**	**SB-1-21-IIIA**	**SB-1-21-IIIB**	**SB-1-21-IIIC**
Sample ID:									**S-11208041-062921-SSH-12IIIB**	**S-11208041-062921-SSH-12IIIIA**	**S-11208041-062921-SSH-12IIIIB**	**S-11208041-062921-SSH-12IIIIC**
Sample Date:									**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Sample Depth:									**(4-5) ft BGS**	**(0-2) ft BGS**	**(4-6) ft BGS**	**(10-12) ft BGS**
Parameters	**Units**	**RES/NonRES / Statewide Default Background Level a**	**Non_RES/Ambient Air_Finite VSIC_2M Srce Thickness b**	**Non_RES/Ambient Air_Finite VSIC_5M Thickness c**	**Non_RES/Ambient Air_InfiniteSrceVolatileSoilInhalation d**	**Non_RES/Direct Contact e**	**Non_RES/IndoorAir_SoilVolatilization_IndAirInhalation f**	**Non_RES/Particulate Soil Inhalation g**				
SVOCs												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U	0.12 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	73000	-	10000000	0.18 U	0.18 U	0.19 U	0.18 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	3300	-	1300000	0.18 U	0.18 U	0.19 U	0.18 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	3900	-	2300000	0.18 U	0.18 U	0.19 U	0.18 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	36000	-	2100000	0.18 U	0.18 U	0.19 U	0.18 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	0.4 U	0.4 U	0.42 U	0.4 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	220	-	20000	0.25 U	0.24 U	0.26 U	0.24 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	0.25 U	0.24 U	0.26 U	0.24 U
2-Chloronaphthalene	mg/kg	-	-	-	-	180000	-	-	0.061 U	0.06 U	0.064 U	0.06 U
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	800	530000	0.061 U	0.06 U	0.064 U	0.06 U
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	4900	290000	0.15	0.16	0.12	0.042
2-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.25 U	0.24 U	0.26 U	0.24 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.25 U	0.24 U	0.26 U	0.24 U
2-Nitrophenol	mg/kg	-	-	-	-	2000	-	-	0.061 U	0.06 U	0.064 U	0.06 U
3&4-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.49 U	0.48 U	0.51 U	0.48 U
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	30	-	8200	0.12 U	0.12 U	0.13 U	0.12 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.25 U	0.24 U	0.26 U	0.24 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	260	-	59000	0.4 U	0.4 U	0.42 U	0.4 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.061 U	0.06 U	0.064 U	0.06 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	15000	-	-	0.18 U	0.18 U	0.19 U	0.18 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	0.18 U	0.18 U	0.19 U	0.18 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.061 U	0.06 U	0.064 U	0.06 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.25 U	0.24 U	0.26 U	0.24 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	0.4 U	0.4 U	0.42 U	0.4 U
Acenaphthene	mg/kg	-	97000	97000	97000	130000	350000	6200000	0.024	0.018 U	0.048	0.018 U
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	3000	1000000	0.018 U	0.018 U	0.019 U	0.018 U
Acetophenone	mg/kg	-	52000	52000	52000	150000	210000	14000000	0.12 U	0.12 U	0.13 U	0.12 U
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	1000000	29000000	0.031	0.018 U	0.13	0.049
Atrazine	mg/kg	-	-	-	-	330	-	-	0.25 U	0.24 U	0.26 U	0.24 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U	0.12 U
Benzo(a)anthracene	mg/kg	-	-	-	-	80	-	-	0.097	0.024	0.4	0.25
Benzo(a)pyrene	mg/kg	-	-	-	-	8	-	1900	0.13	0.032	0.46	0.3
Benzo(b)fluoranthene	mg/kg	-	-	-	-	80	-	-	0.16	0.041	0.56	0.35
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	7000	-	350000	0.093	0.029	0.3	0.21
Benzo(k)fluoranthene	mg/kg	-	-	-	-	800	-	-	0.054	0.018 U	0.19	0.13
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	0.061 U	0.06 U	0.064 U	0.06 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U	0.12 U
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	44	12000	0.12 U	0.12 U	0.13 U	0.12 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	12000	-	890000	0.086 U	0.084 U	1.3	0.084 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	120000	-	21000000	0.086 U	0.084 U	0.09 U	0.084 U
Caprolactam	mg/kg	-	-	-	-	310000	-	290000	0.4 U	0.4 U	0.42 U	0.4 U
Carbazole	mg/kg	-	-	-	-	2400	-	78000	0.061 U	0.06 U	0.064 U	0.06 U
Chrysene	mg/kg	-	-	-	-	8000	-	-	0.11	0.031	0.44	0.27
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	8	-	-	0.025	0.018 U	0.075	0.043
Dibenzofuran	mg/kg	-	160	160	160	-	3600	2900	0.061 U	0.06 U	0.064 U	0.06 U
Diethyl phthalate	mg/kg	-	-	-	-	550000	-	1500000	0.086 U	0.084 U	0.09 U	0.084 U
Dimethyl phthalate	mg/kg	-	-	-	-	1000000	-	1500000	0.086 U	0.084 U	0.09 U	0.084 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	87000	-	1500000	0.086 U	0.084 U	0.09 U	0.084 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	20000	-	14000000	0.086 U	0.084 U	0.09 U	0.084 U
Fluoranthene	mg/kg	-	880000	880000	890000	130000	1000000	4100000	0.26	0.034	1	0.68
Fluorene	mg/kg	-	150000	150000	150000	87000	1000000	4100000	0.03	0.018 U	0.065	0.022
Hexachlorobenzene	mg/kg	-	56	56	56	37	220	8500	0.018 U	0.018 U	0.019 U	0.018 U
Hexachlorobutadiene	mg/kg	-	460	460	460	470	710	180000	0.061 U	0.06 U	0.064 U	0.06 U
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	6700	56	5900	0.4 U	0.4 U	0.42 U	0.4 U
Hexachloroethane	mg/kg	-	1400	1400	660	730	79	100000	0.061 U	0.06 U	0.064 U	0.06 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	80	-	-	0.071	0.019	0.26	0.17
Isophorone	mg/kg	-	-	-	-	22000	-	8200000	0.061 U	0.06 U	0.064 U	0.06 U
Naphthalene	mg/kg	-	350	350	350	52000	470	88000	0.18	0.12	0.13	0.051
Nitrobenzene	mg/kg	-	64	64	64	340	170	21000	0.12 U	0.12 U	0.13 U	0.12 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	5.4	-	2000	0.061 U	0.06 U	0.064 U	0.06 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	7800	-	2800000	0.061 U	0.06 U	0.064 U	0.06 U
Pentachlorophenol	mg/kg	-	-	-	-	320	-	130000	0.18 U	0.18 U	0.19 U	0.18 U
Phenanthrene	mg/kg	-	190	190	190	5200	5100	2900	0.18	0.081	0.62	0.25
Phenol	mg/kg	-	-	-	-	230000	-	18000000	0.26	0.19	0.13	0.06 U
Pyrene	mg/kg	-	780000	780000	780000	84000	1000000	2900000	0.21	0.03	0.89	0.56
Wet												
Black carbon	mg/kg	-	-	-	-	-	-	-	-	3800	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	-	7400	-	-

Footnotes:
U Not detected at the associated reporting limit.

Table B-1

Screened Soil Results Summary – SB-1-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Sample Location:									SB-1-21-IVA	SB-1-21-IVB	SB-1-21-IVC
Sample ID:									S-11208041-062921-SSH-12IIVA	S-11208041-062921-SSH-12IIVB	S-11208041-062921-SSH-12IIVC
Sample Date:									06/29/2021	06/29/2021	06/29/2021
Sample Depth:									(0-2) ft BGS	(4-6) ft BGS	(10-12) ft BGS
Parameters	**Units**	**RES/NonRES / Statewide Default Background Level a**	**Non_RES/Ambient Air_Finite VSIC_2M Srce Thickness b**	**Non_RES/Ambient Air_Finite VSIC_5M Thickness c**	**Non_RES/Ambient Air_InfiniteSrceVolatileSoilInhalation d**	**Non_RES/Direct Contact e**	**Non_RES/IndoorAir_SoilVolatilization_IndAirInhalation f**	**Non_RES/Particulate Soil Inhalation g**			
SVOCs											
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U
2,4,5-Trichlorophenol	mg/kg	-	-	-	-	73000	-	10000000	0.18 U	0.18 U	0.19 U
2,4,6-Trichlorophenol	mg/kg	-	-	-	-	3300	-	1300000	0.18 U	0.18 U	0.19 U
2,4-Dichlorophenol	mg/kg	-	-	-	-	3900	-	2300000	0.18 U	0.18 U	0.19 U
2,4-Dimethylphenol	mg/kg	-	-	-	-	36000	-	2100000	0.18 U	0.18 U	0.19 U
2,4-Dinitrophenol	mg/kg	-	-	-	-	-	-	-	0.39 U	0.41 U	0.43 U
2,4-Dinitrotoluene	mg/kg	-	-	-	-	220	-	20000	0.23 U	0.25 U	0.26 U
2,6-Dinitrotoluene	mg/kg	-	-	-	-	-	-	-	0.23 U	0.25 U	0.26 U
2-Chloronaphthalene	mg/kg	-	-	-	-	180000	-	-	0.058 U	0.062 U	0.065 U
2-Chlorophenol	mg/kg	-	1100	1100	1100	4500	800	530000	0.058 U	0.062 U	0.065 U
2-Methylnaphthalene	mg/kg	-	1800	1800	1800	26000	4900	290000	0.14	0.19	0.21
2-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.23 U	0.25 U	0.26 U
2-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.25 U	0.26 U
2-Nitrophenol	mg/kg	-	-	-	-	2000	-	-	0.058 U	0.062 U	0.065 U
3&4-Methylphenol	mg/kg	-	-	-	-	36000	-	2900000	0.47 U	0.49 U	0.52 U
3,3'-Dichlorobenzidine	mg/kg	-	-	-	-	30	-	8200	0.12 U	0.12 U	0.13 U
3-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.25 U	0.26 U
4,6-Dinitro-2-methylphenol	mg/kg	-	-	-	-	260	-	59000	0.39 U	0.41 U	0.43 U
4-Bromophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.058 U	0.062 U	0.065 U
4-Chloro-3-methylphenol	mg/kg	-	-	-	-	15000	-	-	0.18 U	0.18 U	0.19 U
4-Chloroaniline	mg/kg	-	-	-	-	-	-	-	0.18 U	0.18 U	0.19 U
4-Chlorophenyl phenyl ether	mg/kg	-	-	-	-	-	-	-	0.058 U	0.062 U	0.065 U
4-Nitroaniline	mg/kg	-	-	-	-	-	-	-	0.23 U	0.25 U	0.26 U
4-Nitrophenol	mg/kg	-	-	-	-	-	-	-	0.39 U	0.41 U	0.43 U
Acenaphthene	mg/kg	-	97000	97000	97000	130000	350000	6200000	0.058	0.019	0.019 U
Acenaphthylene	mg/kg	-	2700	2700	2700	5200	3000	1000000	0.018 U	0.018 U	0.019 U
Acetophenone	mg/kg	-	52000	52000	52000	150000	210000	14000000	0.12 U	0.12 U	0.13 U
Anthracene	mg/kg	-	1600000	1600000	1600000	730000	1000000	29000000	0.024	0.018 U	0.019 U
Atrazine	mg/kg	-	-	-	-	330	-	-	0.23 U	0.25 U	0.26 U
Benzaldehyde	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U
Benzo(a)anthracene	mg/kg	-	-	-	-	80	-	-	0.24	0.041	0.029
Benzo(a)pyrene	mg/kg	-	-	-	-	8	-	1900	0.51	0.06	0.043
Benzo(b)fluoranthene	mg/kg	-	-	-	-	80	-	-	0.6	0.083	0.056
Benzo(g,h,i)perylene	mg/kg	-	-	-	-	7000	-	350000	0.22	0.024	0.029
Benzo(k)fluoranthene	mg/kg	-	-	-	-	800	-	-	0.2	0.024	0.021
Biphenyl (1,1-Biphenyl)	mg/kg	-	-	-	-	-	-	-	0.058 U	0.062 U	0.065 U
bis(2-Chloroethoxy)methane	mg/kg	-	-	-	-	-	-	-	0.12 U	0.12 U	0.13 U
bis(2-Chloroethyl)ether	mg/kg	-	13	13	13	58	44	12000	0.12 U	0.12 U	0.13 U
bis(2-Ethylhexyl)phthalate (DEHP)	mg/kg	-	-	-	-	12000	-	890000	0.082 U	0.086 U	0.091 U
Butyl benzylphthalate (BBP)	mg/kg	-	-	-	-	120000	-	21000000	0.082 U	0.086 U	0.091 U
Caprolactam	mg/kg	-	-	-	-	310000	-	290000	0.39 U	0.41 U	0.43 U
Carbazole	mg/kg	-	-	-	-	2400	-	78000	0.058 U	0.062 U	0.065 U
Chrysene	mg/kg	-	-	-	-	8000	-	-	0.25	0.052	0.035
Dibenz(a,h)anthracene	mg/kg	-	-	-	-	8	-	-	0.067	0.018 U	0.019 U
Dibenzofuran	mg/kg	-	160	160	160	-	3600	2900	0.058 U	0.062 U	0.065 U
Diethyl phthalate	mg/kg	-	-	-	-	550000	-	1500000	0.082 U	0.086 U	0.091 U
Dimethyl phthalate	mg/kg	-	-	-	-	1000000	-	1500000	0.082 U	0.086 U	0.091 U
Di-n-butylphthalate (DBP)	mg/kg	-	-	-	-	87000	-	1500000	0.082 U	0.086 U	0.091 U
Di-n-octyl phthalate (DnOP)	mg/kg	-	-	-	-	20000	-	14000000	0.082 U	0.086 U	0.091 U
Fluoranthene	mg/kg	-	880000	880000	890000	130000	1000000	4100000	0.22	0.058	0.037
Fluorene	mg/kg	-	150000	150000	150000	87000	1000000	4100000	0.018 U	0.018 U	0.019 U
Hexachlorobenzene	mg/kg	-	56	56	56	37	220	8500	0.018 U	0.018 U	0.019 U
Hexachlorobutadiene	mg/kg	-	460	460	460	470	710	180000	0.058 U	0.062 U	0.065 U
Hexachlorocyclopentadiene	mg/kg	-	60	60	60	6700	56	5900	0.39 U	0.41 U	0.43 U
Hexachloroethane	mg/kg	-	1400	1400	660	730	79	100000	0.058 U	0.062 U	0.065 U
Indeno(1,2,3-cd)pyrene	mg/kg	-	-	-	-	80	-	-	0.19	0.023	0.026
Isophorone	mg/kg	-	-	-	-	22000	-	8200000	0.058 U	0.062 U	0.065 U
Naphthalene	mg/kg	-	350	350	350	52000	470	88000	0.11	0.17	0.21
Nitrobenzene	mg/kg	-	64	64	64	340	170	21000	0.12 U	0.12 U	0.13 U
N-Nitrosodi-n-propylamine	mg/kg	-	-	-	-	5.4	-	2000	0.058 U	0.062 U	0.065 U
N-Nitrosodiphenylamine	mg/kg	-	-	-	-	7800	-	2800000	0.058 U	0.062 U	0.065 U
Pentachlorophenol	mg/kg	-	-	-	-	320	-	130000	0.18 U	0.18 U	0.19 U
Phenanthrene	mg/kg	-	190	190	190	5200	5100	2900	0.13	0.099	0.11
Phenol	mg/kg	-	-	-	-	230000	-	18000000	0.058 U	0.17	0.24
Pyrene	mg/kg	-	780000	780000	780000	84000	1000000	2900000	0.22	0.055	0.04
Wet											
Black carbon	mg/kg	-	-	-	-	-	-	-	6200	-	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	25000	-	-

Footnotes:
U Not detected at the associated reporting limit.

Attachment B-2

SB-2-21-Area

Table B-2

Screened Soil Results Summary – SB-2-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Sample Location:												
Sample ID:								**SB-2-21-IA** **S-11208041-062921-SSH-22IIA**	**SB-2-21-IB** **S-11208041-062921-SSH-22IIB**	**SB-2-21-IIA** **S-11208041-062921-SSH-22IIIA**	**SB-2-21-IIB** **S-11208041-062921-SSH-22IIIB**
Sample Date:								**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Sample Depth:								**(0-1.3) ft BGS**	**(3-4) ft BGS**	**(0-1.3) ft BGS**	**(4-6) ft BGS**
Parameters	**Units**	**RES/NonRES / Statewide Default Background Level**	**Non_RES/Ambient Air_Finite VSIC_2M Srce Thickness**	**Non_RES/Ambient Air_Finite VSIC_5M Thickness**	**Non_RES/Ambient Air_InfiniteSrceVolatileSoilInhalation**	**Non_RES/Direct Contact**	**Non_RES/IndoorAir_SoilVolatilization_IndAirInhalation**	**Non_RES/Particulate Soil Inhalation**				
Wet												
Cyanide (total)	mg/kg	0.39	-	-	-	250	-	250	1.6	9.1	2.2	32
Soot carbon	mg/kg	-	-	-	-	-	-	-	5000	-	4500	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	7700	-	15000	-

Footnotes:
J Estimated Concentration

Table B-2

Screened Soil Results Summary – SB-2-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Sample Location:												
Sample ID:									**SB-2-21-IIIA** **S-11208041-062921-SSH-22IIIIA**	**SB-2-21-IIIB** **S-11208041-062921-SSH-22IIIIB**	**SB-2-21-IVA** **S-11208041-062921-SSH-22IIVA**	**SB-2-21-IVB** **S-11208041-062921-SSH-22IIVB**
Sample Date:									**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Sample Depth:									**(0-1.3) ft BGS**	**(3-4) ft BGS**	**(0-1.3) ft BGS**	**(3-4) ft BGS**
Parameters	**Units**	**RES/NonRES / Statewide Default Background Level**	**Non_RES/Ambient Air_Finite VSIC_2M Srce Thickness**	**Non_RES/Ambient Air_Finite VSIC_5M Thickness**	**Non_RES/Ambient Air_InfiniteSrceVolatileSoilInhalation**	**Non_RES/Direct Contact**	**Non_RES/IndoorAir_SoilVolatilization_IndAirInhalation**	**Non_RES/Particulate Soil Inhalation**				
Wet												
Cyanide (total)	mg/kg	0.39	-	-	-	250	-	250	2.6	13	3.1	4.5 J
Soot carbon	mg/kg	-	-	-	-	-	-	-	8400	-	3600	-
Total organic carbon (TOC)	mg/kg	-	-	-	-	-	-	-	32000	-	16000	-

Footnotes:
J Estimated Concentration

Attachment C

Ecological Screening Results

Attachment C-1

SB-1-21 Area

Table C-1

Ecological Screening Results – SB-1-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Parameters	Units	ESV	Source	# Samples	Frequency of Detection	Max Detection	Mean Detection (ND = 1/2 DL)	Mean Detection (ND = 0)	Max SQ	Mean SQ (ND=1/2 DL)	Mean SQ (ND = 0)	Frequency of Exceedance	Constitient of Potential Ecological Concern
Semi-volatile Organic Compounds													
2-Methylnaphthalene	mg/kg	0.63	EPA 2003 / 10	4.00	1.00	0.21	0.18	0.18	0.3	0.3	0.3	0%	No
Acenaphthene	mg/kg	0.69	EPA 2003 / 10	4.00	0.25	0.06	0.02	0.01	0.1	0.0	0.0	0%	No
Anthracene	mg/kg	0.83	EPA 2003 / 10	4.00	0.25	0.02	0.01	0.01	0.0	0.0	0.0	0%	No
Benzo(a)anthracene	mg/kg	1.18	EPA 2003 / 10	4.00	1.00	0.24	0.08	0.08	0.2	0.1	0.1	0%	No
Benzo(a)pyrene	mg/kg	1.35	EPA 2003 / 10	4.00	1.00	0.51	0.15	0.15	0.4	0.1	0.1	0%	No
Benzo(b)fluoranthene	mg/kg	1.37	EPA 2003 / 10	4.00	1.00	0.60	0.18	0.18	0.4	0.1	0.1	0%	No
Benzo(g,h,i)perylene	mg/kg	1.53	EPA 2003 / 10	4.00	1.00	0.22	0.08	0.08	0.1	0.1	0.1	0%	No
Benzo(k)fluoranthene	mg/kg	1.37	EPA 2003 / 10	4.00	0.25	0.20	0.06	0.05	0.1	0.0	0.0	0%	No
Chrysene	mg/kg	1.18	EPA 2008 / 10	4.00	1.00	0.25	0.09	0.09	0.2	0.1	0.1	0%	No
Dibenz(a,h)anthracene	mg/kg	1.57	EPA 2008 / 10	4.00	0.25	0.07	0.02	0.02	0.0	0.0	0.0	0%	No
Fluoranthene	mg/kg	0.99	EPA 2003 / 10	4.00	1.00	0.22	0.09	0.09	0.2	0.1	0.1	0%	No
Indeno(1,2,3-cd)pyrene	mg/kg	1.56	EPA 2003 / 10	4.00	0.75	0.19	0.06	0.06	0.1	0.0	0.0	0%	No
Naphthalene	mg/kg	0.54	EPA 2003 / 10	4.00	1.00	0.13	0.12	0.12	0.2	0.2	0.2	0%	No
Phenanthrene	mg/kg	0.84	EPA 2003 / 10	4.00	1.00	0.13	0.11	0.11	0.2	0.1	0.1	0%	No
Phenol	mg/kg	0.25	Region 4	4.00	0.75	0.25	0.16	0.15	1.0	0.6	0.6	**25%**	No,1
Pyrene	mg/kg	0.98	EPA 2003 / 10	4.00	1.00	0.22	0.08	0.08	0.2	0.1	0.1	0%	No
Wet													
													No
Black carbon	mg/kg	--	--	4.00	1.00	6200.00	3925.00	3925.00	--	--	--	--	No
Total organic carbon (TOC)	mg/kg	--	--	4.00	1.00	25000.00	13925.00	13925.00	--	--	--	--	No

Notes:

SQ	Screening Quotient (Concentration/ESV); max SQ is maximum detected concentration / ESV and mean SQ is mean detected concentration / ESV
ESV	Ecological Screening Value from referenced source adjusted for 1.4% Organic Carbon.
1.62	SQ values greater than 1.5 or Frequencies of Exceedance above 20%
No	Not selected as CPEC because Mean SQ <=1.5 and Frequency of Exceedance <= 20%
No, 1	Result maginally exceeds the ESV and is not consider ecologically significant.

Attachment C-2

SB-2-21 Area

Table C-2

Ecological Screening Results – SB-2-21 Area
RACER Nodular Industrial Land
Saginaw, Michigan

Parameters	Units	ESV	Source	# Samples	Frequency of Detection	Max Detection	Mean Detection (ND = 1/2 DL)	Mean Detection (ND = 0)	Max SQ	Mean SQ (ND=1/2 DL)	Mean SQ (ND = 0)	Frequency of Exceedance	Constitient of Potential Ecological Concern
Wet													
Cyanide (total)	mg/kg	--	--	4	1.00	3.1	2.4	2.4	--	--	--	N/A	No
Black carbon	mg/kg	--	--	4	1.00	8400	5375	5375	--	--	--	N/A	No
Total organic carbon (TOC)	mg/kg	--	--	4	1.00	32000	17675	17675	--	--	--	N/A	No

Notes:

SQ Screening Quotient (Concentration/ESV); max SQ is maximum detected concentration / ESV and mean SQ is mean detected concentration / ESV
ESV Ecological Screening Value from referenced source
No Not selected as CPEC because Mean SQ <=1.5 and Frequency of Exceedance <= 20%

Attachment D

Data Validation Memorandum and Laboratory Analytical Report

Technical Memorandum

August 10, 2021

To	John-Eric Pardys, GHD	**Tel**	612-524 6872
		Email	Ruth.Mickle@ghd.com
From	Ruth Mickle/mk/5	**Ref. No.**	11208041-B02-001Y21
Subject	Analytical Results and Reduced Validation IUH Additional Soil Investigation RACER Trust – Nodular Site Saginaw, Michigan June 2021		

1. Introduction

This document details a reduced data validation of analytical results for soil samples collected in support of the IUH Additional Soil Investigation at the RACER-Nodular Site during June 2021. Samples were submitted to Eurofins TestAmerica (TestAmerica) located in North Canton, Ohio and Burlington, Vermont. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, and recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS).

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i. "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-2017-01, January 2017

ii. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Data Review", USEPA 540-R-2017-02, January 2017

Items i. and ii. will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. One sample submitted for cyanide analysis was analyzed outside the method holding time due to a lab error. The associated sample result was qualified estimated, as noted in Table 4.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for organic determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and analysis. According to the "Guidelines" for semi-volatile organic compound (SVOC) analyses, up to one outlying surrogate in the acid-base/neutral fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. The surrogate recoveries met the above criteria.

5. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If the original sample concentration is significantly greater than the spike concentration, or, if sample is diluted five times or greater, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with cyanide, and the results were evaluated using the "Guidelines". The cyanide percent recoveries were outside the control limits. However, since the sample concentration was significantly greater than the spike concentration, no qualification was required.

7. Analyte Reporting

Non-detect results were presented as non-detect at the reporting limit (RL) in Table 2.

All soil results were reported on a dry weight basis.

8. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualification noted herein.

Regards,

Ruth Mickle
Chemist

RM/mk/MEM-5

Encl.

Table 1

Sample Collection and Analysis Summary
IUH Additional Soil Investigation
RACER Trust - Nodular Site
Saginaw, Michigan
June 2021

Sample Identification	Location	Matrix	Initial Sample Depth (ft. bgs.)	Final Sample Depth (ft. bgs.)	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/ Parameters: SVOC	TOC and Black Carbon	Total Cyanide	Comments
TA SDG No.: 240-152143-1,-2 &-3										
S-11208041-062921-SSH-22IIA	SB-2-21-IA	soil	0	1.3	06/29/2021	09:25		X	X	
S-11208041-062921-SSH-22IIB	SB-2-21-IB	soil	3	4	06/29/2021	12:45			X	
S-11208041-062921-SSH-22IIIA	SB-2-21-IIA	soil	0	1.3	06/29/2021	09:30		X	X	
S-11208041-062921-SSH-22IIIB	SB-2-21-IIB	soil	4	6	06/29/2021	10:00			X	
S-11208041-062921-SSH-22IIIIA	SB-2-21-IIIA	soil	0	1.3	06/29/2021	09:35		X	X	
S-11208041-062921-SSH-22IIIIB	SB-2-21-IIIB	soil	3	4	06/29/2021	12:35			X	
S-11208041-062921-SSH-22IIVA	SB-2-21-IVA	soil	0	1.3	06/29/2021	09:40		X	X	
S-11208041-062921-SSH-22IIVB	SB-2-21-IVB	soil	3	4	06/29/2021	12:55			X	MS/MSD
TA SDG No.: 240-152144-1										
S-11208041-062921-SSH-12IIA	SB-1-21-IA	soil	0	2	06/29/2021	10:55	X	X		
S-11208041-062921-SSH-12IIB	SB-1-21-IB	soil	4	6	06/29/2021	11:55	X			
S-11208041-062921-SSH-12IIC	SB-1-21-IC	soil	10	12	06/29/2021	12:00	X			
S-11208041-062921-SSH-12IIIA	SB-1-21-IIA	soil	0	2	06/29/2021	11:00	X	X		
S-11208041-062921-SSH-12IIIB	SB-1-21-IIB	soil	4	5	06/29/2021	13:15	X			
S-11208041-062921-SSH-12IIIIA	SB-1-21-IIIA	soil	0	2	06/29/2021	10:50	X	X		
S-11208041-062921-SSH-12IIIIB	SB-1-21-IIIB	soil	4	6	06/29/2021	11:30	X			
S-11208041-062921-SSH-12IIIIC	SB-1-21-IIIC	soil	10	12	06/29/2021	11:40	X			
S-11208041-062921-SSH-12IIVA	SB-1-21-IVA	soil	0	2	06/29/2021	10:45	X	X		
S-11208041-062921-SSH-12IIVB	SB-1-21-IVB	soil	4	6	06/29/2021	11:05	X			
S-11208041-062921-SSH-12IIVC	SB-1-21-IVC	soil	10	12	06/29/2021	11:10	X			

Notes:
SDG - Sample Delivery Group
SVOC - Sewmi-Volatile Organic Compounds
TOC - Total Organic Carbon

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IA**	**SB-1-21-IB**	**SB-1-21-IC**	**SB-1-21-IIA**	**SB-1-21-IIB**
Sample Name:		**S-11208041-062921-SSH-12IIA**	**S-11208041-062921-SSH-12IIB**	**S-11208041-062921-SSH-12IIC**	**S-11208041-062921-SSH-12IIIA**	**S-11208041-062921-SSH-12IIIB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-2 ft BGS**	**4-6 ft BGS**	**10-12 ft BGS**	**0-2 ft BGS**	**4-5 ft BGS**
Parameters	**Unit**					
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	120 U	120 U	120 U	110 U	120 U
2,4,5-Trichlorophenol	µg/kg	170 U	170 U	180 U	170 U	180 U
2,4,6-Trichlorophenol	µg/kg	170 U	170 U	180 U	170 U	180 U
2,4-Dichlorophenol	µg/kg	170 U	170 U	180 U	170 U	180 U
2,4-Dimethylphenol	µg/kg	170 U	170 U	180 U	170 U	180 U
2,4-Dinitrophenol	µg/kg	380 U	380 U	410 U	370 U	400 U
2,4-Dinitrotoluene	µg/kg	230 U	230 U	250 U	220 U	250 U
2,6-Dinitrotoluene	µg/kg	230 U	230 U	250 U	220 U	250 U
2-Chloronaphthalene	µg/kg	58 U	58 U	61 U	56 U	61 U
2-Chlorophenol	µg/kg	58 U	58 U	61 U	56 U	61 U
2-Methylnaphthalene	µg/kg	190	140	24	210	150
2-Methylphenol	µg/kg	230 U	230 U	250 U	220 U	250 U
2-Nitroaniline	µg/kg	230 U	230 U	250 U	220 U	250 U
2-Nitrophenol	µg/kg	58 U	58 U	61 U	56 U	61 U
3&4-Methylphenol	µg/kg	460 U	460 U	490 U	450 U	490 U
3,3'-Dichlorobenzidine	µg/kg	120 U	120 U	120 U	110 U	120 U
3-Nitroaniline	µg/kg	230 U	230 U	250 U	220 U	250 U
4,6-Dinitro-2-methylphenol	µg/kg	380 U	380 U	410 U	370 U	400 U
4-Bromophenyl phenyl ether	µg/kg	58 U	58 U	61 U	56 U	61 U
4-Chloro-3-methylphenol	µg/kg	170 U	170 U	180 U	170 U	180 U
4-Chloroaniline	µg/kg	170 U	170 U	180 U	170 U	180 U
4-Chlorophenyl phenyl ether	µg/kg	58 U	58 U	61 U	56 U	61 U
4-Nitroaniline	µg/kg	230 U	230 U	250 U	220 U	250 U
4-Nitrophenol	µg/kg	380 U	380 U	410 U	370 U	400 U
Acenaphthene	µg/kg	17 U	17 U	18 U	17 U	24
Acenaphthylene	µg/kg	17 U	17 U	18 U	17 U	18 U
Acetophenone	µg/kg	120 U	120 U	120 U	110 U	120 U
Anthracene	µg/kg	17 U	17	18 U	17 U	31
Atrazine	µg/kg	230 U	230 U	250 U	220 U	250 U
Benzaldehyde	µg/kg	120 U	120 U	120 U	110 U	120 U
Benzo(a)anthracene	µg/kg	26	53	18 U	30	97
Benzo(a)pyrene	µg/kg	25	100	18	28	130
Benzo(b)fluoranthene	µg/kg	46	110	21	52	160
Benzo(g,h,i)perylene	µg/kg	35	81	38	37	93
Benzo(k)fluoranthene	µg/kg	17 U	41	18 U	17 U	54
Biphenyl (1,1-Biphenyl)	µg/kg	58 U	58 U	61 U	56 U	61 U
bis(2-Chloroethoxy)methane	µg/kg	120 U	120 U	120 U	110 U	120 U
bis(2-Chloroethyl)ether	µg/kg	120 U	120 U	120 U	110 U	120 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	81 U	81 U	86 U	78 U	86 U
Butyl benzylphthalate (BBP)	µg/kg	81 U	81 U	86 U	78 U	86 U
Caprolactam	µg/kg	380 U	380 U	410 U	370 U	400 U
Carbazole	µg/kg	58 U	58 U	61 U	56 U	61 U
Chrysene	µg/kg	39	60	18 U	45	110
Di-n-butylphthalate (DBP)	µg/kg	81 U	81 U	86 U	78 U	86 U
Di-n-octyl phthalate (DnOP)	µg/kg	81 U	81 U	86 U	78 U	86 U

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IA**	**SB-1-21-IB**	**SB-1-21-IC**	**SB-1-21-IIA**	**SB-1-21-IIB**
Sample Name:		**S-11208041-062921-SSH-12IIA**	**S-11208041-062921-SSH-12IIB**	**S-11208041-062921-SSH-12IIC**	**S-11208041-062921-SSH-12IIIA**	**S-11208041-062921-SSH-12IIIB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-2 ft BGS**	**4-6 ft BGS**	**10-12 ft BGS**	**0-2 ft BGS**	**4-5 ft BGS**
Parameters	**Unit**					
Dibenz(a,h)anthracene	µg/kg	17 U	21	18 U	17 U	25
Dibenzofuran	µg/kg	58 U	58 U	61 U	56 U	61 U
Diethyl phthalate	µg/kg	81 U	81 U	86 U	78 U	86 U
Dimethyl phthalate	µg/kg	81 U	81 U	86 U	78 U	86 U
Fluoranthene	µg/kg	45	62	18 U	57	260
Fluorene	µg/kg	17 U	17 U	18 U	17 U	30
Hexachlorobenzene	µg/kg	17 U	17 U	18 U	17 U	18 U
Hexachlorobutadiene	µg/kg	58 U	58 U	61 U	56 U	61 U
Hexachlorocyclopentadiene	µg/kg	380 U	380 U	410 U	370 U	400 U
Hexachloroethane	µg/kg	58 U	58 U	61 U	56 U	61 U
Indeno(1,2,3-cd)pyrene	µg/kg	17 U	68	24	20	71
Isophorone	µg/kg	58 U	58 U	61 U	56 U	61 U
N-Nitrosodi-n-propylamine	µg/kg	58 U	58 U	61 U	56 U	61 U
N-Nitrosodiphenylamine	µg/kg	58 U	58 U	61 U	56 U	61 U
Naphthalene	µg/kg	130	170	18 U	130	180
Nitrobenzene	µg/kg	120 U	120 U	120 U	110 U	120 U
Pentachlorophenol	µg/kg	170 U	170 U	180 U	170 U	180 U
Phenanthrene	µg/kg	120	120	18 U	110	180
Phenol	µg/kg	250	65	61 U	160	260
Pyrene	µg/kg	37	54	18 U	48	210
General Chemistry						
Cyanide (total)	mg/kg	--	--	--	--	--
Soot carbon	mg/kg	2600	--	--	3100	--
Total organic carbon (TOC)	mg/kg	9300	--	--	14000	--

Note:

J - Estimated concentration

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IIIA**	**SB-1-21-IIIB**	**SB-1-21-IIIC**	**SB-1-21-IVA**	**SB-1-21-IVB**
Sample Name:		**S-11208041-062921-SSH-12IIIIA**	**S-11208041-062921-SSH-12IIIIB**	**S-11208041-062921-SSH-12IIIIC**	**S-11208041-062921-SSH-12IIVA**	**S-11208041-062921-SSH-12IIVB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-2 ft BGS**	**4-6 ft BGS**	**10-12 ft BGS**	**0-2 ft BGS**	**4-6 ft BGS**
Parameters	**Unit**					
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	120 U	130 U	120 U	120 U	120 U
2,4,5-Trichlorophenol	µg/kg	180 U	190 U	180 U	180 U	180 U
2,4,6-Trichlorophenol	µg/kg	180 U	190 U	180 U	180 U	180 U
2,4-Dichlorophenol	µg/kg	180 U	190 U	180 U	180 U	180 U
2,4-Dimethylphenol	µg/kg	180 U	190 U	180 U	180 U	180 U
2,4-Dinitrophenol	µg/kg	400 U	420 U	400 U	390 U	410 U
2,4-Dinitrotoluene	µg/kg	240 U	260 U	240 U	230 U	250 U
2,6-Dinitrotoluene	µg/kg	240 U	260 U	240 U	230 U	250 U
2-Chloronaphthalene	µg/kg	60 U	64 U	60 U	58 U	62 U
2-Chlorophenol	µg/kg	60 U	64 U	60 U	58 U	62 U
2-Methylnaphthalene	µg/kg	160	120	42	140	190
2-Methylphenol	µg/kg	240 U	260 U	240 U	230 U	250 U
2-Nitroaniline	µg/kg	240 U	260 U	240 U	230 U	250 U
2-Nitrophenol	µg/kg	60 U	64 U	60 U	58 U	62 U
3&4-Methylphenol	µg/kg	480 U	510 U	480 U	470 U	490 U
3,3'-Dichlorobenzidine	µg/kg	120 U	130 U	120 U	120 U	120 U
3-Nitroaniline	µg/kg	240 U	260 U	240 U	230 U	250 U
4,6-Dinitro-2-methylphenol	µg/kg	400 U	420 U	400 U	390 U	410 U
4-Bromophenyl phenyl ether	µg/kg	60 U	64 U	60 U	58 U	62 U
4-Chloro-3-methylphenol	µg/kg	180 U	190 U	180 U	180 U	180 U
4-Chloroaniline	µg/kg	180 U	190 U	180 U	180 U	180 U
4-Chlorophenyl phenyl ether	µg/kg	60 U	64 U	60 U	58 U	62 U
4-Nitroaniline	µg/kg	240 U	260 U	240 U	230 U	250 U
4-Nitrophenol	µg/kg	400 U	420 U	400 U	390 U	410 U
Acenaphthene	µg/kg	18 U	48	18 U	58	19
Acenaphthylene	µg/kg	18 U	19 U	18 U	18 U	18 U
Acetophenone	µg/kg	120 U	130 U	120 U	120 U	120 U
Anthracene	µg/kg	18 U	130	49	24	18 U
Atrazine	µg/kg	240 U	260 U	240 U	230 U	250 U
Benzaldehyde	µg/kg	120 U	130 U	120 U	120 U	120 U
Benzo(a)anthracene	µg/kg	24	400	250	240	41
Benzo(a)pyrene	µg/kg	32	460	300	510	60
Benzo(b)fluoranthene	µg/kg	41	560	350	600	83
Benzo(g,h,i)perylene	µg/kg	29	300	210	220	24
Benzo(k)fluoranthene	µg/kg	18 U	190	130	200	24
Biphenyl (1,1-Biphenyl)	µg/kg	60 U	64 U	60 U	58 U	62 U
bis(2-Chloroethoxy)methane	µg/kg	120 U	130 U	120 U	120 U	120 U
bis(2-Chloroethyl)ether	µg/kg	120 U	130 U	120 U	120 U	120 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	84 U	1300	84 U	82 U	86 U
Butyl benzylphthalate (BBP)	µg/kg	84 U	90 U	84 U	82 U	86 U
Caprolactam	µg/kg	400 U	420 U	400 U	390 U	410 U
Carbazole	µg/kg	60 U	64 U	60 U	58 U	62 U
Chrysene	µg/kg	31	440	270	250	52
Di-n-butylphthalate (DBP)	µg/kg	84 U	90 U	84 U	82 U	86 U
Di-n-octyl phthalate (DnOP)	µg/kg	84 U	90 U	84 U	82 U	86 U

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IIIA**	**SB-1-21-IIIB**	**SB-1-21-IIIC**	**SB-1-21-IVA**	**SB-1-21-IVB**
Sample Name:		**S-11208041-062921-SSH-12IIIIA**	**S-11208041-062921-SSH-12IIIIB**	**S-11208041-062921-SSH-12IIIIC**	**S-11208041-062921-SSH-12IIVA**	**S-11208041-062921-SSH-12IIVB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-2 ft BGS**	**4-6 ft BGS**	**10-12 ft BGS**	**0-2 ft BGS**	**4-6 ft BGS**
Parameters	**Unit**					
Dibenz(a,h)anthracene	µg/kg	18 U	75	43	67	18 U
Dibenzofuran	µg/kg	60 U	64 U	60 U	58 U	62 U
Diethyl phthalate	µg/kg	84 U	90 U	84 U	82 U	86 U
Dimethyl phthalate	µg/kg	84 U	90 U	84 U	82 U	86 U
Fluoranthene	µg/kg	34	1000	680	220	58
Fluorene	µg/kg	18 U	65	22	18 U	18 U
Hexachlorobenzene	µg/kg	18 U	19 U	18 U	18 U	18 U
Hexachlorobutadiene	µg/kg	60 U	64 U	60 U	58 U	62 U
Hexachlorocyclopentadiene	µg/kg	400 U	420 U	400 U	390 U	410 U
Hexachloroethane	µg/kg	60 U	64 U	60 U	58 U	62 U
Indeno(1,2,3-cd)pyrene	µg/kg	19	260	170	190	23
Isophorone	µg/kg	60 U	64 U	60 U	58 U	62 U
N-Nitrosodi-n-propylamine	µg/kg	60 U	64 U	60 U	58 U	62 U
N-Nitrosodiphenylamine	µg/kg	60 U	64 U	60 U	58 U	62 U
Naphthalene	µg/kg	120	130	51	110	170
Nitrobenzene	µg/kg	120 U	130 U	120 U	120 U	120 U
Pentachlorophenol	µg/kg	180 U	190 U	180 U	180 U	180 U
Phenanthrene	µg/kg	81	620	250	130	99
Phenol	µg/kg	190	130	60 U	58 U	170
Pyrene	µg/kg	30	890	560	220	55
General Chemistry						
Cyanide (total)	mg/kg	--	--	--	--	--
Soot carbon	mg/kg	3800	--	--	6200	--
Total organic carbon (TOC)	mg/kg	7400	--	--	25000	--

Note:

J - Estimated concentration

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IVC**	**SB-2-21-IA**	**SB-2-21-IB**	**SB-2-21-IIA**	**SB-2-21-IIB**
Sample Name:		**S-11208041-062921-SSH-12IIVC**	**S-11208041-062921-SSH-22IIA**	**S-11208041-062921-SSH-22IIB**	**S-11208041-062921-SSH-22IIIA**	**S-11208041-062921-SSH-22IIIB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**10-12 ft BGS**	**0-1.3 ft BGS**	**3-4 ft BGS**	**0-1.3 ft BGS**	**4-6 ft BGS**
Parameters	**Unit**					
Semivolatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	130 U	--	--	--	--
2,4,5-Trichlorophenol	µg/kg	190 U	--	--	--	--
2,4,6-Trichlorophenol	µg/kg	190 U	--	--	--	--
2,4-Dichlorophenol	µg/kg	190 U	--	--	--	--
2,4-Dimethylphenol	µg/kg	190 U	--	--	--	--
2,4-Dinitrophenol	µg/kg	430 U	--	--	--	--
2,4-Dinitrotoluene	µg/kg	260 U	--	--	--	--
2,6-Dinitrotoluene	µg/kg	260 U	--	--	--	--
2-Chloronaphthalene	µg/kg	65 U	--	--	--	--
2-Chlorophenol	µg/kg	65 U	--	--	--	--
2-Methylnaphthalene	µg/kg	210	--	--	--	--
2-Methylphenol	µg/kg	260 U	--	--	--	--
2-Nitroaniline	µg/kg	260 U	--	--	--	--
2-Nitrophenol	µg/kg	65 U	--	--	--	--
3&4-Methylphenol	µg/kg	520 U	--	--	--	--
3,3'-Dichlorobenzidine	µg/kg	130 U	--	--	--	--
3-Nitroaniline	µg/kg	260 U	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/kg	430 U	--	--	--	--
4-Bromophenyl phenyl ether	µg/kg	65 U	--	--	--	--
4-Chloro-3-methylphenol	µg/kg	190 U	--	--	--	--
4-Chloroaniline	µg/kg	190 U	--	--	--	--
4-Chlorophenyl phenyl ether	µg/kg	65 U	--	--	--	--
4-Nitroaniline	µg/kg	260 U	--	--	--	--
4-Nitrophenol	µg/kg	430 U	--	--	--	--
Acenaphthene	µg/kg	19 U	--	--	--	--
Acenaphthylene	µg/kg	19 U	--	--	--	--
Acetophenone	µg/kg	130 U	--	--	--	--
Anthracene	µg/kg	19 U	--	--	--	--
Atrazine	µg/kg	260 U	--	--	--	--
Benzaldehyde	µg/kg	130 U	--	--	--	--
Benzo(a)anthracene	µg/kg	29	--	--	--	--
Benzo(a)pyrene	µg/kg	43	--	--	--	--
Benzo(b)fluoranthene	µg/kg	56	--	--	--	--
Benzo(g,h,i)perylene	µg/kg	29	--	--	--	--
Benzo(k)fluoranthene	µg/kg	21	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/kg	65 U	--	--	--	--
bis(2-Chloroethoxy)methane	µg/kg	130 U	--	--	--	--
bis(2-Chloroethyl)ether	µg/kg	130 U	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	91 U	--	--	--	--
Butyl benzylphthalate (BBP)	µg/kg	91 U	--	--	--	--
Caprolactam	µg/kg	430 U	--	--	--	--
Carbazole	µg/kg	65 U	--	--	--	--
Chrysene	µg/kg	35	--	--	--	--
Di-n-butylphthalate (DBP)	µg/kg	91 U	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/kg	91 U	--	--	--	--

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-1-21-IVC**	**SB-2-21-IA**	**SB-2-21-IB**	**SB-2-21-IIA**	**SB-2-21-IIB**
Sample Name:		**S-11208041-062921-SSH-12IIVC**	**S-11208041-062921-SSH-22IIA**	**S-11208041-062921-SSH-22IIB**	**S-11208041-062921-SSH-22IIIA**	**S-11208041-062921-SSH-22IIIB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**10-12 ft BGS**	**0-1.3 ft BGS**	**3-4 ft BGS**	**0-1.3 ft BGS**	**4-6 ft BGS**
Parameters	**Unit**					
Dibenz(a,h)anthracene	µg/kg	19 U	--	--	--	--
Dibenzofuran	µg/kg	65 U	--	--	--	--
Diethyl phthalate	µg/kg	91 U	--	--	--	--
Dimethyl phthalate	µg/kg	91 U	--	--	--	--
Fluoranthene	µg/kg	37	--	--	--	--
Fluorene	µg/kg	19 U	--	--	--	--
Hexachlorobenzene	µg/kg	19 U	--	--	--	--
Hexachlorobutadiene	µg/kg	65 U	--	--	--	--
Hexachlorocyclopentadiene	µg/kg	430 U	--	--	--	--
Hexachloroethane	µg/kg	65 U	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/kg	26	--	--	--	--
Isophorone	µg/kg	65 U	--	--	--	--
N-Nitrosodi-n-propylamine	µg/kg	65 U	--	--	--	--
N-Nitrosodiphenylamine	µg/kg	65 U	--	--	--	--
Naphthalene	µg/kg	210	--	--	--	--
Nitrobenzene	µg/kg	130 U	--	--	--	--
Pentachlorophenol	µg/kg	190 U	--	--	--	--
Phenanthrene	µg/kg	110	--	--	--	--
Phenol	µg/kg	240	--	--	--	--
Pyrene	µg/kg	40	--	--	--	--
General Chemistry						
Cyanide (total)	mg/kg	--	1.6	9.1	2.2	32
Soot carbon	mg/kg	--	5000	--	4500	--
Total organic carbon (TOC)	mg/kg	--	7700	--	15000	--

Note:

J - Estimated concentration

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-2-21-IIIA**	**SB-2-21-IIIB**	**SB-2-21-IVA**	**SB-2-21-IVB**
Sample Name:		**S-11208041-062921-SSH-22IIIIA**	**S-11208041-062921-SSH-22IIIIB**	**S-11208041-062921-SSH-22IIVA**	**S-11208041-062921-SSH-22IIVB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-1.3 ft BGS**	**3-4 ft BGS**	**0-1.3 ft BGS**	**3-4 ft BGS**
Parameters	**Unit**				
Semivolatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/kg	--	--	--	--
2,4,5-Trichlorophenol	µg/kg	--	--	--	--
2,4,6-Trichlorophenol	µg/kg	--	--	--	--
2,4-Dichlorophenol	µg/kg	--	--	--	--
2,4-Dimethylphenol	µg/kg	--	--	--	--
2,4-Dinitrophenol	µg/kg	--	--	--	--
2,4-Dinitrotoluene	µg/kg	--	--	--	--
2,6-Dinitrotoluene	µg/kg	--	--	--	--
2-Chloronaphthalene	µg/kg	--	--	--	--
2-Chlorophenol	µg/kg	--	--	--	--
2-Methylnaphthalene	µg/kg	--	--	--	--
2-Methylphenol	µg/kg	--	--	--	--
2-Nitroaniline	µg/kg	--	--	--	--
2-Nitrophenol	µg/kg	--	--	--	--
3&4-Methylphenol	µg/kg	--	--	--	--
3,3'-Dichlorobenzidine	µg/kg	--	--	--	--
3-Nitroaniline	µg/kg	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/kg	--	--	--	--
4-Bromophenyl phenyl ether	µg/kg	--	--	--	--
4-Chloro-3-methylphenol	µg/kg	--	--	--	--
4-Chloroaniline	µg/kg	--	--	--	--
4-Chlorophenyl phenyl ether	µg/kg	--	--	--	--
4-Nitroaniline	µg/kg	--	--	--	--
4-Nitrophenol	µg/kg	--	--	--	--
Acenaphthene	µg/kg	--	--	--	--
Acenaphthylene	µg/kg	--	--	--	--
Acetophenone	µg/kg	--	--	--	--
Anthracene	µg/kg	--	--	--	--
Atrazine	µg/kg	--	--	--	--
Benzaldehyde	µg/kg	--	--	--	--
Benzo(a)anthracene	µg/kg	--	--	--	--
Benzo(a)pyrene	µg/kg	--	--	--	--
Benzo(b)fluoranthene	µg/kg	--	--	--	--
Benzo(g,h,i)perylene	µg/kg	--	--	--	--
Benzo(k)fluoranthene	µg/kg	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/kg	--	--	--	--
bis(2-Chloroethoxy)methane	µg/kg	--	--	--	--
bis(2-Chloroethyl)ether	µg/kg	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/kg	--	--	--	--
Butyl benzylphthalate (BBP)	µg/kg	--	--	--	--
Caprolactam	µg/kg	--	--	--	--
Carbazole	µg/kg	--	--	--	--
Chrysene	µg/kg	--	--	--	--
Di-n-butylphthalate (DBP)	µg/kg	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/kg	--	--	--	--

Table 2

Validated Analytical Results Summary
IUH Additional Soil Investigation
Racer Trust - Nodular Site
Saginaw, Michigan
June 2021

Location ID:		**SB-2-21-IIIA**	**SB-2-21-IIIB**	**SB-2-21-IVA**	**SB-2-21-IVB**
Sample Name:		**S-11208041-062921-SSH-22IIIIA**	**S-11208041-062921-SSH-22IIIIB**	**S-11208041-062921-SSH-22IIVA**	**S-11208041-062921-SSH-22IIVB**
Sample Date:		**06/29/2021**	**06/29/2021**	**06/29/2021**	**06/29/2021**
Depth:		**0-1.3 ft BGS**	**3-4 ft BGS**	**0-1.3 ft BGS**	**3-4 ft BGS**
Parameters	**Unit**				
Dibenz(a,h)anthracene	µg/kg	--	--	--	--
Dibenzofuran	µg/kg	--	--	--	--
Diethyl phthalate	µg/kg	--	--	--	--
Dimethyl phthalate	µg/kg	--	--	--	--
Fluoranthene	µg/kg	--	--	--	--
Fluorene	µg/kg	--	--	--	--
Hexachlorobenzene	µg/kg	--	--	--	--
Hexachlorobutadiene	µg/kg	--	--	--	--
Hexachlorocyclopentadiene	µg/kg	--	--	--	--
Hexachloroethane	µg/kg	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/kg	--	--	--	--
Isophorone	µg/kg	--	--	--	--
N-Nitrosodi-n-propylamine	µg/kg	--	--	--	--
N-Nitrosodiphenylamine	µg/kg	--	--	--	--
Naphthalene	µg/kg	--	--	--	--
Nitrobenzene	µg/kg	--	--	--	--
Pentachlorophenol	µg/kg	--	--	--	--
Phenanthrene	µg/kg	--	--	--	--
Phenol	µg/kg	--	--	--	--
Pyrene	µg/kg	--	--	--	--
General Chemistry					
Cyanide (total)	mg/kg	2.6	13	3.1	4.5 J
Soot carbon	mg/kg	8400	--	3600	--
Total organic carbon (TOC)	mg/kg	32000	--	16000	--

Note:

J - Estimated concentration

Table 3

Analytical Methods and Holding Time Criteria
IUH Additonal Soil Investigation
RACER Trust - Nodular Site
Saginaw, Michigan
June 2021

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
SVOC	SW-846 8270	Solid	14	40
TOC	Lloyd Kahn Method	Solid	-	14
Soot/Black Carbon	Lloyd Kahn Method	Solid	-	None specified --14 days as an advisory holding time
Cyanide	SW-846 9012	Solid	-	14

Notes

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions.
Lloyd Kahn - Lloyd Kahn Method, U.S. Environmental Protection Agency, Region 2, 1988.
SVOC - Semi-Volatile Organic Compounds
TOC - Total Organic Carbon

Table 4

Qualified Sample Results Due to Holding Time Exceedance
IUH Additional Soil Investigation
RACER Trust - Nodular Site
Saginaw, Michigan
June 2021

Parameter	Sample ID	Holding Time (days)	Holding Time Criteria (days)	Analyte	Qualified Sample Result	Units
General Chemistry	S-11208041-062921-SSH-22IIVB	15 days	14 days	Cyanide	4.5 J	mg/Kg

Note:

J - Estimated concentration