Ms. Christine Matlock
Senior Environmental Engineer
Hazardous Waste Section
Waste Management & Radiological Protection Division
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Date: November 7, 2023
Our Ref: 30171056
Subject: Plant 2 Area 2 Excavation and Plants 2 and 3 Exposure Barrier Placement Work Plan
Plants 2 & 3 MID 980 700 827
Lansing, Michigan

Dear Ms. Matlock,

Arcadis of Michigan, LLC (Arcadis) has prepared this Plant 2 Area 2 Excavation and Plant 2 and 3 Exposure Barrier Placement Work Plan (Work Plan) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for Plant 2 and Plant 3 properties located at 2800 West Saginaw Street and 2801 West Saginaw Street in Lansing, Michigan (Site). The Site location and layout are presented on **Figure 1**. Arcadis originally submitted the Plants 2 & 3 Soil Corrective Measures Summary, dated December 21, 2021, to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). EGLE provided comments via email transmittal on June 3, 2022. Arcadis on behalf of RACER provided a response to EGLE comments on August 11, 2022. Additional information to address the comments provided by EGLE was included in the revised Plants 2 & 3 Soil Corrective Measures Summary submitted to EGLE on May 3, 2023. Within this report it was identified that soil sample locations within Areas 2, 5-2, and 5-3 of Plant 2 and Area 18 of Plant 3 showed concentrations of arsenic and/or and benzo(a)pyrene, above EGLE Nonresidential Direct Contact Criteria (December 2020) that require corrective measures to be implemented. Refer to **Table 1** for soil analytical results for these areas. This Work Plan has been prepared to describe the corrective measures proposed to be implemented in Areas 2, 5-2, and 5-3 in Plant 2, and Area 18 in Plant 3 to address these exceedances and protect human health and environment.

Plant 2 – Area 2

As summarized in the Plants 2 & 3 Soil Corrective Measures Summary, re-submitted May 3, 2023, exceedances of arsenic were identified at two locations (SB-A2-PA65 and SB-A2-PD65) within Plant 2 Area 2 above EGLE Nonresidential Direct Contact Criteria. Based on the statistical evaluation included in the referenced report, it was determined that soil boring location SB-A2-PA65 did not require an exposure barrier or corrective measure. Only location SB-A2-PD65 requires a corrective measure to address the direct contact criteria exceedance (**Figure 2; Table 1**). The proposed corrective measure for Area 2 includes excavation of the impacted location within the portion of the area with no impervious ground cover and utilization of the existing concrete surface as an exposure barrier for the portion of the area with concrete cover (**Figure 2**).

Ms. Christine Matlock
EGLE
November 7, 2023

Scope of Work

Mobilization and Site Preparation

Prior to beginning soil excavation activities, the following site preparation activities will be performed.

- A licensed surveyor will stake and mark out the extent of the excavation area planned at Plant 2 Area 2. The proposed extent of excavation is presented on **Figure 2**.
- Work zones and staging areas for vehicles and equipment will be designated.
- Site features such as monitoring wells in the area will be protected/cordoned off during excavation activities.
- Construction safety fence or appropriate barricades will be installed just outside the excavation and work zone boundaries.
- Designated loading areas will be established, and excavated soils will be directly loaded into trucks/roll-off boxes over a pad covered with poly plastic sheeting (or similar) to protect the underlying ground.
- Proper utility clearance procedures will be completed prior to initiation of excavation activities.
- If dust control is needed the work area will be sprayed with water.

The area of land to be excavated within Area 2 will occupy less than one acre; therefore, a Sediment Erosion and Sedimentation Control (SESC) Plan is not required. However, soil removal activities will be completed utilizing best management practices that minimize the potential for erosion and migration of soil to other areas. Impacted soil will be excavated and placed directly into trucks or staged roll-of containers, reducing or eliminating the need for stockpiling. However, in the event that direct loading of impacted soil and unloading of backfill material cannot be achieved, stockpiles will be contained on and covered with polyethylene sheeting to prevent erosion.

Excavation of Arsenic Impacted Soils

Horizontal and vertical delineation has been completed at Area 2 through multiple investigation events, summarized in prior reports submitted to EGLE. Excavation of soil boring SB-A2-PD65 will begin at the location and move westward towards soil boring SB-A2-PD64 which is below EGLE Nonresidential Direct Contact Criteria for arsenic. The portion of soil boring location SB-A2-PD65 that is underneath the existing concrete surface will not be excavated and the existing concrete will be retained as an exposure barrier.

The excavation will be advanced to a depth of 2-3 feet below ground surface (bgs), as the impacted material is present from 0-2 feet bgs. A soil sample collected from 2-3 feet bgs at soil boring SB-A2-PD65 was below EGLE Nonresidential Direct Contact Criteria for Arsenic of 37 milligrams per kilogram (mg/kg). The soil samples collected from SB-A2-PD65 were as follows: 0-1 feet bgs 70.8 milligrams per kilogram; 1-2 feet bgs 307 mg/kg; and 2-3 feet bgs 2.82 [2.70] mg/kg (**Table 1**; duplicate results shown in brackets). The horizontal extents of the excavation will be extended to locations below direct contact criteria for arsenic to the north (historical investigation point), to the west (SB-A2-PD64) and, to the south (SB-A2-PE65). Excavation soil verification sampling will also be conducted as outlined in the following section. Existing concrete with a thickness of at least 6-inches is present to the east of impacted soil boring SB-A2-PD65 and will remain as an exposure barrier for soils existing east of the proposed excavation area.

It is anticipated that approximately 30-40 tons of excavated material will be removed and transported offsite for disposal at a licensed disposal facility. Based on prior waste characterization laboratory analysis of the soils in the

area of SB-A2-PD64 (**Attachment 1**) the soils will be transported offsite as non-hazardous material. During excavation, the contractor will be required to perform air monitoring in the breathing zone as part of their health and safety requirements, including a four-gas meter and dust monitor. The excavation will be shored or sloped appropriately in accordance with OSHA standards. Based on the water levels identified in nearby monitoring wells, ranging from 15.11 to 15.77 feet bgs, it is unlikely that groundwater will be encountered within the excavation to a depth of 3 feet bgs. However, if water is encountered in the excavation, it will be managed appropriately. Surface water will be managed in such a way as not to drain into the excavation. Any surface water that does accumulate in the excavation will be drained to a low point in the excavation and/or moved around within the excavation as needed to allow for completion of excavation activities, or if necessary pumped to adjacent grass covered area. The final excavation area will be surveyed along with the area and elevation of existing concrete that will remain as an exposure barrier.

Excavation Soil Verification Sampling

Verification soil sampling will be conducted within the excavated area, utilizing EGLE Sampling Strategies and Statistics Training Materials document, dated 2002. The proposed excavation area is of triangular shape consisting of an area of approximately 150 square feet, with approximate sidewall lengths of 20 feet. One soil verification sample will be collected on the northern and southern sidewalls at a depth of 1-2 feet bgs and two (2) soil verification samples will be collected from the floor of the excavation. A soil verification sample will not be collected along the eastern sidewall since the soil further east is covered by existing concrete that will be utilized as an existing exposure barrier. The soil verification samples will be collected by hand unless the depth of the excavation exceeds four feet in which case samples will be collected by the excavator bucket. Soil samples collected will be submitted to Merit Laboratories of Lansing, Michigan for rushed analysis of arsenic utilizing USEPA Method SW6020. Following verification of soil analysis below EGLE Nonresidential Direct Contact for Arsenic, the excavation will be backfilled as detailed in the section below.

Site Restoration

Upon completion of the soil removal, clean Class II sand backfill material will be placed in 10-12-inch lifts and compacted in place with conventional construction equipment to approximately 3-inches from the surface. No compaction testing is planned. A 3-inch gravel layer will be placed as the surface cover Materials utilized for backfill will be obtained from a Michigan Department of Transportation (MDOT) Prequalified Supplier, will be virgin, freshly quarried/mined material, and will include a certification from the supplier. The certification will include the source location and any accompanying analytical testing data. Crushed concrete, asphalt millings, or recycled stone are not acceptable

Plant 2: Areas 5-2 and 5-3 and Plant 3: Area 18

As summarized in the Plants 2 & 3 Soil Corrective Measures Summary, re-submitted on May 3, 2023, exceedances of benzo(a)pyrene were identified within several samples in Areas 5-2 and 5-3 at Plant 2 and at three locations (SB-A18-CJ150, SB-A18-CJ149, and SB-A18-CK149) within Plant 3 Area 18 above EGLE Nonresidential Direct Contact Criteria (**Figure 3 and 4; Table 1**). The exceedances were delineated with further investigation activities completed in April, May, and July 2021 and also in August, September and December of 2022. Based on results RACER proposes the placement of an exposure barrier, consisting of a geotextile layer

and gravel cover, placed over the delineated exceedances in Areas 5-2 and 5-3 at Plant 2 and Area 18 at Plant 3. The proposed exposure barrier areas are presented in **Figure 3** and **Figure 4**.

Scope of Work

Mobilization and Site Preparation

Prior to beginning cover placement activities, the following site preparation activities will be performed.

- A licensed surveyor will stake and mark out the extent of the area to be covered with the exposure barriers proposed at Areas 5-2 and 5-3 at Plant 2 and Area 18 at Plant 3. The proposed extent of the barriers are presented on **Figure 3** and **Figure 4**, respectively.
- Work zones and staging areas for vehicles and equipment will be designated.
- Site features such as monitoring wells in the area will be protected/cordoned off during cover placement activities.
- Construction safety fence or appropriate barricades will be installed just outside the work zone boundaries.
- Designated areas will be established for truck traffic and material staging areas will be determined and secured.

Although the majority of the ground surface in Areas 5-2, 5-3 and 18 is crushed concrete and gravel and/or fill material, vegetation will be removed from the cover area, as necessary, prior to cover placement.

Exposure Barrier Placement

Once the location and elevation of the exposure barriers for Areas 5-2, 5-3 and 18 are surveyed and marked out, geotextile fabric will be placed over the existing ground surface to act as a demarcation layer beneath the gravel barrier. Overtop the geotextile fabric, a 6-inch to 1-foot layer of 22A road gravel will be placed as the exposure barrier and graded to promote drainage and prevent ponding. Gravel utilized for the cover material will be obtained from an MDOT Prequalified Supplier, will be virgin, freshly quarried material, and will include a certification from the supplier. The certification will include the source location and any accompanying analytical testing data. Crushed concrete, asphalt millings, or recycled stone are not acceptable. The elevation of the backfill will be surveyed to confirm placement of 6-inches to 1-foot of cover has been placed and to provide final elevations for inclusion in the Declaration of Restrictive Covenant (DRC) for the Site by an Arcadis provided licensed surveyor.

Completion Report

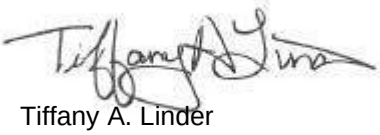
A brief completion report will be prepared to document the activities completed, quantities involved as applicable, and provide information needed for a DRC.

Notification and Schedule

The proposed excavation and exposure barrier placement activities will be scheduled upon receipt of EGLE's approval. The proposed scope of work is anticipated to take one week to complete after contractor mobilization to the Site. RACER Trust would like to complete the activities before the end of 2023; therefore, the work is

tentatively planned with our subcontractor for the end of November/early December. The completion report will be prepared and submitted to EGLE within 60 days of completion of field activities

Sincerely,
Arcadis of Michigan, LLC



Tiffany A. Linder
Certified Project Manager

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CC. Project file
Dave Favero, RACER Trust
Brendan Mullen, RACER Trust

Enclosures:
Figure 1 – Site Location
Figure 2 – Area 2 Proposed Corrective Actions
Figure 3 – Area 5-2 and Area 5-3 Proposed Exposure Barrier Placement
Figure 4 – Area 18 Proposed Exposure Barrier Placement
Table 1 – Areas 2, 5-2, 5-3 and 18 Soil Analytical Summary
Attachment 1 – Plant 2 Area 2 Waste Characterization Laboratory Data

Tables

Table 1
Areas 2, 5-2, 5-3, and 18 Soil Analytical Summary
RACER Lansing
Lansing, Michigan

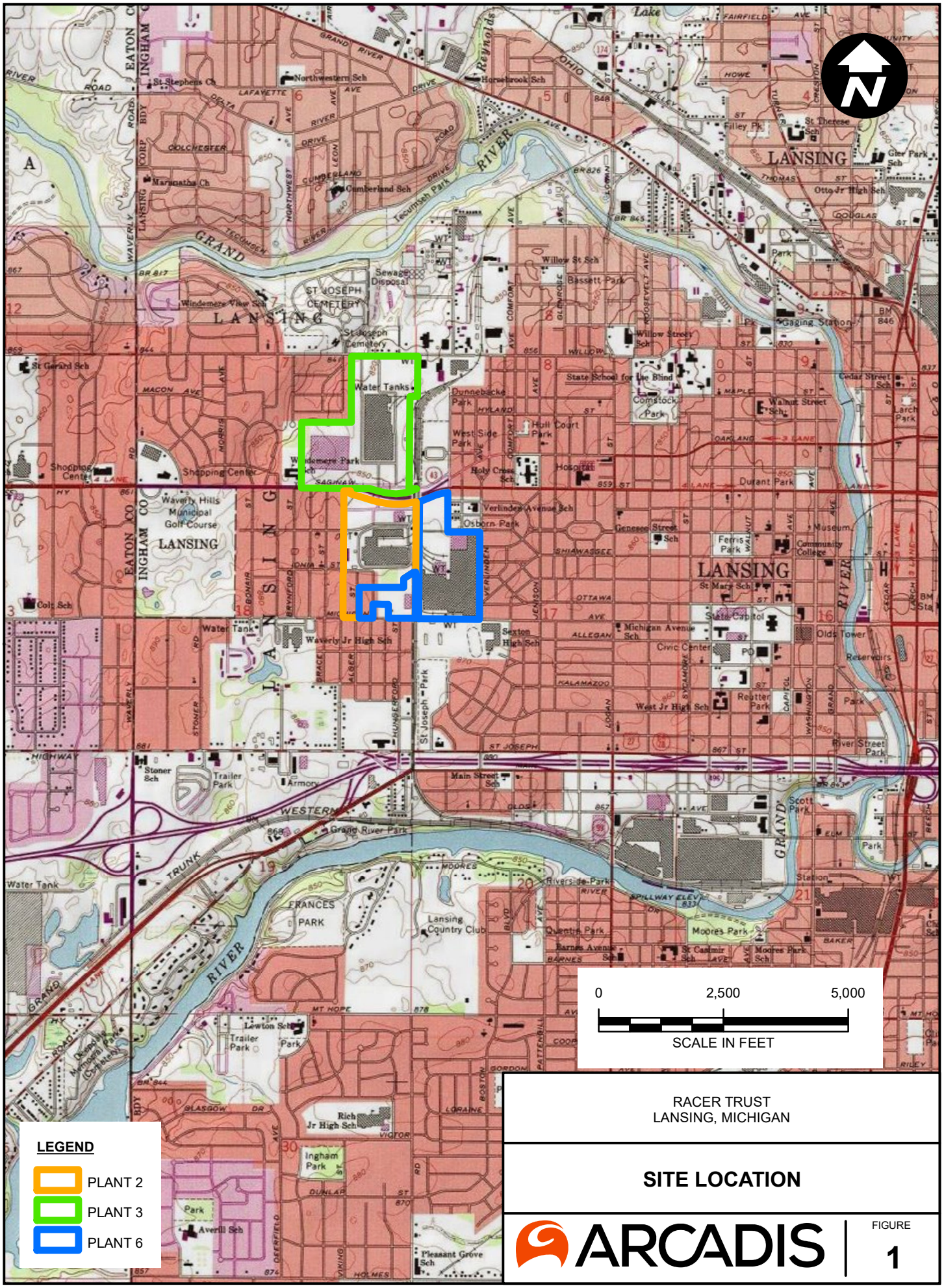
Location ID	Depth (ft bgs)	Date Collected	Sample Name	Benzo(a)pyrene ug/kg	Arsenic mg/kg	Total solids %
Michigan Soil (DEQ2013) Nonresidential Direct Contact				8,000	37	- -
Plant 2 Area 2						
SB-A2-OX62	0 - 1	04/07/21	SB-A2-OX62_0-1(040721)	NA	9.02	79
	1 - 2	04/07/21	SB-A2-OX62_1-2(040721)	NA	5.90	82
SB-A2-OX65	0 - 1	04/07/21	SB-A2-OX65_0-1(040721)	NA	3.92	79
	1 - 2	04/07/21	SB-A2-OX65_1-2(040721)	NA	4.30	78
SB-A2-OX68	0.5 - 1	04/07/21	SB-A2-OX68_0.5-1(040721)	NA	6.21	84
	1 - 2	04/07/21	SB-A2-OX68_1-2(040721)	NA	4.86	83
SB-A2-PA62	0 - 1	04/07/21	SB-A2-PA62_0-1(040721)	NA	6.75 [5.21]	82 [82]
	1 - 2	04/07/21	SB-A2-PA62_1-2(040721)	NA	2.94	84
SB-A2-PA65	0 - 1	04/07/21	SB-A2-PA65_0-1(040721)	NA	14.20	85
SB-A2-PA68	0.5 - 1	04/07/21	SB-A2-PA68_0.5-1(040721)	NA	6.80	79
	1 - 2	04/07/21	SB-A2-PA68_1-2(040721)	NA	4.82 [2.81]	84 [86]
SB-A2-PD62	0 - 1	04/07/21	SB-A2-PD62_0-1(040721)	NA	5.91	80
	1 - 2	04/07/21	SB-A2-PD62_1-2(040721)	NA	3.53	82
SB-A2-PD68	0.5 - 1	04/07/21	SB-A2-PD68_0.5-1(040721)	NA	7.59	91
	1 - 2	04/07/21	SB-A2-PD68_1-2(040721)	NA	4.66	87
SB-A2-PD65	0 - 1	04/07/21	SB-A2-PD65_0-1(040721)	NA	**70.8**	88
	1 - 2	04/07/21	SB-A2-PD65_1-2(040721)	NA	**307**	88
	2 - 3	05/20/21	SB-A2-PD65_2-3(052021)	NA	2.82 [2.70]	82 [81]
SB-A2-PD64	0 - 1	05/20/21	SB-A2-PD64_0-1(052021)	NA	3.32	86
	1 - 2	05/20/21	SB-A2-PD64_1-2(052021)	NA	2.37	85
SB-A2-PE65	0 - 1	05/20/21	SB-A2-PE65_0-1(052021)	NA	16.00	93
	1 - 2	05/20/21	SB-A2-PE65_1-2(052021)	NA	2.43	89
Plant 2 Area 5-2						
SB-A5.2-OF162	0 - 1	04/08/21	SB-A5.2-OF162_0-1(040821)	**18,300 I**	NA	80
	1 - 2	04/08/21	SB-A5.2-OF162_1-2(040821)	5,500	NA	84
SB-A5.2-OG161	0 - 1	04/08/21	SB-A5.2-OG161_0-1(040821)	**29,700 I [10,600]**	NA	77 [83]
	1 - 2	04/08/21	SB-A5.2-OG161_1-2(040821)	6,200 I	NA	88
SB-A5.2-OG163	0 - 1	04/08/21	SB-A5.2-OG163_0-1(040821)	**39,000 I**	NA	85
	1 - 2	04/08/21	SB-A5.2-OG163_1-2(040821)	**11,500 I**	NA	80
SB-A5.2-OF162A	1 - 2	04/08/21	SB-A5.2-OF162A_1-2(040921)	<300 G	NA	86
	2 - 3	04/08/21	SB-A5.2-OF162A_2-3(040921)	<300 G	NA	85
SB-A5.2-OG160	0 - 1	04/08/21	SB-A5.2-OG160_0-1(040821)	2,000 IG	NA	76
	1 - 2	04/08/21	SB-A5.2-OG160_1-2(040821)	2,900 G	NA	88
SB-A5.2-OG165	2 - 3	04/08/21	SB-A5.2-OG165_2-3(040821)	<300 G	NA	80
SB-A5.2-OH160	0.5 - 1	04/09/21	SB-A5.2-OH160_0.5-1(040821)	<300 G	NA	87
	2 - 3	04/09/21	SB-A5.2-OH160_2-3(040821)	<300 G	NA	86
Plant 2 Area 5-3						
SB-A5.3-OW123	1 - 2	04/08/21	SB-A5.3-OW123_1-2(040821)	5,300	NA	80
	2 - 3	04/08/21	SB-A5.3-OW123_2-3(040821)	4,700	NA	86
SB-A5.3-OX122	1 - 2	04/08/21	SB-A5.3-OX122_1-2(040821)	**15,300 I**	NA	85
	2 - 3	04/08/21	SB-A5.3-OX122_2-3(040821)	3,400	NA	86
SB-A5.3-OY123	1 - 2	04/08/21	SB-A5.3-OY123_1-2(040821)	**21,500 [10,200]**	NA	84 [84]
	2 - 3	04/08/21	SB-A5.3-OY123_2-3(040821)	2,600	NA	81
SB-A5.3-OV122	1 - 2	04/09/21	SB-A5.3-OV122_1-2(040921)	300 G	NA	88
	2 - 3	04/09/21	SB-A5.3-OV122_2-3(040921)	<300 G	NA	87
SB-A5.3-OV123	1 - 2	04/09/21	SB-A5.3-OV123_1-2(040921)	**8,100 G**	NA	87
	2 - 3	04/09/21	SB-A5.3-OV123_2-3(040921)	1,200 G	NA	87
SB-A5.3-OX121	1 - 2	04/09/21	SB-A5.3-OX121_1-2(040921)	<300 G	NA	82
	2 - 3	04/09/21	SB-A5.3-OX121_2-3(040921)	<300 G	NA	87
SB-A5.3-OZ123	1 - 2	04/09/21	SB-A5.3-OZ123_1-2(040921)	<300 G	NA	87
	2 - 3	04/09/21	SB-A5.3-OZ123_2-3(040921)	<300 G	NA	87
SB-A5.3-OU122	1 - 2	08/10/22	SB-A5.3-OU122_1-2(081022)	<300	NA	80
	2 - 3	08/10/22	SB-A5.3-OU122_2-3(081022)	<300	NA	86
SB-A5.3-OU123	1 - 2	08/10/22	SB-A5.3-OU123_1-2(081022)	**22,900 [9,900]**	NA	87 [86]
	2 - 3	08/10/22	SB-A5.3-OU123_2-3(081022)	**12,800**	NA	85 [87]
SB-A5.3-OU124	1 - 2	08/10/22	SB-A5.3-OU124_1-2(081022)	<300	NA	86
	2 - 3	08/10/22	SB-A5.3-OU124_2-3(081022)	<300	NA	85
SB-A5.3-OV124	1 - 2	08/10/22	SB-A5.3-OV124_1-2(081022)	<300	NA	87
	2 - 3	08/10/22	SB-A5.3-OV124_2-3(081022)	<300 [<300]	NA	85 [87]
SB-A5.3-OS122	1 - 2	08/10/22	SB-A5.3-OS122_1-2(081022)	<300	NA	87
	2 - 3	08/10/22	SB-A5.3-OS122_2-3(081022)	<300	NA	88
SB-A5.3-OT122	1 - 2	08/10/22	SB-A5.3-OT122_1-2(081022)	<300	NA	71
	2 - 3	08/10/22	SB-A5.3-OT122_2-3(081022)	<300	NA	84

Table 1
Areas 2, 5-2, 5-3, and 18 Soil Analytical Summary
RACER Lansing
Lansing, Michigan

Location ID	Depth (ft bgs)	Date Collected	Sample Name	Benzo(a)pyrene ug/kg	Arsenic mg/kg	Total solids %
Michigan Soil (DEQ2013) Nonresidential Direct Contact				8,000	37	- -
Plant 2 Area 5-3 Continued						
SB-A5.3-OS123	1 - 2	08/10/22	SB-A5.3-OS123_1-2(081022)	**12,700**	NA	84
	2 - 3	08/10/22	SB-A5.3-OS123_2-3(081022)	**89,200 Y**	NA	85
SB-A5.3-OT123	1 - 2	08/10/22	SB-A5.3-OT123_1-2(081022)	**33,200**	NA	84
	2 - 3	08/10/22	SB-A5.3-OT123_2-3(081022)	**50,300**	NA	86
SB-A5.3-OS124	1 - 2	08/10/22	SB-A5.3-OS124_1-2(081022)	<300	NA	91
	2 - 3	08/10/22	SB-A5.3-OS124_2-3(081022)	<300	NA	90
SB-A5.3-OT124	1 - 2	08/10/22	SB-A5.3-OT124_1-2(081022)	<300	NA	86
	2 - 3	08/10/22	SB-A5.3-OT124_2-3(081022)	<300	NA	86
SB-A5.3-ON122	1 - 2	09/23/22	SB-A5.3-ON122_1-2(092322)	<300	NA	90
	2 - 3	09/23/22	SB-A5.3-ON122_2-3(092322)	<300	NA	91
SB-A5.3-OI121	1 - 2	09/23/22	SB-A5.3-OI121_1-2(092322)	<300	NA	83
	2 - 3	09/23/22	SB-A5.3-OI121_2-3(092322)	<300	NA	82
SB-A5.3-OH123	1 - 2	09/23/22	SB-A5.3-OH123_1-2(092322)	Soil sample not collected poor recovery from soil boring		
	2 - 3	09/23/22	SB-A5.3-OH123_2-3(092322)	**8,200**	NA	88
SB-A5.3-OI123*	0-0.5	09/23/22	SB-A5.3-OI123_0-0.5(092322)	7,300	NA	82
SB-A5.3-ON123*	0-0.5	09/23/22	SB-A5.3-ON123_0-0.5(092322)	3,500	NA	83
SB-A5.3-OP123*	0-0.3	09/23/22	SB-A5.3-OP123_0-0.3(092322)	**10,000**	NA	74
SB-A5.3-OI125	1 - 2	09/23/22	SB-A5.3-OI125_1-2(092322)	<300 [<300]	NA	86 [87]
	2 - 3	09/23/22	SB-A5.3-OI125_2-3(092322)	<300	NA	89
SB-A5.3-ON124	1 - 2	09/23/22	SB-A5.3-ON124_1-2(092322)	<300 [<300]	NA	84 [88]
	2 - 3	09/23/22	SB-A5.3-ON124_2-3(092322)	<300	NA	88
SB-A5.3-OH124	1 - 2	12/05/22	SB-A5.3-OH124_1-2(120522)	<300	NA	82
	2 - 3	12/05/22	SB-A5.3-OH124_2-3(120522)	<300	NA	81
SB-A5.3-OH123	1 - 2	12/05/22	SB-A5.3-OH123_1-2(120522)	<300	NA	83
	2 - 3	12/05/22	SB-A5.3-OH123_2-3(120522)	<300 [<300]	NA	86 [85]
SB-A5.3-OH122	1.5-2	12/05/22	SB-A5.3-OH122_1.5-2(120522)	<300	NA	87
	2 - 3	12/05/22	SB-A5.3-OH122_2-3(120522)	3,300	NA	83
SB-A5.3-OG123	1.5 - 2	12/05/22	SB-A5.3-OG123_1.5-2(120522)	<300	NA	82
	2 - 3	12/05/22	SB-A5.3-OG123_2-3(120522)	<300	NA	83
Plant 3 Area 18						
SB-A18-CI150	1 - 2	04/08/21	SB-A18-CI150_1-2(040821)	2,500	NA	89
	2 - 3	04/08/21	SB-A18-CI150_2-3(040821)	4,400	NA	90
SB-A18-CJ149	1 - 2	04/08/21	SB-A18-CJ149_1-2(040821)	**15,000**	NA	90
	2 - 3	04/08/21	SB-A18-CJ149_2-3(040821)	3,300	NA	89
SB-A18-CJ150	1 - 2	04/08/21	SB-A18-CJ150_1-2(040821)	**7,600 [16,300]**	NA	89 [89]
	2 - 3	04/08/21	SB-A18-CJ150_2-3(040821)	**21,900**	NA	90
SB-A18-CJ151	1 - 2	04/08/21	SB-A18-CJ151_1-2(040821)	6,200	NA	90
	2 - 3	04/08/21	SB-A18-CJ151_2-3(040821)	3,000	NA	88
SB-A18-CK150	1.5 - 2	04/08/21	SB-A18-CK150_1.5-2(040821)	<300	NA	91
	2 - 3	04/08/21	SB-A18-CK150_2-3(040821)	<300	NA	88
SB-A18-CJ148	1 - 2	05/20/21	SB-A18-CJ148_1-2(052021)	300	NA	92
	2 - 3	05/20/21	SB-A18-CJ148_2-3(052021)	1,600	NA	93
SB-A18-CI149	1 - 2	05/20/21	SB-A18-CI149_1-2(052021)	1,300	NA	94
	2 - 3	05/20/21	SB-A18-CI149_2-3(052021)	1,200	NA	94
SB-A18-CK149	1 - 2	05/20/21	SB-A18-CK149_1-2(052021)	**14,500**	NA	92
	2 - 3	05/20/21	SB-A18-CK149_2-3(052021)	2,500	NA	94
SB-A18-CK147	1 - 2	07/28/21	SB-A18-CK147_1-2(072821)	This location was a step out location; analysis not completed		
	2 - 3	07/28/21	SB-A18-CK147_2-3(072821)			
SB-A18-CK148	1 - 2	07/28/21	SB-A18-CK148_1-2(072821)	1,400 [1,600]	NA	88 [89]
	2 - 3	07/28/21	SB-A18-CK148_2-3(072821)	300	NA	88

Notes:
* Concrete encountered in borehole at approximately 0.5 feet bgs
I - Matrix interference with internal standard
G - Estimated result due to extraction run outside of holding time
Y - Elevated reporting limit due to high target concentration
EGLE - Michigan Department of Environment, Great Lakes and Energy formerly DEQ
Data compared to EGLE December 2013 Part 201 Generic Non-Residential Criteria
ft bgs - feet below ground surface
ug/kg - micrograms per kilogram
mg/kg - milligrams per kilogram
NA - not analyzed for respective constituent
[ ] - duplicate sample
< - constituent not detected above laboratory detection limit
Shaded and bolded values exceed EGLE December 30, 2013 Criteria (updated June 25, 2018)

Figures



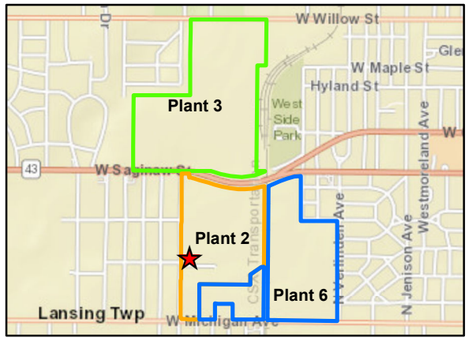
CITY: KNOXVILLE DIV: ENV DB: A.SMITH PIC: J BARRETT PM: R CHRISTENSEN TM: A VILLHAUER TR: PROJECT NUMBER: 30006870 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\BuffaloMXDs\2021 Corrective Measures Workplan\Fig 1 - Site Location.mxd PLOTTED: 12/17/2021 11:36:27 AM BY: MJoye

LEGEND

- PERCHED ZONE MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- SAMPLING LOCATION
- DOES NOT EXCEED DIRECT CONTACT CRITERIA FOR ARSENIC
- EXCEEDS DIRECT CONTACT CRITERIA FOR ARSENIC
- PROPOSED EXCAVATION AREA
- PROPOSED EXPOSURE BARRIER

*NOTE: SOIL BORING COULD NOT BE COMPLETED DUE TO THICKNESS/ STRENGTH OF CONCRETE.

Location Map



COORDINATE SYSTEM IS IN NAD_1983_StatePlane_Michigan_South_FIPS_2113_Feet_Intl

0 20 40

SCALE IN FEET

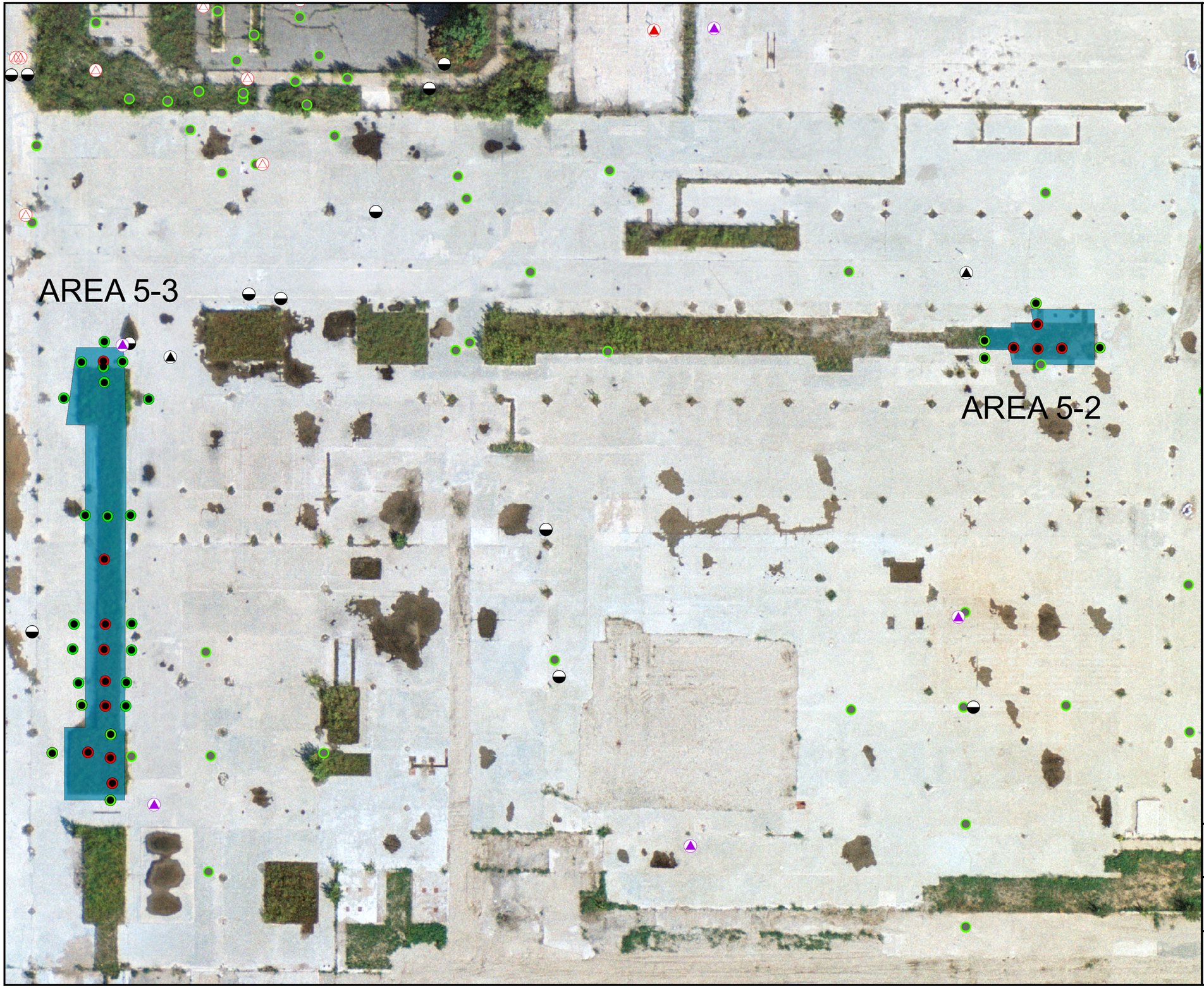
RACER TRUST
PLANT 2
LANSING, MICHIGAN

AREA 2
PROPOSED CORRECTIVE ACTIONS

ARCADIS

FIGURE
2

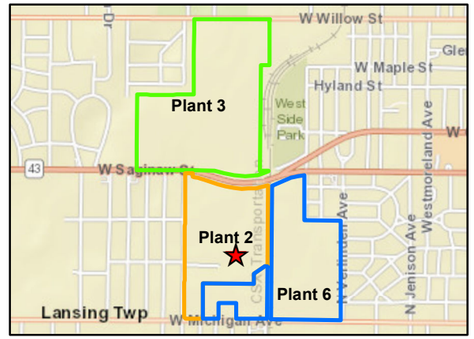
CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\Buffalo\MXDs\2021 Corrective Measures Workplan\Figure 5 - Area 2 Proposed Excavation Area and DRC Barrier.mxd PLOTTED: 11/1/2023 1:44:00 PM BY: VDavis



LEGEND

- SAMPLING LOCATION
- DOES NOT EXCEED DIRECT CONTACT CRITERIA FOR BENZO(A)PYRENE
- EXCEEDS DIRECT CONTACT CRITERIA FOR BENZO(A)PYRENE
- HPT-VAP BORING LOCATION
- HISTORICAL SOIL SAMPLE LOCATIONS BELOW DC CRITERIA
- LNAPL MONITORING WELL
- PERCHED ZONE MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- ABANDONED MONITORING WELL
- PROPOSED EXPOSURE BARRIER PLACEMENT AREA

Location Map



0 40 80

SCALE IN FEET

COORDINATE SYSTEM IS IN
NAD_1983_StatePlane_Michigan_South_FIPS_2113_Feet_Intl

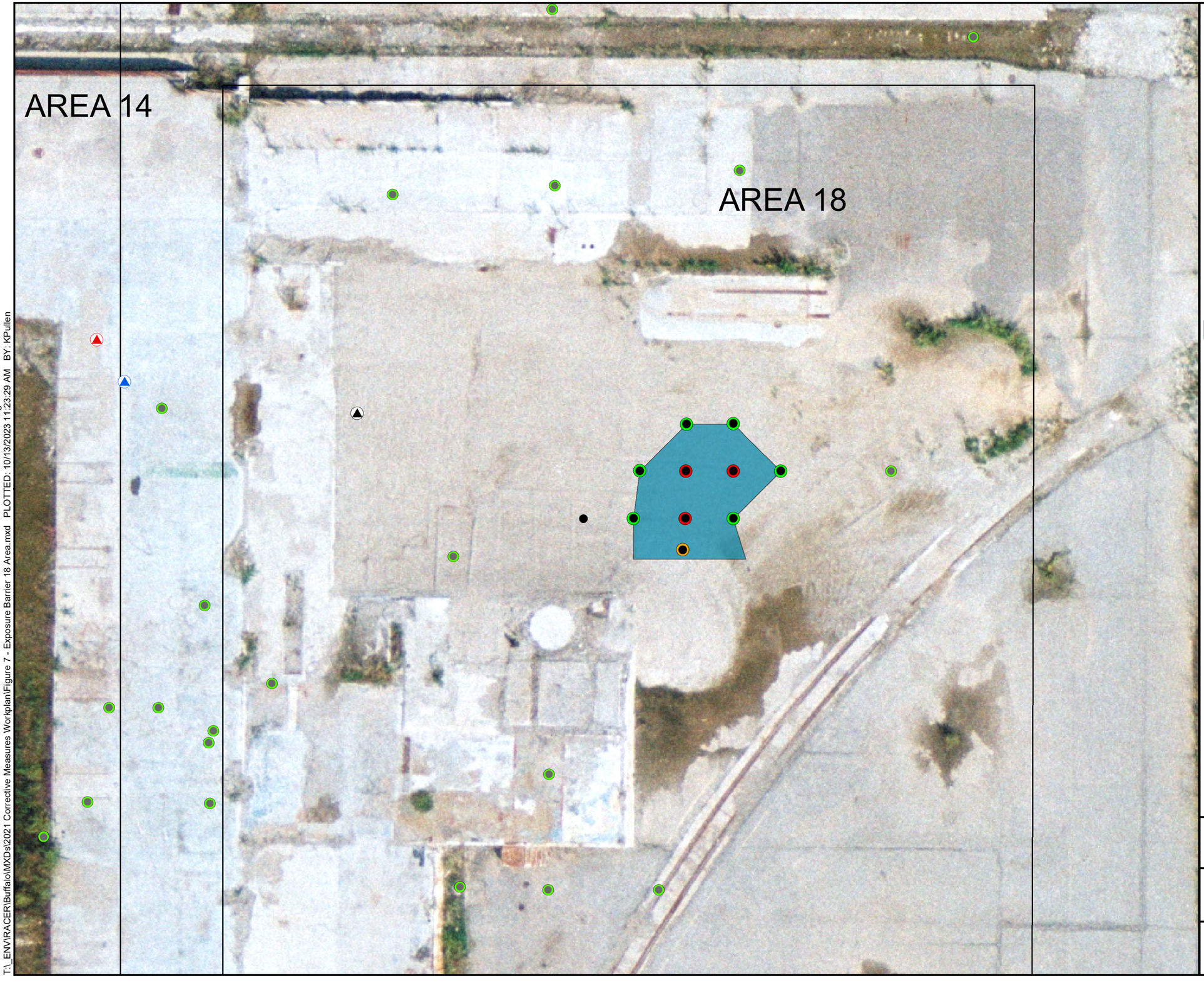
RACER TRUST
PLANT 2
LANSING, MICHIGAN

AREA 5-2 AND AREA 5-3 PROPOSED EXPOSURE BARRIER PLACEMENT

ARCADIS

FIGURE
3

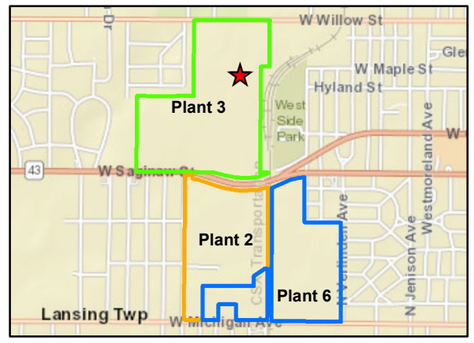
CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\Buffalo\MXDs\2021 Corrective Measures Workplan\Figure 6 - Area_5-2_5-3_ProposedCorrectiveMeasures_Mar2023.mxd PLOTTED: 10/13/2023 11:55:39 AM BY: KPullen



Legend

- HPT-VAP BORING LOCATION
- HISTORICAL SOIL SAMPLE LOCATIONS BELOW DC CRITERIA
- DEEP OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- SAMPLE LOCATION
- DOES NOT EXCEED DIRECT CONTACT CRITERIA FOR BENZO(A)PYRENE
- EXCEEDS DIRECT CONTACT CRITERIA FOR BENZO(A)PYRENE
- DELINEATION BORING LOCATION COULD NOT BE COMPLETED DUE TO FORMER CONCRETE BUILDING SLAB IN THIS LOCATION
- PROPOSED EXPOSURE BARRIER PLACEMENT AREA

Location Map



0 20 40

SCALE IN FEET

COORDINATE SYSTEM IS IN NAD_1983_StatePlane_Michigan_South_FIPS_2113_Feet_Intl

RACER TRUST
PLANT 3
LANSING, MICHIGAN

AREA 18 PROPOSED EXPOSURE BARRIER PLACEMENT

ARCADIS

FIGURE 4

CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\Buffalo\MXDs\2021 Corrective Measures Workplan\Figure 7 - Exposure Barrier 18 Area.mxd PLOTTED: 10/13/2023 11:23:29 AM BY: KPullen

Attachment 1

Plant 2 Area 2 Waste Characterization Laboratory Data

Analytical Laboratory Report

Supplemental Report

Report ID: S26601.01(03)
Generated on 05/23/2022

Report to

Attention: Tiffany Linder
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 248-994-2272 FAX:
Email: tiffany.linder@arcadis-us.com

Addtional Contacts: Alex Villhauer, Marina Samp, Kaitlyn Voet

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S26601.01
Project: 30075941.01101 / RACER Lansing
Collected Date(s): 07/28/2021
Submitted Date/Time: 07/28/2021 13:40
Sampled by: Unknown
P.O. #: 30075941.01101

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein, acrylonitrile, and 2-chlorovinylethyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

Report for only sample .01 per client request

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
SW1311	SW 846 Method 1311 Revision 0 July 1992
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S26601.01	SB-A2-PD65_1-2(072821)	Soil	07/28/21 10:45

Lab Sample ID: S26601.01
Sample Tag: SB-A2-PD65_1-2(072821)
Collected Date/Time: 07/28/2021 10:45
Matrix: Soil
COC Reference: 138861

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	6.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion*	Completed	SW3015A	08/09/21 11:20	CCM	
Mercury Digestion	Completed	SW7471B	08/09/21 09:00	JRH	

TCLP Extraction

Parameter	Result	Method	Run Date	Analyst	Flags
Initial Sample pH	9.26	SW1311	08/04/21 17:00 - 08/05/21	ELR	
pH after 3.5 ml HCl	2.39	SW1311	08/04/21 17:00 - 08/05/21	ELR	
% Solids	100	SW1311	08/04/21 17:00 - 08/05/21	ELR	
Sample Used g	40	SW1311	08/04/21 17:00 - 08/05/21	ELR	
Final Volume mL	800	SW1311	08/04/21 17:00 - 08/05/21	ELR	
TCLP Extraction Fluid	1	SW1311	08/04/21 17:00 - 08/05/21	ELR	
Final Extract pH	6.57	SW1311	08/04/21 17:00 - 08/05/21	ELR	

Metals

Method: SW6020A, Run Date: 08/09/21 13:18, Analyst: CCM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags	Limits
Arsenic, TCLP	Not detected	0.02		mg/L	25	7440-38-2		5.0
Barium, TCLP	0.62	0.05		mg/L	25	7440-39-3		100.0
Cadmium, TCLP	Not detected	0.005		mg/L	25	7440-43-9		1.0
Chromium, TCLP	Not detected	0.05		mg/L	25	7440-47-3		5.0
Lead, TCLP	Not detected	0.03		mg/L	25	7439-92-1		5.0
Selenium, TCLP	Not detected	0.05		mg/L	25	7782-49-2		1.0
Silver, TCLP	Not detected	0.005		mg/L	25	7440-22-4		5.0

Method: SW7471B, Run Date: 08/09/21 11:55, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags	Limits
Mercury, TCLP	Not detected	0.0005		mg/L	2	7439-97-6		0.2

Merit Laboratories Login Checklist

Lab Set ID: S26601
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30075941.01101 / RACER Lansing
Submitted: 07/28/2021 13:40 Login User: SRS

Attention: Tiffany Linder
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: 248-994-2272 FAX:
Email: tiffany.linder@arcadis-us.com

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.8
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☐ Yes	☐ No	☒ N/A	Do sample have correct chemical preservation	
11.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

138861

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder
COMPANY: Arcadis of Michigan, LLC
ADDRESS: 28550 Cabot Drive, Suite 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 810-225-1928 FAX NO.: 248-994-2241 P.O. NO.: 30075941.01101
E-MAIL ADDRESS: Tiffany.Linder@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ~~SAME~~
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 30075941.01101 / RACER Lansing
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ STANDARD ☐ OTHER See special instructions

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☒ Other MI

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	TCLP Metals	Benzo(a)pyrene	Special Instructions
266601.01	7/28/21	1045	SB-A2-PD65_1-2 (072821)	S	1	1							X		Standard TAT
.02	7/28/21	1145	SB-A18-CK148_1-2 (072821)	S	1	1								X	5-day TAT
.03	7/28/21	1150	SB-A18-CK148_2-3 (072821)	S	1	1								X	5-day TAT
.04	7/28/21	1215	SB-A18-CK147_1-2 (072821)	S	1	1								X	Hold
.05	7/28/21	1220	SB-A18-CK147_2-3 (072821	S	1	1								X	Hold
.06	7/28/21	—	Dup-01 (072821)	S	1	1								X	5-day TAT

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Sampler / Arcadis	DATE 7/28/21	TIME 1345
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 7/28/21	TIME 1345
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	[illegible] Merit	DATE 7/28/21	TIME 13:40
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

NOTES: TEMP. ON ARRIVAL 6.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12