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ENVIRONMENT

Subject:
Annual Progress Report - December 2020 through December 2021
RACER Trust Saginaw Malleable Industrial Land,
Green Point Landfill, and Peninsula Property
Saginaw, Michigan

Date:
December 15, 2021

Contact:
Scott Clearwater

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Our ref:
30076323

Dear Ms. Armbruster:

This annual progress report presents a summary of the work activities conducted during the period of December 2020 through December 2021 for the Revitalizing Auto Communities Environmental Response (RACER) Trust Saginaw Malleable Industrial Land (SMI), Green Point Landfill (GPL), and Peninsula former properties located in Saginaw, Michigan (the Site, **Figure 1**). This progress report also provides a summary of the work activities anticipated at the Site for the next 12-month period.

Key Correspondence

The key correspondence with the Michigan Department of Environment, Great Lakes and Energy (EGLE), U.S. Environmental Protection Agency (EPA), or City of Saginaw from Arcadis and/or GHD on behalf of RACER Trust during the reporting period are as follows:

- The 2020 Annual Report was submitted on December 22, 2020.
- The Well Abandonment Memo was submitted on March 11, 2021.
- The 5 Year Mixing Zone Review was updated and submitted for renewal on September 23, 2021 and approved by EGLE on October 21, 2021.

Conference Call/Meetings

- Work correspondence for routine work to be performed.

Site Activities

Well Abandonment

From January 19 through 20, 2021, Arcadis mobilized with Job Site Services (JSS) to complete the abandonment of 36 monitoring locations as proposed in the November 16, 2020, Well Abandonment Plan (approved by EGLE on December 11, 2020). Five of the 36 monitoring wells proposed for abandonment were identified as previously abandoned. These wells were MW-114S4, MW-11-13, Unknown ID 1, Unknown ID 2, and Unknown ID 3. These well locations were inspected and documented to have no well remaining. The following monitoring wells were abandoned: MW-01-119S1, MW04-119WT, MW04-121S1, MW04-121WT, MW-150WT, TW-07-02, X-20, MW-11-05, MW-11-06, MW-11-07, MW-11-08, MW-11-09, MW-11-10, MW-11-11, MW-11-14, MW-11-15, MW-12-01, MW-12-02, MW-12-03, MW-12-04, MW-12-05, MW-144WT, MW97-105S1, MW97-105WT, TW-06-01D, TW-06-01WT, TW-06-02D, TW-06-02WT, TW-06-03D, TW-06-03WT, and TW-07-02 Staff Gauge (**Attachment 1**).

Monitoring wells were replaced at eight of the locations on November 1 through 3, 2021 based on communications with DPH Trust and with EGLE. Further details regarding the replacement wells is discussed below and a summary memo along with boring log/well construction logs are provided in **Attachment 8**.

Site Inspection

- A Site inspection was conducted on May 11, 2021, to evaluate possible affects from recent flooding and to complete preliminary cover inspections. Overall, surface water levels were lower than what was observed in 2020.
- During the annual O&M event, the Site inspection activities were conducted in accordance with the O&M Plan (Arcadis, August 2020) to ensure the ongoing effectiveness of various Site corrective measures as summarized in **Table 1** below at the locations depicted on **Figure 2.**
    - The SMI Former Plant Slab Soil Cover Area, I27.7 Manhole Area, Quench Pit Area, SMI Former Southwest LNAPL Area, and the GPL inspection took place on August 16, 2021.
    - The Former Railyard Area, Stormwater Pond, and River Berm Area were inspected on August 23, 2021.
    - The SMI Terminated Type III Landfill inspection took place on August 24, 2021.
- Inspection results are discussed further below and documented in the Site Inspection Form (**Attachment 5**) and Technical Memo (**Attachment 11**).

Table 1. Summary of Site Operation and Maintenance Activities

No.	Site Area	Operation and Maintenance Activities
1	Green Point Landfill	Annual inspection of cover system, leachate breakouts, surface water drainage system, passive gas venting system, groundwater monitoring wells, site access and security, wetlands, and site appearance.
2	Terminated Type III Landfills	Annual soil cover inspection.
3	I27.7 Area	Annual soil cover inspection.

4	Quench Pit Area	Annual soil cover inspection.
5	Former Railyard Area	Annual soil cover inspection.
6	Melting Department	Annual soil cover inspection.
7	Peninsula Property	Annual soil cover inspection.
8	Permanent Markers	Annual inspection of permanent markers.
9	Stormwater Pond	Annual inspection for absence/presence of sheens.

- Arcadis was able to access monitoring wells on the south side of the Site during the event that had been inaccessible for several years, including the MW-122 and MW-124 series monitoring wells. However, the 27 wells on GPL planned for well abandonment remain inaccessible.
- The Permanent Markers were installed on November 3 and December 9 as discussed below.

SMI Annual Operation, Maintenance, and Monitoring

- The annual O&M and groundwater monitoring event took place from August 14 through August 24, 2021, in accordance with the Remedial Action Plan approved with conditions (RAP), previous annual report recommendations, and 2020 Operation and Maintenance (O&M) Plan.
- A total of 45 SMI monitoring wells were gauged on August 16 and 17, 2021, with an electronic water level indicator graduated at 0.01-foot increments, to measure static groundwater elevations, which are provided in **Table 1**. Additionally, two staff gauges and one bridge measurements were also collected. Average annual groundwater elevations are listed below. Staff gauge SG-1 (Nearshore) was dry. Groundwater elevations rose approximately 1-foot following plant demolition (2010) and storm sewer bulkheading and elevations were stable between 2012 to 2018. The average groundwater elevation gradually increased another foot from 2018 to 2021 (2-feet since 2011). The average groundwater elevation in 2021 was 583.44 feet above mean sea level (amsl), indicating the average groundwater elevation has decreased back to an elevation, as previously observed from 2012 through 2018.

Average Groundwater Elevation Sitewide Per Year

9/20/11	9/11/12	9/23/13	9/17/14	9/28/15	9/20/16	8/28/17	9/24/18	8/19/19	8/10/20	8/16/21
582.36	583.33	582.46	583.53	582.99	582.90	583.92	583.60	584.14	584.62	583.44

- Groundwater generally flows east-southeast towards the Saginaw River (**Figure 3**).
- Groundwater samples were collected from 15 monitoring wells (MW-107WT, MW-107S1, MW-108WT, MW-108S2, MW-110WTR, MW-111WT, MW-114WT, MW-114S2, MW-149WT, MW-185WT, MW-186WT, MW-131WT, MW-134WT, B-3R, and QPTW-13R) located in the river berm area on the SMI Property. A well construction and screen interval summary table, sampling parameters, and field

parameters at the time of sampling for the SMI monitoring wells are included in **Attachment 2**. Groundwater concentrations were compared to the Site-specific Groundwater-Surface Water Interface (GSI) criteria, which have been identified as the minimum EGLE Rule 57 criterion for each constituent[1]. The results from the sampling are summarized in **Table 2** (inorganics) and **Table 3** (organics) and as follows.

- Aroclors were not detected at any of the five locations (MW-110WTR, MW-111WT, MW-114WT, MW-185WT, and MW-186WT) that were analyzed for polychlorinated biphenyls (PCBs).
- Total and dissolved arsenic were detected in both locations (MW-107WT and MW-149WT) analyzed at concentrations below the Site-specific GSI criterion of 680 µg/L[2].
- Manganese was detected in MW-107WT, MW-108WT, MW-110WTR, MW-111WT, MW-114WT, MW-185WT, and MW-186WT. However, concentrations are below the Site-specific GSI criterion of 4,700 µg/L.
- EGLE previously evaluated a mixing zone application submitted by General Motors Corporation and established that there is no reasonable potential for ammonia to cause an exceedance of water quality standards. Concentrations of un-ionized ammonia were calculated using the measured groundwater temperatures and pH immediately prior to collecting each groundwater sample. The calculated un-ionized ammonia concentrations were less than the Site-specific GSI criterion of 53 µg/L for warm water bodies for all locations.
- Total phosphorus was detected in the groundwater samples collected from monitoring wells MW-107WT, MW-110WTR, MW-111WT, MW-114WT, MW-149WT, MW-185WT, and MW-186WT at concentrations less than the Site-specific GSI criterion of 1,000 µg/L.
- The sample collected from MW-108WT was analyzed for semi-volatile organic compounds (SVOCs). There were no SVOCs detected.

- During the annual O&M monitoring event in August 2021, samples from five monitoring wells located within SMI (**Figure 4**) were analyzed for per- and polyfluoroalkyl substances (PFAS). The results from the sampling are summarized in **Table 4**.
  - Perfluorooctanesulfonic acid (PFOS) was detected above EGLE GSI Criterion at monitoring wells B-3R and MW-108WT.
- Analytical data packages for SMI August 2021 groundwater monitoring events are provided in **Attachment 3**. Groundwater sampling logs are provided in **Attachment 4**.
- The SMI Former Plant Slab Soil Cover Area, I27.7 Manhole Area, Quench Pit Area, and SMI Former Southwest LNAPL Area were inspected on August 16, 2021. A summary of the inspection is presented in **Attachment 11**. The Former Railyard Area, Stormwater Pond, and River Berm Area

[1] Criteria are the current Rule 57 criteria. Hardness-dependent Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 monitoring event. pH-dependent Rule 57 criteria are based on a default pH of 7. Un-ionized ammonia concentrations were calculated using field-measured pH and groundwater temperature, where available.
[2] The GSI mixing zone concentration for total arsenic was established for venting groundwater under the RAP and based on the 5 Year Mixing Zone Review renewals approved on August 5, 2016, and October 21, 2021.

were inspected on August 23, 2021. The Two Terminated Type III Landfills were inspected on August 24, 2021. The inspection forms are provided in **Attachment 5.**

- Maintenance was completed November 15 through 16, 2021 on the Stormwater Pond to cover an exposed portion of the liner and address the presence of the observed hole in lining on the east side of the SMI Stormwater Pond. All other inspection items were observed as satisfactory. The maintenance performed on the liner is discussed in a later section and further detail in a summary memo as **Attachment 10**.

Green Point Landfill (GPL) Annual Operation, Maintenance, and Monitoring

- The annual O&M and groundwater monitoring event took place from August 16 through August 24, 2021.
- A total of 29 GPL monitoring wells were gauged on August 16 and 17, 2021 with an electronic water level indicator to measure static groundwater elevations to the nearest 0.01 foot (see **Table 1 and Figure 3**).
- A total of 17 monitoring wells were planned to be sampled in the annual GPL groundwater monitoring program: MW-117WT, MW-117S1, MW-118WT, MW-118S1, MW-183WT, X-4AR, X-4CAUG, X-4D, X-9AR, X-9BR, X-9CAUG, X-9D, TW-242, TWW-1, MW-122WT, X-10AR2, and X-2A. X-4AR purged dry before sample collection and samples were not able to be collected. X-4AR has a history of purging dry and samples are often unable to be collected. Purging and sampling were attempted early in the monitoring event to allow time (if needed) for the well to recharge enough to sample on the last day; however, the well did not recharge during the monitoring event.
- A well construction and screen interval summary table, sampling parameters, and field parameters at the time of sampling for the GPL monitoring wells are included in **Attachment 6**. The results from the sampling are summarized in **Table 5** (inorganics) and **Table 6** (organics) and as follows.
    - Total arsenic was detected at concentrations below the Site-specific GSI criterion in samples collected from monitoring wells MW-117WT, MW-183WT, X-9AR, and X-9D adjacent to the Saginaw River. Dissolved arsenic was detected at concentrations below the Site-specific GSI criterion in the samples collected from monitoring wells MW-117WT, MW-183WT, and X-9AR. Total and dissolved arsenic were not detected at the remaining locations analyzed.
    - Total and dissolved barium were detected at concentrations above Site-specific GSI criterion in samples collected from MW-117S1 and MW-117WT. Total and dissolved barium were detected at concentrations below Site-specific GSI criterion in samples collected from MW-118S1, MW-118WT, MW-183WT, X-4CAUGR, X-4D, X-9A, X-9BR, X-9CAUG, and X-9D.
    - Total and dissolved manganese were detected at concentrations below Site-specific GSI criterion in samples collected from monitoring wells (MW-117S1, MW-117WT, MW-118S1, MW-118WT, MW-183WT, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D) adjacent to the Saginaw River.
    - Total and dissolved selenium were not detected in the monitoring wells sampled adjacent to the Saginaw River.

  - Total cyanide was detected below Site-specific GSI criterion in monitoring wells X-118WT, X-4CAUGR, and X-4D. Total cyanide was not detected at the remaining locations analyzed, and dissolved cyanide was not detected in any of the monitoring wells analyzed.
  - EGLE previously evaluated a mixing zone application submitted by GM and Waste Management and established that there was no reasonable potential for ammonia to cause an exceedance of water quality standards. Concentrations of un-ionized ammonia were calculated using the measured groundwater temperatures and pH immediately prior to collecting each groundwater sample. The calculated un-ionized ammonia concentrations were greater than the Site-specific GSI criterion of 53 µg/L for warm water bodies for monitoring wells MW-117WT at a concentration of 100 µg/L, MW-118WT at a concentration of 110 µg/L, and X-9D at a concentration of 56 µg/L. These results are within the range of previously detected concentrations. Monitoring wells MW-117WT and MW-118WT are upgradient of the Saginaw River, while X-9D is located adjacent to the Saginaw River. The calculated un-ionized ammonia concentrations in co-located monitoring wells screened at shallower intervals (X-9AR, X-9BR, X-9CAUG) and in X-4AR, X-4CAUGR, X-9AR, and X-4D did not exceed the Site-specific GSI criterion.
  - Concentrations of chloride were similar to those seen in prior years. Monitoring wells X-4D and X-9D are perimeter wells used for comparison to GSI criterion. Concentrations of chloride in monitoring wells X-4D and X-9D were above the Site-specific GSI criterion of 150,000 µg/L, at 1,300,000 µg/L. These results are within the range of previously detected concentrations. Bedrock in the general vicinity of the Site is known to be high in chlorides, sodium, and other minerals, and may be contributing to elevated chloride concentrations with depth. The chloride concentrations in co-located monitoring wells screened at shallower intervals (X-4AR, X-4CAUGR, X-9AR, X-9BR, X-9CAUG) at these locations did not exceed the Site-specific GSI criterion.
  - Total dissolved solids (TDS) concentrations were similar to those seen in prior years. Monitoring wells X-4D and X-9D are perimeter wells used for evaluating potential GSI impacts. The established background screening level concentration for TDS in the RAP is 2,200,000 µg/L. Results from the sample from X-4D and X-9D were above the background screening level at 2,500,000 µg/L and 2,600,000 respectively and TDS in these deep wells may see influence from the elevated chloride and sodium ions known to be present in bedrock in the general vicinity.

- Two monitoring wells located in the southwest portion of the GPL property (TWW-1 and TW-242) were sampled during the event. These wells are included in the annual monitoring program due to the historical discharge of volatile organic compounds (VOCs) to the subsurface from the neighboring property to the west through a drainage pipe. 1,1-Dichlorethane, cis-1,2-dichloroethene, and vinyl chloride were detected in TWW-1, all at concentrations less than the Site-specific GSI criteria. As mentioned in previous annual reports, a portion of a drainpipe was removed, and the remaining in-place ends were sealed to eliminate a migration pathway for VOCs from the adjacent property.
- During the annual O&M monitoring event in August 2021, samples from nine monitoring wells within GPL (**Figure 4**) were analyzed for PFAS. The results from the sampling are summarized in **Table 4**.

  - Perfluorooctanesulfonic acid (PFOS) was detected above EGLE GSI Criterion at monitoring well X-2A. Perfluorooctainoic acid (PFOA) was detected above EGLE Drinking Water Criterion at monitoring wells TWW-1 and X-2A.

- Analytical data packages for GPL August 2021 groundwater monitoring events are provided in **Attachment 3**. Groundwater sampling logs are provided in **Attachment 4**.
- Green Point Landfill was inspected on August 16, 2021. The inspection included reviewing status of vegetative growth of mid slope drainage swale that was completed in October 2020, and confirmed vegetation is taking hold over areas that were previously covered. A small woody growth was identified between the west access road and vent pipe during the inspection. The inspection forms are included in **Attachment 5**.

Peninsula Property Annual Operation, Maintenance Inspection

- Exposure barriers at the Peninsula Property were inspected during the sampling event on August 23, 2021. The barriers were in good condition and no notable observations were identified during the inspection. The inspection forms are included in **Attachment 5**.

Site Maintenance

- During the annual O&M event, August 14 through August 24, 2021, monitoring wells were inspected and well locks were replaced as needed.
- From September 7 through 9, 2021 wells were modified, damaged stick-up protective covers were converted to flush mounts, rusty stick-up covers were painted black, and damaged stick-up covers were replaced at several locations. The modifications and maintenance performed is discussed in a later section.
- On November 15, 2021, JSS removed a tree that was close to the SMI Stormwater Pond liner's edge.
- Maintenance was performed November 15 through 16, 2021 at the SMI Stormwater Pond. Arcadis oversaw maintenance activities performed by JSS which included installing a cover system over an exposed portion of the liner on the east side of the SMI Stormwater Pond. The maintenance performed on the liner is discussed in a later section.

Well Modifications and Maintenance

- From September 7 through 9, 2021, Arcadis mobilized with JSS to complete well modification activities at the Site to convert damaged stickup casings to flush mount protective covers, and maintenance painting stick-up covers that were rusty, and replacing stick-up covers that were damaged and in areas that occasionally have standing water, see **Attachment 7**.
- The following monitoring wells were modified where damaged stick-up covers were replaced with flush mount protective covers and well casings were cut down at SMI: B-5R, B-5BAUG, B-5CAUG, MW-103WT, MW-103S1, MW-103S2, MW-107WT, MW-107S1, MW-134WT, MW-134S1, and MW-134S2.
- The following monitoring wells were modified as flush mount at GPL: MW-128WT and MW-128S1.

- Modifications were unable to be completed at X-4AR, X-4CAUGR, and X-4D at GPL due to standing water and muddy surface conditions.
- Existing damaged stick-up covers at GPL were replaced at two monitoring wells: X-16A and X-16B; and were added to three monitoring wells: TWW-1, TWW-241, and TWW-242 utilizing aluminum stickup covers.
- Arcadis repainted six rusty stick-up monitoring well covers black at SMI: MW-105WT, MW105S1, MW-105S2, MW-140WT, MW-140S1, and MW-140S2.

Peninsula Well Replacement

- On November 1 through 2, 2021 Arcadis mobilized with Fibertec to install one new monitoring well (MW-21-01) and seven replacement monitoring wells at the Peninsula Property: MW-11-05R, MW-11-08R, MW-11-11R, MW-11-14R, MW-12-01R, MW-12-04R. and W-012-05R (**Attachment 8**). Soil descriptions were logged for the new monitoring well MW-21-01. Tetra Tech was onsite to oversee the installation of the wells in representation of DPH Environmental Response Trust.
- Following installation of all the monitoring wells. The monitoring wells were developed using a submersible pump, except for monitoring well MW-11-05R which was hand bailed due to slow recharge (which was noted as being consistent with previous well purging for that location).
- 8-soil drums and 4-purge water drums were staged on pallets on the DPH Environmental Response Trust property to be disposed of by Tetra Tech.

Permanent Marker Installation

- On November 3, 2021 Arcadis mobilized with JSS to install permanent markers at four locations as approved by EGLE (**Figure 1**).
- Three of the four permanent markers were installed on November 3, 2021. The south marker location at the southeast corner of the Site was not accessible through the Site for installation due to high vegetation and difficulty with mobilizing equipment.
- An access agreement was obtained with The State Land Bank on November 30, 2021 for parcels at; 8 Riverside Boulevard and 3311 Gabriel Road in order to access the south marker location from Riverside Boulevard.
- The south marker was installed on December 9, 2021.
- For additional details of the permanent marker installation including a summary memo, figures and photos that were collected of the installation, see **Attachment 9**.

Stormwater Pond Liner Maintenance

- On November 15 through 16, 2021 Arcadis mobilized with JSS to complete Stormwater Pond maintenance to a portion of the northeast corner section of the Stormwater Pond liner and provide stabilization of the slope (**Attachment 10**).
- JSS removed a tree that was close to the Stormwater Pond liner's edge before beginning the maintenance activities.
- JSS additionally hand dug to locate the edge of the existing liner anchor trench so that the new cover system would extend beyond the edge of the existing liner.

- A 16-Mil geotextile separation layer was placed over the existing liner to act as a cushion between the existing liner and the GeoWeb® (HDPE Geocell panel slope protection system by Presto).
- The GeoWeb® system came in panels that were 8.5 feet wide. Seven panels were used for this job and were connected onsite. Three tendons were inserted into each panel and connected at every fourth cell vertically by ATRA tendon clips shown in the figures in **Attachment 10**. The panels then connected to one another by a series of connectors (ATRA keys) along the cell edges vertically.
- 48-inch Anchors were installed utilizing a hammer drill and drive rod and then locked into place with a Platypus® pneumatic jack at the top of the slope of each tendon. The tendons were attached to the metal cables at the top of the slope, allowing the GeoWeb® to drape down the slope into the Stormwater Pond.
- The GeoWeb® was expanded and draped from the anchors down to approximately 2 feet below the water surface of the Stormwater Pond.
- The Geoweb® cells were filled with 21A aggregate which can support vegetation. Topsoil and seed will be added as needed during future site inspections.

PCB and LNAPL Activities

- Completed inspections of 25.4 acre 1-ft clay cover over the concrete floor slab, including the 127.7 Manhole Area. See **Attachment 11** for a summary of the inspection.
- Completed annual gauging/inspection of the re-installed Quench Pit wells and manholes in the Southwest Plant LNAPL Area (8/16/2021). There was no measurable product identified in the Southwest Plant LNAPL Area manholes. See **Attachment 11** for a summary of the annual gauging/inspections of the LNAPL areas.

Proposed Modifications to the EGLE approved July 31, 2020 O&M Plan or Activity for 2022

The following activities are currently planned to be completed between January and December 2022:

- Arcadis proposes to discontinue sampling and analysis for VOCs at GLP wells TWW-1 and TW-242 based on the continued decline of vinyl chloride concentrations and the fact that the drainage pipe from the neighboring property was sealed. Concentrations of vinyl chloride and other detected VOCs have not exceeded GSI criteria for at least the last three annual monitoring events.
- Based on the 2021 PFAS results, sampling of the fourteen monitoring wells identified in the approved O&M Plan and that were sampled in 2021 along with 2 additional locations; MW-125WT and TW-242 are recommended for 2022 for further characterization of the detection observed in TWW-1.
- Complete annual groundwater monitoring per the EGLE approved July 31, 2020 O&M Plan. Sampling is expected to take place during the third quarter of 2022.
- Perform Site inspection to locate and evaluate condition(s) of inaccessible monitoring wells.
- Properly abandon monitoring wells no longer needed or damaged and as approved by EGLE.
- Well modifications to extend well casings higher and brush clearing to address issues where wells have been inaccessible due to standing water and/or vegetation, to include MW-122WT, MW-122S1, MW-122S2, MW-124WT, MW-124S1, and TWW-2.

- Survey location coordinates of permanent markers along with survey of top of casing elevation for certain key monitoring wells and staff gauges such as B-5R, B-5BAUG, B-5CAUG, MW-103WT, MW-103S1, MW-103S2, MW-107WT, MW-107S1, MW-117WT, MW-117S1, MW-118WT, MW-118S1, MW-128WT, MW-128S1, MW-134WT, MW-134S1, MW-134S2, RG-1, and SG-1 that need elevations to be re-surveyed.
- Respond to other information requests from EGLE, as necessary.
- Complete on-going inspections/monitoring associated with the LNAPL areas.
- Conduct inspection of the clay cover over the slab, including the I27.7 Manhole Area, and complete repairs and maintenance, as necessary including evaluating the need for a mowing event of the vegetated clay cover over the slab at a minimum annually.
- Coordinate with MDNR and the Saginaw County Parks regarding park development.

Please contact me at 810-225-1921 or David Favero with RACER if you have any questions regarding the enclosed report or its attachments.

Sincerely,

Arcadis of Michigan, LLC



Scott Clearwater
Certified Project Manager

Copies:
John Fordell Leone, Department of Attorney General
Jean Greensley, U.S. EPA
Brad Norton, Waste Management
Brian Lechel, Saginaw County Parks & Recreation
David Favero, RACER Trust
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Enclosures:

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3 SMI Organics Analytical Data Summary Table
4 PFAS Groundwater Analytical Summary Table
5 GPL Inorganics Analytical Data Summary Table
6 GPL Organics Analytical Data Summary Table

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1 Site Location Map
2 Site Inspection Areas
3 Groundwater Elevation Contour Map Shallow Aquifer – August 16 and 17, 2021
4 PFAS Sampling Results

Attachments

1 Well Abandonment Memo
2 SMI Well Construction Logs, Sampling Parameters, and Field Parameters
3 Laboratory Analytical Reports
4 Field Sampling Logs
5 SMI and Green Point Landfill Site Inspection Forms
6 GPL Well Construction Logs, Sampling Parameters, and Field Parameters
7 Well Modification and Maintenance Memo
8 Peninsula Well Replacement Memo
9 Permanent Marker Install Memo
10 Stormwater Pond Liner Repair Memo
11 2021 PCB Cover Inspections and Quarterly LNAPL Gauging/Inspections

TABLES

Table 1
Summary of Water Elevation Table
August 16, 2021
RACER Trust, Saginaw, Michigan

Location	Well Type	Reference Elevation (feet AMSL)	8/16/21 Depth to Water (feet)	Groundwater Elevation (feet AMSL)	Site Area (GPL or SMI)
Sampled Monitoring Wells (Green Point Landfill)					
MW-117WT	Stick Up	585.56	2.90	582.66	GPL
MW-117S1	Stick Up	586.32	3.68	582.64	GPL
MW-118WT	Stick Up	585.40	2.35	583.05	GPL
MW-118S1	Stick Up	585.72	3.27	582.45	GPL
MW-122WT	Stick Up	584.97	3.09	581.88	GPL
MW-183WT	Stick Up	588.77	7.35	581.42	GPL
X-2A	Stick Up	593.12	5.64	587.48	GPL
X-4AR	Stick Up	586.82	5.15	581.67	GPL
X-4CAUGR	Stick Up	586.36	4.31	582.05	GPL
X-4D	Stick Up	586.32	1.82	584.50	GPL
X-9AR	Stick Up	586.95	6.34	580.61	GPL
X-9BR	Stick Up	586.85	5.89	580.96	GPL
X-9CAUG	Stick Up	586.62	5.68	580.94	GPL
X-9D	Stick Up	587.47	2.88	584.59	GPL
X-10AR2	Stick UP	594.67	8.14	586.53	GPL
TW-242	Stick Up	589.58	7.96	581.62	GPL
TWW-1	Stick Up	587.31	6.15	581.16	GPL
Sampled Monitoring Wells (Saginaw Malleable Industrial Land)					
B-3R	Stick Up	609.51	9.01	600.50	SMI
MW-107WT	Stick Up	590.65	9.91	580.74	SMI
MW-107S1	Stick Up	590.74	9.82	580.92	SMI
MW-108WT	Stick Up	590.53	9.31	581.22	SMI
MW-108S2	Stick Up	590.26	9.42	580.84	SMI
MW-110WTR	Stick Up	591.52	11.38	580.14	SMI
MW-111WT	Stick Up	590.95	8.79	582.16	SMI
MW-114WT	Stick Up	591.12	8.09	583.03	SMI
MW-114S2	Stick Up	591.20	9.59	581.61	SMI
MW-131WT	Stick Up	592.56	5.97	586.59	SMI
MW-134WT	Stick Up	594.02	7.43	586.59	SMI
MW-149WT	Stick Up	592.27	11.35	580.92	SMI
MW-185WT	Stick Up	588.67	6.83	581.84	SMI
MW-186WT	Stick Up	590.34	7.93	582.41	SMI
QPTW-13R	Flushmount	594.04	5.29	588.75	SMI
Gauging Only Monitoring Wells					
B-3BAUG	Stick Up	596.54	12.92	583.62	SMI
B-5BAUG	Stick Up	594.17	11.53	582.64	SMI
B-5CAUG	Stick Up	594.23	11.61	582.62	SMI
B-5R	Stick Up	594.54	7.67	586.87	SMI

Table 1
Summary of Water Elevation Table
August 16, 2021
RACER Trust, Saginaw, Michigan

Location	Well Type	Reference Elevation (feet AMSL)	8/16/21 Depth to Water (feet)	Groundwater Elevation (feet AMSL)	Site Area (GPL or SMI)
MW-103S1	Stick Up	595.75	13.04	582.71	SMI
MW-103S2	Stick Up	596.34	14.09	582.25	SMI
MW-103WT	Stick Up	596.21	13.38	582.83	SMI
MW-105S1	Stick Up	593.67	11.02	582.65	SMI
MW-105S2	Stick Up	593.27	10.62	582.65	SMI
MW-105WT	Stick Up	593.35	8.08	585.27	SMI
MW-108S1	Stick Up	590.24	9.08	581.16	SMI
MW-108S3	Stick Up	589.98	6.59	583.39	SMI
MW-108S4	Stick Up	590.11	6.74	583.37	SMI
MW-111S1	Stick Up	591.14	9.72	581.42	SMI
MW-111S2	Stick Up	591.05	9.92	581.13	SMI
MW-111S3	Stick Up	591.35	7.99	583.36	SMI
MW-111S4	Stick Up	591.66	8.17	583.49	SMI
MW-114S1	Stick Up	591.13	8.28	582.85	SMI
MW-114S3	Stick Up	591.02	7.42	583.60	SMI
MW-122S1	Stick Up	584.97	NM	NA	GPL
MW-122S2	Stick Up	585.13	2.73	582.40	GPL
MW-124WT	Stick Up	586.41	3.91	582.50	GPL
MW-124S1	Stick Up	585.94	3.38	582.56	GPL
MW-125WT	Stick Up	586.98	4.61	582.37	GPL
MW-128S1	Stick Up	594.99	12.08	582.91	GPL
MW-128WT	Stick Up	594.96	11.39	583.57	GPL
MW-131S1	Stick Up	592.75	9.80	582.95	SMI
MW-131S2	Stick Up	592.39	9.46	582.93	SMI
MW-134S1	Stick Up	593.31	10.49	582.82	SMI
MW-134S2	Stick Up	593.14	10.41	582.73	SMI
MW-138WT	Stick Up	602.39	5.54	596.85	SMI
MW-140WT	Stick Up	595.90	11.10	584.80	SMI
MW-140S1	Stick Up	595.33	12.85	582.48	SMI
MW-140S2	Stick Up	595.80	13.34	582.46	SMI
MW-143WT	Stick Up	596.52	21.43	575.09	SMI
QP-1R	Flushmount	594.59	5.57	589.02	SMI
QPTW-10R	Flushmount	594.20	5.44	588.76	SMI
RG1	Mark on bridge	NA	22.25	NA	SMI
SG1 (Near shore)	Staff Gauge	585.30	NA	NA	SMI
SG1 (Offshore)	Staff Gauge	NA	2.00	NA	SMI
TW-241	Stick Up	589.03	6.69	582.34	GPL
X-16A	Stick Up	587.44	NA	NA	GPL
X-16B	Stick Up	587.20	4.51	582.69	GPL
X-1A	Stick Up	597.72	12.45	585.27	GPL
X-1B	Stick Up	597.69	12.97	584.72	GPL
X-1CR2	Stick Up	598.41	12.45	585.96	GPL

Table 1
Summary of Water Elevation Table
August 16, 2021
RACER Trust, Saginaw, Michigan

Location	Well Type	Reference Elevation (feet AMSL)	8/16/21 Depth to Water (feet)	Groundwater Elevation (feet AMSL)	Site Area (GPL or SMI)

Notes:

- Elevations are shown in feet above mean sea level (AMSL) relative to the NGVD datum of 1929.
- Depth to water measurements were taken from the top of well casing.
- Monitoring wells in the MW-128 and X-1 well clusters were extended during landfill capping activities. Reference elevations shown above are from August 2000 when the wells were resurveyed.
- QP-1 was replaced by QP-1R, QPTW-10 was replaced by QPTW-10R, and QPTW-13 was replaced by QPTW-13R reference elevations updated based on Spicer Group survey dated 7/6/17 and 9/5/17.
- The Reference Elevations for MW-117WT, MW-117S1, MW-118WT, and MW-118S1 are estimated values calculated based on total depth value differences from 2020 and 2016, these are being used until a survey of the wells can be completed.
- A water level was not collected for X-16A, the well was dry.

GPL	Green Point Landfill
NA	Not available
NM	Not measured
SMI	Saginaw Malleable Industrial Land
TOC	Top of Casing

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-107S1	12.5 - 17.5	07/12/95	--	--	--	--	--	--
MW-107S1	12.5 - 17.5	06/07/96	--	--	--	--	--	--
MW-107S1	12.5 - 17.5	06/06/08	--	--	--	**1,200 J**	--	--
MW-107S1	12.5 - 17.5	09/30/10	--	--	--	**1,200**	**20**	--
MW-107S1	12.5 - 17.5	09/21/11	--	--	--	**1,400**	**4.9**	--
MW-107S1	12.5 - 17.5	09/17/12	--	--	--	**1,400**	**6.1**	--
MW-107S1	12.5 - 17.5	09/26/13	--	--	--	**1,400 B**	**8.2 B**	--
MW-107S1	12.5 - 17.5	09/24/14	--	--	--	**1,700 B**	**9.7 B**	--
MW-107S1	12.5 - 17.5	10/01/15	--	--	--	**1,400**	**4.8**	--
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	**1,500**	**4.1**	--
MW-107S1	12.5 - 17.5	08/30/17	--	--	--	**1,800**	**12**	--
MW-107S1	12.5 - 17.5	09/26/18	--	--	--	**1,300**	**4.1**	--
MW-107S1	12.5 - 17.5	08/21/19	--	--	--	**1,400**	**8.6**	--
MW-107S1	12.5 - 17.5	08/11/20	--	--	--	**1,400**	**13**	--
MW-107S1	12.5 - 17.5	08/20/21	--	--	--	**1,200**	**11**	--
MW-107WT	4 - 9	07/12/95	**2.30**	**446**	--	--	--	--
MW-107WT	4 - 9	06/07/96	5.00 U	**38.3 J**	--	--	--	--
MW-107WT	4 - 9	04/03/08	**0.950 J**	**379**	--	**300**	--	**30 J**
MW-107WT	4 - 9	09/18/12	**1.1 J**	**170**	--	**62 J**	--	100 U
MW-107WT	4 - 9	09/26/13	--	--	--	**880 B**	**2.3 B**	**100**
MW-107WT	4 - 9	09/24/14	**4.2**	**1,500**	--	**1,300 B**	**2.9 B**	100 U
MW-107WT	4 - 9	10/01/15	**11**	--	--	**1,200**	**6.2**	100 U
MW-107WT	4 - 9	09/29/16	**6.5**	**2,000 ^**	--	**1,400**	**3.2**	100 U
MW-107WT	4 - 9	08/30/17	**2**	**1500**	--	**590 B**	**4.4 B**	100 U
MW-107WT	4 - 9	09/26/18	**7.3 J**	**870**	--	**290**	**0.91**	100 U
MW-107WT	4 - 9	08/21/19	15 U	**340**	--	**150 J**	**0.68 J**	100 U
MW-107WT	4 - 9	08/11/20	2.0 U [2.0 U]	**200 [240]**	5.0 U [5.0 U]	200 U [200 U]	1.0 U [1.0 U]	100 U [100 U]
MW-107WT	4 - 9	08/20/21	**22**	**820**	**8.2**	**850**	**9**	**250**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-108S2	22 - 27	07/13/95	--	--	--	--	--	--
MW-108S2	22 - 27	06/08/96	--	--	--	--	--	--
MW-108S2	22 - 27	06/06/08	--	--	--	**3,500 J**	--	--
MW-108S2	22 - 27	09/29/10	--	--	--	**4,600**	**38**	--
MW-108S2	22 - 27	09/21/11	--	--	--	**4,900**	**39**	--
MW-108S2	22 - 27	09/17/12	--	--	--	**6,200**	**35**	--
MW-108S2	22 - 27	09/26/13	--	--	--	**5,300 B**	**36 B**	--
MW-108S2	22 - 27	09/24/14	--	--	--	**4,600 B**	--	--
MW-108S2	22 - 27	10/01/15	--	--	--	**7,700**	**72**	--
MW-108S2	22 - 27	09/29/16	--	--	--	**5,400**	**18**	--
MW-108S2	22 - 27	08/30/17	--	--	--	**8,800**	**110**	--
MW-108S2	22 - 27	09/27/18	--	--	--	**4,900**	**19**	--
MW-108S2	22 - 27	08/21/19	--	--	--	**5,100**	**51**	--
MW-108S2	22 - 27	08/11/20	--	--	--	**6,200**	**59**	--
MW-108S2	22 - 27	08/19/21	--	--	--	**5,000 [4,900]**	**33 [32]**	--
MW-108WT	2.5 - 7.5	07/13/95	**8.30 J**	**4,800**	--	--	--	--
MW-108WT	2.5 - 7.5	06/08/96	5.00 U	**933**	--	--	--	--
MW-108WT	2.5 - 7.5	05/21/00	10.0 U	**1,230**	--	--	--	--
MW-108WT	2.5 - 7.5	06/02/04	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	--	**2,000 ^**	--	**60 J**	**0.065 J**	100 U
MW-108WT	2.5 - 7.5	08/31/17	--	**1,300**	--	200 U	--	100 U
MW-108WT	2.5 - 7.5	09/27/18	--	**430**	--	**97 J**	**0.049 J**	100 U
MW-108WT	2.5 - 7.5	08/21/19	--	**1,900**	--	**130 J**	**0.44 J**	100 U
MW-108WT	2.5 - 7.5	08/13/20	--	**2,000**	--	**1,100**	**3.6**	100 U
MW-108WT	2.5 - 7.5	08/19/21	--	**2,600**	--	**1,200**	**4.7**	100 U

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-110WT	UNKNOWN	06/12/96	**7.30**	**460**	--	--	--	--
MW-110WT	UNKNOWN	12/10/97	--	--	--	--	--	--
MW-110WTR	3 - 8	04/02/08	--	**2,680**	--	**90 J**	--	**200**
MW-110WTR	3 - 8	09/24/14	--	**4,000**	--	**100 J,B**	--	**120**
MW-110WTR	3 - 8	10/01/15	--	**4,000**	--	200 U	0.41 U	**200**
MW-110WTR	3 - 8	09/29/16	--	**3,500 ^**	--	**130 JB**	**0.1 JB**	**270**
MW-110WTR	3 - 8	10/13/16	--	--	--	--	--	--
MW-110WTR	3 - 8	08/31/17	--	**2,900**	--	200 U	0.27 U	**370**
MW-110WTR	3 - 8	09/27/18	--	**3,200**	--	**100 J**	**0.061 J**	**180**
MW-110WTR	3 - 8	08/21/19	--	**2,000**	--	200 U	0.85 U	**470**
MW-110WTR	3 - 8	08/12/20	--	**2,000**	--	200 U	0.45 U	**250**
MW-110WTR	3 - 8	08/19/21	--	**2,400 [2,400]**	--	200 U	0.48 U	**250**
MW-111WT	5.5 - 10.5	07/14/95	**24.0 J**	**3,740**	--	--	--	--
MW-111WT	5.5 - 10.5	06/12/96	**30.7**	**4,440**	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	**2,100**	--	**2,700**	--	**1,000**
MW-111WT	5.5 - 10.5	09/02/99	--	--	--	**3,100**	--	--
MW-111WT	5.5 - 10.5	05/19/00	**11.4**	**2,560**	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	**1,090**	--	--	--	--

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-111WT	5.5 - 10.5	08/26/05	--	**1,680 [1,520]**	--	--	--	--
MW-111WT	5.5 - 10.5	04/02/08	--	**1,080 [1,140]**	--	**500 [500]**	--	**400 [400]**
MW-111WT	5.5 - 10.5	09/18/12	--	**3,600**	--	**1,600**	**2.7**	**87 J**
MW-111WT	5.5 - 10.5	09/26/13	--	**1,600**	--	**1,400 B**	**2.2 B**	**370**
MW-111WT	5.5 - 10.5	09/23/14	--	**780**	--	**1,700**	--	**610**
MW-111WT	5.5 - 10.5	10/01/15	--	**1,600**	--	**1,400**	**3.7**	**970**
MW-111WT	5.5 - 10.5	09/29/16	--	**1,700**	--	**2,900**	**3.7**	**480**
MW-111WT	5.5 - 10.5	08/31/17	--	**1,000**	--	**1,100 B**	**7 B**	**390**
MW-111WT	5.5 - 10.5	09/27/18	--	**2,300**	--	**5,000**	**14**	**970**
MW-111WT	5.5 - 10.5	08/22/19	--	**1,500**	--	**1,900**	**7.9**	**1,000**
MW-111WT	5.5 - 10.5	08/12/20	--	**1,400**	--	**1,800**	**12**	**970**
MW-111WT	5.5 - 10.5	08/23/21	--	**1,700**	--	**1,900**	**6.5**	**960**
MW-114S2	22.5 - 27.5	07/17/95	--	--	--	--	--	--
MW-114S2	22.5 - 27.5	06/07/96	--	--	--	--	--	--
MW-114S2	22.5 - 27.5	06/06/08	--	--	--	**2,500 J**	--	--
MW-114S2	22.5 - 27.5	09/29/10	--	--	--	**2,300 [2,200]**	**160 [160]**	--
MW-114S2	22.5 - 27.5	09/22/11	--	--	--	**3,000 [3,000]**	**14 [14]**	--
MW-114S2	22.5 - 27.5	09/18/12	--	--	--	**2,900 [2,800]**	**13 [13]**	--
MW-114S2	22.5 - 27.5	09/25/13	--	--	--	**3,800 B [3,800 B]**	**23 B [23 B]**	--
MW-114S2	22.5 - 27.5	09/23/14	--	--	--	**5,000^ [5,500^]**	**7.9 ^ [8.6 ^]**	--
MW-114S2	22.5 - 27.5	10/02/15	--	--	--	**2,200 [2,800]**	**11 [14]**	--
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	**2,700**	**7.2**	--
MW-114S2	22.5 - 27.5	09/01/17	--	--	--	**2,300 [2,100 B]**	**14 [13 B]**	--
MW-114S2	22.5 - 27.5	09/28/18	--	--	--	**2,500 [2,000]**	**2.8 [2.2]**	--
MW-114S2	22.5 - 27.5	08/22/19	--	--	--	**2,600 F1 [2,400]**	**16 F1 [15]**	**330 [330]**
MW-114S2	22.5 - 27.5	08/13/20	--	--	--	**2,200**	**2**	**--**
MW-114S2	22.5 - 27.5	08/20/21	--	--	--	**1,500**	**8.4**	**--**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-114WT	3.5 - 8.5	06/08/96	5.00 U	**2,260**	--	--	--	--
MW-114WT	3.5 - 8.5	12/11/97	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	05/22/00	10.0 U	**503**	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	**1,100**	--	**66 J,B**	**0.23 J,B**	100 U
MW-114WT	3.5 - 8.5	09/23/14	**5.3**	**1,400**	--	200 U	0.22 U	100 U
MW-114WT	3.5 - 8.5	10/02/15	--	**1,000**	--	**200 U [820]**	**0.34 U [1.4]**	100 U, F1 [100 U]
MW-114WT	3.5 - 8.5	09/29/16	--	**1,100**	--	200 U	0.42 U	100 U
MW-114WT	3.5 - 8.5	08/31/17	--	**850**	--	200 U	0.99 U	**160**
MW-114WT	3.5 - 8.5	09/28/18	--	**1,100**	--	200 U	0.31 U	**150**
MW-114WT	3.5 - 8.5	08/22/19	--	**950**	--	**150 J**	**0.69 J**	**240**
MW-114WT	3.5 - 8.5	08/13/20	--	**740**	--	**360**	**3.4**	**280**
MW-114WT	3.5 - 8.5	08/19/21	--	**860**	--	**570**	**2.6**	**190**
MW-149WT	7 - 17	06/12/96	--	--	--	--	--	--
MW-149WT	7 - 17	05/21/00	**10.7**	**868**	--	--	--	--
MW-149WT	7 - 17	06/02/04	**223 [227]**	**4,440 [4,560]**	--	--	--	--
MW-149WT	7 - 17	04/03/08	**93.6 [92.3]**	**1,570**	--	**800**	--	**300**
MW-149WT	7 - 17	09/30/10	**126 [122]**	--	--	**3,600**	**6.7**	**2,200 [1,800]**
MW-149WT	7 - 17	09/28/11	**190 [180]**	--	--	**4,700**	**6.9**	**1,600 [1,600]**
MW-149WT	7 - 17	09/18/12	**160 [160]**	--	--	**5,000**	**6.8**	**2,000 [1,900]**
MW-149WT	7 - 17	09/25/13	**140 B [140 B]**	--	--	**4,600 B**	**6.2 B**	**2,000 [2,100]**
MW-149WT	7 - 17	09/24/14	**75 B [69 B]**	--	--	**3,200 B**	--	**2,000 [1,300]**
MW-149WT	7 - 17	10/01/15	**60**	--	--	**3,000**	**4.7**	**1,100**
MW-149WT	7 - 17	09/29/16	**50 [52]**	--	--	**1,200**	**1**	**620 [700]**
MW-149WT	7 - 17	08/30/17	**48[48]**	--	--	**1,100 B**	**4.4 B**	**970 [850]**
MW-149WT	7 - 17	09/26/18	**66 [60]**	--	--	**920 [880]**	**0.66 [0.63]**	**910 [880]**
MW-149WT	7 - 17	08/21/19	**51 [50]**	--	--	**960 [1,600]**	**2.3 [3.8]**	**650 [1,100]**
MW-149WT	7 - 17	08/11/20	**40**	**900**	**9.1**	**1,800**	**5.1**	**1,100**
MW-149WT	7 - 17	08/19/21	**45 [50]**	**--**	**9.1 [11]**	**2,600 [2,700]**	**6.2 [6.5]**	**1,000 [1,000]**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	53	53	1,000
MW-185WT	3 - 8	11/28/07	--	**291**		300 U [300 U]	--	100 U [100 U]
MW-185WT	3 - 8	09/18/12	--	**700**		**380**	**4.3**	100 U
MW-185WT	3 - 8	09/25/13	--	**400**		**400 B**	--	100 U
MW-185WT	3 - 8	09/24/14	--	**320**		**160 J,B**	**4 J,B**	100 U
MW-185WT	3 - 8	10/01/15	--	**330**		**190 J**	**4.1 J**	100 U
MW-185WT	3 - 8	09/30/16	--	**150**		**97 J**	**0.54 J**	100 U
MW-185WT	3 - 8	08/31/17	--	**140**		**96 J,B**	**3.4 J,B**	100 U
MW-185WT	3 - 8	09/27/18	--	**1100**		**150 J**	**0.93 J**	100 U
MW-185WT	3 - 8	08/22/19	--	**650**		**120 J**	**1.7 J**	100 U
MW-185WT	3 - 8	08/14/20	--	**320**	--	**100 J**	**1.7 J**	100 U
MW-185WT	3 - 8	08/23/21	--	**470**	--	**140 J**	**2.9 J**	70 J
MW-186WT	8 - 18	09/30/10	--	**252**	--	**1,500**	**29**	**300**
MW-186WT	8 - 18	09/23/11	--	**450**	--	**2,100**	**57**	**360**
MW-186WT	8 - 18	09/18/12	--	**400**	--	**2,100**	**15**	**250**
MW-186WT	8 - 18	09/25/13	--	**1,100**	--	**2,000 B**	**4.3 B**	**290**
MW-186WT	8 - 18	09/24/14	--	**2,100**	--	**2,000 B**	**2.3 B**	**170**
MW-186WT	8 - 18	10/02/15	--	**1,400**	--	**1,600**	**9.7**	**290**
MW-186WT	8 - 18	09/30/16	--	--	--	--	--	--
MW-186WT	8 - 18	09/30/16	--	**1,800**	--	**1,500**	**3.4**	**260**
MW-186WT	8 - 18	08/31/17	--	**700**	--	**1,300 B**	**12 B**	**290**
MW-186WT	8 - 18	09/27/18	--	**690**	--	**1,600**	**9.7**	**400**
MW-186WT	8 - 18	08/22/19	--	**920**	--	**1,500 [1,400]**	**12 [11]**	**440 [120]**
MW-186WT	8 - 18	08/12/20	--	**410**	--	**1,300**	**22**	**440**
MW-186WT	8 - 18	08/24/21	--	**1,000**	--	**1,200**	**4**	**460**

Notes:
All results are in micrograms per liter (ug/L).
Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.
Applicable site-specific criteria are the minimum Rule 57 criteria, excluding drinking water.
Hardness-dependent Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.
pH-dependent Rule 57 criteria are based on a default pH of 7.
Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equaitons. When available, the field-measured pH was used.
Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia
Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$
pKa = 0.0901821+2729.92/T
T (in Kelvin) = T(°C) + 273.15
Bolded cells represent constitiuent concentrations with detections.
Duplicate results are presented in brackets.
Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.
MW-183WT, X-4CAUGR, X-9AR, X-9BR, X-9CAUG represent a groundwater surface water interface (GSI) perimeter monitoring well from Green Point Landfill.
MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.
* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on October 21, 2021.

Data Qualifiers:

ND =	Not detected. The value in parentheses represents the associated detection limit.
-- or NA =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1=	MS and/or MSD Recovery is outside acceptance limits
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
M =	Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3&4-Methylphenol	3,3'-Dichlorobenzidine
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			290	NSL	5	11	380	19	NSL	NSL	NSL	18	19	30	NSL	56	30	0.2
MW-107S1	12.5 - 17.5	07/12/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-107S1	12.5 - 17.5	06/07/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-107WT	4 - 9	06/07/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-107WT	4 - 9	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-108S2	22 - 27	06/08/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-108WT	2.5 - 7.5	06/08/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-108WT	2.5 - 7.5	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	0.95 U	4.8 U	3.8 U	1.9 U	1.9 U	4.8 U	4.8 U	4.8 U	0.95 U	0.95 U	0.19 U	0.95 U	1.9 U	1.9 U	--	3.8 U
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	0.95 U	4.8 U	3.8 U	--	1.9 U	4.8 U	4.8 U	4.8 U	0.95 U	0.95 U	0.19 U	0.95 U	1.9 U	1.9 U	--	3.8 U
MW-108WT	2.5 - 7.5	09/27/18	--	4.8 U	4.8 U	1.9 U	1.9 U	9.5 U	4.8 U	4.8 U	0.95 U	0.95 U	0.19 U	0.95 U	1.9 U	1.9 U	1.9 U	4.8 U
MW-108WT	2.5 - 7.5	08/21/19	0.95 U	4.8 U	4.8 U	1.9 U	1.9 U	9.5 U	4.8 U	4.8 U	0.95 U	0.95 U	0.19 U	0.95 U	1.9 U	1.9 U	--	4.8 U
MW-108WT	2.5 - 7.5	08/13/20	0.96 U [0.95 U]	4.8 U [4.8 U]	4.8 U [4.8 U]	1.9 U[1.9 U]	1.9 U [1.9 U]	9.6 U [9.5 U]	4.8 U [4.8 U]	4.8 U [4.8 U]	0.96 U [0.95 U]	0.96 U [0.95 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	4.8 U [4.8 U]
MW-108WT	2.5 - 7.5	08/19/21	0.95 U [0.95 U]	4.8 U [4.8 U]	3.8 U [3.8 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	4.8 U [4.8 U]	4.8 U [4.8 U]	4.8 U [4.8 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	3.8 U F2 [3.8 U]
MW-110WT	UNKNOWN	06/12/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-110WT	UNKNOWN	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	12/10/97	**12**	50 U	5.0 U	5.0 U	5.0 U	20 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-110WT	UNKNOWN	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/01/15	0.95 U	4.8 U	3.8 U	--	1.9 U	4.8 U	4.8 U	--	0.95 U	0.95 U	0.19 U	0.95 U	1.9 U	1.9 U	1.9 U	3.8 U
MW-110WTR	10 - 15	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	07/14/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-111WT	5.5 - 10.5	06/12/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-111WT	5.5 - 10.5	03/07/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	05/19/00	5.0 U	5.0 U	5.0 U	10 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-111WT	5.5 - 10.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3&4-Methylphenol	3,3'-Dichlorobenzidine
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			290	NSL	5	11	380	19	NSL	NSL	NSL	18	19	30	NSL	56	30	0.2
MW-114S2	22.5 - 27.5	07/17/95	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-114S2	22.5 - 27.5	06/07/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-114WT	3.5 - 8.5	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	12/11/97	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-114WT	3.5 - 8.5	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/28/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/13/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	06/12/96	5.0 U	50 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	--	20 U
MW-149WT	7 - 17	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/25/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	11/28/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/14/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/23/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/24/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	3-Nitroaniline	4,6-Dinitro-2-methylphenol	4-Bromophenyl phenyl ether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			NSL	NSL	NSL	7.4	72	NSL	NSL	200	38	NA	NA	2,400	7.3	NSL	NA	NA
MW-107S1	12.5 - 17.5	07/12/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	06/07/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-107WT	4 - 9	06/07/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-107WT	4 - 9	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-108S2	22 - 27	06/08/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	06/08/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	1.9 U	4.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	4.8 U	0.19 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.19 U	0.19 U
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	1.9 U	--	--	1.9 U	1.9 U	--	1.9 U	4.8 U	0.19 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.19 U	0.19 U
MW-108WT	2.5 - 7.5	09/27/18	1.9 U	4.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	0.19 U	0.19 U	0.95 U	0.19 U	1.9 U	1.9 U	0.19 U	0.19 U
MW-108WT	2.5 - 7.5	08/21/19	1.9 U	4.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	9.5 U	0.19 U	0.19 U	0.95 U	0.19 U	1.9 U	1.9 U	0.19 U	0.19 U
MW-108WT	2.5 - 7.5	08/13/20	1.9 U [1.9 U]	4.8 U [4.8 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	9.6 U [9.5 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	0.19 U [0.19 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	0.19 U [0.19 U]	0.19 U [0.19 U]
MW-108WT	2.5 - 7.5	08/19/21	1.9 U [1.9 U]	4.8 U [4.8 U]	1.9 U [1.9 U]	1.9 U [1.9 U]	1.9 U * F1 [1.9 U *]	1.9 U [1.9 U]	1.9 U [1.9 U]	4.8 U [4.8 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.19 U [0.19 U]
MW-110WT	UNKNOWN	06/12/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-110WT	UNKNOWN	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	12/10/97	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-110WT	UNKNOWN	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/01/15	1.9 U	4.8 U	1.9 U	1.9 U	1.9 U, F1	1.9 U	1.9 U	4.8 U	0.19 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.19 U	0.19 U
MW-110WTR	10 - 15	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	07/14/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	06/12/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	03/07/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	05/19/00	20 U	20 U	5.0 U	5.0 U	10 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	3-Nitroaniline	4,6-Dinitro-2-methylphenol	4-Bromophenyl phenyl ether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			NSL	NSL	NSL	7.4	72	NSL	NSL	200	38	NA	NA	2,400	7.3	NSL	NA	NA
MW-114S2	22.5 - 27.5	07/17/95	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 UJ	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	06/07/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 UJ	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	12/11/97	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/28/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/13/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	06/12/96	20 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U	5.0 U	--	5.0 U	--	--	5.0 U	5.0 U
MW-149WT	7 - 17	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/25/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	11/28/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/14/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/23/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/24/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	1,1'-Biphenyl	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Caprolactam	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Di-n-Butylphthalate
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			NA	NA	NSL	13	NSL	15	18	67	NSL	4	NA	NA	4	110	NSL	9.7
MW-107S1	12.5 - 17.5	07/12/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	**9.0**	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	06/07/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	11 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	**0.70 J**	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-107WT	4 - 9	06/07/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	7.7 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-107WT	4 - 9	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-108S2	22 - 27	06/08/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	06/08/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 UJ	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	0.19 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	1.9 U	0.95 U	4.8 U	0.95 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	0.95 U
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	0.19 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	1.9 U	0.95 U	4.8 U	0.95 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	0.95 U
MW-108WT	2.5 - 7.5	09/27/18	0.19 U	0.19 U	0.19 U	--	0.95 U	0.95 U	4.8 U	1.9 U	4.8 U	0.95 U	0.19 U	0.19 U	0.95 U	4.8 U	1.9 U	4.8 U
MW-108WT	2.5 - 7.5	08/21/19	0.19 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	4.8 U	1.9 U	4.8 U	0.95 U	0.19 U	0.19 U	0.95 U	4.8 U	1.9 U	4.8 U
MW-108WT	2.5 - 7.5	08/13/20	0.19 U [0.19 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	0.96 U [0.95 U]	0.96 U [0.95 U]	4.8 U [4.8 U]	1.9 U [1.9 U]	4.8 U [4.8 U]	0.96 U [0.95 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	4.8 U [4.8 U]	1.9 U [1.9 U]	4.8 U [4.8 U]
MW-108WT	2.5 - 7.5	08/19/21	0.19 U [0.19 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	1.9 U [1.9 U]	0.95 U [0.95 U]	4.8 U [4.8 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.95 U [0.95 U]
MW-110WT	UNKNOWN	06/12/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-110WT	UNKNOWN	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	12/10/97	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-110WT	UNKNOWN	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/01/15	0.19 U	0.19 U	0.19 U	0.95 U	0.95 U	0.95 U	1.9 U	0.95 U	**0.38 J**	0.95 U	0.19 U	0.19 U	--	0.95 U	0.95 U	0.95 U
MW-110WTR	10 - 15	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	07/14/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	**54**	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	06/12/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	03/07/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	05/19/00	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	1,1'-Biphenyl	bis(2-Chloroethoxy)methane	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butylbenzylphthalate	Caprolactam	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Di-n-Butylphthalate
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			NA	NA	NSL	13	NSL	15	18	67	NSL	4	NA	NA	4	110	NSL	9.7
MW-114S2	22.5 - 27.5	07/17/95	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	**0.63 J**	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	06/07/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 UJ	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	12/11/97	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/28/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/13/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	06/12/96	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	--	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
MW-149WT	7 - 17	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/25/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	11/28/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/14/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/23/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/24/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Di-n-Octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			300	1.6	12	0.0003	0.053	450	6.7	NA	1,300	11	180	NSL	NSL	2.8	1.7	450	15
MW-107S1	12.5 - 17.5	07/12/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	06/07/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-107WT	4 - 9	06/07/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-107WT	4 - 9	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 UJ	5.0 U	5.0 U	5.0 UJ
MW-108S2	22 - 27	06/08/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	06/08/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-108WT	2.5 - 7.5	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	0.95 U	0.19 U	0.19 U	0.19 U	0.95 U	4.8 U	0.95 U	0.19 U	0.95 U	0.19 U	0.95 U	--	--	4.8 U	0.19 U	0.95 U	0.19 U
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	0.95 U	0.19 U	0.19 U	0.19 U	0.95 U	4.8 U	0.95 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.95 U	4.8 U	0.19 U	0.95 U	0.19 U
MW-108WT	2.5 - 7.5	09/27/18	1.9 U	0.19 U	0.19 U	0.19 U	0.95 U	9.5 U	0.95 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.95 U	9.5 U	0.19 U	0.95 U	0.19 U
MW-108WT	2.5 - 7.5	08/21/19	1.9 U	0.19 U	0.19 U	0.19 U	0.95 U	9.5 U	0.95 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.95 U	9.5 U	0.19 U	0.95 U	0.19 U
MW-108WT	2.5 - 7.5	08/13/20	1.9 U [1.9 U]	0.19 U [0.19 U]	0.19 U * [0.19 U *]	0.19 U [0.19 U]	0.96 U [0.95 U]	9.6 U [9.5 U]	0.96 U [0.95 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	0.96 U [0.95 U]	0.96 U [0.95 U]	9.6 U [9.5 U]	0.19 U [0.19 U]	0.96 U [0.95 U]	0.19 U [0.19 U]
MW-108WT	2.5 - 7.5	08/19/21	0.95 U [0.95 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	4.8 U [4.8 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	0.95 U [0.95 U]	4.8 U [4.8 U]	0.19 U [0.19 U]	0.95 U [0.95 U]	0.19 U [0.19 U]
MW-110WT	UNKNOWN	06/12/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-110WT	UNKNOWN	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	12/10/97	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-110WT	UNKNOWN	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/01/15	0.95 U	0.19 U	0.19 U	0.19 U	0.95 U	4.8 U	0.95 U	0.19 U	0.95 U	0.19 U	0.95 U	0.95 U	0.95 U	4.8 U	--	0.19 U	0.19 U
MW-110WTR	10 - 15	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/21/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	07/14/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	06/12/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	03/07/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	05/19/00	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
MW-111WT	5.5 - 10.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	04/02/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5-10.5	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Di-n-Octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-Nitroso-di-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			300	1.6	12	0.0003	0.053	450	6.7	NA	1,300	11	180	NSL	NSL	2.8	1.7	450	15
MW-114S2	22.5 - 27.5	07/17/95	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	06/07/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	03/06/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	12/11/97	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U	5.0 U
MW-114WT	3.5 - 8.5	05/22/00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	04/05/01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/24/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/23/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	09/28/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/13/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/19/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	06/12/96	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U
MW-149WT	7 - 17	03/10/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/25/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	11/28/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	10/01/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/14/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/23/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/23/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/18/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/25/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/24/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	10/02/15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/30/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/31/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	09/27/18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/22/19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-186WT	8-18	08/24/21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026
MW-107S1	12.5 - 17.5	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-107S1	12.5 - 17.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-107WT	4 - 9	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-107WT	4 - 9	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	R	R	R	R	R	R	R	--	--	R
MW-108S2	22 - 27	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	R	R	R	R	R	R	R	--	--	R
MW-108WT	2.5 - 7.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-108WT	2.5 - 7.5	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-108WT	2.5 - 7.5	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/27/18	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/21/19	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/13/20	--	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/19/21	--	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-110WT	UNKNOWN	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	**0.23**	0.2 U	0.2 U	--	--	**0.23**
MW-110WT	UNKNOWN	12/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-110WT	UNKNOWN	05/22/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/24/05	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	--	--	0.20 U [0.20 U]
MW-110WTR	10 - 15	04/02/08	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U
MW-110WTR	10 - 15	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-110WTR	10 - 15	10/01/15	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-110WTR	10 - 15	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/21/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/19/21	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	--	--	0.097 U
MW-111WT	5.5 - 10.5	07/14/95	0.21 U	0.21 U	0.42 U	0.21 U	**0.41**	0.21 U	0.21 U	--	--	**0.41**
MW-111WT	5.5 - 10.5	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-111WT	5.5 - 10.5	03/07/97	0.2 U	0.2 U	0.4 U	0.2 U	**0.28**	0.2 U	0.2 U	--	--	**0.28**
MW-111WT	5.5 - 10.5	06/30/99	0.10 U	0.10 U	0.10 U	0.10 U	**0.11**	0.10 U	0.10 U	0.10 U	0.10 U	**0.11**
MW-111WT	5.5 - 10.5	05/19/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U
MW-111WT	5.5 - 10.5	04/05/01	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U
MW-111WT	5.5 - 10.5	04/02/08	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	--	--	0.20 U [0.20 U]
MW-111WT	5.5-10.5	09/18/12	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--	0.098 U
MW-111WT	5.5-10.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	**0.45**	0.095 U	0.095 U	--	--	**0.45**
MW-111WT	5.5-10.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-111WT	5.5-10.5	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-111WT	5.5 - 10.5	09/29/16	0.19 U	0.19 U	0.19 U	0.19 U	**0.21**	0.19 U	0.19 U	--	--	**0.21**
MW-111WT	5.5 - 10.5	08/31/17	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	--	--	0.095 U
MW-111WT	5.5 - 10.5	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	**0.82**	0.095 U	0.095 U	0.095 U	0.095 U	**0.82**
MW-111WT	5.5 - 10.5	08/22/19	0.098 U	0.098 U	0.098 U	0.098 U	**0.22**	0.098 U	0.098 U	--	--	**0.22**
MW-111WT	5.5 - 10.5	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	**0.068 J**	0.095 U	0.095 U	0.095 U	0.095 U	**0.068 J**
MW-111WT	5.5 - 10.5	08/23/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	---	--	0.095 U [0.095 U]

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026
MW-114S2	22.5 - 27.5	07/17/95	0.21 U	0.21 U	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	--	--	0.41 U
MW-114S2	22.5 - 27.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-114WT	3.5 - 8.5	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	**0.41**	**--**	--	**0.41**
MW-114WT	3.5 - 8.5	12/11/97	0.2 U	0.2 UJ	0.4 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U	--	--	0.4 U
MW-114WT	3.5 - 8.5	05/22/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U
MW-114WT	3.5 - 8.5	04/05/01	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	08/24/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U
MW-114WT	3.5 - 8.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-114WT	3.5 - 8.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-114WT	3.5 - 8.5	10/02/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-114WT	3.5 - 8.5	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-114WT	3.5 - 8.5	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-114WT	3.5 - 8.5	09/28/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/22/19	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--	0.098 U
MW-114WT	3.5 - 8.5	08/13/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/19/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-149WT	7 - 17	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-149WT	7 - 17	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/25/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U
MW-185WT	3 - 8	11/28/07	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	0.17 J [0.20 U]	0.20 U [0.20 U]	0.20 U [0.20 U]	--	--	0.17 J [0.20 U]
MW-185WT	3 - 8	09/18/12	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	--	--	0.096 U
MW-185WT	3 - 8	09/25/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-185WT	3 - 8	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-185WT	3 - 8	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-185WT	3 - 8	09/30/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-185WT	3 - 8	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-185WT	3 - 8	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	08/22/19	--	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	08/14/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	08/23/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-186WT	8-18	09/30/10	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--	0.10 U
MW-186WT	8-18	09/23/11	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U
MW-186WT	8-18	09/18/12	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	09/25/13	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	09/24/14	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	--	--	0.10 U [0.097 U]
MW-186WT	8-18	10/02/15	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	09/30/16	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	08/31/17	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	09/27/18	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]
MW-186WT	8-18	08/22/19	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]
MW-186WT	8-18	08/12/20	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]
MW-186WT	8-18	08/24/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016 (Dissolved)	Aroclor 1221 (Dissolved)	Aroclor 1232 (Dissolved)	Aroclor 1242 (Dissolved)	Aroclor 1248 (Dissolved)	Aroclor 1254 (Dissolved)	Aroclor 1260 (Dissolved)	Aroclor 1262 (Dissolved)	Aroclor 1268 (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026
MW-107S1	12.5 - 17.5	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107S1	12.5 - 17.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	--	--	--	--	--	--
MW-107WT	4 - 9	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107WT	4 - 9	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107WT	4 - 9	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107WT	4 - 9	09/29/16	--	--	--	--	--	--	--	--	--
MW-108S2	22 - 27	07/13/95	R	R	R	R	R	R	R	--	--
MW-108S2	22 - 27	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108S2	22 - 27	09/29/16	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	07/13/95	R	R	R	R	R	R	R	--	--
MW-108WT	2.5 - 7.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108WT	2.5 - 7.5	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108WT	2.5 - 7.5	09/29/16	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	10/13/16	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/31/17	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	09/27/18	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/21/19	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/13/20	--	--	--	--	--	--	--	--	--
MW-108WT	2.5 - 7.5	08/19/21	--	--	--	--	--	--	--	--	--
MW-110WT	UNKNOWN	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	12/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	05/22/00	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	06/02/04	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	08/24/05	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	--	--
MW-110WTR	10 - 15	04/02/08	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	09/24/14	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--
MW-110WTR	10 - 15	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	10/13/16	--	--	--	--	--	--	--	--	--
MW-110WTR	10 - 15	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/21/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/19/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	07/14/95	0.21 U	0.21 U	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	--	--
MW-111WT	5.5 - 10.5	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	03/07/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	06/30/99	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
MW-111WT	5.5 - 10.5	05/19/00	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	04/05/01	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	0.2 U [0.2 U]	0.2 U [0.2 U]	0.4 U [0.4 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	--	--
MW-111WT	5.5 - 10.5	08/26/05	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	04/02/08	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5-10.5	09/18/12	0.096 U	0.096 U	0.096 U	0.096 U	**0.082 J**	0.096 U	0.096 U	--	--
MW-111WT	5.5-10.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5-10.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5-10.5	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	**0.067 J p**	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-111WT	5.5 - 10.5	08/22/19	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	--	--
MW-111WT	5.5 - 10.5	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-111WT	5.5 - 10.5	08/23/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016 (Dissolved)	Aroclor 1221 (Dissolved)	Aroclor 1232 (Dissolved)	Aroclor 1242 (Dissolved)	Aroclor 1248 (Dissolved)	Aroclor 1254 (Dissolved)	Aroclor 1260 (Dissolved)	Aroclor 1262 (Dissolved)	Aroclor 1268 (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026	0.000026
MW-114S2	22.5 - 27.5	07/17/95	0.2 U	0.2 U	0.41 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114S2	22.5 - 27.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	12/11/97	0.2 U	0.2 UJ	0.4 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U	--	--
MW-114WT	3.5 - 8.5	05/22/00	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	04/05/01	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	08/24/05	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	10/02/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/28/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/22/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	08/13/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/19/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-149WT	7 - 17	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-149WT	7 - 17	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-149WT	7 - 17	09/29/16	--	--	--	--	--	--	--	--	--
MW-185WT	3 - 8	06/03/04	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-185WT	3 - 8	08/25/05	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-185WT	3 - 8	11/28/07	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.06 J**	--	--
MW-185WT	3 - 8	09/18/12	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	**0.041 J***	--	--
MW-185WT	3 - 8	09/25/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/30/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	08/22/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	08/14/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	08/23/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/30/10	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--
MW-186WT	8-18	09/23/11	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/18/12	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/25/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	10/02/15	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--
MW-186WT	8-18	09/30/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-186WT	8-18	08/22/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	08/12/20	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]
MW-186WT	8-18	08/24/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--

Notes:
All results are in micrograms per liter (ug/L).
Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.
Applicable site-specific criteria are the minimum Rule 57 criteria, excluding drinking water.
Hardness-dependent Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.
pH-dependent Rule 57 criteria are based on a default pH of 7.
Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equaitons. When available, the field-measured pH was used.
Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia
Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$
pKa = 0.0901821+2729.92/T
T (in Kelvin) = T(°C) + 273.15
Bolded cells represent constitiuent concentrations with detections.
Duplicate results are presented in brackets.
Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.
MW-183WT, X-4CAUGR, X-9AR, X-9BR, X-9CAUG represent a groundwater surface water interface (GSI) perimeter monitoring well from Green Point Landfill.
MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.
* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on August 5, 2016.

Data Qualifiers:

ND =	Not detected. The value in parentheses represents the associated detection limit.
-- or NA =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1 =	MS and/or MSD Recovery is outside acceptance limits.
F2 =	MS/MSD RPD exceeds control limits.
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
M =	Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
RPD =	Relative Percent Difference, a measure of the relative distance between two points.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.
* =	LCS (lab control sample) or LCSD (lab control sample duplicate) is outside acceptance limits.

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Analyte	EGLE Drinking Water MCL	Groundwater Surface Water Interface Criteria	Well ID Sample Date Units	B-3R 12/18/2018	B-3R 8/11/2020	B-3R 8/19/2021	MW-108WT 12/18/2018	MW-108WT 8/13/2020	MW-108WT 8/19/2021	MW-117WT 8/13/2020	MW-117WT 8/17/2021	MW-117S1 8/13/2020	MW-117S1 8/17/2021	MW-118WT 8/14/2020	MW-118WT 8/17/2021
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**2.3 J**	**11.3**	3.6 U	**3.02 J**	**8.8**	**3.7 J**	**296**	**449** [a]	3.7 U	3.6 U	**18.2**	**49.4**
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**1.68 J**	**13.4**	1.8 U	**1.77 J**	**2.1 J**	**1.8 J**	**43.9**	**134** [a]	1.9 U	8.9 U	**4.8**	**23.0**
Perfluorohexanoic acid (PFHxA)	400,000	--	ng/L	**1.26 J**	1.9 U	1.8 U	2.0 U	**2.4 J**	**1.9 J**	**77.8**	**114** [a]	1.9 U	1.8 U	**7.6**	**21.1**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	2.0 U	**2.1 J**	**1.8 J**	2.0 U	**1.2 J**	**1.9 J**	**9.7**	**18.7**	1.9 U	1.8 U	**3.1 J**	**6.1 J**
Perfluorooctanoic acid (PFOA)	8	12,000	ng/L	**5.58**	**2.7 J**	**2.7 J**	**3.66 J**	**4.4**	**4.6**	**3.6 J**	**5.5**	1.9 U	1.8 U	**2.4 J**	**5.3**
Perfluorononanoic acid (PFNA)	6	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	**1.4 J**	1.9 U	8.9 U	1.9 U	1.8 U	1.9 U	8.9 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	2.0 U	1.9 U [a]	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	2.0 U	1.9 U [a]	1.8 U [a]	2.0 U	1.9 U	1.8 U	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]
Perfluorobutanesulfonic acid (PFBS)	420	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	**1.9 J**	1.8 U	1.9 U	8.9 U	1.9 U	1.8 U	**2.5 J**	1.8 U
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	8.9 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluorohexanesulfonic acid (PFHxS)	51	--	ng/L	**1.13 J**	1.9 U	**0.98 J**	**1.92 J**	**5.8**	**3.5 J**	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluorooctanesulfonic acid (PFOS)	16	12	ng/L	**15.6**	**14.4**	**13.7**	**2.63 J**	**17.1**	**15.1**	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U
4:2 Flourotelemer Sulfonate (4:2 FTS)	--	--	ng/L	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	3.7 U	18 U	3.7 U	3.6 U	3.7 U	3.6 U
6:2 Flourotelemer Sulfonate (6:2 FTS)	--	--	ng/L	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U
8:2 Flourotelemer Sulfonate (8:2 FTS)	--	--	ng/L	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U
acetic acid (MeFOSAA)	--	--	ng/L	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U	3.6 U	7.4 U	3.6 U	7.4 U	3.6 U	7.4 U	3.6 U
acid (EtFOSAA)	--	--	ng/L	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U	3.6 U	7.4 U	3.6 U	7.4 U	3.6 U	7.4 U	3.6 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	2.0 U	1.9 U [a]	1.8 U [a]	2.0 U	9.3 U	1.8 U [a]	1.9 U	8.9 U [a]	1.9 U	8.9 U [a]	9.3 U	8.9 U [a]
HFPO-DA (GenX)	370	--	ng/L	--	9.3 U	3.6 U	--	9.3 U	3.6 U	9.3 U	3.6 U	9.3 U	3.6 U	9.3 U	3.6 U
ADONA	--	--	ng/L	--	3.7 U	3.6 U	--	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	--	3.7 U	3.6 U	--	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U	3.7 U	3.6 U
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	--	3.7 U	3.6 U	--	3.7 U	3.6 U	3.7 U	18 U [a]	3.7 U	18 U [a]	3.7 U	18 U [a]
Total PFAS	**--**	**--**	ng/L	**27.55**	**43.9**	**19.18**	**13**	**43.7**	**33.9**	**431**	**721.2**	**0**	**0**	**38.6**	**104.9**

Notes:
All values are in nanograms per liter (ng/L).
Bold result denotes detection.
Shaded result denotes detection is above the EGLE Groundwater Surface Water Criteria.
Red result denotes detection is above EGLE Drinking Water Maximum Contaminant Limit (MCL).
For Total PFAS all detections were summed.

-- = not applicable
a = Associated ID Standard outside control limits. Confirmed by batch QC, re-extraction and/or reanalysis.
U = not detected
J = estimated value between the limit of quantitation and the method detection limit.
[ ] = duplicate sample detections
EGLE = Environment Great Lakes and Energy

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Analyte	EGLE Drinking Water MCL	Groundwater Surface Water Interface Criteria	Well ID Sample Date Units	MW-118S1 12/18/2018	MW-122WT 8/18/2021	MW-125WT 9/8/2020	MW-131WT 12/18/2018	MW-131WT 8/11/2020	MW-131WT 8/19/2021	MW-134WT 12/18/2018	MW-134WT 8/11/2020	MW-134WT 8/19/2021	MW-183WT 12/19/2018	MW-183WT 8/18/2020
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**9.71**	**51.3**	**20.5**	**4.14 J**	**11.1**	**6.2 J**	**5.64 J**	**5.9 J**	**3.0 J**	**11.4**	**15.2**
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**4.37**	**6.4 J**	**2.4 J**	**2.24 J**	1.9 U	**1.3 J**	**3.54 J**	**2.7 J**	**1.0 J**	2.0 U	**2.4 J**
Perfluorohexanoic acid (PFHxA)	400,000	--	ng/L	**1.77 J**	**2.6 J**	**2.9 J**	**1.14 J**	**0.99 J**	**1.8 J**	**1.66 J**	**1.9 J**	1.8 U	2.0 U	**2.5 J**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**1.93 J**	**2.2 J**	**1.5 J**	**1.2 J**	1.9 U	**1.6 J**	**1.28 J**	**2.2 J**	1.8 U	2.0 U	**2.5 J**
Perfluorooctanoic acid (PFOA)	8	12,000	ng/L	**1.95 J**	**3.1 J**	**4.3**	**2.38 J**	**3.6 J**	**3.7**	**3.0 J**	**2.0 J**	**1.7 J**	**2.07 J**	**4.6**
Perfluorononanoic acid (PFNA)	6	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	**1.3 J**	2.0 U	1.9 U	1.8 U	2.0 U	**1.1 J**
Perfluorodecanoic acid (PFDA)	--	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	2.0 U	8.9 U [a]	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	2.0 U	8.9 U [a]	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	2.0 U	8.9 U [a]	1.7 U	2.0 U	1.9 U	1.8 J [q]	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorobutanesulfonic acid (PFBS)	420	--	ng/L	2.0 U	**2.0 J**	**3.0 J**	**1.72 J**	**3.0 J**	**2.0 J**	**1.99 J**	1.9 U	**1.1 J**	**1.66 J**	**2.2 J**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	2.0 U	1.8 U	**1.2 J**	2.0 U	**1.1 J**	**1.3 J**	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorohexanesulfonic acid (PFHxS)	51	--	ng/L	2.0 U	1.8 U	**3.0 J**	**4.21**	**4.9**	**9.1 J**	2.0 U	1.9 U	1.8 U	**1.5 J**	**2.0 J**
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorooctanesulfonic acid (PFOS)	16	12	ng/L	4.0 U	**1.7 J**	1.7 U	**4.88 J**	**7.9**	**11.0**	4.0 U	1.9 U	1.8 U	4.0 U	**3.5 J**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	2.0 U	1.8 U	1.7 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U	1.8 U	2.0 U	1.9 U
4:2 Flourotelemer Sulfonate (4:2 FTS)	--	--	ng/L	4.0 U	3.6 U	3.4 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U
6:2 Flourotelemer Sulfonate (6:2 FTS)	--	--	ng/L	4.0 U	3.6 U	3.4 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U
8:2 Flourotelemer Sulfonate (8:2 FTS)	--	--	ng/L	4.0 U	3.6 U	3.4 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U	3.6 U	4.0 U	3.7 U
acetic acid (MeFOSAA)	--	--	ng/L	8.0 U	3.6 U	6.9 U	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U
acid (EtFOSAA)	--	--	ng/L	8.0 U	3.6 U	6.9 U	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U	3.6 U	8.0 U	7.4 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	2.0 U	8.9 U	1.7 U	2.0 U	1.9 U	1.8 U [a]	2.0 U	9.3 U	1.8 U [a]	2.0 U	1.9 U
HFPO-DA (GenX)	370	--	ng/L	--	3.6 U	8.6 U	--	9.3 U	3.6 U	--	9.3 U	3.6 U	--	9.3 U
ADONA	--	--	ng/L	--	3.6 U	3.4 U	--	3.7 U	3.6 U	--	3.7 U	3.6 U	--	3.7 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	--	3.6 U	3.4 U	--	3.7 U	3.6 U	--	3.7 U	3.6 U	--	3.7 U
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	--	18 U [a]	3.4 U	--	3.7 U	3.6 U	--	3.7 U	3.6 U	--	3.7 U
Total PFAS	**--**	**--**	ng/L	**19.73**	**69.3**	**38.8**	**21.91**	**32.59**	**39.3**	**17.11**	**14.7**	**6.8**	**16.63**	**36**

Notes:
All values are in nanograms per liter (ng/L).
Bold result denotes detection.
Shaded result denotes detection is above the EGLE Groundwater Surface Water Criteria.
Red result denotes detection is above EGLE Drinking Water Maximum Contaminant Limit (MCL).
For Total PFAS all detections were summed.

-- = not applicable
a = Associated ID Standard outside control limits. Confirmed by batch QC, re-extraction and/or rea
U = not detected
J = estimated value between the limit of quantitation and the method detection limit.
[ ] = duplicate sample detections
EGLE = Environment Great Lakes and Energy

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Analyte	EGLE Drinking Water MCL	Groundwater Surface Water Interface Criteria	Well ID Sample Date Units	MW-183WT 8/24/2021	MW97-105WT 12/18/2018	TW98-111WT 12/18/2018	QPTW-13R 12/18/2018	QPTW-13R 8/11/2020	QPTW-13R 8/19/2021	TWW-1 9/8/2020	TWW-1 8/18/2021	X-2A 12/18/2018	X-2A 9/8/2020
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**8.3**	**65.7**	**39.9** [a]	**17**	**16.6 [17.7]**	**11.3** [a] **[12.9** [a]**]**	**29.7 J**	**34.9 J**	**34.1** [a] **[26.3** [a]**]**	**20.4** [a]
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**0.83 J**	**20.8**	2.0 U	**16.4**	**38.4 [37.3]**	8.9 U [a] [8.9 U]	**8.0**	**9.3 J**	**18.1 [14.4]**	1.7 U
Perfluorohexanoic acid (PFHxA)	400,000	--	ng/L	**1.0 J**	**33.5**	**2.1 J**	**2.91 J**	**2.7 J [2.8 J]**	**1.9 J** [a] [1.8 U [a]]	**8.9**	**11.4**	**6.46 [5.32]**	**4.4**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**1.10 J**	**17.5**	2.0 U	2.0 U	9.3 U [**1.9 J**]	**1.6 J** [a] **[2.1 J** [a]**]**	**5.9**	**14.1**	**4.93 [5.15]**	**3.1 J**
Perfluorooctanoic acid (PFOA)	8	12,000	ng/L	**2.9 J**	22.1	**6.36**	8.38	**4.7 J [5.1]**	**3.8** [a] **[4.0** [a]**]**	11.0	27.1	50.6 [46.5]	29.9
Perfluorononanoic acid (PFNA)	6	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	9.3 U [**1.5 J**]	1.8 U [a] [1.8 U [a]]	1.8 U	**1.6 J**	2.0 U [2.0 U]	**1.9 J**
Perfluorodecanoic acid (PFDA)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	9.3 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	9.3 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	1.6 U	2.0 U	4.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	16 U [a]	2.0 U	4.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	8.9 [a]	2.0 U [2.0 U]	1.7 U
Perfluorobutanesulfonic acid (PFBS)	420	--	ng/L	**1.1 J**	**9.29**	2.0 U	**3.54 J**	1.9 U [1.9 U]	1.8 U [1.8 U [a]]	**1.9 J**	**4.0**	2.0 U **[4.91]**	**3.4**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorohexanesulfonic acid (PFHxS)	51	--	ng/L	**1.7 J**	**4.12**	**4.76**	**1.92 J**	**3.7 [3.4 J]**	**1.9 J [1.5 J]**	1.8 U	1.8 U	**7.73 [5.89]**	**4.7**
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [1.8 U]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorooctanesulfonic acid (PFOS)	16	12	ng/L	**1.5 J**	**9.7**	18	**8.47**	**11.0 [10.6]**	**6.6 [8.4]**	1.8 U	**1.7 J**	16.5 [14.6]	14.5
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [1.8 U]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	1.6 U	2.0 U	2.0 U	2.0 U	1.9 U [1.9 U]	1.8 U [a] [1.8 U [a]]	1.8 U	1.8 U	2.0 U [2.0 U]	1.7 U
4:2 Flourotelemer Sulfonate (4:2 FTS)	--	--	ng/L	3.2 U	4.0 U	4.0 U	4.0 U	3.7 U [3.7 U]	3.6 U [a] [3.6 U [a]]	3.6 U	3.6 U	4.0 U [4.0 U]	3.4 U
6:2 Flourotelemer Sulfonate (6:2 FTS)	--	--	ng/L	3.2 U	4.0 U	4.0 U [a]	4.0 U	3.7 U [3.7 U]	18 U [3.6 U]	3.6 U	3.6 U	4.0 U [4.0 U]	3.4 U
8:2 Flourotelemer Sulfonate (8:2 FTS)	--	--	ng/L	3.2 U	4.0 U	4.0 U	4.0 U [c]	3.7 U [3.7 U]	18 U [3.6 U]	3.6 U	3.6 U	4.0 U [4.0 U]	3.4 U
acetic acid (MeFOSAA)	--	--	ng/L	3.2 U	8.0 U	8.0 U	8.0 U	37 U [37 U]	18 U [3.6 U [a]]	7.1 U	3.6 U	8.0 U [8.0 U]	6.9 U
acid (EtFOSAA)	--	--	ng/L	3.2 U	8.0 U	8.0 U	8.0 U	37 U [37 U]	18 U [3.6 U [a]]	7.1 U	3.6 U	8.0 U [8.0 U]	6.9 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	16 U	2.0 U [a]	2.0 U [a]	2.0 U [a]	9.3 U [a] [9.3 U [a]]	1.8 U [a] [1.8 U [a]]	1.8 U	8.9 U [a]	2.0 U [a] [2.0 U [a]]	1.7 U [a]
HFPO-DA (GenX)	370	--	ng/L	3.2 U	--	--	--	9.3 U [9.3 U]	3.6 U [a] [3.6 U [a]]	8.9 U	3.6 U	--	8.6 U
ADONA	--	--	ng/L	3.2 U	--	--	--	3.7 U [3.7 U]	3.6 U [a] [3.6 U [a]]	3.6 U	3.6 U	--	3.4 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	3.2 U	--	--	--	3.7 U [3.7 U]	3.6 U [a] [3.6 U [a]]	3.6 U	3.6 U	--	3.4 U
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	3.2 U	--	--	--	3.7 U [3.7 U]	3.6 U [a] [3.6 U [a]]	3.6 U	3.6 U	--	3.4 U
Total PFAS	**--**	**--**	ng/L	**18.43**	**182.71**	**71.12**	**58.62**	**77.1 [80.3]**	**27.1 [28.9]**	**65.4**	**104.1**	**138.42 [123.07]**	**82.3**

Notes:
All values are in nanograms per liter (ng/L).
Bold result denotes detection.
Shaded result denotes detection is above the EGLE Groundwater Surface Water Criteria.
Red result denotes detection is above EGLE Drinking Water Maximum Contaminant Limit (MCL).
For Total PFAS all detections were summed.

-- = not applicable
a = Associated ID Standard outside control limits. Confirmed by batch QC, re-extraction and/or rea
U = not detected
J = estimated value between the limit of quantitation and the method detection limit.
[ ] = duplicate sample detections
EGLE = Environment Great Lakes and Energy

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Analyte	EGLE Drinking Water MCL	Groundwater Surface Water Interface Criteria	Well ID Sample Date Units	X-2A 8/18/2021	X-9AR 12/19/2018	X-9AR 8/17/2020	X-9AR 8/18/2021	X-10AR2 12/18/2018	X-10AR2 9/8/2020	X-10AR2 8/18/2021
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**14.3 [a] [13.8 [a]]**	**5.98 J**	**14.4**	**18.6**	4.0 U	**2.9 J [2.9 J]**	**4.4 J**
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	**4.4**	**1.3 J**	2.0 U	1.7 U [1.7 U]	**1.4 J**
Perfluorohexanoic acid (PFHxA)	400,000	--	ng/L	**2.9 J [a] [2.7 J]**	2.0 U	**2.7 J**	**1.4 J**	2.0 U	1.7 U [**0.97 J**]	**1.1 J**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**3.8 [3.7]**	2.0 U	**2.5 J**	**1.8 J**	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorooctanoic acid (PFOA)	8	12,000	ng/L	**29.6 [27.7]**	2.0 U	**2.5 J**	**1.5 J**	**2.13 J**	**5.8 [5.6]**	**6.1**
Perfluorononanoic acid (PFNA)	6	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	8.9 U [a]	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	8.9 U [a]	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	8.9 U [a]	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorobutanesulfonic acid (PFBS)	420	--	ng/L	1.8 U [1.8 U]	2.0 U	**1.6 J**	**1.5 J**	2.0 U	**1.1 J [1.0 J]**	**1.3 J**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorohexanesulfonic acid (PFHxS)	51	--	ng/L	**5.6 [3.1 J]**	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorooctanesulfonic acid (PFOS)	16	12	ng/L	**15.8 [14.9]**	4.0 U	1.9 U	1.8 U	4.0 U	1.7 U [1.7 U]	1.8 U
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	1.8 U [1.8 U]	2.0 U	1.9 U	1.8 U	2.0 U	1.7 U [1.7 U]	1.8 U
4:2 Flourotelemer Sulfonate (4:2 FTS)	--	--	ng/L	3.6 U [3.6 U]	4.0 U	3.7 U	3.6 U	4.0 U	3.4 U [3.4 U]	3.6 U
6:2 Flourotelemer Sulfonate (6:2 FTS)	--	--	ng/L	3.6 U [3.6 U]	4.0 U	3.7 U	3.6 U	4.0 U	3.4 U [3.4 U]	3.6 U
8:2 Flourotelemer Sulfonate (8:2 FTS)	--	--	ng/L	3.6 U [3.6 U]	4.0 U	3.7 U	3.6 U	4.0 U	3.4 U [3.4 U]	3.6 U
acetic acid (MeFOSAA)	--	--	ng/L	3.6 U [3.6 U]	8.0 U	7.4 U	3.6 U	8.0 U	6.9 U [6.9 U]	3.6 U
acid (EtFOSAA)	--	--	ng/L	3.6 U [3.6 U]	8.0 U	7.4 U	3.6 U	8.0 U	6.9 U [6.9 U]	3.6 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	1.8 U [a] [1.8 U [a]]	2.0 U	1.9 U	8.9 U [a]	2.0 U	1.7 U [1.7 U]	1.8 U
HFPO-DA (GenX)	370	--	ng/L	3.6 U [3.6 U]	--	9.3 U	3.6 U	--	8.6 U [8.6 U]	3.6 U
ADONA	--	--	ng/L	3.6 U [3.6 U]	--	3.7 U	3.6 U	--	3.4 U [3.4 U]	3.6 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	3.6 U [3.6 U]	--	3.7 U	3.6 U	--	3.4 U [3.4 U]	3.6 U
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	3.6 U [3.6 U]	--	3.7 U	18 U [a]	--	3.4 U [3.4 U]	3.6 U
Total PFAS	**--**	**--**	ng/L	**72 [65.9]**	**5.98**	**28.1**	**26.1**	**2.13**	**9.8 [10.47]**	**14.3**

Notes:
All values are in nanograms per liter (ng/L).
Bold result denotes detection.
Shaded result denotes detection is above the EGLE Groundwater Surface Water Criteria.
Red result denotes detection is above EGLE Drinking Water Maximum Contaminant Limit (MCL).
For Total PFAS all detections were summed.

-- = not applicable
a = Associated ID Standard outside control limits. Confirmed by batch QC, re-extraction and/or rea
U = not detected
J = estimated value between the limit of quantitation and the method detection limit.
[ ] = duplicate sample detections
EGLE = Environment Great Lakes and Energy

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL
MW-117S1	24.2 - 29.2	06/20/95	--	--	5.00 U	--	--	--	--	**1.2**	**1,410**	--	**5,780**
MW-117S1	24.2 - 29.2	07/14/95	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	06/11/96	--	--	--	--	--	--	--	--	**1,670**	--	**8,260**
MW-117S1	24.2 - 29.2	05/19/00	--	--	--	--	--	--	--	10 U	**1,720**	5 U	**8,730**
MW-117S1	24.2 - 29.2	06/19/01	--	--	--	--	--	--	--	10 U	**1,740**	5 U	**9,120**
MW-117S1	24.2 - 29.2	06/26/02	--	--	--	--	--	--	--	10 U	**1,740**	5 U	**8,650**
MW-117S1	24.2 - 29.2	06/19/03	--	--	--	--	--	--	--	10 U	**1,800**	5 U	**9,160**
MW-117S1	24.2 - 29.2	05/27/04	--	--	--	--	--	--	--	10 U	**1,780**	5 U	**10,100**
MW-117S1	24.2 - 29.2	06/23/05	--	--	--	--	--	--	--	**2.7**	**1,530 J**	10 U	**8,150**
MW-117S1	24.2 - 29.2	12/13/06	--	--	--	--	--	--	--	5 U	**2,010**	10 U	**8,980**
MW-117S1	24.2 - 29.2	12/07/07	--	--	--	--	--	--	--	5 U	**1,890**	10 U	**9,480**
MW-117S1	24.2 - 29.2	03/14/08	--	--	--	--	--	--	--	**3.9 J**	**1,810**	10 U	**7,350**
MW-117S1	24.2 - 29.2	10/01/10	--	--	--	--	--	--	--	5 U	**1,800 J**	100 U	**8,980**
MW-117S1	24.2 - 29.2	09/27/11	--	--	--	--	--	--	--	**1.6**	**2,000**	--	**9,500**
MW-117S1	24.2 - 29.2	09/13/12	--	--	--	--	--	--	--	**1.6 J**	**1,800 B**	10 U	**8,600**
MW-117S1	24.2 - 29.2	09/24/13	--	--	--	--	--	--	--	**4.3 B**	**2,000**	10 U	**3,900**
MW-117S1	24.2 - 29.2	09/22/14	--	--	--	--	--	--	--	**4.6 B**	**2,100 B**	10 U	**12,000 B**
MW-117S1	24.2 - 29.2	09/30/15	--	--	10 U	--	--	--	--	**2.3**	**1,700**	10 U	**8,700**
MW-117S1	24.2 - 29.2	09/27/16	--	--	10 U	--	--	--	--	**1.9 J**	**1,500 B**	10 U	**9,000 B**
MW-117S1	24.2 - 29.2	11/13/17	--	--	10 U	--	--	--	--	**2.0**	**1,700**	10 U	**8,700**
MW-117S1	24.2 - 29.2	08/21/19	--	--	10 U	--	--	--	--	10 U	**1,700**	10 U	**8,700**
MW-117S1	24.2 - 29.2	08/13/20	10 U	**1,500**	10 U	**8,600 B**	**290**	15 U	**110,000**	10 U	**1,500**	10 U	**7,900 B**
MW-117S1	24.2 - 29.2	08/17/21	10 U	**1,800**	10 U	**7,800**	**290**	15 U	**120,000**	10 U	**1,800**	10 U	**7,600**
MW-117WT	3 - 13	06/20/95	--	--	5.00 U	--	--	--	--	1.3	**2,210**	--	**100,000**
MW-117WT	3 - 13	07/14/95	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	06/11/96	--	--	--	--	--	--	--	--	**2,520**	--	**124,000**
MW-117WT	3 - 13	05/19/00	--	--	--	--	--	--	--	10 U	**3,580**	5 U	**149,000**
MW-117WT	3 - 13	06/18/01	--	--	--	--	--	--	--	10 U	**3,170**	5 U	**137,000**
MW-117WT	3 - 13	06/26/02	--	--	--	--	--	--	--	**2.2 B**	**2,970**	5 U	**128,000**
MW-117WT	3 - 13	06/19/03	--	--	--	--	--	--	--	10 U	**3,250**	5 U	**139,000**
MW-117WT	3 - 13	12/09/04	--	--	--	--	--	--	--	**4.1 [4.6 J]**	**3,110 J [2,880 J]**	10 U [10 U]	**143,000 J [125,000 J]**
MW-117WT	3 - 13	06/23/05	--	--	--	--	--	--	--	**4.5**	**2,360 J**	10 U	**122,000**
MW-117WT	3 - 13	12/13/06	--	--	--	--	--	--	--	5 U	**2,710**	10 U	**105,000**
MW-117WT	3 - 13	12/07/07	--	--	--	--	--	--	--	5 U	**2,880**	10 U	**124,000**
MW-117WT	3 - 13	03/14/08	--	--	--	--	--	--	--	5 U	**2,670**	10 U	**112,000**
MW-117WT	3 - 13	10/01/10	--	--	--	--	--	--	--	5 U	**2,910 J**	10 U	**119,000**
MW-117WT	3 - 13	09/27/11	--	--	--	--	--	--	--	**2.5**	**3,300**	--	**130,000**
MW-117WT	3 - 13	09/13/12	--	--	--	--	--	--	--	**3.7**	**3,000 B**	10 U	**110,000**
MW-117WT	3 - 13	09/24/13	--	--	--	--	--	--	--	**4.8 B**	**3,100**	10 U	**130,000**
MW-117WT	3 - 13	09/23/14	--	--	--	--	--	--	--	**1.4 J,B**	**2,800 B**	10 U	**110,000 B**
MW-117WT	3 - 13	09/30/15	--	--	10 U	--	--	--	--	**3.0**	**2,100**	10 U	**83,000**
MW-117WT	3 - 13	09/27/16	--	--	**10 U**	--	--	--	--	**1.6 J**	**1,600 B**	10 U	**96,000 B**
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	08/13/20	**6.5 J**	**2,000**	10 U	**96,000 B**	**3,700**	15 U	**460,000**	**4.1 J**	**2,100**	10 U	**97,000 B**
MW-117WT	3 - 13	08/17/21	**5.6 J**	**3,800**	10 U	**130,000**	**4,600**	15 U	**680,000**	**4.5 J**	**3,500**	10 U	**120,000**
MW-118S1	23.5 - 28.5	06/20/95	--	--	5.00 U	--	--	--	--	**1.8**	**482**	--	**2,500**
MW-118S1	23.5 - 28.5	07/14/95	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/11/96	--	--	--	**4,970**	**372**	--	--	--	**532**	--	**5,390**
MW-118S1	23.5 - 28.5	05/17/00	--	--	--	--	--	--	--	10 U [10 U]	**593 [612]**	5 U [5 U]	**6,090 [6,150]**
MW-118S1	23.5 - 28.5	06/19/01	--	--	--	--	--	--	--	10 U	**645**	5 U	**7,070**
MW-118S1	23.5 - 28.5	06/27/02	--	--	--	--	--	--	--	10 U	**622**	5 U	**6,070**
MW-118S1	23.5 - 28.5	06/19/03	--	--	--	--	--	--	--	10 U	**713**	5 U	**7,570**
MW-118S1	23.5 - 28.5	12/09/04	--	--	--	--	--	--	--	**2.3 J**	**718 J**	10 U	**7,420 J**
MW-118S1	23.5 - 28.5	06/23/05	--	--	--	--	--	--	--	**1.9 B**	**676 JE**	10 U	**6,630**
MW-118S1	23.5 - 28.5	12/14/06	--	--	--	--	--	--	--	5 U	**727**	10 U	**5,930**
MW-118S1	23.5 - 28.5	12/07/07	--	--	--	--	--	--	--	5 U	**753**	10 U	**6,940**
MW-118S1	23.5 - 28.5	04/01/08	--	--	--	--	--	--	--	5 U	**763**	10 U	**6,340**
MW-118S1	23.5 - 28.5	10/01/10	--	--	--	--	--	--	--	5 U	**759 J**	10 U	**6,570**
MW-118S1	23.5 - 28.5	09/27/11	--	--	--	--	--	--	--	**0.58**	**810**	10 U	**6,700**
MW-118S1	23.5 - 28.5	09/13/12	--	--	--	--	--	--	--	**0.74**	**710 B**	**11**	**5,900**
MW-118S1	23.5 - 28.5	09/24/13	--	--	--	--	--	--	--	**18 B**	**970 B**	10 U	**3,900 B**
MW-118S1	23.5 - 28.5	09/22/14	--	--	--	--	--	--	--	**0.86 J**	**730 B**	10 U	50 U
MW-118S1	23.5 - 28.5	09/30/15	--	--	10 U	--	--	--	--	**1.6 J**	**890**	10 U	7,700
MW-118S1	23.5 - 28.5	09/27/16	--	--	10 U	--	--	--	--	**1.9 J**	**850 B**	10 U	**8,700 B**
MW-118S1	23.5 - 28.5	11/13/17	--	--	10 U F1	--	--	--	--	**1.4 J**	**750**	10 U	**8,500**
MW-118S1	23.5 - 28.5	08/14/20	**7.8 J**	**29 J**	10 U	**3,900**	**770**	15 U	**13,000 B**	**8.2 J**	**28 J**	10 U	**2,700**
MW-118S1	23.5 - 28.5	08/17/21	10 U	**300**	10 U	**13,000**	**2,100**	15 U	**97,000**	10 U	**300**	10 U	**12,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL
MW-118WT	1.6 - 11.6	06/20/95	--	--	5.00 U	--	--	--	--	**1**	**1,970**	--	**71,500**
MW-118WT	1.6 - 11.6	07/14/95	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	06/11/96	--	--	--	**81,900**	**4,990**	--	--	--	**2,420**	--	**93,100**
MW-118WT	1.6 - 11.6	05/17/00	--	--	--	--	--	--	--	10 U	**7,970**	5 U	**261,000**
MW-118WT	1.6 - 11.6	06/19/01	--	--	--	--	--	--	--	**5.1 B [7.4 B]**	**10,700 [11,200]**	5 U [5 U]	**330,000 [344,000]**
MW-118WT	1.6 - 11.6	06/27/02	--	--	--	--	--	--	--	**3.9 B [7.9 B]**	**8,650 [9,200]**	5 U [5 U]	**259,000 [277,000]**
MW-118WT	1.6 - 11.6	06/19/03	--	--	--	--	--	--	--	10 U [10 U]	**5,620 [5,420]**	5 U [5 U]	**173,000 [166,000]**
MW-118WT	1.6 - 11.6	05/27/04	--	--	--	--	--	--	--	**3.2**	**4,350**	5 U	**135,000**
MW-118WT	1.6 - 11.6	06/23/05	--	--	--	--	--	--	--	**3.4**	**2,210 J**	10 U	**92,400**
MW-118WT	1.6 - 11.6	12/14/06	--	--	--	--	--	--	--	5 U	**1,400**	10 U	**39,200**
MW-118WT	1.6 - 11.6	12/07/07	--	--	--	--	--	--	--	5 U	**1,120**	10 U	**35,400**
MW-118WT	1.6 - 11.6	04/01/08	--	--	--	--	--	--	--	5 U	**1,040**	10 U	**30,500**
MW-118WT	1.6 - 11.6	09/30/10	--	--	--	--	--	--	--	5 U	**571 J**	10 U	**16,900**
MW-118WT	1.6 - 11.6	09/27/11	--	--	--	--	--	--	--	**1.1**	**600**	--	**16,000**
MW-118WT	1.6 - 11.6	09/13/12	--	--	--	--	--	--	--	**0.80 J**	**390**	--	**11,000**
MW-118WT	1.6 - 11.6	09/24/13	--	--	--	--	--	--	--	**0.72 J,B**	**390 B**	10 U	**8,700 B**
MW-118WT	1.6 - 11.6	09/22/14	--	--	--	--	--	--	--	**0.37 J,B**	**360 B**	10 U	**8,600 B**
MW-118WT	1.6 - 11.6	09/30/15	--	--	10 U	--	--	--	--	**0.85 J**	**300**	10 U	**7,100**
MW-118WT	1.6 - 11.6	09/27/16	--	--	10 U	--	--	--	--	**1.0 J**	**300 B**	10 U	**8,500 B**
MW-118WT	1.6 - 11.6	11/13/17	--	--	10 U	--	--	--	--	2.0 U	**370**	**5.8 J**	**15,000**
MW-118WT	1.6 - 11.6	08/14/20	**15**	**250**	10 U	**26,000**	**970**	15 U	**48,000 B**	**15**	**250**	10 U	**26,000**
MW-118WT	1.6 - 11.6	08/17/21	10 U	**390**	**6.4 J**	**12,000**	**390**	15 U	**100,000**	10 U	**360**	10 U	**11,000**
MW-183WT	6 - 16	12/06/07	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	01/09/08	5.00 U [5.00 U]	**44.1 J [44.3 J]**	--	**1,200 J [669 J]**	**514 [429 J]**	5.00 U [5.00 U]	**97,200 [99,800]**	5 U [5 U]	**45.6 J [44.2 J]**	10 U [10 U]	**714 J [1,280 J]**
MW-183WT	6 - 16	03/12/08	5.00 U	**52.6 J**	--	**659**	**611**	5.00 U	**99,000**	**3.3 J**	**51.4 J**	10 U	**298**
MW-183WT	6 - 16	09/28/10	**5.0 U [6.90]**	**38.2 BJ [37.7 BJ]**	--	**3,850 [3,630]**	**252 [248]**	5.0 U [5.0 U]	--	**5.0 U [5.0 U)]**	**36.8 BJ [37 BJ]**	10 U	**3.06 [3.02]**
MW-183WT	6 - 16	09/28/11	**1.90 [2.0]**	**36.0 [38.0]**	--	**2,600 [2,600]**	**240 [260]**	5.0 U [5.0 U]	--	**2.0**	**39**	--	**2,600**
MW-183WT	6 - 16	09/14/12	**1.0 [0.73 J]**	**79 B [85 B]**	--	**2,200 [2,100]**	**400 B [440 B]**	5.0 U [5.0 U]	--	**1.4 J**	**78 B**	10 U	**2,100**
MW-183WT	6 - 16	09/24/13	**3.9 B [3.3 B]**	**85 B [83 B]**	--	**4,500 B [3,800 B]**	**500 B [490 B]**	5.0 U [5.0 U]	--	**3.2 B**	**82 B**	10 U	**3,400 B**
MW-183WT	6 - 16	09/23/14	**1.8 J,B [1.9 J,B]**	**43 B [45 B]**	--	**2,300 B [2,600 B]**	**460 [540]**	**0.32 J,B [0.27 J,B]**	--	**1.9 J,B [1.9 J,B]**	**460 B [470 B]**	10 U	**2,700 B [2,600 B]**
MW-183WT	6 - 16	10/01/15	**1.5 J [1.3 J]**	**46 [45]**	--	**2,500 [2,400]**	**350 [330]**	**0.69 J,B [0.55 J,B]**	--	**1.7 J**	**44**	10 U	**2,600**
MW-183WT	6 - 16	09/28/16	**6.0**	**41 B**	10 U	**5,000 B**	**1,100 B**	**0.82 J**	**49,000**	**4.1**	**40 B**	10 U	**5,300 B**
MW-183WT	6 - 16	08/29/17	**5.8 [4.6]**	**50 F1 [41]**	10 U F1 F2	**4,200 [3,600]**	**1,700 [1,300]**	5.0 U [5.0 U]	**38,000 [35,000]**	**4.8**	**45**	10 U F1 F2	**3,800**
MW-183WT	6 - 16	09/26/18	**6.4 J [8.2 J]**	**35 J [44 J]**	10 U	**3,900 F1 [4,900]**	**1,200 F1 [1,500]**	15 U [15 U]	**21,000 [27,000]**	**6.5 J**	**41 J**	10 U [10 U]	**4,000**
MW-183WT	6 - 16	08/21/19	**10 [9.4 J]**	**52 J [52 J]**	10 U	**6,600 [6,800]**	**1,500 [1,500]**	15 U ^ [15 U ^]	**30,000 [29,000]**	**8.1 J**	**51 J**	10 U [10 U]	**5,900**
MW-183WT	6 - 16	08/18/20	**4.6 J [4.5 J]**	**48 J [53 J]**	10 U [10 U]	**5,400 [5,700]**	**1,600 [1,800]**	15 U [15 U]	**14,000 [15,000]**	**7.0 J,F2 [5.3 J]**	**53 J,F1,F2 [52 J]**	10 U [10 U]	**5,800 F1,F2 [5,600]**
MW-183WT	6 - 16	08/19/21	**10**	**45 J**	10 U	**5,800**	**1,700**	15 U	**23,000**	**8.3 J**	**43 J**	10 U	**4,400**
TWW-1	1.5 - 6.5	01/25/97	--	--	--	--	--	--	--	5 U	200 UL	10 U	**110**
TWW-1	1.5 - 6.5	05/21/00	10.0 U	**146**	--	100 U	**1,580**	5.00 U	**839,000**	10 U	**145**	--	127 U
TWW-1	1.5 - 6.5	05/29/08	--	--	--	--	--	--	--	--	--	--	--
TWW-1	1.5 - 6.5	09/27/16	--	--	--	--	--	--	--	--	--	--	--
TWW-1	1.5 - 6.5	08/30/17	--	--	--	--	--	--	--	--	--	--	--
X-10BR	26.3 - 31.3	07/24/95	--	--	5.00 U	--	--	--	--	**32**	**387**	--	**22,600**
X-10BR	26.3 - 31.3	12/15/06	--	--	--	--	--	--	--	**27.6**	**598**	10 U	**30,500**
X-10BR	26.3 - 31.3	12/04/07	--	--	--	--	--	--	--	**29.5**	**570**	10 U	**32,700**
X-10BR	26.3 - 31.3	03/12/08	--	--	--	--	--	--	--	**33**	**597**	10 U	**31,800**
X-10BR	26.3 - 31.3	09/29/10	--	--	--	--	--	--	--	**28.5**	**581 J**	10 U	**31,700**
X-10BR	26.3 - 31.3	09/22/11	--	--	--	--	--	--	--	**30**	**630**	10 U	**35,000**
X-10BR	26.3 - 31.3	09/14/12	--	--	--	--	--	--	--	**27**	**570**	10 U	**30,000**
X-10BR	26.3 - 31.3	09/24/13	--	--	--	--	--	--	--	**28 B**	**630**	10 U	**33,000**
X-4AR	3.3 - 8.3	07/24/95	**12.7**	**431**	5.00 U	**72,400**	**1,500**	5.00 U	**20,700**	**1.2**	200 U	--	**1,080**
X-4AR	3.3 - 8.3	06/09/96	5.00 U	200 U	5.00 U	**399**	**41.9**	5.00 U	**21,900**	5 U	200 U	5 U	**289**
X-4AR	3.3 - 8.3	05/21/00	10.0 U	**73.3 B**	--	193 U	15.0 U	5.00 U	**20,700**	10 U	**73.9 B**	--	100 U
X-4AR	3.3 - 8.3	06/03/04	--	--	--	--	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	08/18/20	10 U	**25 J**	10 U	100 U	**3.0 J**	15 U	**28,000**	10 U	**36 J**	--	100 U

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL
X-4CAUG	18 - 23	07/24/95	--	--	5.00 U	--	--	--	--	1 UJ	200 U	--	**1,970**
X-4CAUG	18 - 23	06/08/96	--	--	--	--	--	--	--	5 U	200 U	5 UJ	**1,980**
X-4CAUGR	14 - 19	01/09/08	5.00 U	**114**	--	**4,600**	**397**	5.00 U	**73,900**	5 U	**123**	10 U	**4,940**
X-4CAUGR	14 - 19	03/12/08	5.00 U	**129**	--	**5,060**	**495**	5.00 U	**55,400**	5 U	**137**	10 U	**5,020**
X-4CAUGR	14 - 19	09/28/10	5.00 U	**132 J**	--	**4,930**	**559**	5.00 U	**54,000**	5 U	**129 J**	10 U	**5,180**
X-4CAUGR	14 - 19	09/26/11	**0.740**	**140**	--	**5,400**	**620**	5.00 U	**44,000**	**0.45**	**130**	10 U	**5,000**
X-4CAUGR	14 - 19	09/14/12	**0.42 J**	**120 B**	--	**4,500**	**560 B^**	5.00 U	**53,000**	**0.40 J**	**120 B**	10 U	**4,400**
X-4CAUGR	14 - 19	09/24/13	**1.9 B**	**89**	--	**6,700**	**730**	5.00 U	**22,000 B**	**6.9 B**	**89 B**	10 U	**6,300 B**
X-4CAUGR	14 - 19	09/23/14	**2.3 B**	**130 B**	--	**9,100 B**	**610**	**0.36 J,B**	**59,000 B**	**2.2 B**	**140 B**	10 U	**9,000 B**
X-4CAUGR	14 - 19	09/30/15	**2.0**	**120**	10 U	**6,500**	**430**	**0.56 J**	**64,000 B**	**2.1**	**140**	10 U	**7,800**
X-4CAUGR	14 - 19	09/28/16	**1.3 J**	**100 B**	10 U	**4,900 B**	**380 B**	**0.92 J**	**78,000**	**1.1 J**	**96 B**	10 U	**4,700 B**
X-4CAUGR	14 - 19	08/29/17	**0.84 J**	**110**	10 U	**4,800**	**420**	--	**9,200**	**0.84 J**	**110**	10 U	**4,700**
X-4CAUGR	14 - 19	09/26/18	10 U	**67 J**	10 U	**3,500**	**300**	15 U	**10,000**	10 U	**64 J**	10 U	**2,800**
X-4CAUGR	14 - 19	08/22/19	2.0 U	**57**	10 U	**2,400**	**270**	5.0 U	**12,000**	2.0 U	**59**	10 U	**2,700**
X-4CAUGR	14 - 19	08/17/20	**7.2 J**	**54 J**	10 U	**2,700**	**300**	15 U	**13,000**	**4.3 J**	**54 J**	10 U	**2,700**
X-4CAUGR	14 - 19	08/17/21	10 U	**52 J**	**6.6 J**	**2,600**	**290**	15 U	**13,000**	10 U	**53 J**	10 U	**2,300**
X-4D	40 - 45	01/09/08	5.00 U	**125**	--	**2,250**	**327**	5.00 U	**733,000**	5 U	**124**	10 U	**2,080**
X-4D	40 - 45	04/01/08	--	--	--	--	--	--	--	5 U [5 U]	**112 [111]**	10 U [10 U]	**1,930 [1,780]**
X-4D	40 - 45	04/03/08	5.00 U	**110**	--	**1,640**	**263**	5.00 U	**701,000**	--	--	--	--
X-4D	40 - 45	06/05/08	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	09/28/10	5.0 U	**99.7 BJ**	--	**1,030**	**265**	5.00 U	**699,000**	5 U	**98.9 BJ**	10 U	**979**
X-4D	40 - 45	09/26/11	**1.10**	**100**	--	**1,400**	**190**	5.00 U	**720,000**	**0.94**	**99**	10 U	**1,300**
X-4D	40 - 45	09/14/12	**1.1**	**86 B**	--	**980**	**180 B**	5.00 U	**690,000**	**0.89 J**	**87 B**	10 U	**1,000**
X-4D	40 - 45	09/24/13	**0.91 J,B**	**92**	--	**1,300**	**160**	5.00 U	**690,000**	**0.79 J,B**	**89 B**	10 U	**1,200**
X-4D	40 - 45	09/23/14	**0.49 J,B**	**58 B**	--	**290 J,B**	**340**	**0.42 J,B**	**260,000 B**	**0.53 J,B**	**82 B**	10 U	**35 J,B**
X-4D	40 - 45	09/30/15	**1.2 J**	**87**	10 U	**1,000**	**160**	**2.0 J,B**	**660,000**	**1.1 J**	**82**	10 U	**740**
X-4D	40 - 45	09/28/16	**0.85 J**	**93 B**	10 U	**1,200 B**	**200 B**	5.0 U	**660,000**	**0.97 J**	**91 B**	10 U	**1,100 B**
X-4D	40 - 45	08/29/17	2.0 U	**83**	10 U	50 U	**190**	5.0 U	**1,600,000**	2.0 U	**84**	10 U	50 U
X-4D	40 - 45	09/26/18	10 U	**83 J**	10 U	**330**	**310**	15 U	**560,000**	10 U	**83 J**	10 U	**1,300**
X-4D	40 - 45	08/22/19	2.0 U	**28**	10 U	**1,000**	**240**	5.0 U	**85,000**	2.0 U	**61**	10 U	**1,000**
X-4D	40 - 45	08/17/20	**6.3 J**	**81 J**	10 U	**1,200**	**210**	15 U	**630,000**	**5.8 J**	**84 J**	10 U	**1,100**
X-4D	40 - 45	08/17/21	10 U	**61 J**	**7.2 J**	**340**	**260**	15 U	**350,000**	10 U	**95 J**	10 U	**940**
X-9AR	3 - 13	07/24/95	**1.60**	200 U	5.00 U	**11,100**	**770**	5.00 U	**340,000**	**2.1**	200 U	--	**9,170**
X-9AR	3 - 13	06/09/96	5.00 U	200 U	5.00 U	**2,900**	**348**	5.00 U	**57,200**	5 U	200 U	5 UJ	**3,190**
X-9AR	3 - 13	12/15/06	5.00 U	**94.0 J**	--	**1,090**	**157**	5.00 U	**55,000**	5 U	**91.2 J**	10 U	**965**
X-9AR	3 - 13	01/10/08	5.00 U	**108**	--	**5,510**	**318**	5.00 U	**58,600**	5 U	**110**	10 U	**5,620**
X-9AR	3 - 13	03/11/08	5.00 U	**51.8 J**	--	100 U	**6.80 J**	**8.20**	**34,300**	5 U	**51.2 J**	10 U	**134**
X-9AR	3 - 13	06/05/08	--	--	--	--	--	**4.60 B [5.00 U]**	--	--	--	--	--
X-9AR	3 - 13	09/29/10	5.00 U	**113 J**	--	**6,320**	**380**	5.00 U	**55,600**	5 U	**116 J**	10 U	**6,580**
X-9AR	3 - 13	09/23/11	**0.40**	**200**	--	**6,600**	**770**	5.00 U	**95,000**	2 U	**200**	10 U	**6,600**
X-9AR	3 - 13	09/12/12	**0.43 J**	**190**	--	**5,400**	**790 B^**	5.00 U	**120,000**	2 U	**190**	10 U	**5,500**
X-9AR	3 - 13	09/25/13	**6**	**220 B**	--	**10,000 B**	**840 B**	5.00 U	**120,000 B**	**5.5**	**220 B**	10 U	**8,900 B**
X-9AR	3 - 13	09/22/14	**1.2 J**	**160 B**	--	**8,800**	**570**	5.00 U	**60,000 B**	**1.3 J**	**170 B**	10 U	**9,100**
X-9AR	3 - 13	10/01/15	**0.63 J**	**91**	10 U	**5,000**	**310**	**0.55 J,B**	**39,000 B**	2.0 U	**87**	10 U	**4,700**
X-9AR	3 - 13	09/28/16	**0.50 *J**	**100**	10 U	**5,600**	**360**	**0.62 J**	**39,000**	**0.61 *J**	**97**	10 U	**5,500**
X-9AR	3 - 13	08/29/17	**2.4**	**56**	10 U	**2,900**	**1,300**	5.0 U	**11,000**	**2.4**	**--**	10 U	**2,300**
X-9AR	3 - 13	09/26/18	10 U	**58 J**	10 U	**2,100**	**3,600**	15 U	**10,000**	10 U	**55 J**	10 U	**1,900**
X-9AR	3 - 13	08/21/19	**4.4 J**	**64 J**	10 U	**3,300**	**3,600**	15 U ^	**11,000**	**4.3 J**	**65 J**	10 U	**3,100**
X-9AR	3 - 13	08/17/20	**23**	**57 J**	10 U	**6,400**	**3,100**	15 U	**9,600**	**24**	**57 J**	10 U	**5,600**
X-9AR	3 - 13	08/18/21	**11**	**71 J**	10 U	**7,500**	**2,500**	15 U	**13,000**	**10**	**72 J**	10 U	**7,800**
X-9BR	26 - 31	07/24/95	--	--	5.00 U	--	--	--	--	1 UJ	200 U	--	**3,360**
X-9BR	26 - 31	06/08/96	--	--	--	--	--	--	--	5 U	200 U	5 UJ	**2,490**
X-9BR	26 - 31	12/15/06	5.00 U [5.00 U]	**143 [148]**	--	**3,070 [3,120]**	**777 [801]**	5.00 U [5.00 U]	**102,000 [102,000]**	5 U	**153**	10 U	**4,450**
X-9BR	26 - 31	01/08/08	5.00 U	**155**	--	**4,160**	**833**	5.00 U	**122,000**	5 U	**103**	10 U	**2,790**
X-9BR	26 - 31	03/11/08	5.00 U	**147**	--	**2,590**	**903**	5.00 U	**81,200**	5 U	**136**	10 U	**2,560**
X-9BR	26 - 31	09/28/10	5.00 U	**175 J**	--	**3,970**	**893**	5.00 U	**151,000**	5 U	**164 J**	10 U	**4,060**
X-9BR	26 - 31	09/23/11	**0.650**	**180**	--	**3,700**	**960**	5.00 U	**140,000**	**0.63**	**180**	10 U	**3,700**
X-9BR	26 - 31	09/12/12	**0.940 J**	**170**	--	**5,100**	**900 B^**	5.00 U	**190,000**	**0.91 J**	**160**	10 U	**5,300**
X-9BR	26 - 31	09/25/13	**6.2**	**130 B**	--	**9,200 B**	**620 B**	5.00 U	**210,000 B**	**6.6**	**140 B**	10 U	**9,000 B**
X-9BR	26 - 31	09/22/14	**2.0**	**170 B**	--	**10,000**	**610**	**0.25 J**	**230,000 B**	**1.9 J**	**160 B**	10 U	**10,000**
X-9BR	26 - 31	10/01/15	**1.6 J**	**160**	10 U	**8,700**	**560**	**0.74 J,B**	**210,000 B**	**1.7 J**	**170**	10 U	**8,700**
X-9BR	26 - 31	09/28/16	**1.7 *J**	**150**	10 U	**7,500**	**550**	**0.72 J**	**230,000**	**1.8 *J**	**150**	10 U	**7,900**
X-9BR	26 - 31	08/29/17	**2.1**	**170**	10 U	**8,700**	**520**	5.0 U	**250,000**	**2.1**	**170**	10 U	**8,600**
X-9BR	26 - 31	09/26/18	10 U	**63 J**	10 U	**5,000**	**220**	15 U	**49,000**	10 U	**59 J**	10 U	**4,100**
X-9BR	26 - 31	08/21/19	10 U	**150 J**	--	**9,400**	**540**	15 U ^	**200,000**	10 U	**150 J**	10 U	**9,900**
X-9BR	26 - 31	08/18/20	10 U	**50 J**	10 U	**5,000**	**590**	15 U	**100,000**	**4.7 J**	**56 J**	10 U	**7,200**
X-9BR	26 - 31	08/18/21	10 U	**53 J**	10 U	**3,700**	**330**	15 U	**59,000**	10 U	**53 J**	10 U	**3,500**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL
X-9CAUG	20 - 25	07/24/95	--	--	5.00 U	--	--	--	--	1 UJ	200 U	--	**7,500**
X-9CAUG	20 - 25	06/08/96	--	--	--	--	--	--	--	5 U	200 U	5 UJ	**8,900**
X-9CAUG	20 - 25	12/15/06	5.00 U	**176**	--	**6,920**	**632**	5.00 U	**59,400**	5 U	**173**	10 U	**6,730**
X-9CAUG	20 - 25	01/08/08	5.00 U	**381**	--	**2,980**	**616**	5.00 U	**72,800**	5 U	**360**	10 U	**2,810**
X-9CAUG	20 - 25	03/11/08	5.00 U	**167**	--	**6,410**	**679**	5.00 U	**59,900**	5 U	**174**	10 U	**6,730**
X-9CAUG	20 - 25	09/28/10	5.00 U	**193 J**	--	**5,420**	**760**	5.00 U	**100,000**	5 U	**194 J**	10 U	**5,790**
X-9CAUG	20 - 25	09/23/11	**1.50**	**110**	--	**6,000**	**350**	5.00 U	**54,000**	**1.7**	**120**	10 U	**6,000**
X-9CAUG	20 - 25	09/12/12	**1.9 J**	**110 B**	--	**4,700**	**340**	**0.68 J**	**47,000**	**0.12 J**	**100 B**	10 U	**5,200**
X-9CAUG	20 - 25	09/25/13	**1.8 J**	**89 B**	--	**4,500 B**	**290 B**	5.00 U	**47,000 B**	**1.8 J**	**87 B**	10 U	**4,400 B**
X-9CAUG	20 - 25	09/22/14	**1.1 J,B**	**84 B**	--	**5,700 B**	**330**	**0.40 J,B**	**38,000 B**	**1.1 J,B**	**860 B**	10 U	**5,700 B**
X-9CAUG	20 - 25	09/30/15	**1.3 J**	**210**	--	**9,800**	**640**	**0.32 J**	**88,000 B**	**1.1 J,B**	**190**	10 U	**10,000**
X-9CAUG	20 - 25	09/28/16	**0.97 *J**	**260**	10 U	**8,400**	**740**	**0.89 J**	**120,000**	**1.0 *J**	**250**	10 U	**9,900**
X-9CAUG	20 - 25	08/29/17	2.0 U	**220**	10 U	**12,000**	**530**	5.0 U	**42,000**	2.0 U	**230**	10 U	**12,000**
X-9CAUG	20 - 25	09/25/18	10 U	**120 J**	10 U	**7,500**	**500**	15 U	**24,000**	10 U	**120 J**	10 U	**7,500**
X-9CAUG	20 - 25	08/21/19	10 U	**130 J**	10 U	**7,700**	**470**	15 U ^	**16,000**	10 U	**130 J**	10 U	**7,600**
X-9CAUG	20 - 25	08/18/20	10 U	**73 J**	10 U	**8,900**	**480**	15 U	**16,000**	10 U	**69 J**	10 U	**8,000**
X-9CAUG	20 - 25	08/18/21	10 U	**130 J**	10 U	**8,500**	**510**	15 U	**21,000**	10 U	**130 J**	10 U	**7,900**
X-9D	42.5 - 47.5	01/08/08	5.00 U	**94.2 J**	--	**3,640**	**186**	5.00 U	**717,000**	5 U	**87.8 J**	10 U	**3,370**
X-9D	42.5 - 47.5	03/11/08	5.00 U	**80.7 J**	--	**3,150**	**149**	5.00 U	**635,000**	5 U	**86.6 J**	10 U	**3,570**
X-9D	42.5 - 47.5	03/12/08	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	06/05/08	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	09/28/10	5.00 U	**93.0 BJ**	--	**2,930**	**132**	5.00 U	**685,000**	5 U	**90.3 BJ**	10 U	**2,670**
X-9D	42.5 - 47.5	09/23/11	**0.640**	**100**	--	**3,100**	**130**	5.00 U	**690,000**	**0.63**	**95**	10 U	**2,900**
X-9D	42.5 - 47.5	09/12/12	**0.67 J**	**84 B**	--	**2,500**	**110**	5.00 U	**650,000**	**0.83 J**	**88 B**	10 U	**2,700**
X-9D	42.5 - 47.5	09/25/13	**21**	**140 B**	--	**3,100 B**	**360 B**	5.00 U	**690,000 B**	**22**	**140 B**	10 U	**2,900 B**
X-9D	42.5 - 47.5	09/22/14	**15**	**110 B**	--	**3,000**	**170**	**0.58 J**	**680,000 B**	**16**	**110 B**	10 U	**2,800**
X-9D	42.5 - 47.5	09/30/15	**9.5**	**100**	10 U	**2,800**	**140**	**0.49 J**	**630,000 B**	**7.3**	**85**	10 U	**1,900**
X-9D	42.5 - 47.5	09/28/16	**3.8**	**94**	10 U	**1,500**	**130**	**0.52 J**	**630,000 B**	**5.0**	**91**	10 U	**2,200**
X-9D	42.5 - 47.5	08/29/17	**1.2 J**	**54**	10 U	50 U	**75**	5.0 U	**330,000**	**0.76 J**	**74**	10 U	50 U
X-9D	42.5 - 47.5	09/25/18	**5.4 J**	**120 J**	10 U	**2,900**	**360**	15 U	**630,000**	10 U	**120 J**	10 U	**2,900**
X-9D	42.5 - 47.5	08/20/19	**5.7 J**	**110 J**	10 U H	**3,300**	**200**	15 U	**620,000**	10 U	**110 J**	10 U	**2,800**
X-9D	42.5 - 47.5	08/17/20	**38**	**200**	10 U	**22,000**	**3,400**	15 U	**490,000**	**22**	**160 J**	**6.6 J**	**13,000**
X-9D	42.5 - 47.5	08/18/21	**19 [13]**	**170 J [120 J]**	10 U [10 U]	**13,000 [9,500]**	**2,400 [2,200]**	15 U [15 U]	**420,000 [290,000]**	10 U [10 U]	**130 J [130 J]**	10 U [10 U]	**5,100 [5,100]**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Manganese (Dissolved)	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			4,700	5	NSL	53	53	150,000	NA	NSL	370,000	NSL
MW-117S1	24.2 - 29.2	06/20/95	**347**	5 UJ	**101,000**	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	07/14/95	--	--	--	1,000 UJ	--	**230,000**	--	--	--	**990,000**
MW-117S1	24.2 - 29.2	06/11/96	**330**	--	**108,000**	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	05/19/00	**341**	5 U	**120,000**	**5,100**	--	**284,000 J**	1,000 UG	1,000 UG	2,000 UG	**840,000**
MW-117S1	24.2 - 29.2	06/19/01	**340**	5 U	**121,000**	**11,000**	--	**269,000**	500 U	R	**260 B**	**920,000**
MW-117S1	24.2 - 29.2	06/26/02	**326**	5 U	**114,000**	**7,100**	--	**270,000**	500 U	500 U	**140 B**	**970,000**
MW-117S1	24.2 - 29.2	06/19/03	**354**	5 U	**118,000**	**7,400**	--	**264,000**	500 U	140 BJ	1,000 UJ	**1,000,000**
MW-117S1	24.2 - 29.2	05/27/04	**326 J**	5 U	**115,000**	**7,300**	--	**275,000**	500 U	160 B	**440 B**	**1,000,000**
MW-117S1	24.2 - 29.2	06/23/05	**289 J**	**5.4**	**118,000**	**8,400 J**	--	**270,000**	100 U	100 U	1,000 U	**970,000 J**
MW-117S1	24.2 - 29.2	12/13/06	**329**	5 U	**118,000**	**8,200**	--	**267,000**	100 U	100 U	1,000 U	**960,000**
MW-117S1	24.2 - 29.2	12/07/07	**332**	5 U	**129,000**	**22,000**	--	**268,000**	100 U	100 U	1,000 U	**950,000**
MW-117S1	24.2 - 29.2	03/14/08	**312**	5 U	**113,000**	**1,200**	--	**274,000**	100 UJ	100 UJ	1,000 U	**940,000**
MW-117S1	24.2 - 29.2	10/01/10	**307 J**	5 U	**119,000**	**6,500**	**210**	**319,000**	100 U	100 U	1,000 U	**940,000**
MW-117S1	24.2 - 29.2	09/27/11	**330**	5 U	**120,000**	**8,400**	**19**	**270,000**	100 U	100 U	1,000 U	**970,000**
MW-117S1	24.2 - 29.2	09/13/12	**300**	5 U	**110,000**	**7,800**	**13**	**270,000**	100 U	100 U	1,000 U	**930,000**
MW-117S1	24.2 - 29.2	09/24/13	**510**	5 U	**120,000**	**7,000 B**	**11 B**	**250,000**	100 U	100 U	**450 J**	**880,000**
MW-117S1	24.2 - 29.2	09/22/14	**290**	**0.29 J,B**	**120,000 B**	**7,800**	**4.8**	**260,000**	100 U , H	100 U, H	1,000 U	**880,000**
MW-117S1	24.2 - 29.2	09/30/15	**270**	**0.52 J, B**	**110,000 B**	**6,500**	**7.6**	**240,000**	500 U	500 U	5,000 U	**930,000**
MW-117S1	24.2 - 29.2	09/27/16	**270 B**	**0.57 J**	**120,000**	**10,000 B**	**10 B**	**250,000**	50 U	50 U	1,000 U	**870,000**
MW-117S1	24.2 - 29.2	11/13/17	**260**	5.0 U	**110,000**	**8,500**	**1.2**	**240,000**	50 U	50 U	1,000 U	**950,000**
MW-117S1	24.2 - 29.2	08/21/19	**270**	15 U ^	**110,000**	**4,500**	**12**	**110,000**	50 U	50 U	**23,000**	**530,000**
MW-117S1	24.2 - 29.2	08/13/20	**290**	15 U	**110,000**	**8,200**	**43**	**220,000**	**1,300**	100 U	1,000 U	**860,000**
MW-117S1	24.2 - 29.2	08/17/21	**270**	15 U	**120,000**	**7,200**	**27**	**230,000**	**7,200**	**71 J**	**7,300**	**1,100,000**
MW-117WT	3 - 13	06/20/95	**5,130**	5 UJ	**463,000**	--	--	--	--	--	--	--
MW-117WT	3 - 13	07/14/95	--	--	--	**30,000 J**	--	**4,600,000**	--	--	--	**11,000,000**
MW-117WT	3 - 13	06/11/96	**5,190**	--	**499,000**	--	--	--	--	--	--	--
MW-117WT	3 - 13	05/19/00	**5,510**	5 U	**590,000**	**46,000**	--	**4,930,000 J**	12,500 UG	12,500 UG	25,000 UG	**11,000,000**
MW-117WT	3 - 13	06/18/01	**4,900**	5 U	**559,000**	**63,000**	--	**5,380,000**	500 U	R	**230 B**	**13,000,000**
MW-117WT	3 - 13	06/26/02	**4,850**	5 U	**539,000**	**63,000**	--	**5,540,000**	1,000 U	25,000 U	**320 B**	**11,000,000 J [12,000,000]**
MW-117WT	3 - 13	06/19/03	**5,480**	5 U	**628,000**	**63,000**	--	**4,680,000**	1,000 U	25,000 U	**340 BJG**	**13,000,000**
MW-117WT	3 - 13	12/09/04	**5,150 J [3,970 J]**	**14 J [14.3 J]**	--	**65,000 [69,000]**	--	**4,650,000 J [4,420,000 J]**	100 U [100 U]	1,000 UG [1,000 UG]	**240 B [1,000 U]**	**7,800,000 J [7,900,000 J]**
MW-117WT	3 - 13	06/23/05	**3,810 J**	**16.1**	**564,000**	**59,000 J**	--	**3,970,000**	100 U	2,000 U	**230 B**	**9,600,000 J**
MW-117WT	3 - 13	12/13/06	**4,000**	5 U	**531,000**	**75,000**	--	**3,680,000**	**750**	**3,600**	**270 J**	**7,800,000**
MW-117WT	3 - 13	12/07/07	**4,460**	5 U	**620,000**	**68,000**	--	**3,690,000**	100 U	100 U	**800 J**	**7,600,000**
MW-117WT	3 - 13	03/14/08	**4,160**	5 U	**545,000**	**68,000**	--	**3,220,000**	200 UJ	200 UJ	2,000 U	**5,900,000**
MW-117WT	3 - 13	10/01/10	**4,360 J**	5 U	**604,000**	**64,000**	**5,100**	**5,210,000**	100 U	5,000 U, G	1,000 U	**7,900,000**
MW-117WT	3 - 13	09/27/11	**4,700**	5 U	**560,000**	**71,000**	**68**	**4,300,000**	100 U	2,500 U	**380**	**9,800,000**
MW-117WT	3 - 13	09/13/12	**4,100**	**0.78 J**	**560,000 B**	**78,000**	**40**	**4,600,000**	100 U	5,000 U	**350 J**	**9,900,000**
MW-117WT	3 - 13	09/24/13	**7,000**	5 U	**570,000**	**86,000 B**	**46 B**	**4,500,000 B**	100 U	1,000 U	**710 J**	**7,300,000**
MW-117WT	3 - 13	09/23/14	**3,700**	**0.59 J,B**	**520,000 B**	**3,000^**	**1.2 ^**	**3,700,000**	1,000 U, H	1,000 U, H	10,000 U	**6,300,000**
MW-117WT	3 - 13	09/30/15	**2,900**	**1.0 J B**	**450,000 B**	**60,000**	**49**	**3,500,000**	2,500 U	2,500 U	2,500 U	**5,700,000**
MW-117WT	3 - 13	09/27/16	**3,400 B**	**1.5 J**	**470,000**	**81,000 B**	**120 B**	**3,500 ,000**	50 U	50 U	**250 J**	**4,800,000**
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	**--**
MW-117WT	3 - 13	08/13/20	**3,800**	15 U	**490,000**	**66,000**	**97**	**3,200,000**	**630**	500 U	**5,100**	**4,600,000**
MW-117WT	3 - 13	08/17/21	**4,400**	15 U	**650,000**	**83,000**	**100**	**4,700,000**	1,000 U	1,000 U	100,000 U	**9,400,000**
MW-118S1	23.5 - 28.5	06/20/95	**347**	5 UJ	**97,300**	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	07/14/95	--	--	--	**4,800 J**	--	**260,000**	--	--	--	**8,000,000**
MW-118S1	23.5 - 28.5	06/11/96	**383**	--	**112,000**	--	--	--	80 U	70 U	5,000 U	--
MW-118S1	23.5 - 28.5	05/17/00	**420 [415]**	5 U [5 U]	**121,000 [122,000]**	**5,900 [6,200]**	--	**284,000 [281,000]**	2,000 UG [2,000 UG]	2,000 UG [2,000 UG]	4,000 UG [4,000 UG]	**930,000 [940,000]**
MW-118S1	23.5 - 28.5	06/19/01	**428**	5 U	**117,000**	**8,400**	--	**272,000**	500 U	R	**150 B**	**910,000**
MW-118S1	23.5 - 28.5	06/27/02	**408**	5 U	**112,000**	**7,300**	--	**286,000**	500 U	500 U	**1,600**	**1,200,000 [1,200,000]**
MW-118S1	23.5 - 28.5	06/19/03	**476**	5 U	**118,000**	**6,200**	--	**264,000**	500 U	500 U	1,000 UJ	**1,000,000**
MW-118S1	23.5 - 28.5	12/09/04	**405 J**	**5.9 J**	--	**5,900**	--	**270,000 J**	100 U	100 U	1,000 U	**980,000 J**
MW-118S1	23.5 - 28.5	06/23/05	**370 J**	3.5	**112,000**	**7,300 J**	--	**296,000**	100 U	100 U	1,000 U	**520,000 J**
MW-118S1	23.5 - 28.5	12/14/06	**401**	5 U	**115,000**	**8,000**	--	**290,000**	100 U	**160**	1,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	12/07/07	**425**	5 U	**131,000**	**8,500**	--	**275,000**	100 U	100 U	1,000 U	**900,000**
MW-118S1	23.5 - 28.5	04/01/08	**413**	5 U	**115,000**	**8,100**	--	**310,000**	100 U	100 U	**4,700**	**960,000**
MW-118S1	23.5 - 28.5	10/01/10	**395 J**	5 U	**129,000**	**6,700**	--	**362,000**	100 U	100 U	1,000 U	**970,000**
MW-118S1	23.5 - 28.5	09/27/11	**410**	5 U	**130,000**	**7,900**	**27**	**290,000**	100 U	100 U	1,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	09/13/12	**400**	5 U	**130,000**	**7,200**	**14**	**290,000**	100 U	100 U	1,000 U	**960,000**
MW-118S1	23.5 - 28.5	09/24/13	**470 B**	**0.47 J**	**150,000 B**	**6,900 B**	**3.7 B**	**300,000 B**	100 U	100 U	**320 J**	**920,000**
MW-118S1	23.5 - 28.5	09/22/14	**350**	5 U	**130,000 B**	**7,500**	**3.8**	**320,000**	100 U	100 U	1,000 U	**980,000**
MW-118S1	23.5 - 28.5	09/30/15	**340**	0.58 J B	**120,000 B**	**5,900**	**8**	**310,000**	500 U	500 U	5,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	09/27/16	**360 B**	**1.0 J**	**130,000**	**9,900 B**	**13 B**	**290,000**	50 U	50 U	1,000 U	**930,000**
MW-118S1	23.5 - 28.5	11/13/17	**460**	5.0 U	**100,000**	**7,600**	**1.2**	**260,000**	**31 J**	**31 J**	1,000 U	**920,000**
MW-118S1	23.5 - 28.5	08/14/20	**800**	15 U	**15,000 B**	200 U	1.1 U	**17,000**	100 U	100 U	**420 J**	**200,000**
MW-118S1	23.5 - 28.5	08/17/21	**2,100**	15 U	**97,000**	**3,800**	**16**	**220,000**	500 U H	**240**	**3,200**	**830,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Manganese (Dissolved)	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			4,700	5	NSL	53	53	150,000	NA	NSL	370,000	NSL
MW-118WT	1.6 - 11.6	06/20/95	**5,460**	5 UJ	**175,000**	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	07/14/95	--	--	--	**10,000 J**	--	**3,700,000**	--	--	--	**1,400,000**
MW-118WT	1.6 - 11.6	06/11/96	**5,390**	--	**229,000**	--	--	--	80 U	70 U	5,000 U	--
MW-118WT	1.6 - 11.6	05/17/00	**8,930**	5 U	**647,000**	**26,000**	--	**16,100,000**	50,000 UG	50,000 UG	100,000 UG	**37,000,000**
MW-118WT	1.6 - 11.6	06/19/01	**7,740 [8,070]**	5 U [5 U]	**955,000 [976,000]**	**92,000 [76,000]**	--	**21,800,000 [18,800,000]**	50,000 U [500 U]	R [R]	**100,000 U [630 B]**	**34,000,000 [36,000,000]**
MW-118WT	1.6 - 11.6	06/27/02	**6,250 [6,360]**	5 U [5 U]	**925,000 [970,000]**	**82,000 [88,000]**	--	**16,900,000 [16,500,000]**	2,500 U [2,500 U]	2,500 U [2,500 U]	**590 B [560 B]**	**42,000,000 [41,000,000]**
MW-118WT	1.6 - 11.6	06/19/03	**4,110 [4,000]**	5 U [5 U]	**764,000 [735,000]**	**66,000 [65,000]**	--	**9,740,000 [9,470,000]**	2,000 U [2,000 U]	50,000 U [50,000 U]	**700 BJG [1,200 BJG]**	**23,000,000 [24,000,000]**
MW-118WT	1.6 - 11.6	05/27/04	**3,080 J**	5 U	**662,000**	**66,000**	--	**7,580,000**	1,000 U	25,000 U	**2,000 U**	**15,000,000**
MW-118WT	1.6 - 11.6	06/23/05	**1,560 J**	**16.3**	**541,000**	**47,000 J**	--	**4,670,000**	100 U	2,000 U	**5,000**	**12,000,000 J**
MW-118WT	1.6 - 11.6	12/14/06	**1,050**	5 U	**408,000**	**42,000**	--	**2,370,000**	100 U	**1,900**	**25,300**	**6,800,000**
MW-118WT	1.6 - 11.6	12/07/07	**881**	5 U	**406,000**	**42,000**	--	**1,760,000**	100 U	100 U	**17,600**	**4,600,000**
MW-118WT	1.6 - 11.6	04/01/08	**800**	5 U	**334,000**	**38,000**	--	**1,800,000**	100 U	100 U	**23,500**	**4,600,000**
MW-118WT	1.6 - 11.6	09/30/10	**448 J**	5 U	**216,000**	**34,000**	**170**	**932,000**	100 U	1,000 U, G	**10,000**	**2,000,000**
MW-118WT	1.6 - 11.6	09/27/11	**470**	5 U	**200,000**	**38,000**	**33**	**730,000**	100 U	100 U	**5,200**	**2,300,000**
MW-118WT	1.6 - 11.6	09/13/12	**340**	5 U	**140,000**	**35,000**	**61**	**410,000**	100 U	100 U	**2,300**	**1,300,000**
MW-118WT	1.6 - 11.6	09/24/13	**330 B**	5 U	**120,000 B**	**35,000 B**	**23 B**	**280,000 B**	100 U	100 U	**18,000**	**1,000,000**
MW-118WT	1.6 - 11.6	09/22/14	**300**	**0.27 J,B**	**86,000 B**	**29,000**	**35**	**260,000**	100 U, H	100 U, H	**19,000**	**990,000**
MW-118WT	1.6 - 11.6	09/30/15	**270**	**1.6 J,B**	**70,000 B**	**24,000**	**74**	**230,000**	500 U	500 U	**9,300**	**980,000**
MW-118WT	1.6 - 11.6	09/27/16	**300 B**	**1.0 J**	**82,000**	**37,000 B**	**100 B**	**240,000**	50 U	50 U	**6,100**	**900,000**
MW-118WT	1.6 - 11.6	11/13/17	**570**	5.0 U	**82,000**	**24,000**	**5.6**	**270,000**	50 U	50 U	1,000 U	**1,000,000**
MW-118WT	1.6 - 11.6	08/14/20	**1,000**	15 U	**100,000 B**	**14,000**	**40**	**120,000 F1**	**1,200 F1**	100 U,F1,F2	**520 J,F1**	**720,000**
MW-118WT	1.6 - 11.6	08/17/21	**390**	15 U	**96,000**	**27,000**	**110**	**300,000**	1,000 U H	**170**	**14,000**	**1,200,000**
MW-183WT	6 - 16	12/06/07	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	01/09/08	**440 [565 J]**	5 U [5 U]	**102,000 [98,000]**	**400 [300]**	--	**147,000 [148,000]**	100 U [100 U]	100 U [100 U]	1,000 [700 J]	440,000 [470,000]
MW-183WT	6 - 16	03/12/08	**608**	5 U	**100,000**	**300**	--	**147,000**	100 U	100 U	2,600 U	520,000
MW-183WT	6 - 16	09/28/10	**243 [238]**	5.0 U [5.0 U]	**87.4 [85.6]**	**800 J [800 J]**	**5.3 J [5.3 J]**	**76,600 [77,400]**	100 U [100 U]	100 U [100 U]	**1,000 U [1,000 U]**	**360,000 [370,000]**
MW-183WT	6 - 16	09/28/11	**250**	5.0 U	**94,000**	**530 [550]**	**7 [7.3]**	**63,000 [63,000]**	100 U [100 U]	100 U [100 U]	**11,000 [11,000]**	**410,000 [430,000]**
MW-183WT	6 - 16	09/14/12	**400 B**	**0.78 J**	**93,000**	**920 [1,100]**	**3.3 [3.9]**	**36,000 [46,000]**	100 U [100 U]	100 U [100 U]	**200,000 [200,000]**	**600,000 [600,000]**
MW-183WT	6 - 16	09/24/13	**490 B**	5.0 U	**100,000 B**	**1,100 B [800 B]**	**1.3 B [0.93 B]**	**36,000 B [36,000 B]**	100 U, H [100 U, H]	100 U, H [100 U, H]	**89,000 [88,000]**	**570,000 [570,000]**
MW-183WT	6 - 16	09/23/14	**550 [560]**	**0.27 J,B [5.0 U]**	**47,000 B [47,000 B]**	**200 U [140 J]**	--	**29,000 [23,000]**	100 U, H [100 U, H]	100 U, H [100 U, H]	**3,200 [2,900 J]**	**410,000 [400,000]**
MW-183WT	6 - 16	10/01/15	**350**	**0.72 J,B**	**52,000**	**750 [840]**	**3.4 [3.9]**	**32,000 F1 [33,000]**	100 U [100 U]	100 U [100 U]	1,000 U [1,000 U]	**410,000 [410,000]**
MW-183WT	6 - 16	09/28/16	**1,100 B**	**1.5 J**	**50,000**	**940 J,B**	**4.9 J,B**	**28,000**	50 U, F1	50 U, F1	**970 J**	**400,000**
MW-183WT	6 - 16	08/29/17	**1,500**	5.0 U	**37,000**	**350 [490]**	**1.2 [1.7]**	**21,000 [21,000]**	50 U [50 U]	50 U [50 U]	**3,100 [3,200]**	**390,000 [390,000]**
MW-183WT	6 - 16	09/26/18	**1,300**	15 U	**27,000**	**120 J [98 J]**	**0.16 J [0.13 J]**	**21,000 [21,000]**	100 UH [100 U H]	100 UH [100 U H]	**3,100 [3,100]**	**380,000 [380,000]**
MW-183WT	6 - 16	08/21/19	**1,400**	15 U ^	**30,000**	**190 J [200]**	**0.67 J [0.71]**	**20,000 [20,000]**	50 U [50 U]	50 U [50 U]	**980 J [1,100]**	**430,000 [420,000]**
MW-183WT	6 - 16	08/18/20	**1,800 F1,F2 [1,800]**	15 U,F2 [15 U]	**15,000 F1,F2 [15,000]**	200 U [200 U]	0.48 U [0.48 U]	**17,000 [17,000]**	100 U [100 U]	100 U [100 U]	1,000 U [1,000 U]	**380,000 [400,000]**
MW-183WT	6 - 16	08/19/21	**1,600**	15 U	**23,000**	**85 J F1 B**	**0.36 J F1 B**	**19,000**	500 U H	100 U H	**3,000**	**350,000**
TWW-1	1.5 - 6.5	01/25/97	**2,110**	5 U	**858,000**	--	--	--	--	--	--	--
TWW-1	1.5 - 6.5	05/21/00	**1,610**	5 U	**845,000**	--	--	--	--	--	**340,000**	--
TWW-1	1.5 - 6.5	05/29/08	--	--	--	**200**	--	--	--	--	--	**1,600,000**
TWW-1	1.5 - 6.5	09/27/16	--	--	--	--	--	--	--	--	--	**--**
TWW-1	1.5 - 6.5	08/30/17	--	--	--	--	--	--	--	--	--	--
X-10BR	26.3 - 31.3	07/24/95	**457**	5 U	**149,000**	--	--	--	--	--	--	--
X-10BR	26.3 - 31.3	12/15/06	**691**	5 U	**192,000**	**6,000**	--	**505,000**	100 U	**300**	1,000 U	**1,600,000**
X-10BR	26.3 - 31.3	12/04/07	**696**	5 U	**198,000**	**4,500**	--	**497,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	03/12/08	**716**	5 U	**186,000**	**4,000**	--	**502,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	09/29/10	**751**	5 U	**187,000**	**4,800**	**6**	**595,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	09/22/11	**750**	5 U	**190,000**	**6,000**	**11**	**540,000**	500 U	100 U	**360**	**1,500,000**
X-10BR	26.3 - 31.3	09/14/12	**730 B^**	5 U	**200,000**	**7,900**	**8.1**	**620,000**	100 U	100 U	**590 J**	**1,500,000**
X-10BR	26.3 - 31.3	09/24/13	**750**	5 U	**200,000**	**9,100 B**	**5.9 B**	**540,000 B**	100 U	500 U	**120 J**	**1,500,000**
X-4AR	3.3 - 8.3	07/24/95	**248**	5 U	**18,100**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	06/09/96	**44.4**	5 U	**22,900**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	05/21/00	15 U	5 U	**20,900**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	06/03/04	--	--	--	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	08/18/20	**180**	15 U	**27,000**	200 U	21 U	**17,000**	**1,500**	100 U	**1,100**	**310,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Manganese (Dissolved)	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			4,700	5	NSL	53	53	150,000	NA	NSL	370,000	NSL
X-4CAUG	18 - 23	07/24/95	**447**	5 U	**65,400**	--	--	--	--	--	--	--
X-4CAUG	18 - 23	06/08/96	**464**	5 U	**79,100**	--	--	--	--	--	--	--
X-4CAUGR	14 - 19	01/09/08	**427**	5 U	**79,600**	**1,500**	--	**160,000**	100 U	100 U	1,000 U	**550,000**
X-4CAUGR	14 - 19	03/12/08	**535**	5 U	**58,000**	**2,000**	--	**108,000**	100 U	100 U	1,000 U	**580,000**
X-4CAUGR	14 - 19	09/28/10	**571**	5 U	**52,300**	**1,900 J**	**5.4 J**	**123,000**	100 U	100 U	**210 B**	**570,000**
X-4CAUGR	14 - 19	09/26/11	**590**	5 U	**41,000**	**1,800**	**5.3**	**99,000**	100 U	100 U	1,000 U	**570,000**
X-4CAUGR	14 - 19	09/14/12	**570 B^**	5 U	**54,000**	**1,900**	**3.5**	**140,000**	100 U	100 U	1,000 U	**630,000**
X-4CAUGR	14 - 19	09/24/13	**760 B**	5 U	**26,000 B**	**2,900 B**	**1.1 B**	**37,000 B**	100 U	100 U	**190**	**540,000**
X-4CAUGR	14 - 19	09/23/14	**610**	5 U	**60,000 B**	**1,600**	--	**129,000**	100 U	100 U	1,000 U	**630,000**
X-4CAUGR	14 - 19	09/30/15	**500**	**0.35 J**	**75,000 B**	--	--	**170,000**	100 U H	100 U H	1,000 U	**700,000**
X-4CAUGR	14 - 19	09/28/16	**370 B**	5.0 U	**74,000**	**1,100 B**	**1.8 B**	**81,000**	50 U	50 U	**18,000**	**570,000**
X-4CAUGR	14 - 19	08/29/17	**450**	5.0 U	**10,000**	**990**	**11**	**6,500**	50 U	50 U	1,000 U	**490,000**
X-4CAUGR	14 - 19	09/26/18	**300**	15 U	**12,000**	**420**	**0.65**	**23,000**	100 U H	100 U H	1,000 U	**370,000**
X-4CAUGR	14 - 19	08/22/19	**280**	5.0 U	**13,000**	**390**	**1.4**	**23,000**	50 U	50 U	**1,400**	**350,000**
X-4CAUGR	14 - 19	08/17/20	**300**	15 U	**13,000**	**340**	**0.92**	**18,000**	**31 J**	**100 U**	1,000 U	**280,000**
X-4CAUGR	14 - 19	08/17/21	**290**	15 U	**13,000**	**250**	**1.4**	**21,000**	500 U H	100 U H	5,000 U	**320,000**
X-4D	40 - 45	01/09/08	**318**	5 U	**718,000**	**6,900**	--	**1,400,000**	100 U	2,000 U	**94,400**	**2,300,000**
X-4D	40 - 45	04/01/08	**263 [258]**	5 U [5 U]	**726,000 [708,000]**	**8,800 [8,100]**	--	**1,460,000 [1,460,000]**	100 U [100 U]	100 U [100 U]	**118,000 [118,000]**	**2,500,000 [2,600,000 J]**
X-4D	40 - 45	04/03/08	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	06/05/08	--	--	--	**6,200 [7,320]**	--	--	--	--	--	**3,300,000 [2,820,000]**
X-4D	40 - 45	09/28/10	**275**	5 U	**708,000**	**6,800 J**	**42 J**	**1,470,000**	**130**	1,000 U, G	**122,000**	**2,500,000**
X-4D	40 - 45	09/26/11	**180**	5 U	**700,000**	**9,700**	**120**	**1,400,000**	100 U	2,000 U	**150,000**	**2,800,000**
X-4D	40 - 45	09/14/12	**190 B^**	5 U	**690,000**	**8,300**	**28**	**1,500,000**	500 U	100 U	**190,000**	**2,400,000**
X-4D	40 - 45	09/24/13	**160 B**	5 U	**680,000 B**	**8,800 B**	**5.3 B**	**1,500,000 B**	100 U	1,000 U	**160,000**	**2,400,000**
X-4D	40 - 45	09/23/14	**180**	**0.31 J,B**	**550,000 B**	**200 U**	--	**760,000**	**1800**	100 U	**88,000**	**830,000**
X-4D	40 - 45	09/30/15	**180**	**1.8 J,B**	**620,000**	**3,600**	**13**	**1,500,000**	2,500 U	2,500 U	**160,000**	**2,700,000**
X-4D	40 - 45	09/28/16	**200 B**	5.0 U	**630,000**	**6,200 B**	**38 B**	**1,300,000**	50 U	50 U	**160,000**	**2,600,000**
X-4D	40 - 45	08/29/17	**180**	5.0 U	**1,600,000**	**6,800**	**55**	**1,300,000**	**360**	**360**	**180,000**	**2,300,000**
X-4D	40 - 45	09/26/18	**210**	15 U	**590,000**	**8,800**	**17**	**1,300,000**	500 UH	500 UH	**190,000**	**2,400,000**
X-4D	40 - 45	08/22/19	**220**	5.0 U	**420,000**	**7,000**	**30**	**890,000**	50 U	50 U	**160,000**	**1,800,000**
X-4D	40 - 45	08/17/20	**220**	15 U	**650,000**	**7,600**	**82**	**1,300,000**	500 U	500 U	**190,000**	**2,100,000**
X-4D	40 - 45	08/17/21	**280**	15 U	**640,000**	**5,700**	**24**	**1,300,000**	500 U H	500 U H	**170,000**	**2,500,000**
X-9AR	3 - 13	07/24/95	**674**	5 U	**37,600**	--	--	--	--	--	--	--
X-9AR	3 - 13	06/09/96	**382**	5 U	**57,000**	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	**153**	5 U	**54,500**	200 U	--	**29,700**	100 U	100 U	**29,200**	**790,000**
X-9AR	3 - 13	01/10/08	**325**	5 U	**60,500**	**300**	--	**58,000**	100 U	100 U	**400 J**	**770,000**
X-9AR	3 - 13	03/11/08	**3.1 J**	**9.8**	**33,600**	200 U	--	**10,700**	100 U	100 U	**35,500**	**600,000**
X-9AR	3 - 13	06/05/08	--	5 U [5 U]	--	--	--	--	--	--	--	--
X-9AR	3 - 13	09/29/10	**388**	5 U	**56,400**	**600**	**3.5**	**52,100**	100 U	100 U	**310 B**	**700,000**
X-9AR	3 - 13	09/23/11	**750**	5 U	**91,000**	**4,300**	**11**	**180,000**	100 U	100 U	1,000 U	**750,000**
X-9AR	3 - 13	09/12/12	**780 B^**	5 U	**120,000**	**5,000**	**9.6**	**180,000**	100 U	100 U	1,000 U	**820,000**
X-9AR	3 - 13	09/25/13	**670 B**	5 U	**110,000 B**	**6,200 B**	**11 B**	**160,000**	100 U	100 U	**790 J**	**800,000**
X-9AR	3 - 13	09/22/14	**590**	**0.25 J**	**63,000 B**	**3,700^**	--	**100,000**	100 U	100 U	1,000 U	**630,000**
X-9AR	3 - 13	10/01/15	**300**	**0.50 J,B**	**37,000 B**	**720**	**1.2**	**17,000**	100 U	100 U	130 U	**640,000**
X-9AR	3 - 13	09/28/16	**360**	**0.67 J**	**38,000**	**560 B**	**0.65 B**	**15,000**	50 U	50 U	1,000 U	**630,000**
X-9AR	3 - 13	08/29/17	**1,400**	5.0 U	**11,000**	**540**	**4.4**	**17,000**	50 U	50 U	1,000 U	**460,000**
X-9AR	3 - 13	09/26/18	**4,000**	15 U	**11,000**	**160 J**	**0.11 J**	**14,000**	100 U H	100 U H	**4,100**	**430,000**
X-9AR	3 - 13	08/21/19	**3,600**	15 U ^	**11,000**	**94 J**	**0.43 J**	**15,000**	50 U	50 U	**13,000**	**550,000**
X-9AR	3 - 13	08/17/20	**3,000**	15 U	**9,700**	**110 J**	**0.51 J**	**13,000**	100 U	100 U	1,000 U	**360,000**
X-9AR	3 - 13	08/18/21	**2,600**	15 U	**13,000**	**210**	**0.7**	**19,000**	100 U	**18 J**	**8,900**	**410,000**
X-9BR	26 - 31	07/24/95	**763**	5 U	**64,000**	--	--	--	--	--	--	--
X-9BR	26 - 31	06/08/96	**813**	5 U	**48,800**	--	--	--	--	--	--	--
X-9BR	26 - 31	12/15/06	**717**	5.7 U	**125,000**	**5,900**	--	**191,000**	**100**	**180**	1,000 U	**830,000**
X-9BR	26 - 31	01/08/08	**541**	5 U	**81,500**	**5,200**	--	**200,000**	100 U	100 U	1,000 U	**810,000**
X-9BR	26 - 31	03/11/08	**828**	5 U	**84,500**	**5,000**	--	**181,000**	100 U	100 U	1,000 U	**760,000**
X-9BR	26 - 31	09/28/10	**848**	5 U	**145,000**	**2,900 J**	**9.4 J**	**269,000**	100 U	100 U	1,000 U	**880,000**
X-9BR	26 - 31	09/23/11	**960**	5 U	**140,000**	**6,700**	**18**	**250,000**	100 U	100 U	1,000 U	**900,000**
X-9BR	26 - 31	09/12/12	**850 B^**	5 U	**190,000**	**7,300**	**9**	**280,000**	100 U	100 U	1,000 U	**980,000**
X-9BR	26 - 31	09/25/13	**740 B**	5 U	**210,000 B**	**9,400 B**	**18 B**	**240,000**	100 U	100 U	**2,100**	**870,000**
X-9BR	26 - 31	09/22/14	**630**	**0.39 J**	**220,000 B**	**9,900**	--	**260,000**	100 U	100 U	1,000 U	**1,000,000**
X-9BR	26 - 31	10/01/15	**560**	**0.76 J,B**	**210,000 B**	**12,000**	**21**	**270,000**	100 U	100 U	1,000 U	**990,000**
X-9BR	26 - 31	09/28/16	**530**	**0.70 J**	**240,000**	**6,800 B**	**29 B**	**280,000**	50 U	50 U	1,000 U	**990,000**
X-9BR	26 - 31	08/29/17	**520**	5.0 U	**250,000**	**12,000**	**45**	**290,000**	50 U	50 U	1,000 U	**990,000**
X-9BR	26 - 31	09/26/18	**180**	15 U	**40,000**	**2,400**	**3.1**	**62,000**	100 U H	100 U H	**8,800**	**290,000**
X-9BR	26 - 31	08/21/19	**520**	15 U ^	**210,000**	**9,000**	**42**	**110,000**	**590**	**590**	**23,000**	**930,000**
X-9BR	26 - 31	08/18/20	**680**	15 U	**200,000**	**5,900**	**31**	**190,000**	100 U	100 U	**870 J**	**680,000**
X-9BR	26 - 31	08/18/21	**340**	15 U	**59,000**	**1,100**	**3**	**69,000**	100 U	100 U	**5,400**	**350,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Manganese (Dissolved)	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			4,700	5	NSL	53	53	150,000	NA	NSL	370,000	NSL
X-9CAUG	20 - 25	07/24/95	**628**	5 U	**47,200**	--	--	--	--	--	--	--
X-9CAUG	20 - 25	06/08/96	**615**	5 U	**47,000**	--	--	--	--	--	--	--
X-9CAUG	20 - 25	12/15/06	**630**	5 U	**58,200**	**2,900**	--	**130,000**	100 U	**110**	1,000 U	**690,000**
X-9CAUG	20 - 25	01/08/08	**586**	5 U	**68,600**	**3,200**	--	**145,000**	**200**	100 U	**300 J**	**700,000**
X-9CAUG	20 - 25	03/11/08	**699**	5 U	**62,000**	**3,300**	--	**130,000**	100 U	100 U	1,000 U	**680,000**
X-9CAUG	20 - 25	09/28/10	**801**	5 U	**101,000**	**4,400 J**	**9.2 J**	**200,000**	**34 B**	100 U	**260 B**	**750,000**
X-9CAUG	20 - 25	09/23/11	**350**	5 U	**55,000**	**550**	**1.4**	**41,000**	100 U	100 U	**310**	**690,000**
X-9CAUG	20 - 25	09/12/12	**340**	5 U	**48,000**	**690**	**1.3**	**34,000**	100 U	100 U	1,000 U	**680,000**
X-9CAUG	20 - 25	09/25/13	**300 B**	5 U	**47,000 B**	**430 B**	**0.43 B**	**24,000**	100 U	100 U	**340 J**	**640,000**
X-9CAUG	20 - 25	09/22/14	**350**	**0.42 J,B**	**38,000 B**	**120 J**	--	**16,000**	100 U , H	100 U , H	**1,100**	**640,000**
X-9CAUG	20 - 25	09/30/15	**550**	**0.43 J**	**73,000 B**	**7,800**	**23**	**180,000**	100 U , H	100 U , H	1,000 U	**790,000**
X-9CAUG	20 - 25	09/28/16	**690**	**0.57 J**	**110,000**	**4,400 B**	**5.3 B**	**190,000**	50 U	50 U	1,000 U	**830,000**
X-9CAUG	20 - 25	08/29/17	**570**	5.0 U	**42,000**	**3,400**	**23**	**39,000**	50 U	50 U	1,000 U	**570,000**
X-9CAUG	20 - 25	09/25/18	**500**	15 U	**24,000**	**2,500**	**13**	**26,000**	100 U H	100 U H	1,000 U	**490,000**
X-9CAUG	20 - 25	08/21/19	**440**	15 U ^	**15,000**	**1,900**	**5.7**	**240,000**	50 U	50 U	**1,100**	**550,000**
X-9CAUG	20 - 25	08/18/20	**440**	15 U	**14,000**	**1,400**	**3.8**	**12,000**	500 U	100 U	**380 J**	**470,000**
X-9CAUG	20 - 25	08/18/21	**520**	15 U	**20,000**	**1,700**	**6**	**23,000**	100 U	100 U	1,000 U	**550,000**
X-9D	42.5 - 47.5	01/08/08	**173**	5 U	**634,000**	**8,500**	--	**1,370,000**	100 U	100 U	**194,000**	**2,400,000**
X-9D	42.5 - 47.5	03/11/08	**155**	5 U	**678,000**	**9,700**	--	**1,340,000**	100 U	100 UJ	**185,000**	**2,500,000**
X-9D	42.5 - 47.5	03/12/08	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	06/05/08	--	--	--	**5,900**	--	--	--	--	--	**2,900,000**
X-9D	42.5 - 47.5	09/28/10	**125**	5 U	**679,000**	**7,400 J**	**34 J**	**1,520,000**	100 U	1,000 U, G	**220,000**	**2,400,000**
X-9D	42.5 - 47.5	09/23/11	**120**	5 U	**650,000**	**8,600**	**50**	**1,400,000**	100 U	1,000 U	**220,000**	**2,700,000**
X-9D	42.5 - 47.5	09/12/12	**120**	5 U	**680,000**	**7,700**	**27**	**1,400,000**	100 U	1,000 U	**200,000**	**2,600,000**
X-9D	42.5 - 47.5	09/25/13	**390 B**	5 U	**690,000 B**	**7,400 B**	**21 B**	**1,300,000**	100 U	100 U	**240,000**	**2,400,000**
X-9D	42.5 - 47.5	09/22/14	**170**	**0.50 J**	**640,000 B**	**7,500**	--	**1,400,000**	100 U	500 U, H	**220,000**	**2,600,000**
X-9D	42.5 - 47.5	09/30/15	**180**	**0.66 J**	**640,000 B**	**7,500 F1**	**30 F1**	**1,500,000**	500 U, H	500 U, H	**230,000 F1**	**2,800,000**
X-9D	42.5 - 47.5	09/28/16	**120**	**0.70 J**	**630,000 B**	**6,700 B**	**23 B**	**1,300,000**	50 U*	50 U*	**240,000**	**2,300,000**
X-9D	42.5 - 47.5	08/29/17	**130**	5.0 U	**1,500,000**	**3,200**	**10**	**1,100,000**	**1,700**	--	**230,000**	**2,300,000**
X-9D	42.5 - 47.5	09/25/18	**370**	15 U	**630,000**	**4,800**	**22**	**1,300,000**	500 U H	500 U H	**250,000**	**2,100,000**
X-9D	42.5 - 47.5	08/20/19	**200**	15 U ^	**650,000**	**7,000**	**52**	**1,200,000**	50 U	50 U	**250,000**	**2,600,000**
X-9D	42.5 - 47.5	08/17/20	**2,200**	15 U	**560,000**	**4,900**	**68**	**1,100,000**	500 U	500 U	**170,000**	**2,100,000**
X-9D	42.5 - 47.5	08/18/21	**550 [550]**	15 U [15 U]	**570,000 [590,000]**	**6,300 B [5,500 B]**	**56 B [49 B]**	**1,300,000 [1,200,000]**	500 U H [500 U H]	500 U H [500 U H]	**240,000 [240,000]**	**2,600,000 [2,300,000]**

Notes:
All results are in micrograms per liter (ug/L).
Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.
Applicable site-specific criteria are the minimum Rule 57 criteria, excluding drinking water.
Hardness-dependent Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.
pH-dependent Rule 57 criteria are based on a default pH of 7.
Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equaitons. When available, the field-measured pH was used.
Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia
Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$
pKa = 0.0901821+2729.92/T
T (in Kelvin) = T(°C) + 273.15
Bolded cells represent constitiuent concentrations with detections.
Duplicate results are presented in brackets.
Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.
MW-183WT, X-4CAUGR, X-9AR, X-9BR, X-9CAUG represent a groundwater surface water interface (GSI) perimeter monitoring well from Green Point Landfill.
MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.
* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on October 21, 2021.

Data Qualifiers:

ND =	Not detected. The value in parentheses represents the associated detection limit.
-- or NA =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1=	MS and/or MSD Recovery is outside acceptance limits
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
M =	Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			89	78	32	330	740	130	99	4.9	5.7	13	360	230
MW-117S1	24.2 - 29.2	06/20/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	05/19/00	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/19/01	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/26/02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/19/03	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	05/27/04	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/23/05	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	06/20/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
MW-117S2	35 - 40	05/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/20/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	05/19/00	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117WT	3 - 13	06/18/01	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117WT	3 - 13	06/26/02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/19/03	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117WT	3 - 13	12/09/04	1.0 U [1.0 U]	1.0 UJ [1.0 UJ]	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	--	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-117WT	3 - 13	06/23/05	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-117WT	3 - 13	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/20/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	05/17/00	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	--	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118S1	23.5 - 28.5	06/19/01	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/27/02	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/19/03	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	12/09/04	1.0 U	1.0 UJ	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/23/05	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S2	38.5 - 43.5	06/20/95	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118S2	38.5 - 43.5	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	06/20/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	05/17/00	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	06/19/01	4.0 U [4.0 U]	4.0 U [4.0 U]	--	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	--	--	--	--	4.0 U [4.0 U]	4.0 U [4.0 U]
MW-118WT	1.6 - 11.6	06/27/02	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	4.0 UJ [2.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]
MW-118WT	1.6 - 11.6	06/19/03	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	--	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118WT	1.6 - 11.6	05/27/04	1.7 U	1.7 U	--	1.7 U	1.7 U	1.7 U	--	--	--	--	1.7 U	1.7 U
MW-118WT	1.6 - 11.6	06/23/05	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	08/17/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-trichloro-1,2,2-trifluoroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			89	78	32	330	740	130	99	4.9	5.7	13	360	230
TWW-1	1.5 - 6.5	01/25/97	330 U	330 U	--	330 U	330 U	330 U	--	--	--	--	330 U	330 U
TWW-1	1.5 - 6.5	08/08/98	200 U	200 U	--	200 U	200 U	200 U	--	--	--	200 U	200 U	200 U
TWW-1	1.5 - 6.5	05/18/99	250 UD [250 UD]	250 UD [250 UD]	--	250 UD [250 UD]	250 UD [250 UD]	250 UD [250 UD]	--	--	--	--	250 UD [250 UD]	250 UD [250 UD]
TWW-1	1.5 - 6.5	05/21/00	250 U	250 UJ	--	250 U	250 U	**51 J**	--	--	--	--	250 U	250 U
TWW-1	1.5 - 6.5	09/29/10	71 U	71 U	71 U	71 U	71 U	71 U	360 U	71 U	71 U	71 U	71 U	71 U
TWW-1	1.5 - 6.5	09/21/11	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	150 U [150 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]
TWW-1	1.5 - 6.5	09/14/12	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	**1.7 J [1.6 J]**	4.0 U [4.0 U]	4.0 U [4.0 U]	8.0 U [8.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]
TWW-1	1.5 - 6.5	09/24/13	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	36 U [40 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]
TWW-1	1.5 - 6.5	09/23/14	25 U [25 U]	25 U [25 U]	--	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	50 U [50 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]
TWW-1	1.5 - 6.5	10/01/15	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	**1.5 J [5.0 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	10 U [10 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]
TWW-1	1.5 - 6.5	09/27/16	10 U [7.7 U]	10 U [7.7 U]	--	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	**17** [7.7 U]	20 U [15 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]
TWW-1 Dup	1.5 - 6.5	09/27/16	7.7 U	7.7 U	--	7.7 U	7.7 U	7.7 U	7.7 U	15 U	7.7 U	7.7 U	7.7 U	7.7 U
TWW-1	1.5 - 6.5	08/30/17	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	**1.4 J [1.4 J]**	1.7 U [1.7 U]	**1.1 J** [1.7 U]	3.3 U [3.3 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]
TWW-1 Dup	1.5 - 6.5	08/30/17	1.7 U	1.7 U	1.7 U	1.7 U	**1.4 J**	1.7 U	1.7 U	3.3 U	1.7 U	1.7 U	1.7 U	1.7 U
TWW-1	1.5 - 6.5	09/25/18	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**1.3 [1.2]**	1.0 U [1.0 U]	1.0 U [1.0 U]	2.0 U [2.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TWW-1 Dup	1.5 - 6.5	09/25/18	1.0 U	1.0 U	1.0 U	1.0 U	**1.2**	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/22/19	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.63 J [0.72 J]**	1.0 U [1.0 U]	1.0 U [1.0 U]	2.0 U [2.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TWW-1 Dup	1.5 - 6.5	08/22/19	1.0 U	1.0 U	1.0 U	1.0 U	**0.72 J**	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/12/20	1.0 U	1.0 U	1.0 U	1.0 U	**1.3**	1.0 U *	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/18/21	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.72 J [0.72 J]**	1.0 U [1.0 U]	1.0 U [1.0 U]	2.0 U [2.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TW-242	2 - 7	09/25/18	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/22/19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/12/20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U F1	1.0 U F1 *	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/18/21	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-10BR	26.3 - 31.3	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-10BR	26.3 - 31.3	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-4A	6.2 - 9.2	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-4AR	3.3 - 8.3	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-4AR	3.3 - 8.3	06/09/96	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-4AR	3.3 - 8.3	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-4CAUG	18 - 23	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-4CAUG	18 - 23	06/08/96	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-4CAUGR	14 - 19	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	01/09/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-4D	40 - 45	04/02/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-4D	40 - 45	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9AR	3 - 13	06/09/96	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9AR	3 - 13	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-9AR	3 - 13	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9BR	26 - 31	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9BR	26 - 31	06/08/96	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9BR	26 - 31	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-9BR	26 - 31	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9CAUG	20 - 25	07/24/95	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9CAUG	20 - 25	06/08/96	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	--	--	--	1.0 U	1.0 U	1.0 U
X-9CAUG	20 - 25	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-9CAUG	20 - 25	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	01/08/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-9D	42.5 - 47.5	03/11/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
X-9D	42.5 - 47.5	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	08/29/17	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			28	17	2,200	630,000	NA	1,700	200	180	890	4.2	34,000	38
MW-117S1	24.2 - 29.2	06/20/95	1.0 U	1.0 U	50 U	R	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.50 J**	1.0 U
MW-117S1	24.2 - 29.2	05/19/00	--	--	10 U	10 U	10 U	10 U	**0.60 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/19/01	--	--	10 U	10 U	5.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/26/02	1.0 U	1.0 U	10 U	10 U	10 U	10 UJ	**0.75 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/19/03	--	--	2.0 U	2.0 U	2.0 U	2.0 U	**0.58 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	05/27/04	--	--	2.0 UJ	2.0 U	2.0 U	2.0 UJ	**0.71 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/23/05	--	--	25 U	50 U	50 U	25 U	**0.66 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-117S1	24.2 - 29.2	12/13/06	1.0 U	1.0 U	25 UJ	50 UJ	50 U	25 UJ	**0.65 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 UJ
MW-117S1	24.2 - 29.2	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	06/20/95	1.0 U	1.0 U	50 U	R	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.80 J**	1.0 U
MW-117S2	35 - 40	05/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	12/13/06	1.0 U	1.0 U	25 UJ	50 UJ	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 UJ
MW-117WT	3 - 13	06/20/95	1.0 U	1.0 U	50 U	R	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
MW-117WT	3 - 13	05/19/00	--	--	10 U	10 U	10 U	10 U	**0.13 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/18/01	--	--	10 U	10 U	5.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/26/02	1.0 U	1.0 U	10 U	10 U	10 U	10 UJ	**0.16 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/19/03	--	--	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	12/09/04	--	--	25 U [25 U]	50 UJ [50 UJ]	50 U [50 U]	25 U [25 U]	**0.23 J [0.25 J]**	1.0 U [1.0 U]	1.0 U [1.0 UJ]	1.0 UJ [1.0 U]	5.0 U [5.0 U]	1.0 U [1.0 U]
MW-117WT	3 - 13	06/23/05	--	--	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-117WT	3 - 13	12/13/06	1.0 U	1.0 U	25 UJ	50 UJ	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 UJ
MW-117WT	3 - 13	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/20/95	1.0 U	1.0 U	50 U	R	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.3**	1.0 U
MW-118S1	23.5 - 28.5	05/17/00	--	--	10 U [10 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	**0.47 J [0.46 J]**	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118S1	23.5 - 28.5	06/19/01	--	--	10 U	10 U	5.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/27/02	1.0 U	1.0 U	10 UJ	10 U	10 U	10 U	**0.37 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/19/03	--	--	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	12/09/04	--	--	25 U	50 UJ	50 U	25 U	**0.53 J**	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U
MW-118S1	23.5 - 28.5	06/23/05	--	--	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-118S1	23.5 - 28.5	12/14/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-118S1	23.5 - 28.5	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S2	38.5 - 43.5	06/20/95	1.0 U [1.0 U]	1.0 U [1.0 U]	50 U [50 U]	R [R]	50 U [50 U]	3.0 J [50 U]	0.60 J [1.0 U]	0.70 J [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**6.0 J [2.0]**	1.0 U [1.0 U]
MW-118S2	38.5 - 43.5	12/14/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-118WT	1.6 - 11.6	06/20/95	1.0 U	1.0 U	50 U	R	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
MW-118WT	1.6 - 11.6	05/17/00	--	--	10 U	10 U	**28**	10 U	**0.54 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-118WT	1.6 - 11.6	06/19/01	--	--	40 U [40 U]	40 U [40 U]	**180 [180]**	40 U [40 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]
MW-118WT	1.6 - 11.6	06/27/02	2.0 U [1.0 U]	2.0 U [1.0 U]	20 UJ [10 UJ]	20 UJ [10 U]	**4.9 J [5.2 J]**	20 UJ [10 U]	0.34 J [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]
MW-118WT	1.6 - 11.6	06/19/03	--	--	2.0 U [2.0 U]	2.0 U [2.0 U]	**0.75 J [0.60 J]**	2.0 U [2.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118WT	1.6 - 11.6	05/27/04	--	--	3.3 U	3.3 UJ	3.3 UJ	3.3 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
MW-118WT	1.6 - 11.6	06/23/05	--	--	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-118WT	1.6 - 11.6	12/14/06	1.0 U	1.0 U	**2.1 J**	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
MW-118WT	1.6 - 11.6	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	08/17/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Butanone	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			28	17	2,200	630,000	NA	1,700	200	180	890	4.2	34,000	38
TWW-1	1.5 - 6.5	01/25/97	--	--	17,000 U	17,000 U	17,000 U	33,000 U	1,700 U	330 U	330 U	330 U	17,000 U	330 U
TWW-1	1.5 - 6.5	08/08/98	200 U	200 U	2,000 U	2,000 U	2,000 U	2,000 U	1,000 U	200 U	200 U	200 U	1,000 U	200 U
TWW-1	1.5 - 6.5	05/18/99	--	--	1,300 UD [1,300 UD]	1,300 UD [1,300 UD]	1,300 UD [1,300 UD]	1,300 UJD [1,300 UJD]	250 UD [250 UD]	250 UD [250 UD]	250 UD [250 UD]	250 UJD [250 UD]	250 UD [250 UD]	250 UD [250 UD]
TWW-1	1.5 - 6.5	05/21/00	--	--	2,500 U	2,500 U	2,500 U	2,500 U	250 U	250 U	250 U	250 U	250 U	250 U
TWW-1	1.5 - 6.5	09/29/10	71 U	71 U	1,800 U	3,600 U	3,600 U	1,800 U	71 U	71 U	71 U	71 U	360 U	71 U
TWW-1	1.5 - 6.5	09/21/11	77 U [77 U]	77 U [77 U]	770 U [770 U]	770 U [770 U]	770 U [770 U]	770 U [770 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]
TWW-1	1.5 - 6.5	09/14/12	4.0 U [4.0 U]	4.0 U [4.0 U]	40 U [40 U]	40 U [40 U]	40 U [40 U]	40 U [40 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]
TWW-1	1.5 - 6.5	09/24/13	18 U [20 U]	18 U [20 U]	180 U [200 U]	180 U [200 U]	180 U [200 U]	**26 J [24 J]**	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]
TWW-1	1.5 - 6.5	09/23/14	25 U [25 U]	25 U [25 U]	250 U [250 U]	250 U [250 U]	250 U [250 U]	250 U [250 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]
TWW-1	1.5 - 6.5	10/01/15	5.0 U [5.0 U]	5.0 U [5.0 U]	50 U [50 U]	50 U [50 U]	50 U [50 U]	**6.5 J,B [50 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]
TWW-1	1.5 - 6.5	09/27/16	**2.7 J** [7.7 U]	**3.3 J** [7.7 U]	100 U [77 U]	100 U [77 U]	100 U [77 U]	100 U [77 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]
TWW-1 Dup	1.5 - 6.5	09/27/16	7.7 U	7.7 U	77 U	77 U	77 U	77 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U
TWW-1	1.5 - 6.5	08/30/17	1.7 U [1.7 U]	1.7 U [1.7 U]	17 U [17 U]	17 U [17 U]	17 U [17 U]	17 U [17 U]	1.7 U [1.7 U]	--	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]
TWW-1 Dup	1.5 - 6.5	08/30/17	1.7 U	1.7 U	17 U	17 U	17 U	17 U	1.7 U	--	1.7 U	1.7 U	1.7 U	1.7 U
TWW-1	1.5 - 6.5	09/25/18	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TWW-1 Dup	1.5 - 6.5	09/25/18	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/22/19	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TWW-1 Dup	1.5 - 6.5	08/22/19	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/12/20	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TWW-1	1.5 - 6.5	08/18/21	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	10 U [10 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]
TW-242	2 - 7	09/25/18	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/22/19	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/12/20	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TW-242	2 - 7	08/18/21	1.0 U	1.0 U	10 U	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
X-10BR	26.3 - 31.3	07/24/95	1.0 U	1.0 U	50 U	50 U	50 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-10BR	26.3 - 31.3	12/15/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
X-4A	6.2 - 9.2	12/14/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
X-4AR	3.3 - 8.3	07/24/95	1.0 U	1.0 U	50 UJ	50 U	50 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-4AR	3.3 - 8.3	06/09/96	1.0 U	1.0 U	50 U	50 U	50 U	100 U	5.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-4AR	3.3 - 8.3	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-4CAUG	18 - 23	07/24/95	1.0 U	1.0 U	50 UJ	50 U	50 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-4CAUG	18 - 23	06/08/96	1.0 U	1.0 U	50 U	50 U	50 U	100 U	5.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-4CAUGR	14 - 19	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	01/09/08	1.0 U	1.0 U	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U
X-4D	40 - 45	04/02/08	1.0 U	1.0 U	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.45 J**	1.0 U
X-4D	40 - 45	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	07/24/95	1.0 U	1.0 U	50 UJ	50 U	50 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9AR	3 - 13	06/09/96	1.0 U	1.0 U	50 U	50 U	50 U	100 U	5.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9AR	3 - 13	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
X-9AR	3 - 13	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9BR	26 - 31	07/24/95	1.0 U	1.0 U	50 UJ	50 U	50 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9BR	26 - 31	06/08/96	1.0 U	1.0 U	50 U	50 U	50 U	100 U	5.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9BR	26 - 31	12/15/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
X-9BR	26 - 31	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9CAUG	20 - 25	07/24/95	1.0 U	1.0 U	50 UJ	50 U	50 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9CAUG	20 - 25	06/08/96	1.0 U	1.0 U	50 U	50 U	50 U	100 U	5.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U
X-9CAUG	20 - 25	12/15/06	1.0 U	1.0 U	25 U	50 U	50 U	25 UJ	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
X-9CAUG	20 - 25	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	01/08/08	1.0 U	1.0 U	25 U	50 U	50 U	25 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	1.0 U
X-9D	42.5 - 47.5	03/11/08	1.0 U	1.0 U	25 U	50 UJ	50 UJ	25 U	1.0 U	1.0 U	1.0 U	1.0 UJ	5.0 U	1.0 U
X-9D	42.5 - 47.5	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	08/29/17	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropyl benzene	Methyl acetate
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			25	1,100	630	7,300	150	9	NA	150	90,000	21	28	NSL
MW-117S1	24.2 - 29.2	06/20/95	1.0 U	1.0 U	**1.5**	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	05/19/00	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	06/19/01	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	06/26/02	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
MW-117S1	24.2 - 29.2	06/19/03	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	05/27/04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	06/23/05	1.0 U	1.0 U	1.0 U	1.0 U	**0.31 J**	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S1	24.2 - 29.2	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
MW-117S1	24.2 - 29.2	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	06/20/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117S2	35 - 40	05/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
MW-117WT	3 - 13	06/20/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117WT	3 - 13	05/19/00	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117WT	3 - 13	06/18/01	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117WT	3 - 13	06/26/02	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
MW-117WT	3 - 13	06/19/03	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117WT	3 - 13	12/09/04	1.0 U [1.0 U]	0.28 J [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 UJ [1.0 UJ]	--	1.0 U [1.0 U]	--	--
MW-117WT	3 - 13	06/23/05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-117WT	3 - 13	12/13/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
MW-117WT	3 - 13	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/20/95	1.0 U	1.0 U	**1.1**	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118S1	23.5 - 28.5	05/17/00	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	0.50 U [0.50 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	--
MW-118S1	23.5 - 28.5	06/19/01	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118S1	23.5 - 28.5	06/27/02	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
MW-118S1	23.5 - 28.5	06/19/03	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118S1	23.5 - 28.5	12/09/04	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 UJ	--	1.0 U	--	--
MW-118S1	23.5 - 28.5	06/23/05	1.0 U	1.0 U	1.0 U	1.0 U	**0.25 J**	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118S1	23.5 - 28.5	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
MW-118S1	23.5 - 28.5	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S2	38.5 - 43.5	06/20/95	1.0 U [1.0 U]	1.0 U [1.0 U]	**3.7 [1.2]**	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	--
MW-118S2	38.5 - 43.5	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
MW-118WT	1.6 - 11.6	06/20/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118WT	1.6 - 11.6	05/17/00	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	--	1.0 U	--	**0.10 J**	--	--
MW-118WT	1.6 - 11.6	06/19/01	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	2.0 U [2.0 U]	4.0 U [4.0 U]	--	4.0 U [4.0 U]	--	4.0 U [4.0 U]	--	--
MW-118WT	1.6 - 11.6	06/27/02	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	1.0 U [0.50 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	20 U [10 U]
MW-118WT	1.6 - 11.6	06/19/03	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	1.0 U [1.0 U]	--	--
MW-118WT	1.6 - 11.6	05/27/04	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	--	1.7 U	--	1.7 U	--	--
MW-118WT	1.6 - 11.6	06/23/05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
MW-118WT	1.6 - 11.6	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	**0.62 J**	10 U
MW-118WT	1.6 - 11.6	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	08/17/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropyl benzene	Methyl acetate
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			25	1,100	630	7,300	150	9	NA	150	90,000	21	28	NSL
TWW-1	1.5 - 6.5	01/25/97	330 U	330 U	330 U	330 U	**9,600**	330 U	--	330 U	--	330 U	--	--
TWW-1	1.5 - 6.5	08/08/98	200 U	200 U	200 U	200 U	--	200 U	--	200 U	--	200 U	--	--
TWW-1	1.5 - 6.5	05/18/99	250 UD [250 UD]	250 UJD [250 UD]	250 UD [250 UD]	250 UJD [250 UD]	--	250 UD [250 UD]	--	250 UD [250 UD]	--	250 UD [250 UD]	--	--
TWW-1	1.5 - 6.5	05/21/00	250 U	250 U	250 U	250 U	**8,800**	250 U	--	250 U	--	250 U	--	--
TWW-1	1.5 - 6.5	09/29/10	71 U	71 U	71 U	71 U	**230**	71 U	71 U	71 U	71 U	71 U	360 U	710 U
TWW-1	1.5 - 6.5	09/21/11	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	**1,800 [1,800]**	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	770 U [770 U]
TWW-1	1.5 - 6.5	09/14/12	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	**190 [200]**	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]
TWW-1	1.5 - 6.5	09/24/13	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	**45 [41]**	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	180 U [200 U]
TWW-1	1.5 - 6.5	09/23/14	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	**20 J [21 J]**	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	250 U [250 U]
TWW-1	1.5 - 6.5	10/01/15	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	**1.7 J [5.0 U]**	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	50 U [50 U]
TWW-1	1.5 - 6.5	09/27/16	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	**2.9 J [3.0 J]**	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	100 U [77 U]
TWW-1 Dup	1.5 - 6.5	09/27/16	7.7 U	7.7 U	7.7 U	7.7 U	**3.0 J**	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	77 U
TWW-1	1.5 - 6.5	08/30/17	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	**2.8 [2.7]**	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	17 U [17 U]
TWW-1 Dup	1.5 - 6.5	08/30/17	1.7 U	1.7 U	1.7 U	1.7 U	**2.7**	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U
TWW-1	1.5 - 6.5	09/25/18	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.56 J [0.59 J]**	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]
TWW-1 Dup	1.5 - 6.5	09/25/18	1.0 U	1.0 U	1.0 U	1.0 U	**0.59 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TWW-1	1.5 - 6.5	08/22/19	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.58 J [0.66 J]**	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]
TWW-1 Dup	1.5 - 6.5	08/22/19	1.0 U	1.0 U	1.0 U	1.0 U	**0.66 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TWW-1	1.5 - 6.5	08/12/20	1.0 U	1.0 U	1.0 U	1.0 U	**1.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TWW-1	1.5 - 6.5	08/18/21	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.47 J** [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	10 U [10 U]
TW-242	2 - 7	09/25/18	1.0 U	1.0 U	1.0 U	1.0 U	**0.24 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TW-242	2 - 7	08/22/19	1.0 U	1.0 U	1.0 U	1.0 U	**0.42 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TW-242	2 - 7	08/12/20	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U F1 *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
TW-242	2 - 7	08/18/21	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
X-10BR	26.3 - 31.3	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-10BR	26.3 - 31.3	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
X-4A	6.2 - 9.2	12/14/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
X-4AR	3.3 - 8.3	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-4AR	3.3 - 8.3	06/09/96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-4AR	3.3 - 8.3	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-4CAUG	18 - 23	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-4CAUG	18 - 23	06/08/96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-4CAUGR	14 - 19	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	01/09/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 U
X-4D	40 - 45	04/02/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 U
X-4D	40 - 45	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9AR	3 - 13	06/09/96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9AR	3 - 13	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
X-9AR	3 - 13	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9BR	26 - 31	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9BR	26 - 31	06/08/96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9BR	26 - 31	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
X-9BR	26 - 31	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9CAUG	20 - 25	07/24/95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9CAUG	20 - 25	06/08/96	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	--	--
X-9CAUG	20 - 25	12/15/06	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	5.0 U	10 U
X-9CAUG	20 - 25	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	01/08/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 U
X-9D	42.5 - 47.5	03/11/08	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	10 U
X-9D	42.5 - 47.5	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	08/29/17	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Methyl cyclohexane	Methyl tert-butyl ether	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			NA	7,100	1,500	80	60	270	150	9	200	NSL	13	49
MW-117S1	24.2 - 29.2	06/20/95	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
MW-117S1	24.2 - 29.2	05/19/00	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	**0.14 J**	1.0 U
MW-117S1	24.2 - 29.2	06/19/01	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/26/02	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	**0.21 J**	1.0 U
MW-117S1	24.2 - 29.2	06/19/03	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	05/27/04	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	--	1.0 U	1.0 U
MW-117S1	24.2 - 29.2	06/23/05	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.7**	--	1.0 U	2.0 U
MW-117S1	24.2 - 29.2	12/13/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
MW-117S1	24.2 - 29.2	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	06/20/95	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
MW-117S2	35 - 40	05/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S2	35 - 40	12/13/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
MW-117WT	3 - 13	06/20/95	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
MW-117WT	3 - 13	05/19/00	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-117WT	3 - 13	06/18/01	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-117WT	3 - 13	06/26/02	1.0 U	**0.38 J**	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-117WT	3 - 13	06/19/03	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-117WT	3 - 13	12/09/04	--	--	5.0 U [5.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	2.0 U [2.0 U]
MW-117WT	3 - 13	06/23/05	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1**	--	1.0 U	2.0 U
MW-117WT	3 - 13	12/13/06	1.0 U	**0.20 J**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
MW-117WT	3 - 13	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	10/13/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/20/95	--	--	1.0 U	1.0 U	1.0 U	**0.90 J**	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
MW-118S1	23.5 - 28.5	05/17/00	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	0.50 U [0.50 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	**0.33 J [0.33 J]**	1.0 U [1.0 U]
MW-118S1	23.5 - 28.5	06/19/01	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	**0.27 J**	1.0 U
MW-118S1	23.5 - 28.5	06/27/02	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	**0.27 J**	1.0 U
MW-118S1	23.5 - 28.5	06/19/03	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
MW-118S1	23.5 - 28.5	12/09/04	--	--	5.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--	**0.26 J**	2.0 U
MW-118S1	23.5 - 28.5	06/23/05	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.1**	--	1.0 U	2.0 U
MW-118S1	23.5 - 28.5	12/14/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.23 J**	2.0 U
MW-118S1	23.5 - 28.5	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S2	38.5 - 43.5	06/20/95	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	0.70 J [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	3.0 U [3.0 U]
MW-118S2	38.5 - 43.5	12/14/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
MW-118WT	1.6 - 11.6	06/20/95	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
MW-118WT	1.6 - 11.6	05/17/00	--	--	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	--	1.0 U	**0.47 J**
MW-118WT	1.6 - 11.6	06/19/01	--	--	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	2.0 U [2.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	--	4.0 U [4.0 U]	4.0 U [4.0 U]
MW-118WT	1.6 - 11.6	06/27/02	2.0 U [1.0 U]	0.49 J [5.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	1.0 U [0.50 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]	2.0 U [1.0 U]
MW-118WT	1.6 - 11.6	06/19/03	--	--	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	--	1.0 U [1.0 U]	1.0 U [1.0 U]
MW-118WT	1.6 - 11.6	05/27/04	--	--	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	--	1.7 U	1.7 U
MW-118WT	1.6 - 11.6	06/23/05	--	--	5.0 U	1.0 U	1.0 U	**0.20 J**	1.0 U	1.0 U	**0.57 J**	--	1.0 U	2.0 U
MW-118WT	1.6 - 11.6	12/14/06	1.0 U	**0.31 J**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.58 J**
MW-118WT	1.6 - 11.6	09/27/16	--	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	11/13/17	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	08/17/00	--	--	--	--	--	--	--	--	--	--	--	--
MW-183WT	6 - 16	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--

Table 6
Analytical Data Summary Table - GPL Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Methyl cyclohexane	Methyl tert-butyl ether	Methylene Chloride	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Total Xylenes
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
pecific Groundwater Surface Water Interface Criteria			NA	7,100	1,500	80	60	270	150	9	200	NSL	13	49
TWW-1	1.5 - 6.5	01/25/97	--	--	1,700 U	330 U	330 U	330 U	330 U	330 U	**630**	--	**2,000**	1,000 U
TWW-1	1.5 - 6.5	08/08/98	--	--	1,000 U	200 U	200 U	200 U	--	200 U	200 U	--	**1,700**	600 U
TWW-1	1.5 - 6.5	05/18/99	--	--	1,300 UJD [1,300 UJD]	250 UD [250 UD]	250 UD [250 UD]	250 UD [250 UD]	--	250 UD [250 UD]	250 UD [250 UD]	--	**330 D [390 D]**	500 U [500 U]
TWW-1	1.5 - 6.5	05/21/00	--	--	250 U	250 U	250 U	250 U	**40 J**	250 U	250 U	--	**2,300**	250 U
TWW-1	1.5 - 6.5	09/29/10	71 U	360 U	360 U	71 U	71 U	71 U	71 U	71 U	71 U	71 U	**1,700**	140 U
TWW-1	1.5 - 6.5	09/21/11	77 U [77 U]	380 U [380 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	77 U [77 U]	**19 [18]**	77 U [77 U]	77 U [77 U]	77 U [77 U]	**500 [540]**	150 U [150 U]
TWW-1	1.5 - 6.5	09/14/12	4.0 U [4.0 U]	20 U [20 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	**2.2 J [1.3 J]**	4.0 U [4.0 U]	**0.89 J** [4.0 U]	4.0 U [4.0 U]	**40 [48]**	8.0 U [8.0 U]
TWW-1	1.5 - 6.5	09/24/13	18 U [20 U]	18 U [20 U]	**18 B [17 J,B]**	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	18 U [20 U]	**390 [400]**	36 U [40 U]
TWW-1	1.5 - 6.5	09/23/14	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	25 U [25 U]	**470 [450]**	50 U [50 U]
TWW-1	1.5 - 6.5	10/01/15	5.0 U [5.0 U]	5.0 U [5.0 U]	**4.7 J,B [3.1 J,B]**	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	5.0 U [5.0 U]	**97 [90]**	10 U [10 U]
TWW-1	1.5 - 6.5	09/27/16	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	10 U [7.7 U]	**140 [130]**	20 U [15 U]
TWW-1 Dup	1.5 - 6.5	09/27/16	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	**130**	15 U
TWW-1	1.5 - 6.5	08/30/17	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 UJ [1.7 UJ]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	**43 [45]**	3.3 U [3.3 U]
TWW-1 Dup	1.5 - 6.5	08/30/17	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	**45**	3.3 U
TWW-1	1.5 - 6.5	09/25/18	1.0 U [1.0 U]	1.0 U [1.0 U]	5.0 U [5.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**10 [10]**	2.0 U [2.0 U]
TWW-1 Dup	1.5 - 6.5	09/25/18	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**10**	2.0 U
TWW-1	1.5 - 6.5	08/22/19	1.0 U [1.0 U]	1.0 U [1.0 U]	5.0 U [5.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**1.4 [1.3]**	2.0 U [2.0 U]
TWW-1 Dup	1.5 - 6.5	08/22/19	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.3**	2.0 U
TWW-1	1.5 - 6.5	08/12/20	1.0 U *	1.0 U	5.0 U *	1.0 U	1.0 U	1.0 U	1.0 U *	1.0 U	1.0 U	1.0 U	**1.6**	2.0 U
TWW-1	1.5 - 6.5	08/18/21	1.0 U [1.0 U]	1.0 U [1.0 U]	5.0 U [5.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	1.0 U [1.0 U]	**0.92 J [1.0]**	2.0 U [2.0 U]
TW-242	2 - 7	09/25/18	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.42 J**	1.0 U	1.0 U	2.0 U
TW-242	2 - 7	08/22/19	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
TW-242	2 - 7	08/12/20	1.0 U *	1.0 U	5.0 U F1 *	1.0 U	1.0 U	1.0 U	1.0 U F1 *	1.0 U	**0.42 J**	1.0 U	1.0 U	2.0 U
TW-242	2 - 7	08/18/21	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-10BR	26.3 - 31.3	07/24/95	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	--	1.0 U	3.0 U
X-10BR	26.3 - 31.3	12/15/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-4A	6.2 - 9.2	12/14/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-4AR	3.3 - 8.3	07/24/95	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-4AR	3.3 - 8.3	06/09/96	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-4AR	3.3 - 8.3	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-4CAUG	18 - 23	07/24/95	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-4CAUG	18 - 23	06/08/96	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-4CAUGR	14 - 19	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	01/09/08	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-4D	40 - 45	04/02/08	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-4D	40 - 45	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	07/24/95	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9AR	3 - 13	06/09/96	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9AR	3 - 13	03/05/97	--	--	--	--	--	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-9AR	3 - 13	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9BR	26 - 31	07/24/95	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9BR	26 - 31	06/08/96	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9BR	26 - 31	12/15/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-9BR	26 - 31	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9CAUG	20 - 25	07/24/95	--	--	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9CAUG	20 - 25	06/08/96	--	--	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	3.0 U
X-9CAUG	20 - 25	12/15/06	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-9CAUG	20 - 25	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	01/08/08	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
X-9D	42.5 - 47.5	03/11/08	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	2.0 U
X-9D	42.5 - 47.5	09/28/16	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	08/29/17	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

All results are in micrograms per liter (ug/L).

Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.

Applicable site-specific criteria are the minimum Rule 57 criteria, excluding drinking water.

Hardness-dependent Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.

pH-dependent Rule 57 criteria are based on a default pH of 7.

Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equaitons. When available, the field-measured pH was used.

Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia

Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$

pKa = 0.0901821+2729.92/T

T (in Kelvin) = T(°C) + 273.15

Bolded cells represent constitiuent concentrations with detections.

Duplicate results are presented in brackets.

Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.

MW-183WT, X-4CAUGR, X-9AR, X-9BR, X-9CAUG represent a groundwater surface water interface (GSI) perimeter monitoring well from Green Point Landfill.

MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.

* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on August 5, 2016.

Data Qualifiers:

ND =	Not detected. The value in parentheses represents the associated detection limit.
-- or NA =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1=	MS and/or MSD Recovery is outside acceptance limits
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
M =	Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.
* =	LCS (lab control sample) or LCSD (lab control sample duplicate) is outside acceptance limits.

FIGURES

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-138WT
MW-103WT,S1,S2
NEW PARKING LOT
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
RECREATION PLAZA
MW-107WT,S1
QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-13R
QPTW-05R
QPTW-10R
MW-134WT,S1,S2
MW-108WT,S1,S2,S3,S4
MW-110WTR
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4
VIEWING PLATFORM
MW-185WT
MW-186WT
MW-143WT
B-3R,BAUG
SG1
MW-114WT,S1,S2,S3
X-2A
X-1A,B
X-1CR2
MW-115WT,S1,S2,S3*
MW-183WT
X-4A,AR,CAUGR,D
MW-117WT,S1
MW-118WT,S1
X-16A,B
VIEWING PLATFORM
X-10AR2
MW-2A,B,CAUG
MW-128WT,S1
X-9AR,BR,CAUG,D
MW-119WT,S1,S2
MW-3A,B
X-13AR,B,CAUG
TW-241
TWW-2*
MW-127WT,S1
TW-242
TWW-1
X-12AR,B,CAUG
MW-120WT,S1,S2
PLANNED VIEWING PLATFORM
MW-121WT,S1,S2
MW-123WT,S1
MW-125WT
MW-124WT,S1
MW-122WT,S1,S2
X-14A,B,CAUG

LEGEND

- EXISTING MONITORING WELL
- INACCESSIBLE MONITORING WELL TO BE ABANDONED
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- PERMANENT MARKER LOCATION
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY
- * POTENTIAL ALTERNATE SAMPLING LOCATION

NOTE: WELLS LISTED FOR SAMPLING AND/OR GAUGING IN ACCORDANCE WITH THE 2020 O&M PLAN

0 500 1,000
SCALE IN FEET

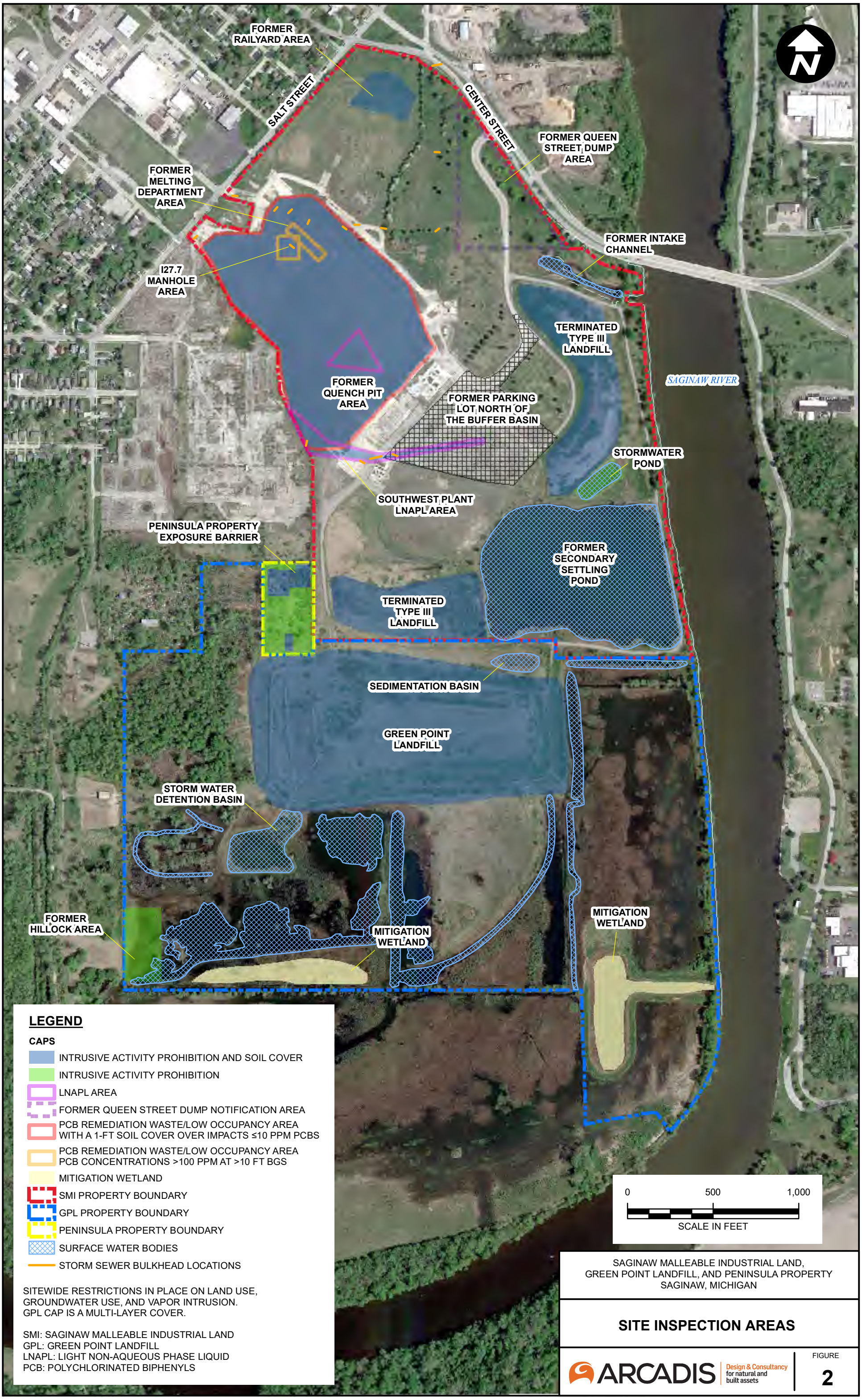
SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SITE LAYOUT MAP

ARCADIS

FIGURE
1

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson TR: PROJECT NUMBER: 30076323.06000 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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LEGEND

CAPS

- INTRUSIVE ACTIVITY PROHIBITION AND SOIL COVER
- INTRUSIVE ACTIVITY PROHIBITION
- LNAPL AREA
- FORMER QUEEN STREET DUMP NOTIFICATION AREA
- PCB REMEDIATION WASTE/LOW OCCUPANCY AREA WITH A 1-FT SOIL COVER OVER IMPACTS ≤10 PPM PCBS
- PCB REMEDIATION WASTE/LOW OCCUPANCY AREA PCB CONCENTRATIONS >100 PPM AT >10 FT BGS
- MITIGATION WETLAND
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY
- SURFACE WATER BODIES
- STORM SEWER BULKHEAD LOCATIONS

SITEWIDE RESTRICTIONS IN PLACE ON LAND USE, GROUNDWATER USE, AND VAPOR INTRUSION.
GPL CAP IS A MULTI-LAYER COVER.

SMI: SAGINAW MALLEABLE INDUSTRIAL LAND
GPL: GREEN POINT LANDFILL
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
PCB: POLYCHLORINATED BIPHENYLS

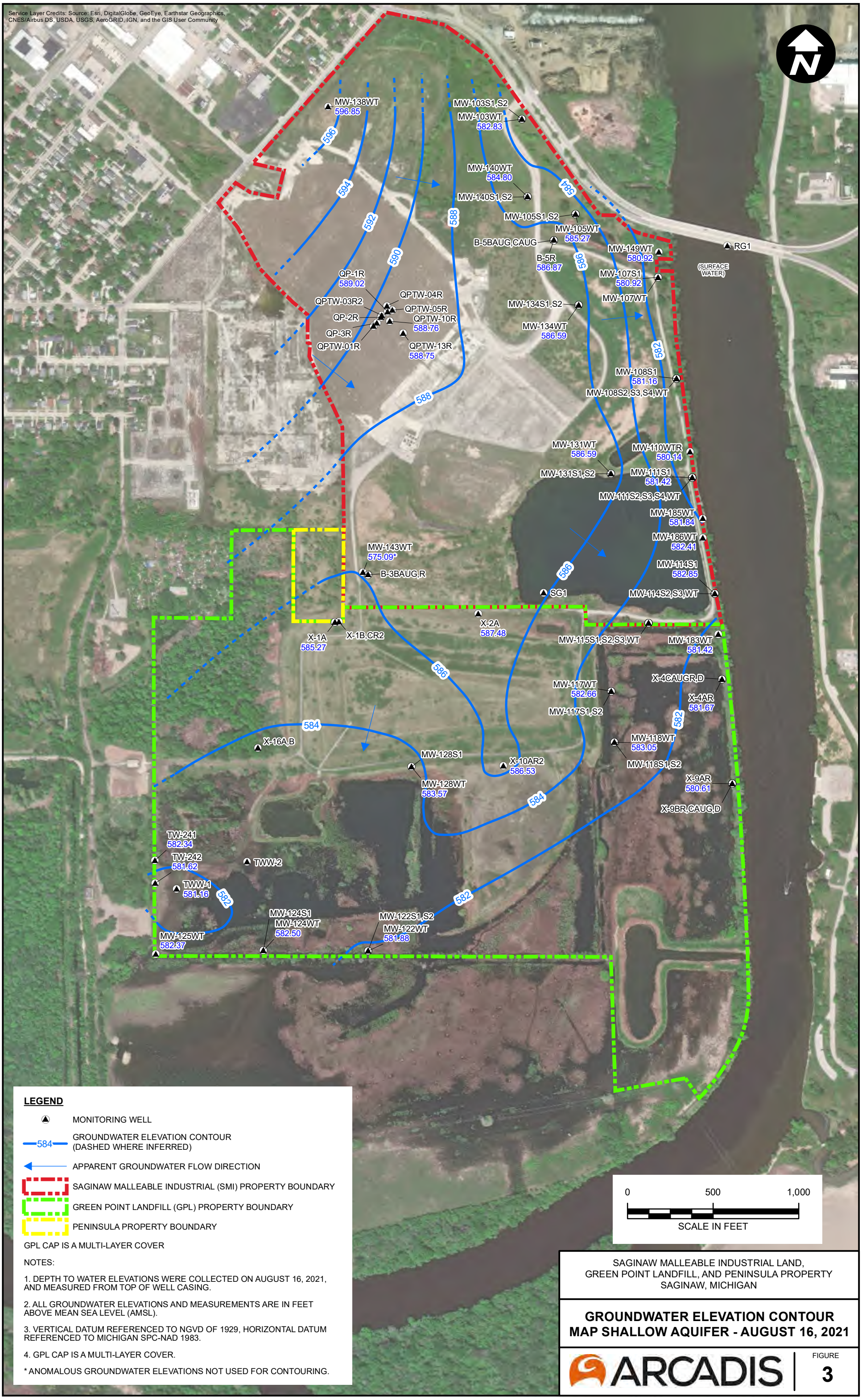
SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SITE INSPECTION AREAS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: 30042836.05003 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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LEGEND

- MONITORING WELL
- 584 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPARENT GROUNDWATER FLOW DIRECTION
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

GPL CAP IS A MULTI-LAYER COVER

NOTES:

1. DEPTH TO WATER ELEVATIONS WERE COLLECTED ON AUGUST 16, 2021, AND MEASURED FROM TOP OF WELL CASING.
2. ALL GROUNDWATER ELEVATIONS AND MEASUREMENTS ARE IN FEET ABOVE MEAN SEA LEVEL (AMSL).
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. GPL CAP IS A MULTI-LAYER COVER.

* ANOMALOUS GROUNDWATER ELEVATIONS NOT USED FOR CONTOURING.

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

GROUNDWATER ELEVATION CONTOUR MAP SHALLOW AQUIFER - AUGUST 16, 2021

ARCADIS

FIGURE 3

CITY: Novi DIV: ENV DB: TRY PIC: J. BARRETT PM: S. CLEARWATER TM: A. ROBINSON PROJECT NUMBER: 30076323 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\Documents\PFAS_2021\GW_Elevation_2021_0816.mxd PLOTTED: 10/18/2021 3:06:41 PM BY: TYarbrough

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-138WT
MW-103WT,S1,S2
NEW PARKING LOT
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
RECREATION PLAZA
MW-107WT,S1
QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-05R
QPTW-10R
QPTW-13R
MW-134WT,S1,S2

MW-134WT			
Sample Date	12/18/2018	8/11/2020	8/19/2021
PFOA	3.0 J	2.0 J	1.7 J
PFOS	4.0 U	1.9 U	1.8 U

QPTW-13R			
Sample Date	12/18/2018	8/11/2020	8/19/2021
PFOA	8.38	4.7 J [5.1]	3.8 a [4.0 a]
PFOS	8.47	11 [10.6]	6.6 [8.4]

MW-108WT			
Sample Date	12/18/2018	8/13/2020	8/19/2021
PFOA	3.66 J	4.4	4.6
PFOS	2.63 J	17.1	15.1

MW-108WT,S1,S2,S3,S4
MW-110WTR
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4
VIEWING PLATFORM
MW-185WT
MW-186WT

MW-131WT			
Sample Date	12/18/2018	8/11/2020	8/19/2021
PFOA	2.38 J	3.6 J	3.7
PFOS	4.88 J	7.9	11.0

TW98-111WT	
Sample Date	12/18/2018
PFOA	6.36
PFOS	18

TW98-111WT
MW-143WT
B-3R,BAUG

B-3R			
Sample Date	12/18/2018	8/11/2020	8/19/2021
PFOA	5.58	2.7 J	2.7 J
PFOS	15.6	14.4	13.7

MW97-105WT
SG1
MW-114WT,S1,S2,S3
X-2A
MW-115WT,S1,S2,S3
X-1A,B
X-1CR2

MW97-105WT	
Sample Date	12/18/2018
PFOA	22.1
PFOS	9.7

X-2A			
Sample Date	12/18/2018	9/8/2020	8/18/2021
PFOA	50.6 [46.5]	29.9	29.6 [27.7]
PFOS	16.5 [14.6]	14.5	15.8 [14.9]

MW-183WT *			
Sample Date	12/19/2018	8/18/2020	8/24/2021
PFOA	2.07 J	4.6	2.9 J
PFOS	4.0 U	3.5 J	1.5 J

MW-183WT
X-4A,AR,CAUGR,D
MW-117WT,S1

MW-117WT		MW-117S1	
Sample Date	8/13/2020	8/17/2021	8/13/2020	8/17/2021
PFOA	3.6 J	5.5	1.9 U	1.8 U
PFOS	1.9 U	1.8 U	1.9 U	1.8 U

X-10AR2			
Sample Date	12/18/2018	9/8/2020	8/18/2021
PFOA	2.13 J	5.8 [5.6]	6.1
PFOS	4.0 U	1.7 U [1.7 U]	1.8 U

MW-118WT,S1

MW-118WT			
Sample Date	12/18/2018	8/14/2020	8/17/2021
PFOA	1.95 J	2.4 J	5.3
PFOS	4.0 U	1.9 U	1.8 U

X-16A,B
MW-128WT,S1
X-10AR2
MW-2A,B,CAUG
X-9AR,BR,CAUG,D
VIEWING PLATFORM
MW-119WT,S1,S2

X-9AR			
Sample Date	12/19/2018	8/17/2020	8/18/2021
PFOA	2.0 U	2.5 J	1.5 J
PFOS	4.0 U	1.9 U	1.8 U

MW-3A,B
X-13AR,B,CAUG
TW-241
TWW-2*
MW-127WT,S1
TW-242
TWW-1
X-12AR,B,CAUG
MW-120WT,S1,S2
PLANNED VIEWING PLATFORM
MW-121WT,S1,S2

TWW-1		
Sample Date	9/8/2020	8/18/2021
PFOA	11.0	27.1
PFOS	1.8 U	1.8 U

MW-125WT
MW-124WT,S1
MW-123WT,S1
MW-122WT,S1,S2
X-14A,B,CAUG

MW-125WT	
Sample Date	9/8/2020
PFOA	4.3
PFOS	1.7 U

MW-122WT	
Sample Date	8/18/2021
PFOA	3.1 J
PFOS	1.7 J

LEGEND

- EXISTING MONITORING WELL
- INACCESSIBLE MONITORING WELL TO BE ABANDONED
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- PERMANENT MARKER LOCATION
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY
- * POTENTIAL ALTERNATE SAMPLING LOCATION

MW-125WT	
Sample Date	9/8/2020
PFOA	4.3
PFOS	1.7 U

SAMPLE LOCATION
SAMPLING DATE
PFOA ANALYTICAL RESULT
PFOS ANALYTICAL RESULT

NOTES:

ALL VALUES ARE IN NANOGRAMS PER LITER (ng/L).

BOLD RESULT DENOTES DETECTION.

SHADED RESULT DENOTES DETECTION IS ABOVE THE EGLE GROUNDWATER SURFACE WATER CRITERIA.

RED RESULT DENOTES DETECTION IS ABOVE EGLE DRINKING WATER MAXIUMUM CONTAMINANT LIMIT (MCL).

J = ESTIMATED VALUE BETWEEN THE LIMIT OF QUANTITATION AND THE METHOD DETECTION LIMIT.
U = NOT DETECTED.
[ ] = DUPLICATE SAMPLE DETECTIONS
EGLE = ENVIRONMENT GREAT LAKES AND ENERGY
PFOA = PERFLUOROOCTANOIC ACID
PFOS = PERFLUOROOCTANESULFONIC ACID

WELLS LISTED FOR SAMPLING AND/OR GAUGING IN ACCORDANCE WITH THE 2020 O&M PLAN

0 500 1,000
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

PFAS SAMPLING RESULTS

ARCADIS

FIGURE 4

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson TR: PROJECT NUMBER: 30076323.06000 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\Documents\PFAS 2021\PFAS Analytical 202108.mxd PLOTTED: 12/3/2021 8:05:59 PM BY: TYarbrough

ATTACHMENT 1

Well Abandonment Memo

Memo

TO
Ms. Amanda Armbruster
Saginaw Bay District Office
Michigan Department of Environment, Great Lakes, and Energy
401 Ketchum Street, Suite B
Bay City, Michigan 48708

DATE
March 11, 2021

PROJECT NUMBER
30076323

COPIES
Ann Person, EGLE
Brian Keenan-Lechel, Saginaw County Parks & Recreation
Dave Favero, RACER

FROM
Scott Clearwater, Certified Project Manager
810.225.1921
Scott.clearwater@arcadis.com

SUBJECT
Monitoring Well Abandonment Activities
RACER Saginaw Malleable Industrial Land, Green Point Landfill and Peninsula Property
Saginaw, Michigan

This Monitoring Well Abandonment Memo has been prepared by Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for activities at the Saginaw Malleable Industrial Land (SMI), Green Point Landfill (GPL), and Peninsula Properties, collectively referred to as the Site located at 77 West Center Street, Saginaw, Michigan (**Figure 1**).

A scope of work to abandon a total of 63 groundwater monitoring wells throughout the Site was submitted November 16, 2020 and was approved by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on December 11, 2020 (**Attachment 1**). The scope of work included 27 wells that are currently inaccessible, thus 36 monitoring locations were abandoned during the mobilization discussed below. The wells that are currently inaccessible remain under water in flooded portions of the GPL property. When these wells become accessible, they will be abandoned, and we will continue to evaluate safe and reliable methods to abandon them under current conditions (**Figures 1** and **2**).

From January 19 through 20, 2021, Arcadis mobilized with Job Site Services (JSS) to complete the abandonment of the 36 accessible monitoring locations at the Site. Wells were abandoned in accordance with the American Society of Testing Materials Standard D 5299-92, “Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities”. The depth of each monitoring well was measured before abandoning to ensure that there were no obstructions that may interfere with effective abandonment. Measurements of static water levels were also collected and recorded. A table summarizing the monitoring well depths was provided as Table 1 within the Well Abandonment Scope of Work. For wells shallower than 20 feet deep, bentonite pellets were used to seal the well space after the casing was pulled. The bentonite pellets were immediately hydrated after placement. For wells greater than 20 feet deep, the well casing was removed from the ground by pulling the well from the subsurface. As the well was pulled from the ground, cement grout was placed from the bottom of the well by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well, filling the void space upward as the casing was being pulled. The cement grout was brought to within two feet of the ground surface in one continuous operation. At each of the abandoned monitoring locations, the surface was restored with topsoil. At the location where a Staff Gauge was installed, the Staff Gauge and associated metal stake were removed, bentonite pellets were used to fill the void

space, and the surface was restored with topsoil. The metal upright protective covers and concrete pads at each of the wells were removed and recycled/disposed.

Arcadis and JSS field personnel identified five of the 36 monitoring points scheduled for abandonment during this mobilization as previously abandoned. These wells were MW-114S4, MW-11-13, Unknown ID 1, Unknown ID 2, and Unknown ID 3. These wells locations were inspected and documented to have no well remaining.

The following monitoring points were abandoned during this mobilization:

MW-01-119S1, MW04-119WT, MW04-121S1, MW04-121WT, MW-150WT, TW-07-02, X-20, MW-11-05, MW-11-06, MW-11-07, MW-11-08, MW-11-09, MW-11-10, MW-11-11, MW-11-14, MW-11-15, MW-12-01, MW-12-02, MW-12-03, MW-12-04, MW-12-05, MW-144WT, MW97-105S1, MW97-105WT, TW-06-01D, TW-06-01WT, TW-06-02D, TW-06-02WT, TW-06-03D, TW-06-03WT, and TW-07-02 Staff Gauge.

Well abandonment logs and photographic records depicting condition before and after the abandonment activities is included in the Abandonment Documentation in **Attachment 2**.

Enclosures:

FIGURES

Figure 1 Well Abandonment Locations SMI & GPL

Figure 2 Well Abandonment Locations Peninsula

ATTACHMENTS

1 Proposed Monitoring Well Abandonment Scope of Work

2 Abandonment Documentation

Figures

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-138WT
MW-103WT,S1,S2
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
MW-107WT,S1
QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-13R
QPTW-05R
QPTW-10R
MW-134WT,S1,S2
MW-108WT,S1,S2,S3,S4
MW-110WTR
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4
MW-185WT
MW-186WT
MW-01-119SI
MW04-119WT
MW-129WT
MW04-124WT,S1
STAFF GAUGE
TW-07-02
STAFF GAUGE
MW-143WT
B-3R,BAUG
MW04-121WT,S1
X-20
X-1A,B
X-1CR2
SG1
MW-114S4
MW-114WT,S1,S2,S3
X-2A
MW-150WT
MW-115WT,S1,S2,S3*
MW-183WT
X-4A,AR,CAUGR,D
MW-117WT,S1
MW-118WT,S1
X-16A,B
MW-128WT,S1
X-10AR2
MW-2A,B,CAUG
X-9AR,BR,CAUG,D
Unknown ID 1?
Unknown ID 3?
Unknown ID 2?
MW-119WT,S1,S2
MW-3A,B
X-13AR,B,CAUG
TW-241
TWW-2*
MW-127WT,S1
TW-242
TWW-1
X-12AR,B,CAUG
MW-120WT,S1,S2
MW-121WT,S1,S2
MW-123WT,S1
MW-125WT
MW-124WT,S1
MW-122WT,S1,S2
X-14A,B,CAUG

LEGEND

- EXISTING MONITORING WELL
- ABANDONED MONITORING WELLS
- INACCESSIBLE MONITORING WELL TO BE ABANDONED
- DPH MONITORING WELL
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY
- * POTENTIAL ALTERNATE SAMPLING LOCATION

NOTE: WELLS LISTED FOR SAMPLING AND/OR GAUGING IN ACCORDANCE WITH THE 2020 O&M PLAN

0 500 1,000
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

WELL ABANDONMENT LOCATIONS SMI AND GPL PROPERTIES

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: 30076323.06000 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\RACER Saginaw\MXD\From Novi\2021\01 Well Abandonement GPL SMI 202102.mxd PLOTTED: 2/10/2021 3:47:08 PM BY: TYarbrough


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
MW-11-04
TW98-111WT
MW98-111S1
MW-11-05
MW98-110S1
TW98-110WT
MW04-122WT,S1
MW-11-06
MW-11-07
MW04-118S1
TW-06-01WT,D
MW-11-08
MW-11-13
MW-11-09
MW98-109S1
TW98-108WT
MW98-108S1
TW98-109WT
MW-12-04
MW-12-02
MW-11-10
MW-12-03
MW04-123WT,S1
MW-12-01
MW-11-14
MW-12-05
MW-11-11
TW-06-02WT,D
MW-11-15
MW97-105WT,S1
TW-06-03WT,D
MW-144WT
600
0
50
100
SCALE IN FEET
LEGEND
EXISTING MONITORING WELL
ABANDONED MONITORING WELLS
DPH MONITORING WELL
SMI PROPERTY BOUNDARY
GPL PROPERTY BOUNDARY
PENINSULA PROPERTY BOUNDARY
SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN
WELL ABANDONMENT LOCATION
PENINSULA PROPERTY
ARCADIS
Design & Consultancy for natural and built assets
FIGURE
2
CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: 30076323.06000 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\RACER_Saginaw\MXD\From Novi\2021\02_Well_Abandonement_Peninsula_202102.mxd PLOTTED: 2/10/2021 3:51:01 PM BY: TYarbrough

Attachment 1

Proposed Monitoring Well Abandonment Scope of Work

Clearwater, Scott

From: Armbruster, Amanda (EGLE) <ARMBRUSTERA@michigan.gov>
Sent: Friday, December 11, 2020 10:33 AM
To: Clearwater, Scott
Cc: Dave Favero; Person, Ann (EGLE)
Subject: RE: RACER Malleable - Well Abandonment SOW

Scott,
Thank you for providing the updated Proposed Well Abandonment Scope of Work Report for SMI. I have no questions or concerns related to the report, but would like to know when the field work is scheduled to start the well abandonments. Hope you are well and enjoy the upcoming holidays.

Amanda Armbruster
Geologist | Bay City District Office
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
989-450-6377 work cell phone
Follow Us | **Michigan.gov/EGLE**

From: Clearwater, Scott <Scott.Clearwater@arcadis.com>
Sent: Monday, November 16, 2020 1:17 PM
To: Armbruster, Amanda (EGLE) <ARMBRUSTERA@michigan.gov>
Cc: Dave Favero <dfavero@racertrust.org>
Subject: RACER Malleable - Well Abandonment SOW

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Amanda,
Attached for your review is a Well Abandonment Scope of Work for RACER Saginaw Malleable. This finalized SOW is an update to the draft that was provided to you for comment on March 16, 2020 and incorporates the edits requested in your email to us on July 21, 2020, our phone conversation July 27, 2020, and aligns with the 2020 O&M Plan. Feel free to let me know if any questions.
Thanks,
Scott

Scott Clearwater | Certified Project Manager | scott.clearwater@arcadis.com
Arcadis | Arcadis of Michigan, LLC
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ARCADIS Design & Consultancy for natural and built assets

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Be green, leave it on the screen.

Ms. Amanda Armbruster
Saginaw Bay District Office
Michigan Department of Environment, Great Lakes, and Energy
401 Ketchum Street, Suite B
Bay City, Michigan 48708

Arcadis of Michigan, LLC
28550 Cabot Drive
Suite 500
Novi
Michigan 48377
Tel 248 994 2240
Fax 248 994 2241
www.arcadis.com

Subject:
Proposed Monitoring Well Abandonment Scope of Work
RACER Saginaw Malleable Industrial Land, Green Point Landfill and Peninsula Property, Saginaw, Michigan

ENVIRONMENT

Date:
November 16, 2020

Contact:
Scott Clearwater

Phone:
810-225-1921

Email:
Scott.Clearwater@arcadis.com

Our ref:
30042836

Dear Ms. Armbruster:

This Scope of Work has been prepared by Arcadis of Michigan LLC on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust.

Monitoring wells have been installed throughout Saginaw Malleable (SMI), Green Point Landfill (GPL), and Peninsula Properties (Site) during various environmental investigations. Many of the wells installed at the Site have been abandoned or removed from the monitoring plan over time as they were no longer needed and ownership of 16 wells and a staff gauge have been transferred to the DPH Environmental Response Trust (**Attachment 1**). All current and known former monitoring wells are depicted on **Figure 1**.

A total of 63 groundwater monitoring wells throughout the Site are proposed to be abandoned, 27 of the wells are currently inaccessible, thus 36 monitoring locations are proposed to be abandoned at this time. The wells proposed to be abandoned are not needed for gauging or sampling related to on-going operation and maintenance (O&M). This determination is based on evaluations and comparison of Site data to the Site-specific criteria approved by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the Site, which include Drinking Water criteria and Groundwater Surface Water Interface criteria. Exceedances of the Drinking Water criteria have been addressed at the Site through a Declaration of Restrictive Covenant (RC) restricting installation of wells and the use of groundwater.

There are three monitoring wells that were identified at GPL without protective covers which are identified as unknown ID. These are not included in the monitoring and gauging plan and are proposed to be abandoned. Wells proposed to be abandoned are listed in **Tables 1 and 2** and are illustrated in **Figure 2** for SMI and GPL and **Figure 3** for Peninsula. It is noted that there are several wells that are not currently accessible due to standing water over portions of the GPL property (**Table 2 and Figure 2**). When these wells become accessible, they will be abandoned, and we will continue to evaluate safe and reliable methods to abandon them under current conditions. The monitoring wells and staff gauge that have been transferred to the DPH Environmental Response Trust are summarized in **Table 3**.

The rationale for abandoning each well is included in the tables but the primary reasons include:

- The RC eliminates risk, and monitoring is no longer required in the area, or nearby wells will continue to be monitored instead.
- The wells are no longer needed for gauging or sampling based on proximity to other wells.
- The concentrations are below EGLE criteria and Site-Specific criteria for multiple years.

Well Abandonment Procedures

Wells will be abandoned in accordance with the American Society of Testing Materials Standard D 5299-92, “Standard Guide for Decommissioning Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities”. Well abandonment activities will be scheduled following EGLE’s approval of this Scope of Work and dependent upon weather conditions.

The following details the abandonment procedures:

- The depth of each monitoring well will be measured before it is abandoned to ensure that there are no obstructions that may interfere with effective abandonment. Measurements of static water levels will also be recorded.
- The well casings will be removed from the ground by pulling the well from the subsurface. If the well cannot be removed from the subsurface, the well will be cut approximately two feet below grade and grouted in place.
- As the well casing is being pulled from the ground, cement grout, or neat cement grout will be used as primary abandoning material and placed from the bottom of the well casing by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well filling the void upward as the casing is pulled to within two feet of the ground surface in one continuous operation. For wells shallower than 20 feet deep, granular bentonite pellets may be used to seal the well. The pellets would be placed after the casing is pulled and hydrated after placement.
- The metal upright protective covers of the wells will be removed and recycled/disposed. Void space above well casing will be filled with soil from on-site stockpile to within six inches of grade.
- Surface restoration at all wells will be completed to blend with the adjacent grade by either placing topsoil and seeding or asphalt patch to match pre-existing conditions.

- All debris accumulated by well abandonment (removed stick up well casings, concrete pads, etc.) will be disposed offsite at a permitted landfill. The metal protective covers from the stick-up wells will be recycled if possible.
- The well abandonment details will be logged in a well abandonment record (**Attachment 2**) completed per monitoring well.

A well abandonment memo that will include a summary of the well abandonment activities, completed well abandonment records, and a photolog will be prepared and submitted to EGLE following completion.

Please let me know if you have any questions or would like to discuss this Scope of Work.

Sincerely,

Arcadis of Michigan, LLC



Scott Clearwater
Certified Project Manager

Enclosures:

Tables

1 Proposed Monitoring Well Abandonment List
2 Inaccessible Monitoring Well Proposed Abandonment List
3 Monitoring Well Transfer List

Figures

1 Monitoring Well Status as of 2020
2 Proposed Monitoring Wells to be Abandoned at SMI and GPL
3 Proposed Monitoring Wells to be Abandoned at Peninsula Property

Attachments

1 Easement Agreement between RACER Trust and DPH Trust
2 Example Monitoring Well Abandonment Record

TABLES

Table 1
Proposed Monitoring Well Abandonment List
RACER Saginaw - Saginaw Malleable Industrial Land,
Green Point Landfill and Peninsula Property

ARCADIS Design & Consultancy for natural and built assets

Well ID	Proposed Action	Well Diameter (in)	Total Depth (ft btoc)	Casing	Northing	Easting	Comments/Reason for Abandonment
Saginaw Malleable Industrial Land							
MW-01-119S1	Abandon	2	28.32	stick up	691605.08	13227675.92	RC eliminates drinking water risk, nearby wells will continue to be monitored
MW04-119WT	Abandon	2	16.96	stick up	691598.00	13227676.06	RC eliminates drinking water risk, nearby wells will continue to be monitored
MW04-121S1	Abandon	2	25.05	stick up	691211.04	13227664.61	RC eliminates drinking water risk, nearby wells will continue to be monitored
MW04-121WT	Abandon	2	18.38	stick up	691215.85	13227664.90	RC eliminates drinking water risk, nearby wells will continue to be monitored
MW-114S4	Abandon - damaged	2	well screen 47.8-52.8 ft bgs	stick up	691209.33	13229827.06	Damaged, gauging well is not necessary based on proximity to other gauging wells
MW-150WT	Abandon	2	16.35	stick up	691037.68	13229266.46	Concentrations below EGLE criteria and Site Specific criteria, monitoring will continue at the river boundary downstream
Green Point Landfill							
TW-07-02	Abandon	2	15.54	stick up	691221.24	13227184.19	Indentified in April 2019, monitoring not required for RACER
TW-07-02 Staff Gauge	Abandon	2	NA	staff gauge	691221.24	13227184.19	Indentified in April 2019, monitoring not required for RACER
X-20	Abandon - damaged	2	well screen 4.7-7.7 ft bgs	stick up	691017.54	13227186.92	Damaged, concentrations below EGLE criteria, nearby wells will continue to be monitored
Unknown ID 1	Abandon	NA	NA	stick up	NA	NA	Monitoring not required for RACER
Unknown ID 2	Abandon	NA	NA	stick up	NA	NA	Monitoring not required for RACER
Unknown ID 3	Abandon	NA	NA	stick up	NA	NA	Monitoring not required for RACER
Peninsula Property							
MW-11-05	Abandon	2	20.50	stick up	691542.37	13227392.03	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-06	Abandon	2	19.84	stick up	691478.83	13227392.38	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-07	Abandon	2	19.83	stick up	691460.78	13227392.38	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-08	Abandon	2	19.84	stick up	691414.94	13227391.34	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-09	Abandon	2	19.50	stick up	691382.65	13227392.73	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-10	Abandon	2	20.12	stick up	691347.93	13227389.60	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-11	Abandon	2	8.39	stick up	691292.03	13227392.03	RC eliminates drinking water risk, monitoring no longer required for RACER

Table 1
Proposed Monitoring Well Abandonment List
RACER Saginaw - Saginaw Malleable Industrial Land,
Green Point Landfill and Peninsula Property

Well ID	Proposed Action	Well Diameter (in)	Total Depth (ft btoc)	Casing	Northing	Easting	Comments/Reason for Abandonment
Peninsula Property (continued)							
MW-11-13	Abandon	2	23.40	stick up	691412.51	13227440.99	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-14	Abandon	2	22.77	stick up	691322.93	13227499.33	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-11-15	Abandon	2	22.55	stick up	691244.80	13227553.84	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-12-01	Abandon	2	19.67	stick up	691321.19	13227440.30	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-12-02	Abandon	2	19.69	stick up	691351.40	13227425.71	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-12-03	Abandon	2	19.63	stick up	691346.19	13227460.44	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-12-04	Abandon	2	20.72	stick up	691370.85	13227479.88	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-12-05	Abandon	2	20.74	stick up	691296.89	13227425.37	RC eliminates drinking water risk, monitoring no longer required for RACER
MW-144WT	Abandon	2	15.10	stick up	691091.96	13227621.75	RC eliminates drinking water risk, monitoring no longer required for RACER
MW97-105S1	Abandon	2	23.08	stick up	691202.42	13227506.39	RC eliminates drinking water risk, monitoring no longer required for RACER
MW97-105WT	Abandon	2	16.42	stick up	691200.65	13227512.31	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-01D	Abandon	2	30.59	stick up	691428.07	13227654.30	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-01WT	Abandon	2	19.66	stick up	691438.73	13227654.38	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-02D	Abandon	2	25.28	stick up	691275.20	13227585.16	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-02WT	Abandon	2	16.79	stick up	691285.85	13227585.24	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-03D	Abandon	2	20.46	stick up	691124.02	13227396.32	RC eliminates drinking water risk, monitoring no longer required for RACER
TW-06-03WT	Abandon	2	16.69	stick up	691134.67	13227396.40	RC eliminates drinking water risk, monitoring no longer required for RACER

Sub-total = 36 wells

Notes:

Total depth (ft) = 634.04

ft bgs = feet below ground surface

ft btoc = feet below top of casing

NA= not applicable

RC= restrictive covenant

Coordinates are based on the North American Datum 1983 (NAD 83) State Plane Coordinate System

Table 2
Inaccessible Monitoring Well Proposed Abandonment List
RACER Saginaw - Saginaw Malleable Industrial Land,
Green Point Landfill and Peninsula Property

ARCADIS Design & Consultancy for natural and built assets

Well ID	Proposed Action	Well Diameter (in)	Well Screen (ft bgs)	Casing	Northing	Easting	Comments/Reason for Abandonment
Green Point Landfill							
MW-119S1	Abandon	2	24-29	stick up	690050.29	13229070.42	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
MW-119S2	Abandon	2	36.5-41.5	stick up	690041.41	13229068.44	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
MW-119WT	Abandon	2	2-12	stick up	690060.05	13229070.26	RC eliminates drinking water risk, monitoring will continue at the river boundary downstream
MW-120S1	Abandon	2	23.8-28.8	stick up	689474.66	13228833.18	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
MW-120S2	Abandon	2	36-41	stick up	689468.41	13228826.67	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
MW-120WT	Abandon	2	4-14	stick up	689481.14	13228839.60	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
MW-121S1	Abandon	2	21.5-26.5	stick up	689251.24	13228555.88	RC eliminates drinking water risk, additional monitoring will continue at the river boundary downstream
MW-121S2	Abandon	2	34.8-39.8	stick up	689244.95	13228546.56	RC eliminates drinking water risk, additional monitoring will continue at the river boundary downstream
MW-121WT	Abandon	2	3.5-13.5	stick up	689262.18	13228570.52	RC eliminates drinking water risk, additional monitoring will continue at the river boundary downstream
MW-123S1	Abandon	2	15-20	stick up	689117.53	13227494.3	RC eliminates drinking water risk, additional monitoring will continue at the river boundary downstream
MW-123WT	Abandon	2	3-8	stick up	689117.51	13227503.05	RC eliminates drinking water risk, additional monitoring will continue at the river boundary downstream
MW-127S1	Abandon	2	16.5-21.5	stick up	689636.41	13227876.93	Concentrations below EGLE criteria and Site-Specific criteria, nearby wells will continue to be monitored
MW-127WT	Abandon	2	2-12	stick up	689644.53	13227879.47	Concentrations below EGLE criteria and Site-Specific criteria, nearby wells will continue to be monitored

Table 2
Inaccessible Monitoring Well Proposed Abandonment List
RACER Saginaw - Saginaw Malleable Industrial Land,
Green Point Landfill and Peninsula Property

ARCADIS Design & Consultancy for natural and built assets

Well ID	Proposed Action	Well Diameter (in)	Well Screen (ft bgs)	Casing	Northing	Easting	Comments/Reason for Abandonment
Green Point Landfull (continued)							
MW-2A	Abandon	2	4-14	stick up	690191.04	13229487.11	Concentrations below EGLE criteria and Site-Specific criteria, Gauging well is not necessary based on proximity to other gauging wells
MW-2B	Abandon	2	36-46	stick up	690191.04	13229487.11	Concentrations below EGLE criteria and Site-Specific criteria, Gauging well is not necessary based on proximity to other gauging wells
MW-2CAUG	Abandon	2	24-29	stick up	690178.81	13229488.78	Concentrations below EGLE criteria and Site-Specific criteria, Gauging well is not necessary based on proximity to other gauging wells
MW-3A	Abandon	2	2.5-12.5	stick up	689840.47	13228191.25	Concentrations below EGLE criteria and Site-Specific criteria, nearby wells will continue to be monitored
MW-3B	Abandon	2	23-28	stick up	689840.47	13228191.25	Concentrations below EGLE criteria and Site-Specific criteria, nearby wells will continue to be monitored
X-12AR	Abandon	2	2-7	stick up	689454.48	13227771.96	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-12B	Abandon	2	41.7-44.7	stick up	689454.18	13227761.97	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-12CAUG	Abandon	2	17.5-20	stick up	689445.05	13227747.37	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-13AR	Abandon	2	2-12	stick up	689734.87	13229118.83	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-13B	Abandon	2	19.9-22.9	stick up	689706.93	13229115.32	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-13CAUG	Abandon	2	36.2-41.2	stick up	689735.73	13229061.52	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-14A	Abandon	2	2.8-5.8	unknown	689083.58	13228218.73	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-14B	Abandon	2	21.3-24.3	stick up	689083.58	13228218.73	Concentrations below EGLE criteria and Site-Specific criteria, monitoring will continue at the river boundary
X-14CAUG	Abandon	2	26-31	stick up	689087.40	13228250.74	RC eliminates drinking water risk, monitoring will continue at the river boundary

Sub-total = 27 wells

Notes:
ft bgs = feet below ground surface
ft btoc = feet below top of casing
RC= restrictive covenant
Coordinates are based on the North American Datum 1983 (NAD 83) State Plane Coordinate System

Table 3
Monitoring Well Transfer List
RACER Saginaw - Saginaw Malleable Industrial Land,
Green Point Landfill and Peninsula Property

ARCADIS Design & Consultancy for natural and built assets

Well ID	Status	Well Diameter (in)	Total Depth (ft btoc)	Casing	Northing	Easting
Green Point Landfill						
MW04-124S1	Well has been transferred to DPH	2	21.29	stick up	691280.55	13227341.59
MW04-124WT	Well has been transferred to DPH	2	15.41	stick up	691275.62	13227341.91
MW-129WT	Well has been transferred to DPH	2	15.30	stick up	691461.33	13227155.48
Staff Gauge	Staff gauge has been transferred to DPH	2	NA	staff gauge	691288.79	13227358.90
Peninsula Property						
MW04-118S1	Well has been transferred to DPH	2	20.70	stick up	691440.67	13227388.11
MW04-122S1	Well has been transferred to DPH	2	19.58	stick up	691497.87	13227387.37
MW04-122WT	Well has been transferred to DPH	2	17.70	stick up	691503.82	13227387.31
MW04-123S1	Well has been transferred to DPH	2	20.52	stick up	691323.01	13227386.98
MW04-123WT	Well has been transferred to DPH	2	18.61	stick up	691317.67	13227386.85
MW98-108S1	Well has been transferred to DPH	2	24.96	stick up	691378.08	13227552.76
MW98-109S1	Well has been transferred to DPH	2	20.20	stick up	691370.58	13227440.85
MW98-110S1	Well has been transferred to DPH	2	20.11	stick up	691548.43	13227553.53
MW98-111S1	Well has been transferred to DPH	2	19.95	stick up	691546.79	13227445.11
TW98-108WT	Well has been transferred to DPH	2	14.99	stick up	691381.02	13227550.64
TW98-109WT	Well has been transferred to DPH	2	14.85	stick up	691371.19	13227436.66
TW98-110WT	Well has been transferred to DPH	2	15.06	stick up	691549.17	13227556.60
TW98-111WT	Well has been transferred to DPH	2	15.20	stick up	691551.88	13227441.68

Sub-total = 17 locations

Notes:

ft bgs = feet below ground surface

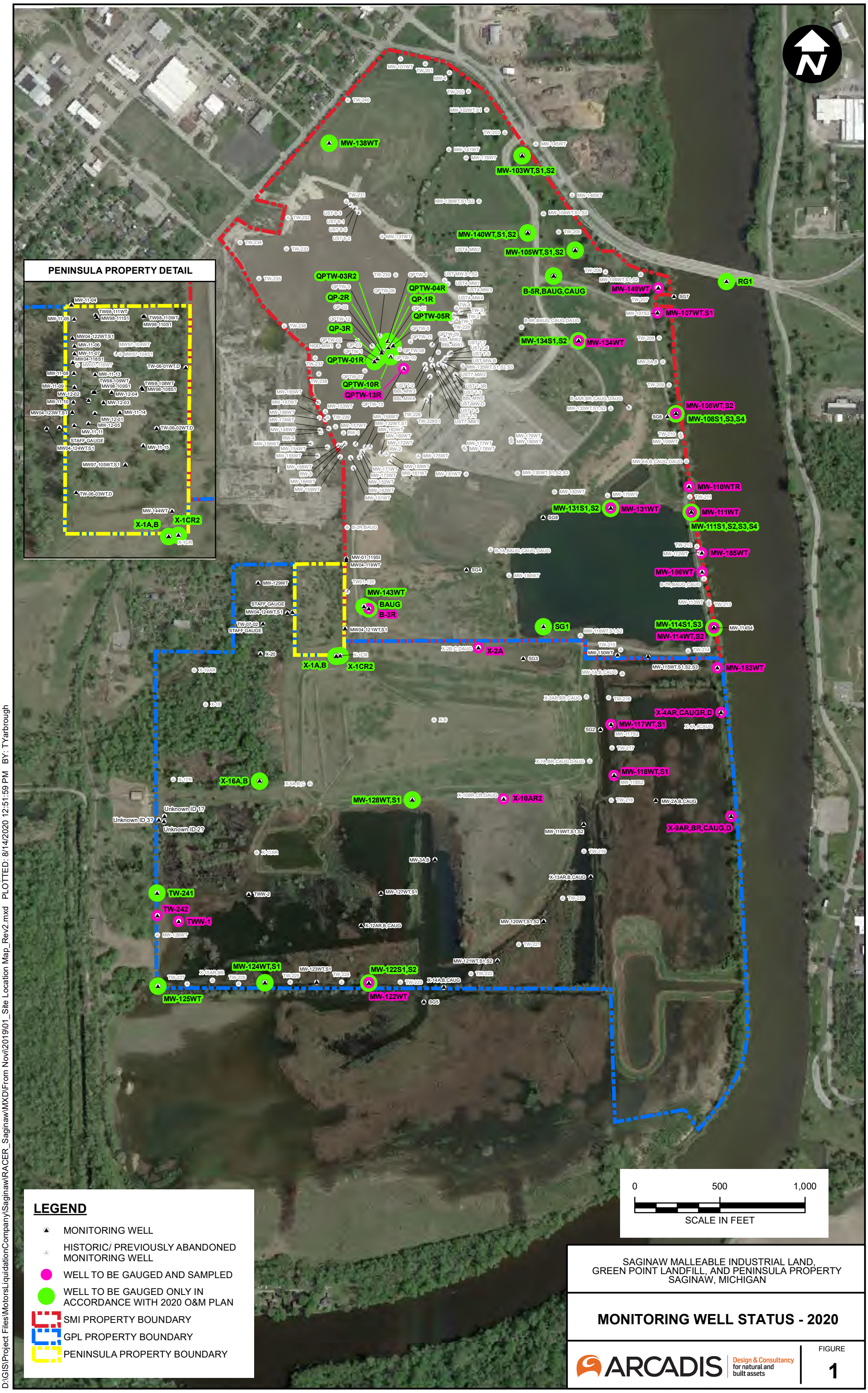
ft btoc = feet below top of casing

NA= not applicable

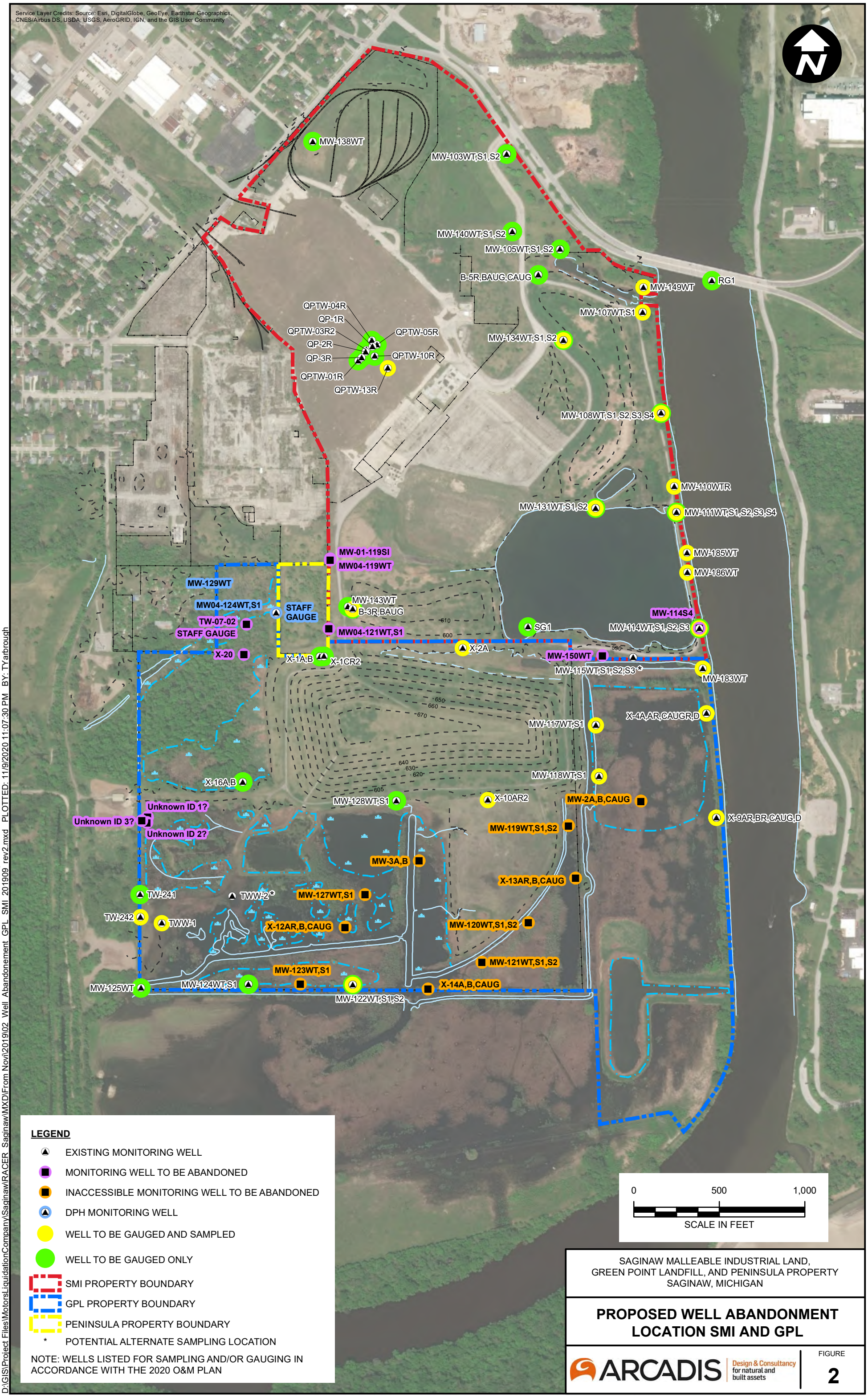
Coordinates are based on the North American Datum 1983 (NAD 83) State Plane Coordinate System

List of wells transferred in accordance with the *Easement Agreement* between RACER Trust and DPH Trust, dated June 3, 2019

FIGURES



CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\RACER_Saginaw\MXD\From Novi\2019\01_Site Location Map_Rev2.mxd PLOTTED: 8/14/2020 12:51:59 PM BY: TYarbrough



SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

PROPOSED WELL ABANDONMENT LOCATION SMI AND GPL

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\RACER Saginaw\MXD\From Novi\2019\02 Well Abandonement GPL SMI 201909 rev2.mxd PLOTTED: 11/9/2020 11:07:30 PM BY: TYarbrough

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-11-04
TW98-111WT
MW98-111S1
MW-11-05
MW98-110S1
TW98-110WT
MW04-122WT,S1
MW-11-06
MW-11-07
MW04-118S1
TW-06-01WT,D
MW-11-08
MW-11-13
MW-11-09
MW98-109S1
TW98-108WT
MW98-108S1
TW98-109WT
MW-12-04
MW-12-02
MW-11-10
MW-12-03
MW04-123WT,S1
MW-12-01
MW-11-14
MW-12-05
MW-11-11
TW-06-02WT,D
MW-11-15
MW97-105WT,S1
TW-06-03WT,D
MW-144WT
600

0 50 100
SCALE IN FEET

LEGEND

- EXISTING MONITORING WELL
- MONITORING WELL TO BE ABANDONED
- DPH MONITORING WELL
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

PROPOSED WELL ABANDONMENT LOCATIONS PENINSULA

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\RACER_Saginaw\MXD\From Novi\2019\Well_Abandonement_Peninsula_201909.mxd PLOTTED: 11/9/2020 11:02:35 PM BY: TYarbrough

ATTACHMENT 1

Easement Agreement between RACER Trust and DPH Trust

2019014836
PAGE 1 OF 18
EASEMENT
OFFICIAL SEAL, Saginaw County MI
Katie A. Kelly Register of Deeds
06/03/2019 10:52:50 AM

EASEMENT AGREEMENT

This Easement Agreement is exempt from state and county transfer tax under MCL 207.526. Sec. 6(a) and MCL 207.505. Sec. 5(a).

This EASEMENT AGREEMENT ("Agreement") is made by and between the REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST (the "Trust" or "Grantor"), by and through EPLET, LLC, acting solely in its representative capacity as Administrative Trustee of the Trust, together with RACER Properties LLC, the owner of the Property (as defined herein) and the wholly owned affiliate of the Trust (collectively, "RACER"), having an address of 500 Woodward Avenue, Suite 2650, Detroit, MI 48226, and the DPH ENVIRONMENTAL RESPONSE TRUST (the "DPH Trust" or "Grantee" and together with RACER the "Parties" or each a "Party"), by and through Le Petomane XXVIII, Inc., not individually, but solely as Trustee of the DPH Trust, having an address of 35 E. Wacker Drive, Suite 690, Chicago, IL 60601, with reference to the following recitals.

RECITALS

A. RACER is the owner of property located at 79 West Center Street, Saginaw, Michigan ("RACER Property"), the legal description and depiction of which are shown in the attached **Exhibit 1**. Several groundwater monitoring wells owned by RACER are located on the RACER Property, and ownership of the RACER Wells Transferred to DPH (as hereinafter defined) is being transferred to the DPH Trust pursuant to a Bill of Sale executed by the Parties concurrently with this Agreement.

B. The DPH Trust also owns several other existing groundwater monitoring wells located on the RACER Property as depicted on **Exhibit 1** attached hereto (the "DPH-Owned Wells").

C. RACER is willing to grant certain easement rights in the RACER Property to the DPH Trust and its successors, assigns, employees, consultants, contractors, subcontractors, and other agents, for purposes of accessing the DPH-Owned Wells and the groundwater monitoring wells being transferred to the DPH Trust pursuant to the Bill of Sale, subject to the terms and conditions of this Agreement. Each Party's respective officers, shareholders, directors, representatives, members, managers, successors, assigns, employees, consultants, contractors, subcontractors, agents or other professionals employed by each, shall be referred to below collectively as "Representatives."

NOW THEREFORE, in consideration of the foregoing recitals and the mutual promises, covenants, and agreements set forth herein, and for other good and valuable consideration, which consideration is valued at less than $100, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. **Grant of Easement:** Upon the terms, covenants, and conditions set forth in this Agreement, RACER hereby grants to the DPH Trust and its successors, assigns, and Representatives, a non-exclusive, perpetual easement (the "Easement") on, over, under, and across the RACER Property for purposes of: (i) maintaining and repairing perimeter fencing and locked fence gates as required herein; (ii) installing additional wells from time to time in accordance with an approved Michigan Department of Environment, Great Lakes, and Energy work plan within the 'New-Well Area' designated on **Exhibit 1** ("Additional Wells"), and (iii) accessing, inspecting, sampling, repairing, replacing, abandoning, removing, or performing any other activities related to the DPH-Owned Wells, any Additional Wells, and the following groundwater monitoring wells and staff gauge (collectively, the "Permitted Activities"):

    a. TW98-111WT
    b. MW98-111S1
    c. TW98-110WT
    d. MW98-110S1
    e. MW-129WT
    f. MW04-122WT
    g. MW04-122S1
    h. MW04-118S1
    i. TW98-108WT
    j. MW98-108S1
    k. TW-98-109WT
    l. MW-98-109S1
    m. MW-04-123WT
    n. MW-04-123S1
    o. MW-04-124S1
    p. MW-04-124WT
    q. Staff Gauge

    The monitoring wells and staff gauge listed in subsections a-q above shall be collectively referred to herein as the "RACER Wells Transferred to DPH."

    Neither the Easement nor anything else in this Agreement shall limit the rights of RACER and its Representatives to enter onto the RACER Property to provide access to others, and RACER and its Representatives shall be entitled to enter and inspect the RACER Property or any portion thereof or the Permitted Activities of the DPH Trust thereon at any time.

2. **Permitted Activities:** The DPH Trust and its Representatives may access the RACER Property only to perform the Permitted Activities. If requested, the DPH Trust shall provide RACER with copies of all data, test results, split samples, draft and final reports, and other documents generated as a result of, or in connection with, the Permitted Activities. All Permitted Activities shall be performed at the DPH Trust's sole expense.

3. **Term:** The Agreement shall be effective on the date on which it is signed by both Parties (the "Effective Date"), and shall have a perpetual term, provided, DPH Trust shall have the right to terminate this Agreement at any time upon written notice to RACER or the then owner of the RACER Property. Upon such termination, this Agreement shall be of no further force and effect and neither party shall have any further rights or obligations under this Agreement, other than those expressly stated to survive a termination. Within thirty (30) days following such termination, DPH Trust shall deliver to RACER or the then owner an executed and acknowledged statement (the "Termination Statement") providing DPH Trust's confirmation of the termination of the Agreement and to otherwise terminate the Easement rights and release and relinquish the Easement; such Termination Statement shall evidence DPH Trust's consent for such termination and will be in a form that can be counter-signed and recorded by RACER or by the then owner.

4. **Operations:** In completing the Permitted Activities:

   a. The DPH Trust shall comply with all applicable laws relating to the Permitted Activities and shall use all commercially reasonable efforts to avoid: (i) damage to the RACER Property (and persons and personal property thereon); and (ii) interference with RACER's or any other third party's operations at the RACER Property.

   b. RACER shall use (and shall require its Representatives and other permitted occupants of the RACER Property to use) all commercially reasonable efforts to avoid interference with the DPH Trust's performance of the Permitted Activities at the RACER Property.

   c. The DPH Trust agrees, at its expense, to repair any damage to the RACER Property resulting from its use within thirty (30) days of such occurrence or the expiration of this Agreement, whichever occurs sooner, and to leave the RACER Property in substantially the same condition it was in prior to this Agreement.

   d. No structure, signs or other improvement of any kind shall be constructed and no grading or moving of earth, except as required as part of the Permitted Activities, shall be undertaken on the RACER Property by the DPH Trust or its Representatives without the express prior written permission of RACER, which approval may be withheld in RACER's sole discretion, and then only according to

plans, or specifications and in the proposed location thereof specifically approved by RACER in each case.

e. The DPH Trust shall regularly inspect and promptly repair any damaged portions of the perimeter fence surrounding the eastern, western and southern boundaries of the RACER Property as designated on **Exhibit 1**, and any fence gates therein, unless such damage is caused by RACER or its representatives, or by the then current owner of the RACER Property, or the then current owner's representative(s), in which case the responsible parties shall promptly repair such damage at their sole cost. The DPH Trust agrees that all fence gates surrounding the RACER Property, other than the gate at the DPH Property, are to be secured with chains and in a daisy-chain fashion as to provide for RACER and the then-current owner of the RACER Property the ability to use their own locks to open such gates.

5. Release:

a. Each Party hereby releases the other Party and its Representatives from liability or responsibility for any and all claims, losses, damage, injuries, liabilities, fines and penalties arising from the following, except to the extent caused by or arising from the negligence, fraud, or willful misconduct of the other Party's Representatives or the fraud or willful misconduct of the other Party: (i) any use of the RACER Property by RACER, the DPH Trust, or their respective Representatives; (ii) any act or omission of RACER, the DPH Trust, or their respective Representatives arising from or related to the Permitted Activities; (iii) any bodily injury, property damage, accident, or casualty caused by the acts or omissions of RACER, the DPH Trust, or their respective Representatives arising from or related to the Permitted Activities; (iv) any violation or alleged violation by RACER, the DPH Trust, or their respective Representatives of any law or regulation now or hereafter enacted arising from or related to the Permitted Activities; (v) any loss or theft whatsoever of any property or anything placed or stored by RACER, the DPH Trust, or their respective Representatives on or about the RACER Property; (vi) any breach by RACER or the DPH Trust of their obligations under this Agreement; and (vii) any enforcement by RACER or the DPH Trust of any provision of this Agreement and any cost of removing the DPH Trust from the RACER Property or restoring the same as provided herein. Each Party's release of the other Party and its Representatives hereunder shall survive the termination of this Agreement.

6. Insurance:

a. Prior to entering the RACER Property to conduct Permitted Activities, the DPH Trust or its Representatives shall obtain, and throughout the Term maintain,

insurance against all claims for personal injury (including death), and property damage, under a policy or policies of comprehensive general liability insurance with limits at least equal to $2,000,000 for each bodily injury and property damage from a reputable company or companies. The DPH Trust's environmental consultant performing the Permitted Activities shall obtain, and throughout the Term maintain professional and pollution liability insurance of not less than $5,000,000 combined single limit bodily injury, death and property damage liability per occurrence from a reputable company or companies. The DPH Trust's comprehensive general liabilityinsurance policy and the DPH Trust's environmental consultant's general and pollution liability insurance policies shall name "Revitalizing Auto Communities Environmental Response Trust" and "RACER Properties LLC" as additional insureds.

b. The DPH Trust's environmental consultant performing the Permitted Activities shall obtain, and throughout the Term maintain, workers' compensation insurance to cover any employees engaged in the Permitted Activities.

7. **No Representations:** RACER makes no representations or warranties as to the physical or environmental state of the RACER Property or with respect to its compliance or non-compliance with any law, regulation or ordinance. The DPH Trust expressly assumes any and all dangers, risks, and hazards associated, known or unknown, with its access, use and presence at the RACER Property. All persons who enter upon the RACER Property pursuant to this Agreement do so at their own risk, and shall comply with any and all instructions and directions of RACER provided in writing to the DPH Trust. The DPH Trust shall cause its Representatives to observe strict fire and smoking precautions, and shall ensure that no fires are lighted on the RACER Property and that no firearms or intoxicating liquor shall be carried onto the RACER Property by any persons entering thereon pursuant hereto. Except as otherwise required by law, RACER shall have no duty to inspect the RACER Property and shall have no duty to warn the DPH Trust or its Representatives of any latent or patent defect, condition or risk that may exist in the RACER Property or that might be incurred in the exercise of the rights granted herein.

8. **Liens:** The DPH Trust shall keep the RACER Property free and clear of any liens relating to the Permitted Activities or the acts or omission of the DPH Trust or its Representatives in performing such activities. The DPH Trust, acting in good faith, may contest the validity of any such lien, at its sole expense and liability, provided that it provides to RACER a surety bond in an amount at least equal to the contested lien, including interest and penalties assessed, and releases RACER from all liabilities associated with the contested lien. RACER reserves the right at any time to post and maintain notices of non-responsibility or other notices or disclaimers as may be necessary to protect RACER against liability for all such liens and claims on the RACER Property. The DPH Trust's obligations to RACER

and its Representatives under this paragraph shall survive the termination of this Agreement.

9. **Notice:** The DPH Trust, through its Representatives, will notify RACER two (2) business days before accessing the RACER Property, except in the event of any emergency or where otherwise required by law. All notices required to be given pursuant to this Agreement shall be sent by U.S. Mail or overnight courier (Federal Express or U.P.S.), along with an electronic mail copy to the following addresses:

   a. To RACER:

   Grant Trigger
   Cleanup Manager
   RACER Trust
   500 Woodward Avenue, Suite 2650
   Detroit, MI 48226
   gtrigger@racertrust.org

   Carl Garvey
   General Counsel
   RACER Trust
   500 Woodward Avenue, Suite 2650
   Detroit, MI 48226
   cgarvey@racertrust.org

   RACER Trust
   P.O. 43859
   Detroit, MI 48243

   b. To the DPH Trust:

   Michael Kovacich
   Project Manager
   Tetra Tech, Inc. (on behalf of the DPH Environmental Response Trust)
   710 Avis Drive
   Ann Arbor, MI 48108
   Michael.kovacich@tetratech.com

   Andrew Steinberg
   DPH Environmental Response Trust
   35 East Wacker Drive
   Suite 690
   Chicago, IL 60601
   Andrew.Steinberg@lepetomaneinc.com

   Tanya O'Neill
   Foley & Lardner LLP
   777 E. Wisconsin Avenue
   Milwaukee, WI 53202
   toneill@foley.com

10. **Governing Law/Venue:** The laws of the State of Michigan shall govern the validity, construction, enforcement and interpretation of this Agreement. Any legal suit, action or proceeding arising out of or based upon this Agreement shall be instituted in the United States Bankruptcy Court, Southern District of New York.

11. **Enforcement**: The DPH Trust shall be entitled to enforce the terms of this Agreement by resort to specific performance or legal process without regard to the existence or

nonexistence of any dominant estate. RACER represents that there are no mortgages, liens or other rights of third parties in the RACER Property which could divest any of the rights granted to DPH Trust in this Agreement.

12. **Available Funding**: Anything to the contrary in this Agreement notwithstanding, the DPH Trust shall be required to fulfill any and all obligations under this Agreement only to the extent it has funding available to do so in its Saginaw Environmental Cost Account.

13. **Entire Agreement:** The terms and conditions of this Agreement shall not be modified other than by a written agreement signed by both Parties, all of which together with this Agreement and Exhibits, constitute a fully executed agreement. This Agreement represents the enter agreement between the Parties hereto and supersedes and replaces all prior negotiations or agreements, either written or oral.

14. **Additional Actions and Documents:** The Parties agree to take such additional actions and execute such additional documents as may be reasonably necessary or useful to carry out the transactions contemplated by this Agreement.

15. **Severability:** If any term of this Agreement is found to be unenforceable in any jurisdiction, then such term shall be enforced to the maximum extent permitted by law, rather than voided, and the remaining terms of this Agreement shall remain in full force and effect.

16. **Assignability**: Neither this Agreement, nor any rights hereunder, may be assigned, whether voluntarily or by operation of law.

17. **Waiver of Jury Trial:** RACER AND THE DPH TRUST EACH ACKNOWLEDGES THAT IT IS AWARE OF AND HAS HAD THE ADVICE OF COUNSEL OF ITS CHOICE WITH RESPECT TO ITS RIGHTS TO TRIAL BY JURY, AND EACH PARTY HEREBY EXPRESSLY AND KNOWINGLY WAIVES AND RELEASES ALL SUCH RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER PARTY HERETO AGAINST THE OTHER (AND/OR AGAINST ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, OR SUBSIDIARY OR AFFILIATED ENTITIES) ON OR WITH REGARD TO ANY MATTERS WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT, THE DPH TRUST'S USE OR OCCUPANCY OF THE RACER PROPERTY, AND/OR ANY CLAIM OF INJURY OR DAMAGE.

JS CC DPH Trust Initials _____ RACER Initials

18. **Covenants Running With Land:** The terms of this Agreement are covenants running with the land and inure to the benefit of, and are binding upon, the Parties and their

nonexistence of any dominant estate. RACER represents that there are no mortgages, liens or other rights of third parties in the RACER Property which could divest any of the rights granted to DPH Trust in this Agreement.

12. **Available Funding**: Anything to the contrary in this Agreement notwithstanding, the DPH Trust shall be required to fulfill any and all obligations under this Agreement only to the extent it has funding available to do so in its Saginaw Environmental Cost Account.

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14. **Additional Actions and Documents:** The Parties agree to take such additional actions and execute such additional documents as may be reasonably necessary or useful to carry out the transactions contemplated by this Agreement.

15. **Severability:** If any term of this Agreement is found to be unenforceable in any jurisdiction, then such term shall be enforced to the maximum extent permitted by law, rather than voided, and the remaining terms of this Agreement shall remain in full force and effect.

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_____ DPH Trust Initials _____ RACER Initials

18. **Covenants Running With Land:** The terms of this Agreement are covenants running with the land and inure to the benefit of, and are binding upon, the Parties and their

respective successors and permitted assigns. References to RACER and the DPH Trust include their respective successors and permitted assigns.

19. **Authority:** The Parties or their duly authorized representatives hereby represent and warrant that each has the requisite authority to execute this Agreement, and have signed this Agreement effective on the date specified herein.

20. **Counterparts:** This Agreement may be executed in any number of identical counterparts, each of which shall be deemed and original for all purposes and all of such counterparts together shall constitute one and the same instrument.

[Remainder of this page left blank intentionally; signature pages follow]

Signature page to Easement Agreement between RACER and the DPH Trust

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

RACER (GRANTOR):

Dated as of May 16, 2019

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST,
a trust formed under the laws of the State of New York

By: EPLET, LLC, acting solely in its capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust

By: _____
ELLIOTT P. LAWS, not individually, but acting solely in his capacity as Managing Member

STATE OF Michigan)
) SS:
COUNTY OF Wayne)

On the 16th day of May, 2019 before me a Notary Public for the State and County aforesaid, personally appeared Elliott P. Laws who acknowledged himself to be the Managing Member of EPLET, LLC, as Administrative Trustee of the REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST (the "Trust"), Sole Member of RACER Properties LLC, a Delaware limited liability company, and that he, being authorized to do so, executed the foregoing Easement Agreement on behalf of RACER PROPERTIES LLC, not individually, but solely in his capacity as Managing Member of EPLET, LLC, Administrative Trustee of the Trust, its Sole Member, for the purposes therein contained by signing his name.

WITNESS my hand and seal the day and year aforesaid.

_____
Print Name: Tracie L. Nichols
Notary Public, State of Michigan
County of Wayne
Acting in the County of Wayne
My commission expires: 3/19/23

TRACIE L. NICHOLS
Notary Public, State of Michigan
County Of Wayne
My Commission Expires 03-19-2023
Acting in the County of Wayne

Signature page to Easement Agreement between RACER and the DPH Trust

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the Effective Date.

THE DPH TRUST (GRANTEE):

Dated as of May 21, 2019

DPH Environmental Response Trust,
by and through Le Petomane XXVIII, Inc.,
not individually but solely as Trustee of the
DPH Environmental Response Trust

not individually but solely as Trust

By: _____
Jay A. Steinberg, not individually but solely as President of the DPH Environmental Response Trust Trustee

STATE OF Tennessee)
) SS:
COUNTY OF Williamson)

On the 21st day of May, 2019, before me a Notary Public for the State and County aforesaid, personally appeared Jay A. Steinberg, not individually but solely as President of Le Petomane XXVIII, Inc., not individually but solely in the representative capacity as the Trustee of the DPH Environmental Response Trust, who acknowledged that he, being authorized to do so, executed the foregoing Easement Agreement for the purposes therein contained by signing the name of said entity by himself or herself as such officer of the Trustee.

WITNESS my hand and seal the day and year aforesaid.

_____
Print Name: Todd W. Koller
Notary Public, State of Tennessee
County of Williamson
Acting in the County of Williamson
My commission expires: 11.27.2021

TODD W. KOLLER
STATE OF TENNESSEE NOTARY PUBLIC
COUNTY OF WILLIAMSON

TAX PARCEL IDENTIFICATION NUMBERS: 19-2249-00000 & 19-2231-00100
DRAFTED BY AND WHEN RECORDED MAIL TO:
Carl P. Garvey
General Counsel
Revitalizing Auto Communities Environmental Response Trust
500 Woodward Avenue, Suite 2650
Detroit, Michigan 48226

EXHIBIT 1
LEGAL DESCRIPTION & DEPICTION OF RACER PROPERTY

Land situated in the City of Saginaw, County of Saginaw, State of Michigan, and more particularly described as follows, to wit:

A parcel of land in the Southwest ¼ of Section 35, Township 12 North, Range 4 East described as: Beginning at a point on the West line of said Section 35, 787.14 feet North 00 degrees 36 minutes 00 seconds East of the Southwest corner of said Section; thence continue on said West Section line 535.24 feet; thence South 89 degrees 24 minutes 46 seconds East 300.00 feet; thence South 00 degrees 36 minutes 00 seconds West parallel with said West Section line 536.79 feet to the North line of the South half of side of-called South 80.77 acres of said Southwest ¼; thence North 89 degrees 07 minutes 00 seconds West on said North line 300.00 feet to the point of beginning. Containing 3.69 acres of land, more or less.

And also,

A parcel of land in the Southwest ¼ of Section 35, Township 12 North, Range 4 East described as: Beginning at a point on the West line of said Section 35, 787.14 feet North 00 degrees 36 minutes 00 seconds East of the Southwest corner of said Section; thence continuing North along said West Section line 223.67 feet; thence North 89 degrees 24 minutes 46 seconds West 83.10 feet; thence North 16 degrees 02 minutes 29 seconds West 267.58 feet; South 89 degrees 24 minutes 46 seconds East 157.05 feet; thence along said Section line North 00 degrees 36 minutes 00 seconds East 54.91 feet; thence South 89 degrees 24 minutes 46 seconds East 300.00 feet; thence South 00 degrees 36 minutes 00 seconds West parallel with said West Section line 536.79 feet to the North line of the South half of side of-called South 80.77 acres of said Southwest ¼; thence North 89 degrees 07 minutes 00 seconds West on said North line 300.00 feet to the point of beginning.

Tax Parcel ID(s): 19-2231-00100 and portion of 19-2249-00000.

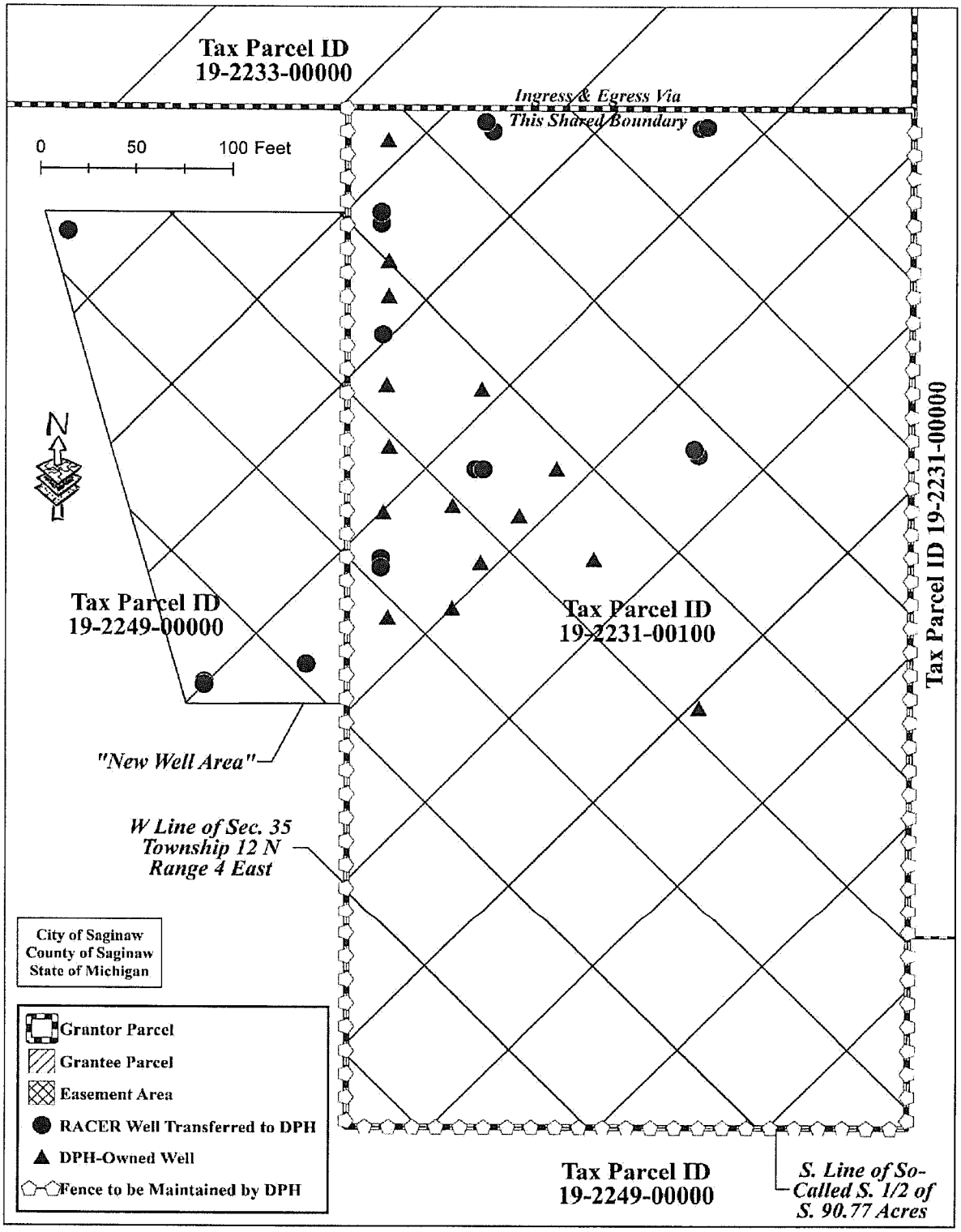

Tax Parcel ID
19-2233-00000
Ingress & Egress Via
This Shared Boundary
0
50
100 Feet
N
Tax Parcel ID
19-2249-00000
Tax Parcel ID
19-2231-00100
Tax Parcel ID 19-2231-00000
"New Well Area"
W Line of Sec. 35
Township 12 N
Range 4 East
City of Saginaw
County of Saginaw
State of Michigan
Grantor Parcel
Grantee Parcel
Easement Area
RACER Well Transferred to DPH
DPH-Owned Well
Fence to be Maintained by DPH
Tax Parcel ID
19-2249-00000
S. Line of So-
Called S. 1/2 of
S. 90.77 Acres

EXHIBIT 2
BILL OF SALE

THIS BILL OF SALE (this "**Bill of Sale**") is made and entered into as of May 21, 2019, by and between the REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST, a trust formed under the laws of the State of New York (the "**Trust**"), and DPH ENVIRONMENTAL RESPONSE TRUST (the "**DPH Trust**"), by and through Le Petomane XXVIII, Inc., not individually, but solely as trustee of the DPH Trust ("**Buyer**").

RECITALS

This Agreement is made with respect to the following facts:

A. The Trust and Buyer entered into an Easement Agreement dated May 21, 2019 (the "**Easement Agreement**") related to real property located at 79 West Center Street, Saginaw, Saginaw County, Michigan (the "**Real Property**").

B. The Trust is the owner of those certain monitoring wells and a staff gauge located, placed or installed on or about the Real Property as depicted and designated on Exhibit A (the "**Personal Property**").

C. In connection with the Easement Agreement, the Trust desires to sell and convey to Buyer the Personal Property.

AGREEMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Transferred Property. The Trust hereby sells, conveys, transfers, assigns, and delivers to Buyer all of the Trust's right, title and interest in and to the Personal Property, "AS-IS," without warranties or representations of any kind whatsoever; provided, however, that Seller hereby warrants that it is the true owner of the Personal Property and has the ability to convey same free and clear of any liens or encumbrances, and binds itself and its successors to warrant and defend the title to the Personal Property as against all persons claiming under Seller, and no others.

2. Binding Effect. This Bill of Sale shall bind and inure to Trust and Buyer and their respective successors and assigns.

3. Counterparts/Facsimile or Electronic Signatures. This Bill of Sale may be executed in a number of identical counterparts, each of which for all purposes shall be deemed an original, and all of such counterparts together shall constitute one and the same Bill of Sale. This Bill of Sale may be executed by facsimile or electronic signature which shall be deemed binding upon the parties with an original to follow via mail.

[Signatures on following page.]

Signature Page to Bill of Sale by and between Revitalizing Auto Communities Environmental Response Trust and DPH Environmental Response Trust

IN WITNESS WHEREOF, Trust and Buyer have executed this Bill of Sale as of the date set forth above.

TRUST:

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST, a trust Formed under the laws of the State of New York

By: EPLET, LLC, acting solely in its capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust

By: _____
ELLIOTT P. LAWS, not individually, but acting solely in his capacity as Managing Member

BUYER:

DPH Environmental Response Trust, by and through Le Petomane XXVIII, Inc., not individually but solely as Trustee of the DPH Environmental Response Trust

By: _____
Jay A. Steinberg, not individually but solely as President of the DPH Environmental Response Trust Trustee

Signature Page to Bill of Sale by and between Revitalizing Auto Communities Environmental Response Trust and DPH Environmental Response Trust

IN WITNESS WHEREOF, Trust and Buyer have executed this Bill of Sale as of the date set forth above.

TRUST:

REVITALIZING AUTO COMMUNITIES ENVIRONMENTAL RESPONSE TRUST, a trust Formed under the laws of the State of New York

By: EPLET, LLC, acting solely in its capacity as Administrative Trustee of Revitalizing Auto Communities Environmental Response Trust

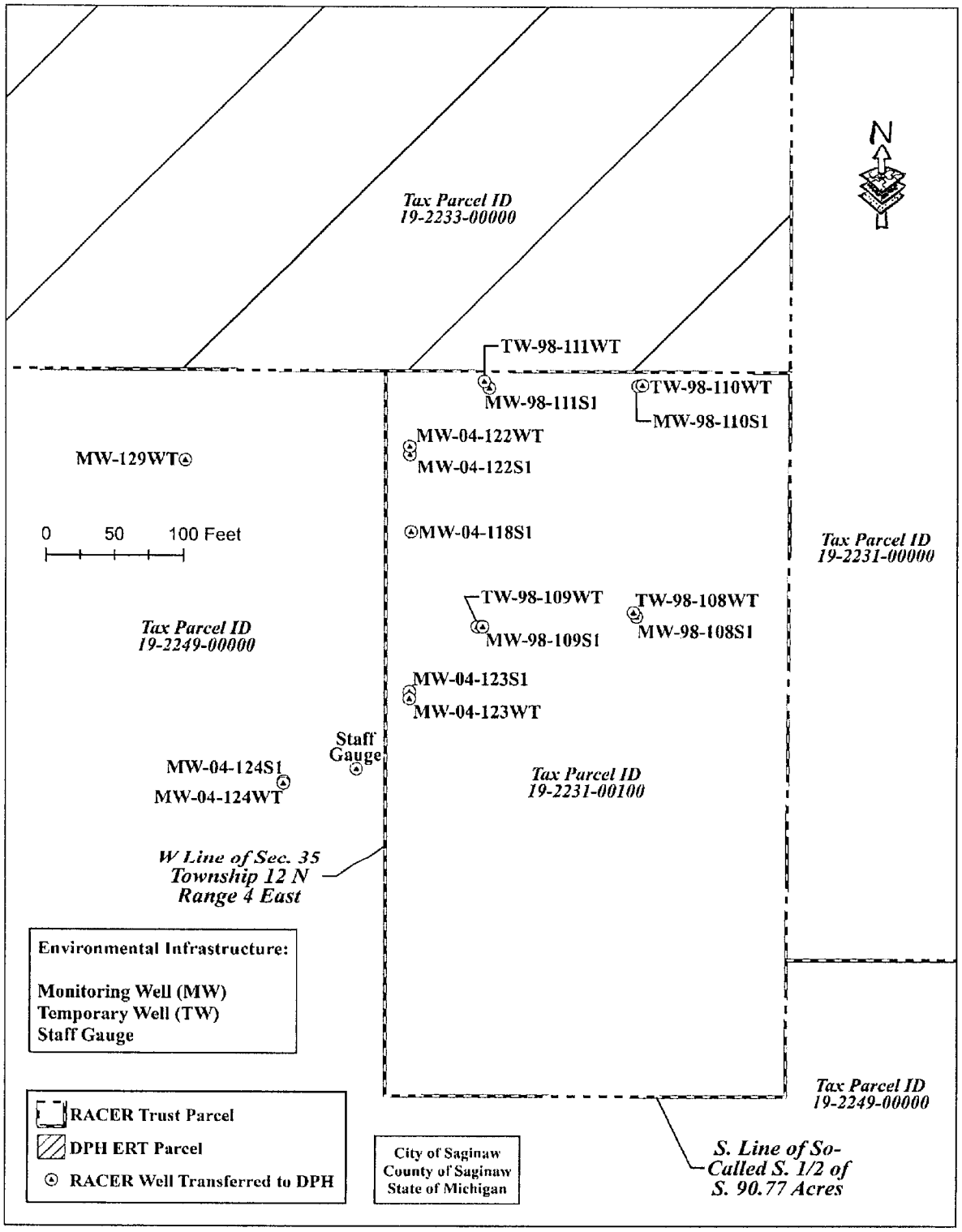
By: _____
ELLIOTT P. LAWS, not individually, but acting solely in his capacity as Managing Member

BUYER:

DPH Environmental Response Trust, by and through Le Petomane XXVIII, Inc., not individually but solely as Trustee of the DPH Environmental Response Trust

By: _____
Jay A. Steinberg, not individually but solely as President of the DPH Environmental Response Trust Trustee

EXHIBIT A



4823-5781-4136.11

ATTACHMENT 2

Monitoring Well Abandonment Record

ARCADIS Design & Consultancy for natural and built assets

MONITOR WELL ABANDONMENT RECORD

Site Name: Racer Saginaw County: Saginaw

Well ID#: .

Date Installed: Date Abandoned: Drilling Firm:

Well Depth: ft Screen Depth from TOC: ft Water Table Depth from TOC: ft

Casing Type: Galvanized ☐ PVC ☐ Stainless Steel ☐ ID: 2" ☐ 4" ☐

Screen Type: PVC ☐ Stainless Steel ☐ Length: ft

2" Annulus Grouted: Yes ☐ No ☐ from ft to ft Grout Type

4" Annulus Grouted: Yes ☐ No ☐ from ft to ft Grout Type:

Casing: Pulled ☐ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☐

Grout Type: Bentonite ☐ Cement ☐ Grouting Method: Through Casing ☐ Tremie ☐ Other ☐ (explain)

Crew: Location Sketch:

Comments:

Signature of Consultant/Engineer Date

Printed Name of Consultant/Engineer Date

Attachment 2

Abandonment Documentation

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-01-119S1

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-01-119S1

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 28.32 ft

Screen Depth from TOC (ft): 28.35 ft

Water Table Depth from TOC: 6.78 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from 28.35 ft to 2 ft Grout Type: Cement

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☑ No ☐

Grout Type: Bentonite ☐ Cement ☑ Chips ☐

Grouting Method: Through Casing ☑ Tremie ☐ Poured ☑

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. As the well was pulled from the ground, cement grout was placed from the bottom of the well by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well, filling the void space upward as the casing was being pulled to within two feet of the ground surface in one continuous operation.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-01-119S1

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-119WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW04-119WT

Project Number: 30076323

Date Installed: 9/1/2004

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 16.96 ft

Screen Depth from TOC (ft): 16.96 ft

Water Table Depth from TOC: 7.02 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-119WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-121S1

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW04-121S1

Project Number: 30076323

Date Installed: 9/1/2004

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 25.05 ft

Screen Depth from TOC (ft): 25.04 ft

Water Table Depth from TOC: 10.55 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from 25.04 ft to 2 ft Grout Type: Cement

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [✓] No [ ]

Grout Type: Bentonite [ ] Cement [✓] Chips [ ]

Grouting Method: Through Casing [✓] Tremie [ ] Poured [✓]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. As the well was pulled from the ground, cement grout was placed from the bottom of the well by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well, filling the void space upward as the casing was being pulled to within two feet of the ground surface in one continuous operation.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-121S1

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-121WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW04-121WT

Project Number: 30076323

Date Installed: 9/1/2004

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 18.38 ft

Screen Depth from TOC (ft): 18.38 ft

Water Table Depth from TOC: 9.66 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW04-121WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-05

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-05

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 20.5 ft

Screen Depth from TOC (ft): 20.53 ft

Water Table Depth from TOC: 9.85 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from ft to ft Grout Type:

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [ ] No [✓]

Grout Type: Bentonite [ ] Cement [ ] Chips [✓]

Grouting Method: Through Casing [ ] Tremie [ ] Poured [ ]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-05

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-06

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-06

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.84 ft

Screen Depth from TOC (ft): 19.84 ft

Water Table Depth from TOC: 9.22 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-06

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-07

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-07

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.83 ft

Screen Depth from TOC (ft): 19.81 ft

Water Table Depth from TOC: 9.51 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-07

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-08

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-08

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.84 ft

Screen Depth from TOC (ft): 19.82 ft

Water Table Depth from TOC: 8.76 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-08

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-09

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-09

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.5 ft

Screen Depth from TOC (ft): 19.54 ft

Water Table Depth from TOC: 9.43 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-09

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-10

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-10

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 20.12 ft

Screen Depth from TOC (ft): 9.39 ft

Water Table Depth from TOC: 20.12 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-10

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-11

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-11

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 8.39 ft

Screen Depth from TOC (ft): 19.11 ft

Water Table Depth from TOC: 8.37 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-11

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-14

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-14

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 22.77 ft

Screen Depth from TOC (ft): 22.64 ft

Water Table Depth from TOC: 9.18 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-14

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-15

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-11-15

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 22.55 ft

Screen Depth from TOC (ft): 22.68 ft

Water Table Depth from TOC: 9.18 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-11-15

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-01

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-12-01

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.67 ft

Screen Depth from TOC (ft): 20.72 ft

Water Table Depth from TOC: 8.65 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from ft to ft Grout Type:

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [ ] No [✓]

Grout Type: Bentonite [ ] Cement [ ] Chips [✓]

Grouting Method: Through Casing [ ] Tremie [ ] Poured [ ]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-01

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-02

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-12-02

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.69 ft

Screen Depth from TOC (ft): 8.92 ft

Water Table Depth from TOC: 19.63 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-02

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-03

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-12-03

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.63 ft

Screen Depth from TOC (ft): 9.21 ft

Water Table Depth from TOC: 19.71 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-03

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-04

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-12-04

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 20.72 ft

Screen Depth from TOC (ft): 8.46 ft

Water Table Depth from TOC: 20.72 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-04

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-05

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-12-05

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 20.74 ft

Screen Depth from TOC (ft): 20.74 ft

Water Table Depth from TOC: 8.89 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from ft to ft Grout Type:

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [ ] No [✓]

Grout Type: Bentonite [ ] Cement [ ] Chips [✓]

Grouting Method: Through Casing [ ] Tremie [ ] Poured [ ]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-12-05

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-144WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-144WT

Project Number: 30076323

Date Installed: 6/7/1995

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 15.1 ft

Screen Depth from TOC (ft): 15.1 ft

Water Table Depth from TOC: 7.75 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-144WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-150WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW-150WT

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 16.35 ft

Screen Depth from TOC (ft): 16.2 ft

Water Table Depth from TOC: 4.01 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW-150WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW97-105S1

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW97-105S1

Project Number: 30076323

Date Installed: 11/18/1997

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 23.08 ft

Screen Depth from TOC (ft): 23.09 ft

Water Table Depth from TOC: 8.59 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from ft to ft Grout Type:

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [ ] No [✓]

Grout Type: Bentonite [ ] Cement [ ] Chips [✓]

Grouting Method: Through Casing [ ] Tremie [ ] Poured [ ]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW97-105S1

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW97-105WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: MW97-105WT

Project Number: 30076323

Date Installed: 11/18/1997

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 16.42 ft

Screen Depth from TOC (ft): 16.43 ft

Water Table Depth from TOC: 9.15 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: MW97-105WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-01D

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-01D

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 30.59 ft

Screen Depth from TOC (ft): 30.57 ft

Water Table Depth from TOC: 8.56 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from 30.57 ft to 2 ft Grout Type: Cement

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [✓] No [ ]

Grout Type: Bentonite [ ] Cement [✓] Chips [ ]

Grouting Method: Through Casing [✓] Tremie [ ] Poured [✓]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. As the well was pulled from the ground, cement grout was placed from the bottom of the well by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well, filling the void space upward as the casing was being pulled to within two feet of the ground surface in one continuous operation.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-01D

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-01WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-01WT

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 19.66 ft

Screen Depth from TOC (ft): 19.61 ft

Water Table Depth from TOC: 8.07 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-01WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-02D

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-02D

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 25.28 ft

Screen Depth from TOC (ft): 25.25 ft

Water Table Depth from TOC: 8.32 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from 25.25 ft to 2 ft Grout Type: Cement

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☑ No ☐

Grout Type: Bentonite ☐ Cement ☑ Chips ☐

Grouting Method: Through Casing ☑ Tremie ☐ Poured ☑

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. As the well was pulled from the ground, cement grout was placed from the bottom of the well by knocking out the bottom of the well casing and pumping in the grout at the bottom of the well, filling the void space upward as the casing was being pulled to within two feet of the ground surface in one continuous operation.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-02D

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-02WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-02WT

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 16.79 ft

Screen Depth from TOC (ft): 16.79 ft

Water Table Depth from TOC: 8.83 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-02WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos





MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-03D

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-03D

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 20.46 ft

Screen Depth from TOC (ft): 20.47 ft

Water Table Depth from TOC: 8.25 ft

Casing Type: Galvanized [ ] PVC [✓] Stainless Steel [ ] ID: 2in [✓] 4in [ ]

Screen Type: PVC [✓] Stainless steel [ ] Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes [✓] No [ ] from ft to ft Grout Type:

4in Annulus Grouted: Yes [ ] No [ ] from __ ft to __ ft Grout Type: _____

Casing: Pulled [✓] Cut [ ] Depth BGS: Well Grouted? Yes [ ] No [✓]

Grout Type: Bentonite [ ] Cement [ ] Chips [✓]

Grouting Method: Through Casing [ ] Tremie [ ] Poured [ ]

Other [ ] Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-03D

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-03WT

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-06-03WT

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/19/2021

Subcontractor: Job Site Services

Well Depth: 16.69 ft

Screen Depth from TOC (ft): 16.69 ft

Water Table Depth from TOC: 8.22 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 10 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-06-03WT

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-07-02

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-07-02

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 15.54 ft

Screen Depth from TOC (ft): 4.38 ft

Water Table Depth from TOC: 15.54 ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The well casing was removed from the ground by pulling the well from the subsurface. Bentonite pellets were used to seal the wells space after the casing was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-07-02

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-07-02 Staff Gauge

Site Name: RACER Saginaw

County: Saginaw

Well ID: TW-07-02 Staff Gauge

Project Number: 30076323

Date Installed: NA

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: ft

Screen Depth from TOC (ft): NA ft

Water Table Depth from TOC: NA ft

Casing Type: Galvanized ☐ PVC ☐ Stainless Steel ☐ ID: 2in ☐ 4in ☐

Screen Type: PVC ☐ Stainless steel ☐ Abandoned Screen Length: ft

2in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☑ Cut ☐ Depth BGS: Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. The TW-07-02 staff gauge was removed from the ground by pulling the staff gauge from the subsurface. Bentonite pellets were used to seal the void space after the staff gauge was pulled. Bentonite pellets were hydrated after placement.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: TW-07-02 Staff Gauge

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Additional Photos



MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: X-20

Site Name: RACER Saginaw

County: Saginaw

Well ID: X-20

Project Number: 30076323

Date Installed: 2/21/1979

Date Abandoned: 1/20/2021

Subcontractor: Job Site Services

Well Depth: 7.7 ft

Screen Depth from TOC (ft): NA ft

Water Table Depth from TOC: NA ft

Casing Type: Galvanized ☐ PVC ☑ Stainless Steel ☐ ID: 2in ☑ 4in ☐

Screen Type: PVC ☑ Stainless steel ☐ Abandoned Screen Length: 5 ft

2in Annulus Grouted: Yes ☑ No ☐ from ft to ft Grout Type:

4in Annulus Grouted: Yes ☐ No ☐ from __ ft to __ ft Grout Type: _____

Casing: Pulled ☐ Cut ☑ Depth BGS: 1 Well Grouted? Yes ☐ No ☑

Grout Type: Bentonite ☐ Cement ☐ Chips ☑

Grouting Method: Through Casing ☐ Tremie ☐ Poured ☐

Other ☐ Grouting Method Other:

Crew: Ian Rahn and Scott Valentine

Comments: See Figure 2: Proposed Well Abandonment Location SMI and GPL. Water level frozen at 0.46ft TOC. The well casing was cut 1ft below ground after pulling the protective stick up cover from the subsurface. After cutting the well below ground it was determined that the well was previously as the well casing was filled with cement grout.

Notes:

ft - feet in - inches TOC - Top of Casing

ID - Inside Diameter BGS - Below ground surface

MONITOR WELL ABANDONMENT RECORD

Site Name : RACER Saginaw

Well ID: X-20

Location Sketch: See attached site map

Well before Abandonment



Well after Abandonment



Signature Of Consultant

Arcadis / Staff Geologist

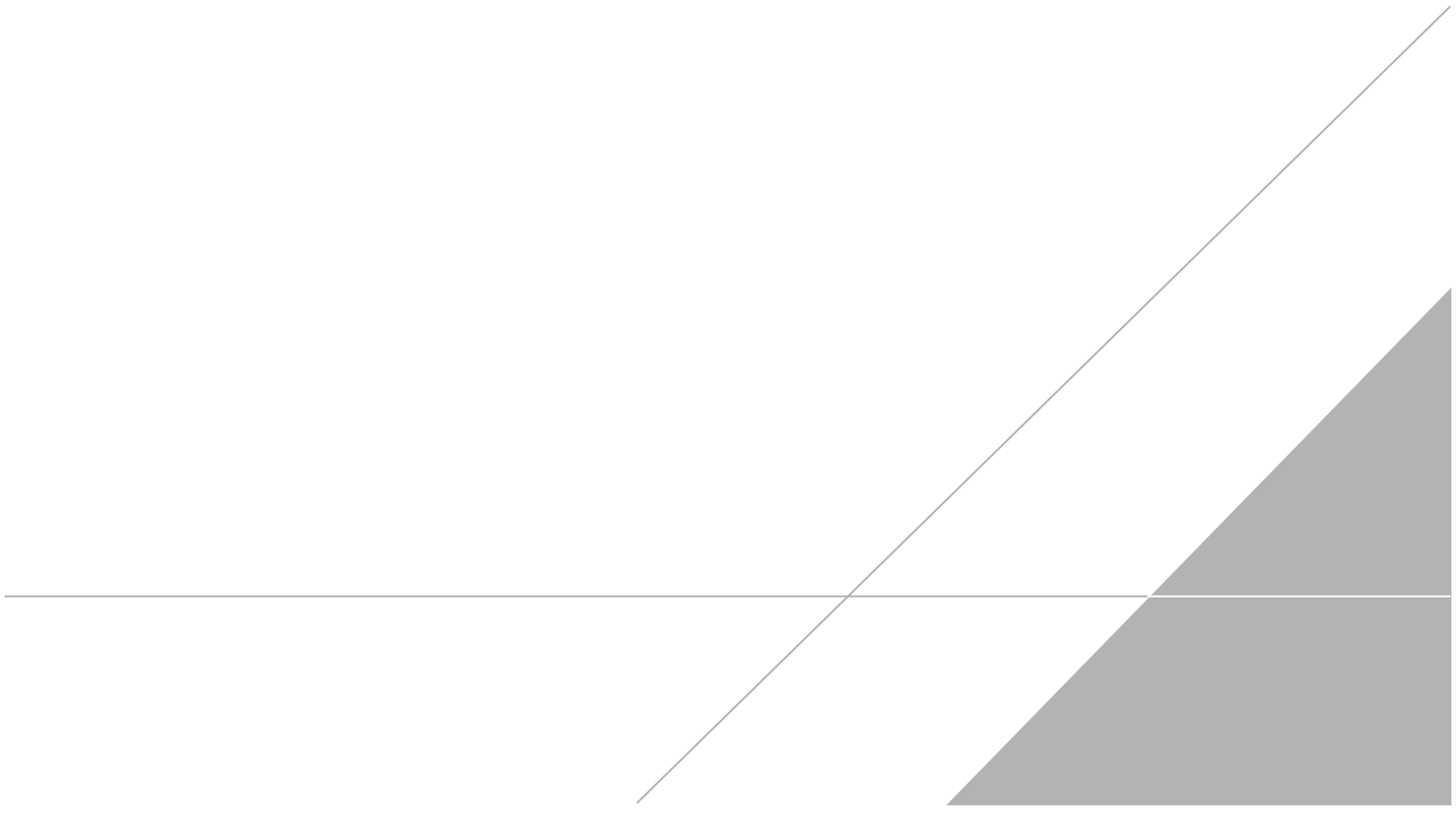
Company / Position

1/20/2021

Date

ATTACHMENT 2

SMI Well Construction Logs, Sampling Parameters and Field Parameters



Attachment 2
Monitoring Well Sampling Plan and Construction Summary
2021 Annual Report
RACER Trust
Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Screen Interval (ft bgs)[1]	Screened Unit/Zone	Well Construction	Date Installed	TIC[2] Elevation (ft AMSL)[3]
B-3R	16-26	Upper Sand	2” PVC	5/22/1995	609.51
MW-107WT	4-9	Water Table	2" PVC	12/23/1994	590.65
MW-107S1	12.5-17.5	Upper Sand	2" PVC	12/23/1994	590.74
MW-108WT	2.5-7.5	Water Table	2" PVC	12/21/9194	590.53
MW-108S2	22-27	Upper Sand	2" PVC	12/21/1994	590.26
MW-110WTR	3-8	Water Table	2" PVC	11/9/2001	591.52
MW-111WT	5.5-10.5	Water Table	2" PVC	1/6/1995	590.95
MW-114WT	3.5-8.5	Water Table	2" PVC	1/10/1995	591.12
MW-114S2	22.5-27.5	Upper Sand	2" PVC	1/10/1995	591.20
MW-131WT	2-12	Water Table	2" PVC	1/13/1995	592.56
MW-134WT	4-9	Water Table	2" PVC	1/9/1995	594.02
MW-149WT	7-17	Water Table	2" PVC	9/21/1995	592.27
MW-185WT	3-8	Water Table	2" PVC	11/8/2001	588.67
MW-186WT	8-18	Water Table	2" PVC	NA	590.34
QPTW-13R	4-14	Water Table	2” PVC	8/16/2017	594.04

Notes:

[1] Depths are in feet below ground surface (ft bgs)

[2] TIC = top of inner casing

[3] Elevations are in feet above mean sea level (ft AMSL)

“ PVC = inch polyvinyl chloride

NA = not available

Attachment 2
Groundwater Sampling Analytical Parameters
RACER Saginaw Malleable Industrial Land
Saginaw, Michigan

ARCADIS Design & Consultancy for natural and built assets

Constituent & Preservative - Container Description

Well ID	Proposed Monitoring Plan (2020)	Ultra Low Flow Locaton [1]	Ammonia Nitrogen H_2SO_4 - 500mL Poly	Phosphorus H_2SO_4 - 500mL Poly	Total Arsenic HNO_3 - 500mL Poly	Dissolved Arsenic unpreserved - 500mL Poly	Total Manganese HNO_3 - 500mL Poly	SVOCs unpreserved - 2x1L Amber	Total PCBs unpreserved - 2x1L Amber	Dissolved PCBs unpreserved - 2x1L Amber	PFAS unpreserved - 2x250mL HDPE	screen interval	QAQC/Comments
MW-107WT	Ammonia nitrogen, phosphorus,arsenic (total and dissolved), and total manganese		X	X	X	X	X					4-9	MS/MSD for ammonia nitrogen, phosphorus, total and dissolved arsenic, and total manganese
MW-108WT	SVOCs, ammonia nitrogen, phosphorus, total manganese, and PFAS		X	X			X	X			X	2.5-7.5	Duplicate for SVOCs MS/MSD for SVOCs
MW-110WTR	PCBs (total and dissolved,) ammonia nitrogen, phosphorus, and total manganese	X	X	X			X		X	X		3-8	Duplicate for total manganese
MW-111WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	X	X	X			X		X	X		5.5-10.5	Duplicate for total and dissolved PCBs
MW-114WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	X	X	X			X		X	X		3.5-8.56	
MW-149WT	Ammonia nitrogen, phosphorus, and arsenic (total and dissolved)		X	X	X	X						7-17	Duplicate for ammonia nitrogen, phosphorus, and total and dissolved arsenic
MW-185WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	X	X	X			X		X	X		3-8	
MW-186WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	X	X	X			X		X	X		8-18	MS/MSD for total and dissolved PCBs
MW-107S1	Ammonia nitrogen		X									12.5-17.5	
MW-108S2	Ammonia nitrogen		X									22-27	Duplicate for ammonia nitrogen
MW-114S2	Ammonia nitrogen		X									22.5-27.5	
MW-131WT	PFAS										X	2-12	
MW-134WT	PFAS										X	4-9	
B-3R	PFAS										X	16-26	
QPTW-13R	PFAS										X	4-14	Duplicate for PFAS Equipment Blank for PFAS

Notes:
[1]Ultra Low Flow (ULF) sampling refers to the use of a purge and sampling rate of approximately 50 millileters per minute, implemented to minimize sample turbidity.
HDPE = high-density ploye thylene
HNO_3 = nitric acid
H_2SO_4 = sulfuric acid
L = liter
mL = milliliter
MS/MSD = matrix spike/matrix spike duplicate
PCB = polychlorinated biphenols
PFAS = per- and ploy fluoroalkyl substances
SVOC = semi volatile organic compound

Attachment 2
Field Parameters, 2021 Annual Report
RACER Trust Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
B-3R	**8/11/20**	0.94	0.27	-236	7.99	16.3	4.55
B-3R	**8/19/21**	0.799	0.06	-231.5	8.09	15.8	20.80
MW-107S1	**9/30/10**	1.258	0.4	-104.2	7.54	22.9	0.35
MW-107S1	**9/21/11**	1.26	0.90	-111.7	7.11	14.93	0.6
MW-107S1	**9/17/12**	1.109	-[2]	-83.0	7.19	15.3	1.02
MW-107S1	**9/25/13**	3.474	0.79	180.3	7.41	12.70	0.1
MW-107S1	**9/24/14**	1.149	3.03	-76.8	7.40	12.68	2.3
MW-107S1	**10/1/15**	1.52	0.19	74.33	7.13	14.24	8.2
MW-107S1	**9/29/16**	0.547	0.49	9.54	7.03	14.29	1.8
MW-107S1	**8/30/17**	1.237	0.52	-91.8	7.34	17.00	1.55
MW-107S1	**9/26/18**	1.11	0.26	-90.1	7.09	14.2	0.02
MW-107S1	**8/21/19**	1.37	0.10	-82.4	7.34	15.5	0.02
MW-107S1	**8/11/20**	1.36	0.12	-131.2	7.46	17.5	0.02
MW-107S1	**8/20/21**	1.186	0.08	-135.7	7.45	17.9	1.46
MW-107WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-107WT[1]	**9/18/12**	NA	NA	NA	NA	NA	11.0
MW-107WT[1]	**9/26/13**	NA	NA	NA	NA	NA	93.2
MW-107WT[1]	**9/24/14**	0.861	0.64	-88.8	6.94	14.26	1.3
MW-107WT	**10/1/15**	1.239	5.06	-110.08	7.18	18.11	1.9
MW-107WT	**9/29/16**	0.401	0.62	35.2	6.90	15.59	1.05
MW-107WT	**8/30/17**	0.928	8.9	78	7.23	21.6	1.26
MW-107WT	**9/26/18**	0.87	0.91	-29.3	6.96	18.1	0.71
MW-107WT	**8/21/19**	0.91	0.57	70.4	7.05	20.4	0.02
MW-107WT	**8/11/20**	0.88	1.01	48.4	7.11	20.3	0.02
MW-107WT	**8/20/21**	0.813	0.19	-162.1	7.53	16.9	1.42

Attachment 2
Field Parameters, 2021 Annual Report
RACER Trust Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-108S2	**9/28/10**	1.142	0.12	-116.6	7.52	13.87	0.4
MW-108S2	**9/21/11**	0.808	0.63	-96.9	7.51	13.87	3.8
MW-108S2	**9/17/12**	0.901	0.28	-238.8	7.38	13.23	0.83
MW-108S2	**9/26/13**	2.641	0.37	160.1	7.49	12.37	0.8
MW-108S2	**9/24/14**	Missing field notes					
MW-108S2	**10/1/15**	1.062	0.14	103.92	7.59	13.47	8.9
MW-108S2	**9/29/16**	0.395	0.52	7.28	7.10	15	1.43
MW-108S2	**8/30/17**	0.644	0.36	-124.3	7.61	16.5	1.92
MW-108S2	**9/26/18**	0.63	1.45	-83.7	7.25	12.1	0.02
MW-108S2	**8/21/19**	0.95	0.27	-138.8	7.44	18.9	0.02
MW-108S2	**8/11/20**	0.89	0.24	-87.1	7.48	17	7.34
MW-108S2	**8/19/21**	1.03	0.15	-110.9	7.27	18.4	5.95
MW-108WT	**DRY 2010 through 2014**	NA	NA	NA	NA	NA	NA
MW-108WT	**9/29/16**	0.310	0.51	4.45	6.55	16.59	0.87
MW-108WT	**8/30/17**	Purged dry, sampled on 8/31/17					
MW-108WT	**9/27/18**	0.62	0.52	158.4	6.30	14.10	0.80
MW-108WT	**8/21/19**	0.74	0.32	58.1	6.86	22.3	0.02
MW-108WT	**8/13/20**	0.70	0.21	-44.1	6.86	21.9	1.75
MW-108WT	**8/19/21**	0.78	0.87	-36.1	6.9	23.2	1.01
MW-110WTR	**DRY 2010 through 2013**	NA	NA	NA	NA	NA	NA
MW-110WTR	**9/24/14**	Missing field notes					
MW-110WTR	**10/1/15**	2.198	0.62	-117.47	6.91	14.07	7.71
MW-110WTR	**9/29/16**	0.683	0.52	-29.39	6.47	14.6	0.86
MW-110WTR	**8/31/17**	1.133	0.51	-100.1	6.67	16	1.9
MW-110WTR	**9/27/18**	1.28	0.93	-51.7	6.32	16.0	0.94
MW-110WTR	**8/21/19**	0.98	0.31	-87.9	7.07	18.8	0.02
MW-110WTR	**8/12/20**	0.94	0.59	-55	6.85	16.9	0.02
MW-110WTR	**8/19/21**	1.06	0.18	-84.4	6.77	20.5	1.96

Attachment 2
Field Parameters, 2021 Annual Report
RACER Trust Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
MW-111WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-111WT[1]	**9/18/12**	NA	NA	NA	NA	NA	5.36
MW-111WT[1]	**9/26/13**	NA	NA	NA	NA	NA	6.62
MW-111WT	**9/23/14**	Missing field notes					
MW-111WT	**10/1/15**	1.206	0.21	109.71	7.05	13.09	6.34
MW-111WT	**9/29/16**	0.403	0.5	-32.78	6.66	15.43	1.02
MW-111WT	**8/31/17**	0.762	0.47	-66.9	7.25	18.8	1.85
MW-111WT	**9/27/18**	0.84	0.21	-43.7	6.91	17.7	0.02
MW-111WT	**8/22/19**	0.83	0.07	-164.8	7.11	17.3	8.46
MW-111WT	**8/12/20**	0.78	0.21	-155.7	7.17	21.7	0.02
MW-111WT	**8/23/21**	0.82	0.38	-118.2	6.91	20.8	0.74
MW-114S2	**9/29/10**	0.69	0.10	-118.5	8.40	16.43	1.0
MW-114S2	**9/22/11**	0.929	1.83	-109.6	7.20	16.3	1.1
MW-114S2	**9/18/12**	0.809	7.67	-21.1	7.25	14.25	3.47
MW-114S2	**9/25/13**	2.810	0.63	-206.2	7.37	14.15	0.2
MW-114S2	**9/23/14**	0.637	0.07	-113.4	6.73	15.96	1.3
MW-114S2	**10/1/15**	0.650	0.36	127.66	7.29	14.04	5.5
MW-114S2	**9/29/16**	0.257	0.45	-42.57	6.96	16.01	1.02
MW-114S2	**9/1/17**	0.7833	0.56	-119.2	7.33	16.1	1.95
MW-114S2	**9/28/18**	0.487	0.55	-19.6	6.62	14.6	4.33
MW-114S2	**8/22/19**	0.555	0.53	35.4	7.28	17.6	3.28
MW-114S2	**8/13/20**	0.71	0.36	-28.2	6.45	17.1	3.83
MW-114S2	**8/20/21**	0.52	0.13	-64.9	7.21	18.3	1.94

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
MW-114WT	**DRY 2010, 2011 and 2012**	NA	NA	NA	NA	NA	NA
MW-114WT[1]	**9/25/13**	NA	NA	NA	NA	NA	12.3
MW-114WT	**9/23/14**	0.705	0.19	-88.1	6.43	20.25	0.98
MW-114WT	**10/1/15**	1.026	1.16	112.83	6.67	16.22	8.68
MW-114WT	**9/29/16**	0.277	0.66	-21.73	6.77	18.51	1.39
MW-114WT	**8/31/17**	0.527	0.41	-146.1	7.11	19.7	1.96
MW-114WT	**9/28/18**	0.59	0.71	26.3	6.72	16.1	0.02
MW-114WT	**8/22/19**	0.58	0.18	-126.6	6.99	22.5	9.63
MW-114WT	**8/13/20**	0.51	0.04	-153.7	7.21	25.4	0.72
MW-114WT	**8/20/21**	0.73	0.26	-96.3	7.05	20.4	1.71
MW-131WT	**8/11/20**	0.75	0.12	-122.4	7.21	19.5	0.53
MW-131WT	**8/19/21**	0.581	0.09	-148.8	7.57	19	1.88
MW-134WT	**8/11/20**	1.19	10	-129.5	7	17.3	0.93
MW-134WT	**8/19/21**	0.835	0.11	-135.9	7.06	18.5	1.44
MW-149WT	**9/30/10**	1.395	0.53	-133.4	6.91	12.79	1.6
MW-149WT	**9/28/11**	1.441	0.43	-136.6	6.77	13.79	1.7
MW-149WT	**9/18/12**	1.161	-[2]	-75.0	6.73	14.03	0.72
MW-149WT	**9/25/13**	4.722	0.28	-150.7	6.70	14.93	1.25
MW-149WT	**9/24/14**	Missing field notes					
MW-149WT	**10/1/15**	1.234	0.21	87.25	6.82	13.16	5.58
MW-149WT	**9/29/16**	0.455	0.56	48.33	6.50	14.93	1.89
MW-149WT	**8/30/17**	1.014	0.34	-82.8	7.13	16.1	1.92
MW-149WT	**9/26/18**	1.05	0.56	-71.2	6.42	15.0	0.02
MW-149WT	**8/21/19**	1.07	0.27	-113.4	6.86	17.4	0.21
MW-149WT	**8/11/20**	0.86	0.16	-127.9	7.03	14.6	0.02
MW-149WT	**8/11/21**	0.856	0.11	-118	6.91	16.1	4.60

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
MW-185WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-185WT[1]	**9/18/12**	NA	NA	NA	NA	NA	27.7
MW-185WT[1]	**9/25/13**	NA	NA	NA	NA	NA	19.7
MW-185WT	**9/24/14**	0.48	0.29	-125.7	7.75	22.01	1.65
MW-185WT	**10/1/15**	0.597	0.67	-150.33	7.91	14.87	5.67
MW-185WT	**9/29/16**	0.213	0.37	74.88	7.18	19.12	1.05
MW-185WT	**8/31/17**	0.417	0.7	-6.6	7.94	20.9	1.89
MW-185WT	**9/27/18**	0.420	0.46	69.2	7.24	18.6	0.02
MW-185WT	**8/22/19**	0.417	0.95	80.5	7.55	20.6	0.02
MW-185WT	**8/14/20**	0.429	0.31	203.4	7.62	20.4	1.48
MW-185WT	**8/23/21**	0.560	0.26	63.8	7.62	23.2	1.98
MW-186WT	**9/29/10**	0.53	0.39	-130.1	7.88	14.52	0.6
MW-186WT	**9/28/11**	0.94	1.68	-136	8.04	14.18	0.5
MW-186WT	**9/18/12**	0.748	4.43	-222.8	7.43	15.07	0.60
MW-186WT	**9/25/13**	2.239	0.48	-104.2	6.86	16.15	0.5
MW-186WT	**9/24/14**	0.853	0.24	-124.9	6.50	18.99	1.5
MW-186WT	**10/1/15**	0.597	0.67	-150.33	7.91	14.87	5.7
MW-186WT	**9/29/16**	0.295	0.46	99.39	6.90	15.47	2.43
MW-186WT	**8/31/17**	0.529	0.35	-120.1	7.36	20.6	1.97
MW-186WT	**9/27/18**	0.477	0.28	-143.6	7.29	16.8	9.05
MW-186WT	**8/22/19**	0.583	0.87	89.5	7.26	21.3	4.90
MW-186WT	**8/12/20**	0.435	0.16	173.5	7.62	20.5	3.53
MW-186WT	**8/24/21**	0.547	0.38	-119.8	6.96	18.9	0.65

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
QPTW-13R	**8/11/20**	1.040	0.13	-88.3	6.89	18.7	4.23
QPTW-13R	**8/19/21**	1.064	0.09	-67.2	6.84	20	4.22

Notes:
ºC = Celsius
mg/L = milligrams per liter
mV = millivolts
NTUs = Nephelometric Turbidity Units
SU = Standard Units.
mS/cm = milliSiemens per centimeter.
NA = not applicable/not available.
1. Monitoring well purged dry upon sampling. Well was allowed to recharge and then a sample was collected. Only turbidity was measured prior to sampling.
2. No reading due to faulty dissolved oxygen sensor.

ATTACHMENT 3

Laboratory Analytical Reports

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Arcadis

Racer Saginaw; 77 W Center St, Saginaw, MI

30076323

SGS Job Number: FA88259

Sampling Dates: 08/17/21 - 08/18/21

Report to:

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Total number of pages in report: 56

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

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Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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SGS North America Inc.

Sample Summary

Arcadis

Job No: FA88259

Racer Saginaw; 77 W Center St, Saginaw, MI
Project No: 30076323

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88259-1	08/17/21	11:55	WCAW	08/20/21	AQ	Ground Water	MW-118WT_08172021
FA88259-2	08/17/21	15:10	WCAW	08/20/21	AQ	Ground Water	MW-117SI_08172021
FA88259-3	08/17/21	16:55	WCAW	08/20/21	AQ	Ground Water	MW-117WT_08172021
FA88259-4	08/18/21	09:45	WCAW	08/20/21	AQ	Ground Water	MW-122WT_08182021
FA88259-5	08/18/21	11:35	WCAW	08/20/21	AQ	Ground Water	TWW-1_08182021
FA88259-6	08/18/21	08:45	WCAW	08/20/21	AQ	Ground Water	X-9AR_08182021
FA88259-7	08/18/21	15:35	WCAW	08/20/21	AQ	Ground Water	X-10AR2_08182021
FA88259-7D	08/18/21	15:35	WCAW	08/20/21	AQ	Water Dup/MSD	X-10AR2_08182021
FA88259-7S	08/18/21	15:35	WCAW	08/20/21	AQ	Water Matrix Spike	X-10AR2_08182021
FA88259-8	08/18/21	17:20	WCAW	08/20/21	AQ	Ground Water	X-2A_08182021
FA88259-9	08/18/21	00:00	WCAW	08/20/21	AQ	Ground Water	DUP-03_08182021
FA88259-10	08/18/21	18:00	WCAW	08/20/21	AQ	Equipment Blank	EB-01_08182021

Summary of Hits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88259-1	**MW-118WT_08172021**					
Perfluorobutanoic acid [a]		49.4	36	18	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid [a]		23.0	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid [a]		21.1	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid [a]		6.1 J	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		5.3	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-2	**MW-117SI_08172021**					
No hits reported in this sample.						
FA88259-3	**MW-117WT_08172021**					
Perfluorobutanoic acid [b]		449	36	18	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid [b]		134	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid [b]		114	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid [a]		18.7	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		5.5	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-4	**MW-122WT_08182021**					
Perfluorobutanoic acid [a]		51.3	36	18	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid [a]		6.4 J	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		2.6 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		2.2 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		3.1 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		2.0 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		1.7 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-5	**TWW-1_08182021**					
Perfluorobutanoic acid [a]		34.9 J	36	18	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid [a]		9.3 J	18	8.9	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		11.4	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		14.1	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		27.1	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorononanoic acid		1.6 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		4.0	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		1.7 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-6	**X-9AR_08182021**					
Perfluorobutanoic acid		18.6	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		1.3 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15

Summary of Hits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
Perfluorohexanoic acid		1.4 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		1.8 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		1.5 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		1.5 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-7	**X-10AR2_08182021**					
Perfluorobutanoic acid		4.4 J	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		1.4 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		1.1 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		6.1	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		1.3 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-8	**X-2A_08182021**					
Perfluorobutanoic acid [c]		14.3	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid [c]		2.9 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		3.8	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		29.6	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		5.6	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		15.8	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-9	**DUP-03_08182021**					
Perfluorobutanoic acid [c]		13.8	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		2.7 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		3.7	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		27.7	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		3.1 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		14.9	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88259-10	**EB-01_08182021**					

No hits reported in this sample.

(a) Dilution required due to matrix interference (ID recovery standard failure).
(b) Dilution required due to matrix interference (ID recovery standard failure). Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(c) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-118WT_08172021		
Lab Sample ID:	FA88259-1	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75798.D	1	09/11/21 05:53	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44279.D	1	09/04/21 04:04	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75927.D	5	09/13/21 19:34	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	49.4 [c]	36	18	8.9	ng/l	
2706-90-3	Perfluoropentanoic acid	23.0 [c]	18	8.9	4.5	ng/l	
307-24-4	Perfluorohexanoic acid	21.1 [c]	18	8.9	4.5	ng/l	
375-85-9	Perfluoroheptanoic acid	6.1 [c]	18	8.9	4.5	ng/l	J
335-67-1	Perfluorooctanoic acid	5.3	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	8.9 U [c]	18	8.9	4.5	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
72629-94-8	Perfluorotridecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
376-06-7	Perfluorotetradecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-118WT_08172021		
Lab Sample ID:	FA88259-1	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [d]	18 U [c]	36	18	8.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	48% [e]	41% [e]	57%	50-150%
	13C5-PFPeA	46% [e]	63%	52%	50-150%
	13C5-PFHxA	47% [e]	59%	52%	50-150%
	13C4-PFHpA	47% [e]	68%	53%	50-150%
	13C8-PFOA	53%	76%	59%	50-150%
	13C9-PFNA	43% [e]	71%	56%	50-150%
	13C6-PFDA	59%	79%	60%	50-150%
	13C7-PFUnDA	56%	72%	55%	50-150%
	13C2-PFDoDA	45% [e]	55%	47% [e]	50-150%
	13C2-PFTeDA	22% [e]	11% [e]	22% [e]	50-150%
	13C3-PFBS	55%	66%	59%	50-150%
	13C3-PFHxS	56%	75%	57%	50-150%
	13C8-PFOS	52%	68%	56%	50-150%
	13C8-FOSA	14% [e]	3% [e]	25% [e]	50-150%
	d3-MeFOSAA	69%	69%	67%	50-150%
	d5-EtFOSAA	71%	57%	65%	50-150%
	13C2-4:2FTS	52%	60%	60%	50-150%
	13C2-6:2FTS	65%	82%	66%	50-150%
	13C2-8:2FTS	64%	83%	59%	50-150%
	13C3-HFPO-DA	66%	66%	65%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Result is from Run# 3
(d) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-117SI_08172021		
Lab Sample ID:	FA88259-2	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75799.D	1	09/11/21 06:10	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44280.D	1	09/04/21 04:21	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75928.D	5	09/13/21 19:51	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.6 U	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	8.9 U [c]	18	8.9	4.5	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
72629-94-8	Perfluorotridecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
376-06-7	Perfluorotetradecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-117SI_08172021		
Lab Sample ID:	FA88259-2	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [d]	18 U [c]	36	18	8.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	52%	47%	62%	50-150%
	13C5-PFPeA	49% [e]	60%	57%	50-150%
	13C5-PFHxA	52%	58%	59%	50-150%
	13C4-PFHpA	52%	67%	62%	50-150%
	13C8-PFOA	60%	77%	66%	50-150%
	13C9-PFNA	62%	79%	66%	50-150%
	13C6-PFDA	66%	80%	65%	50-150%
	13C7-PFUnDA	59%	68%	59%	50-150%
	13C2-PFDoDA	42% [e]	39%	46% [e]	50-150%
	13C2-PFTeDA	13% [e]	5%	13% [e]	50-150%
	13C3-PFBS	56%	64%	65%	50-150%
	13C3-PFHxS	61%	75%	69%	50-150%
	13C8-PFOS	67%	71%	70%	50-150%
	13C8-FOSA	29% [e]	6%	33% [e]	50-150%
	d3-MeFOSAA	72%	61%	73%	50-150%
	d5-EtFOSAA	68%	49%	70%	50-150%
	13C2-4:2FTS	60%	58%	65%	50-150%
	13C2-6:2FTS	74%	85%	71%	50-150%
	13C2-8:2FTS	68%	82%	62%	50-150%
	13C3-HFPO-DA	69%	62%	72%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Result is from Run# 3
(d) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-117WT_08172021		
Lab Sample ID:	FA88259-3	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75800.D	1	09/11/21 06:27	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44281.D	1	09/04/21 04:38	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75929.D	5	09/13/21 20:08	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	270 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid [c]	449 [d]	36	18	8.9	ng/l	
2706-90-3	Perfluoropentanoic acid [c]	134 [d]	18	8.9	4.5	ng/l	
307-24-4	Perfluorohexanoic acid [c]	114 [d]	18	8.9	4.5	ng/l	
375-85-9	Perfluoroheptanoic acid	18.7 [d]	18	8.9	4.5	ng/l	
335-67-1	Perfluorooctanoic acid	5.5	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	8.9 U [d]	18	8.9	4.5	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
72629-94-8	Perfluorotridecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
376-06-7	Perfluorotetradecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	8.9 U [d]	18	8.9	4.5	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	8.9 U [d]	18	8.9	4.5	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [c]	8.9 U [d]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-117WT_08172021		
Lab Sample ID:	FA88259-3	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	18 U [d]	36	18	8.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [c]	18 U [d]	36	18	8.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	0% [e]	16% [e]	35% [e]	50-150%
	13C5-PFPeA	0% [e]	42% [e]	46% [e]	50-150%
	13C5-PFHxA	0% [e]	39% [e]	47% [e]	50-150%
	13C4-PFHpA	42% [e]	55%	51%	50-150%
	13C8-PFOA	54%	73%	57%	50-150%
	13C9-PFNA	48% [e]	70%	57%	50-150%
	13C6-PFDA	63%	81%	58%	50-150%
	13C7-PFUnDA	54%	68%	52%	50-150%
	13C2-PFDoDA	34% [e]	56%	38% [e]	50-150%
	13C2-PFTeDA	5% [e]	15% [e]	11% [e]	50-150%
	13C3-PFBS	0% [e]	50%	55%	50-150%
	13C3-PFHxS	55%	70%	55%	50-150%
	13C8-PFOS	55%	70%	59%	50-150%
	13C8-FOSA	17% [e]	11% [e]	29% [e]	50-150%
	d3-MeFOSAA	58%	64%	61%	50-150%
	d5-EtFOSAA	54%	54%	59%	50-150%
	13C2-4:2FTS	34% [e]	38% [e]	51%	50-150%
	13C2-6:2FTS	64%	78%	62%	50-150%
	13C2-8:2FTS	62%	82%	56%	50-150%
	13C3-HFPO-DA	74%	51%	66%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(d) Result is from Run# 3
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-122WT_08182021		
Lab Sample ID:	FA88259-4	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75803.D	1	09/11/21 07:18	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44282.D	1	09/04/21 04:54	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75930.D	5	09/13/21 20:25	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	51.3 [c]	36	18	8.9	ng/l	
2706-90-3	Perfluoropentanoic acid	6.4 [c]	18	8.9	4.5	ng/l	J
307-24-4	Perfluorohexanoic acid	2.6	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	2.2	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid	3.1	3.6	1.8	0.89	ng/l	J
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
72629-94-8	Perfluorotridecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
376-06-7	Perfluorotetradecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	2.0	3.6	1.8	0.89	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.7	3.6	1.8	0.89	ng/l	J
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-122WT_08182021		
Lab Sample ID:	FA88259-4	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [d]	18 U [c]	36	18	8.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	49% [e]	53%	57%	50-150%
	13C5-PFPeA	47% [e]	64%	53%	50-150%
	13C5-PFHxA	50%	64%	54%	50-150%
	13C4-PFHpA	50%	73%	56%	50-150%
	13C8-PFOA	56%	85%	61%	50-150%
	13C9-PFNA	58%	88%	60%	50-150%
	13C6-PFDA	62%	93%	59%	50-150%
	13C7-PFUnDA	57%	88%	55%	50-150%
	13C2-PFDoDA	47% [e]	78%	45% [e]	50-150%
	13C2-PFTeDA	32% [e]	42% [e]	31% [e]	50-150%
	13C3-PFBS	55%	68%	57%	50-150%
	13C3-PFHxS	59%	83%	57%	50-150%
	13C8-PFOS	63%	85%	63%	50-150%
	13C8-FOSA	48% [e]	21% [e]	51%	50-150%
	d3-MeFOSAA	71%	85%	67%	50-150%
	d5-EtFOSAA	68%	76%	69%	50-150%
	13C2-4:2FTS	56%	63%	59%	50-150%
	13C2-6:2FTS	69%	94%	66%	50-150%
	13C2-8:2FTS	65%	96%	59%	50-150%
	13C3-HFPO-DA	67%	70%	64%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Result is from Run# 3
(d) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TWW-1_08182021		
Lab Sample ID:	FA88259-5	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75804.D	1	09/11/21 07:35	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44283.D	1	09/04/21 05:11	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75931.D	5	09/13/21 20:42	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	34.9 [c]	36	18	8.9	ng/l	J
2706-90-3	Perfluoropentanoic acid	9.3 [c]	18	8.9	4.5	ng/l	J
307-24-4	Perfluorohexanoic acid	11.4	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	14.1	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	27.1	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.6	3.6	1.8	0.89	ng/l	J
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	4.0	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.7	3.6	1.8	0.89	ng/l	J
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [d]	8.9 U [c]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TWW-1_08182021		
Lab Sample ID:	FA88259-5	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	49% [e]	51%	59%	50-150%
	13C5-PFPeA	48% [e]	65%	55%	50-150%
	13C5-PFHxA	51%	64%	59%	50-150%
	13C4-PFHpA	52%	73%	58%	50-150%
	13C8-PFOA	57%	83%	64%	50-150%
	13C9-PFNA	58%	81%	62%	50-150%
	13C6-PFDA	63%	85%	64%	50-150%
	13C7-PFUnDA	61%	76%	60%	50-150%
	13C2-PFDoDA	51%	60%	52%	50-150%
	13C2-PFTeDA	25% [e]	14% [e]	32% [e]	50-150%
	13C3-PFBS	54%	68%	60%	50-150%
	13C3-PFHxS	60%	78%	66%	50-150%
	13C8-PFOS	60%	76%	65%	50-150%
	13C8-FOSA	32% [e]	14% [e]	40% [e]	50-150%
	d3-MeFOSAA	77%	74%	74%	50-150%
	d5-EtFOSAA	77%	64%	75%	50-150%
	13C2-4:2FTS	56%	64%	62%	50-150%
	13C2-6:2FTS	70%	89%	69%	50-150%
	13C2-8:2FTS	67%	87%	59%	50-150%
	13C3-HFPO-DA	68%	69%	70%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Result is from Run# 3
(d) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-9AR_08182021		
Lab Sample ID:	FA88259-6	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q75805.D	1	09/11/21 07:52	NG	09/08/21 09:15	OP87176	S2Q1079
Run #2 [a]	3Q44284.D	1	09/04/21 05:27	NG	08/25/21 10:00	OP86989	S3Q641
Run #3 [b]	2Q75932.D	5	09/13/21 20:59	NG	09/08/21 09:15	OP87176	S2Q1080

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	18.6	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.3	3.6	1.8	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.4	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.8	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid	1.5	3.6	1.8	0.89	ng/l	J
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
72629-94-8	Perfluorotridecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
376-06-7	Perfluorotetradecanoic acid [c]	8.9 U [d]	18	8.9	4.5	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.5	3.6	1.8	0.89	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [c]	8.9 U [d]	18	8.9	4.5	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-9AR_08182021		
Lab Sample ID:	FA88259-6	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [c]	18 U [d]	36	18	8.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	60%	60%	66%	50-150%
	13C5-PFPeA	56%	72%	61%	50-150%
	13C5-PFHxA	59%	71%	65%	50-150%
	13C4-PFHpA	58%	78%	66%	50-150%
	13C8-PFOA	67%	88%	69%	50-150%
	13C9-PFNA	66%	89%	67%	50-150%
	13C6-PFDA	67%	96%	67%	50-150%
	13C7-PFUnDA	58%	87%	61%	50-150%
	13C2-PFDoDA	41% [e]	78%	48% [e]	50-150%
	13C2-PFTeDA	9% [e]	38% [e]	17% [e]	50-150%
	13C3-PFBS	63%	75%	67%	50-150%
	13C3-PFHxS	66%	87%	71%	50-150%
	13C8-PFOS	71%	86%	70%	50-150%
	13C8-FOSA	32% [e]	28% [e]	37% [e]	50-150%
	d3-MeFOSAA	70%	80%	75%	50-150%
	d5-EtFOSAA	66%	70%	71%	50-150%
	13C2-4:2FTS	66%	70%	68%	50-150%
	13C2-6:2FTS	77%	95%	71%	50-150%
	13C2-8:2FTS	70%	95%	64%	50-150%
	13C3-HFPO-DA	74%	74%	80%	50-150%

(a) Confirmation run.
(b) Dilution required due to matrix interference (ID recovery standard failure).
(c) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(d) Result is from Run# 3
(e) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-10AR2_08182021		
Lab Sample ID:	FA88259-7	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44288.D	1	09/04/21 06:33	NG	08/25/21 10:00	OP86989	S3Q641
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	4.4	7.1	3.6	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	1.4	3.6	1.8	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.1	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	6.1	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.3	3.6	1.8	0.89	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-10AR2_08182021		
Lab Sample ID:	FA88259-7	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	78%		50-150%
	13C5-PFPeA	84%		50-150%
	13C5-PFHxA	84%		50-150%
	13C4-PFHpA	89%		50-150%
	13C8-PFOA	98%		50-150%
	13C9-PFNA	98%		50-150%
	13C6-PFDA	99%		50-150%
	13C7-PFUnDA	90%		50-150%
	13C2-PFDoDA	86%		50-150%
	13C2-PFTeDA	73%		50-150%
	13C3-PFBS	86%		50-150%
	13C3-PFHxS	95%		50-150%
	13C8-PFOS	93%		50-150%
	13C8-FOSA	84%		50-150%
	d3-MeFOSAA	80%		50-150%
	d5-EtFOSAA	75%		50-150%
	13C2-4:2FTS	83%		50-150%
	13C2-6:2FTS	100%		50-150%
	13C2-8:2FTS	95%		50-150%
	13C3-HFPO-DA	90%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-2A_08182021		
Lab Sample ID:	FA88259-8	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44291.D	1	09/04/21 07:23	NG	08/25/21 10:00	OP86989	S3Q641
Run #2 [a]	2Q75806.D	1	09/11/21 08:09	NG	09/08/21 09:15	OP87176	S2Q1079

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid [b]	14.3	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-24-4	Perfluorohexanoic acid [b]	2.9	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	3.8	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	29.6	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	5.6	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	15.8	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate [b]	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	X-2A_08182021		
Lab Sample ID:	FA88259-8	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	37% [c]	28% [c]	50-150%
	13C5-PFPeA	59%	39% [c]	50-150%
	13C5-PFHxA	49% [c]	37% [c]	50-150%
	13C4-PFHpA	53%	36% [c]	50-150%
	13C8-PFOA	62%	42% [c]	50-150%
	13C9-PFNA	58%	38% [c]	50-150%
	13C6-PFDA	73%	49% [c]	50-150%
	13C7-PFUnDA	65%	50%	50-150%
	13C2-PFDoDA	63%	46% [c]	50-150%
	13C2-PFTeDA	71%	41% [c]	50-150%
	13C3-PFBS	64%	48% [c]	50-150%
	13C3-PFHxS	66%	48% [c]	50-150%
	13C8-PFOS	67%	51%	50-150%
	13C8-FOSA	12% [c]	13% [c]	50-150%
	d3-MeFOSAA	68%	75%	50-150%
	d5-EtFOSAA	68%	80%	50-150%
	13C2-4:2FTS	49% [c]	40% [c]	50-150%
	13C2-6:2FTS	67%	53%	50-150%
	13C2-8:2FTS	87%	65%	50-150%
	13C3-HFPO-DA	59%	61%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(c) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03_08182021		
Lab Sample ID:	FA88259-9	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44292.D	1	09/04/21 07:40	NG	08/25/21 10:00	OP86989	S3Q641
Run #2 [a]	2Q75807.D	1	09/11/21 08:26	NG	09/08/21 09:15	OP87176	S2Q1079

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid [b]	13.8	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	2.7	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	3.7	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	27.7	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	3.1	3.6	1.8	0.89	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	14.9	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

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LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-03_08182021		
Lab Sample ID:	FA88259-9	**Date Sampled:**	08/18/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	38% [c]	31% [c]	50-150%
	13C5-PFPeA	61%	41% [c]	50-150%
	13C5-PFHxA	50%	38% [c]	50-150%
	13C4-PFHpA	53%	37% [c]	50-150%
	13C8-PFOA	63%	45% [c]	50-150%
	13C9-PFNA	59%	41% [c]	50-150%
	13C6-PFDA	73%	54%	50-150%
	13C7-PFUnDA	65%	54%	50-150%
	13C2-PFDoDA	63%	49% [c]	50-150%
	13C2-PFTeDA	70%	43% [c]	50-150%
	13C3-PFBS	65%	50%	50-150%
	13C3-PFHxS	66%	52%	50-150%
	13C8-PFOS	68%	53%	50-150%
	13C8-FOSA	17% [c]	14% [c]	50-150%
	d3-MeFOSAA	70%	76%	50-150%
	d5-EtFOSAA	68%	84%	50-150%
	13C2-4:2FTS	50%	43% [c]	50-150%
	13C2-6:2FTS	69%	57%	50-150%
	13C2-8:2FTS	87%	70%	50-150%
	13C3-HFPO-DA	60%	65%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis.
(c) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EB-01_08182021
Lab Sample ID: FA88259-10
Matrix: AQ - Equipment Blank
Method: EPA 537M QSM5.3 B-15 EPA 537 MOD
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Date Sampled: 08/18/21
Date Received: 08/20/21
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44293.D	1	09/04/21 07:56	NG	08/25/21 10:00	OP86989	S3Q641
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.6 U	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-01_08182021		
Lab Sample ID:	FA88259-10	**Date Sampled:**	08/18/21
Matrix:	AQ - Equipment Blank	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	98%		50-150%
	13C5-PFPeA	96%		50-150%
	13C5-PFHxA	97%		50-150%
	13C4-PFHpA	98%		50-150%
	13C8-PFOA	98%		50-150%
	13C9-PFNA	96%		50-150%
	13C6-PFDA	94%		50-150%
	13C7-PFUnDA	87%		50-150%
	13C2-PFDoDA	86%		50-150%
	13C2-PFTeDA	83%		50-150%
	13C3-PFBS	99%		50-150%
	13C3-PFHxS	98%		50-150%
	13C8-PFOS	92%		50-150%
	13C8-FOSA	88%		50-150%
	d3-MeFOSAA	73%		50-150%
	d5-EtFOSAA	68%		50-150%
	13C2-4:2FTS	91%		50-150%
	13C2-6:2FTS	92%		50-150%
	13C2-8:2FTS	89%		50-150%
	13C3-HFPO-DA	105%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707

SGS GPL

FA88259

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Arcadis
Address: 28550 Cabot Drive, Suite 500
City: Novi State: MI Zip: 48377
Project Contact: Amanda.Robinson@arcadis.com Email:
Phone #: 989-854-8672
Sampler(s) Name(s) (Printed): Austin Westrick
Sampler 1: Sampler 2: Bill Coberly

Project Information

Project Name: Former Saginaw
Street: Center Street
City: Saginaw State: MI
Project #: 30076323
Fax #:
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH		LAB USE ONLY
1	MW-118WT_08172021	8/17/21	1155	aw	GW	2		2								X	
2	MW-117SI_08172021	8/17/21	1510	aw	GW	2		2								X	
3	MW-117WT_08172021	8/17/21	1655	aw	GW	2		2								X	
4	MW-122WT_08182021	8/18/21	0945	aw	GW	2		2								X	
5	TWW-1_08182021	8/18/21	1135	aw	GW	2		2								X	
6	X-9AR_08182021	8/18/21	0845	BC	GW	2		2								X	
7	X-10AR2_08182021 MS/MSD	8/18/21	1535	aw	GW	6		6								X	
8	X-2A_08182021	8/18/21	1720	aw	GW	2		2								X	
9	Dup-03_08182021	8/18/21	—	aw	GW	2		2								X	
10	EB-01_08182021	8/18/21	1800	aw	GW	2		2								X	

INITIAL ASSESSMENT CPV

LABEL VERIFICATION DH

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Please also email results to:
Scott.Clearwater@arcadis.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	8/18/21 1620	2	3	8/20/21	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7	930	8

Lab Use Only | Cooler Temperature (s) Celsius (corrected) 3.0 - 1.1

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

SGS Sample Receipt Summary

Job Number: FA88259 **Client:** ARCADIS **Project:** RACER SAGIRAW

Date / Time Received: 8/20/2021 9:30:00 AM **Delivery Method:** FX **Airbill #'s:** 5061 4510 2473

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 8/20/2021 9:30:00 AM Reviewer: _____ Date: _____

FA88259: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86989	EPA 537M QSM5.3 B-15						
OP86989-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	85	%	73-129
OP86989-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	87	%	72-129
OP86989-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	85	%	72-129
OP86989-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	85	%	72-130
OP86989-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	85	%	71-133
OP86989-BS	375-95-1	Perfluorononanoic acid	BSP	REC	86	%	69-130
OP86989-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	86	%	71-129
OP86989-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	86	%	69-133
OP86989-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	89	%	72-134
OP86989-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	87	%	65-144
OP86989-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	89	%	71-132
OP86989-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	86	%	73-130
OP86989-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	87	%	71-127
OP86989-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	84	%	68-131
OP86989-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	89	%	69-134
OP86989-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	84	%	65-140
OP86989-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	85	%	69-127
OP86989-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	86	%	53-142
OP86989-BS	754-91-6	PFOSA	BSP	REC	88	%	67-137
OP86989-BS	2355-31-9	MeFOSAA	BSP	REC	90	%	65-136
OP86989-BS	2991-50-6	EtFOSAA	BSP	REC	90	%	61-135
OP86989-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	88	%	63-143
OP86989-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	89	%	64-140
OP86989-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	92	%	67-138
OP86989-MS	375-22-4	Perfluorobutanoic acid	MS	REC	86	%	73-129
OP86989-MS	2706-90-3	Perfluoropentanoic acid	MS	REC	92	%	72-129
OP86989-MS	307-24-4	Perfluorohexanoic acid	MS	REC	87	%	72-129
OP86989-MS	375-85-9	Perfluoroheptanoic acid	MS	REC	90	%	72-130
OP86989-MS	335-67-1	Perfluorooctanoic acid	MS	REC	87	%	71-133
OP86989-MS	375-95-1	Perfluorononanoic acid	MS	REC	88	%	69-130
OP86989-MS	335-76-2	Perfluorodecanoic acid	MS	REC	89	%	71-129
OP86989-MS	2058-94-8	Perfluoroundecanoic acid	MS	REC	89	%	69-133
OP86989-MS	307-55-1	Perfluorododecanoic acid	MS	REC	90	%	72-134
OP86989-MS	72629-94-8	Perfluorotridecanoic acid	MS	REC	95	%	65-144
OP86989-MS	376-06-7	Perfluorotetradecanoic acid	MS	REC	89	%	71-132
OP86989-MS	375-73-5	Perfluorobutanesulfonic acid	MS	REC	89	%	73-130
OP86989-MS	2706-91-4	Perfluoropentanesulfonic acid	MS	REC	94	%	71-127
OP86989-MS	355-46-4	Perfluorohexanesulfonic acid	MS	REC	91	%	68-131
OP86989-MS	375-92-8	Perfluoroheptanesulfonic acid	MS	REC	93	%	69-134
OP86989-MS	1763-23-1	Perfluorooctanesulfonic acid	MS	REC	90	%	65-140
OP86989-MS	68259-12-1	Perfluorononanesulfonic acid	MS	REC	91	%	69-127
OP86989-MS	335-77-3	Perfluorodecanesulfonic acid	MS	REC	89	%	53-142

* Sample used for QC is not from job FA88259

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86989-MS	754-91-6	PFOSA	MS	REC	93	%	67-137
OP86989-MS	2355-31-9	MeFOSAA	MS	REC	90	%	65-136
OP86989-MS	2991-50-6	EtFOSAA	MS	REC	93	%	61-135
OP86989-MS	757124-72-4	4:2 Fluorotelomer sulfonate	MS	REC	93	%	63-143
OP86989-MS	27619-97-2	6:2 Fluorotelomer sulfonate	MS	REC	91	%	64-140
OP86989-MS	39108-34-4	8:2 Fluorotelomer sulfonate	MS	REC	92	%	67-138
OP86989-MSD	375-22-4	Perfluorobutanoic acid	MSD	REC	86	%	73-129
OP86989-MSD	375-22-4	Perfluorobutanoic acid	MSD	RPD	0	%	30
OP86989-MSD	2706-90-3	Perfluoropentanoic acid	MSD	REC	93	%	72-129
OP86989-MSD	2706-90-3	Perfluoropentanoic acid	MSD	RPD	1	%	30
OP86989-MSD	307-24-4	Perfluorohexanoic acid	MSD	REC	87	%	72-129
OP86989-MSD	307-24-4	Perfluorohexanoic acid	MSD	RPD	0	%	30
OP86989-MSD	375-85-9	Perfluoroheptanoic acid	MSD	REC	89	%	72-130
OP86989-MSD	375-85-9	Perfluoroheptanoic acid	MSD	RPD	1	%	30
OP86989-MSD	335-67-1	Perfluorooctanoic acid	MSD	REC	85	%	71-133
OP86989-MSD	335-67-1	Perfluorooctanoic acid	MSD	RPD	2	%	30
OP86989-MSD	375-95-1	Perfluorononanoic acid	MSD	REC	91	%	69-130
OP86989-MSD	375-95-1	Perfluorononanoic acid	MSD	RPD	4	%	30
OP86989-MSD	335-76-2	Perfluorodecanoic acid	MSD	REC	87	%	71-129
OP86989-MSD	335-76-2	Perfluorodecanoic acid	MSD	RPD	2	%	30
OP86989-MSD	2058-94-8	Perfluoroundecanoic acid	MSD	REC	90	%	69-133
OP86989-MSD	2058-94-8	Perfluoroundecanoic acid	MSD	RPD	1	%	30
OP86989-MSD	307-55-1	Perfluorododecanoic acid	MSD	REC	91	%	72-134
OP86989-MSD	307-55-1	Perfluorododecanoic acid	MSD	RPD	1	%	30
OP86989-MSD	72629-94-8	Perfluorotridecanoic acid	MSD	REC	98	%	65-144
OP86989-MSD	72629-94-8	Perfluorotridecanoic acid	MSD	RPD	3	%	30
OP86989-MSD	376-06-7	Perfluorotetradecanoic acid	MSD	REC	90	%	71-132
OP86989-MSD	376-06-7	Perfluorotetradecanoic acid	MSD	RPD	1	%	30
OP86989-MSD	375-73-5	Perfluorobutanesulfonic acid	MSD	REC	89	%	73-130
OP86989-MSD	375-73-5	Perfluorobutanesulfonic acid	MSD	RPD	0	%	30
OP86989-MSD	2706-91-4	Perfluoropentanesulfonic acid	MSD	REC	93	%	71-127
OP86989-MSD	2706-91-4	Perfluoropentanesulfonic acid	MSD	RPD	1	%	30
OP86989-MSD	355-46-4	Perfluorohexanesulfonic acid	MSD	REC	88	%	68-131
OP86989-MSD	355-46-4	Perfluorohexanesulfonic acid	MSD	RPD	3	%	30
OP86989-MSD	375-92-8	Perfluoroheptanesulfonic acid	MSD	REC	98	%	69-134
OP86989-MSD	375-92-8	Perfluoroheptanesulfonic acid	MSD	RPD	5	%	30
OP86989-MSD	1763-23-1	Perfluorooctanesulfonic acid	MSD	REC	92	%	65-140
OP86989-MSD	1763-23-1	Perfluorooctanesulfonic acid	MSD	RPD	2	%	30
OP86989-MSD	68259-12-1	Perfluorononanesulfonic acid	MSD	REC	88	%	69-127
OP86989-MSD	68259-12-1	Perfluorononanesulfonic acid	MSD	RPD	3	%	30
OP86989-MSD	335-77-3	Perfluorodecanesulfonic acid	MSD	REC	94	%	53-142
OP86989-MSD	335-77-3	Perfluorodecanesulfonic acid	MSD	RPD	6	%	30
OP86989-MSD	754-91-6	PFOSA	MSD	REC	92	%	67-137
OP86989-MSD	754-91-6	PFOSA	MSD	RPD	1	%	30
OP86989-MSD	2355-31-9	MeFOSAA	MSD	REC	92	%	65-136

* Sample used for QC is not from job FA88259

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86989-MSD	2355-31-9	MeFOSAA	MSD	RPD	2	%	30
OP86989-MSD	2991-50-6	EtFOSAA	MSD	REC	93	%	61-135
OP86989-MSD	2991-50-6	EtFOSAA	MSD	RPD	0	%	30
OP86989-MSD	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	REC	93	%	63-143
OP86989-MSD	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	RPD	0	%	30
OP86989-MSD	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	REC	93	%	64-140
OP86989-MSD	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	RPD	3	%	30
OP86989-MSD	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	REC	96	%	67-138
OP86989-MSD	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	RPD	4	%	30
OP87176	EPA 537M QSM5.3 B-15						
OP87176-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	100	%	73-129
OP87176-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	103	%	72-129
OP87176-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	97	%	72-129
OP87176-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	107	%	72-130
OP87176-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	101	%	71-133
OP87176-BS	375-95-1	Perfluorononanoic acid	BSP	REC	105	%	69-130
OP87176-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	98	%	71-129
OP87176-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	102	%	69-133
OP87176-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	100	%	72-134
OP87176-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	95	%	65-144
OP87176-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	100	%	71-132
OP87176-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	102	%	73-130
OP87176-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	97	%	71-127
OP87176-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	103	%	68-131
OP87176-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	99	%	69-134
OP87176-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	105	%	65-140
OP87176-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	103	%	69-127
OP87176-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	99	%	53-142
OP87176-BS	754-91-6	PFOSA	BSP	REC	103	%	67-137
OP87176-BS	2355-31-9	MeFOSAA	BSP	REC	102	%	65-136
OP87176-BS	2991-50-6	EtFOSAA	BSP	REC	96	%	61-135
OP87176-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	105	%	63-143
OP87176-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	101	%	64-140
OP87176-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	101	%	67-138
OP87176-MS*	375-22-4	Perfluorobutanoic acid	MS	REC	99	%	73-129
OP87176-MS*	2706-90-3	Perfluoropentanoic acid	MS	REC	103	%	72-129
OP87176-MS*	307-24-4	Perfluorohexanoic acid	MS	REC	98	%	72-129
OP87176-MS*	375-85-9	Perfluoroheptanoic acid	MS	REC	108	%	72-130
OP87176-MS*	335-67-1	Perfluorooctanoic acid	MS	REC	102	%	71-133
OP87176-MS*	375-95-1	Perfluorononanoic acid	MS	REC	104	%	69-130
OP87176-MS*	335-76-2	Perfluorodecanoic acid	MS	REC	98	%	71-129
OP87176-MS*	2058-94-8	Perfluoroundecanoic acid	MS	REC	101	%	69-133
OP87176-MS*	307-55-1	Perfluorododecanoic acid	MS	REC	101	%	72-134

* Sample used for QC is not from job FA88259

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP87176-MS*	72629-94-8	Perfluorotridecanoic acid	MS	REC	96	%	65-144
OP87176-MS*	376-06-7	Perfluorotetradecanoic acid	MS	REC	101	%	71-132
OP87176-MS*	375-73-5	Perfluorobutanesulfonic acid	MS	REC	108	%	73-130
OP87176-MS*	2706-91-4	Perfluoropentanesulfonic acid	MS	REC	98	%	71-127
OP87176-MS*	355-46-4	Perfluorohexanesulfonic acid	MS	REC	102	%	68-131
OP87176-MS*	375-92-8	Perfluoroheptanesulfonic acid	MS	REC	106	%	69-134
OP87176-MS*	1763-23-1	Perfluorooctanesulfonic acid	MS	REC	105	%	65-140
OP87176-MS*	68259-12-1	Perfluorononanesulfonic acid	MS	REC	100	%	69-127
OP87176-MS*	335-77-3	Perfluorodecanesulfonic acid	MS	REC	97	%	53-142
OP87176-MS*	754-91-6	PFOSA	MS	REC	103	%	67-137
OP87176-MS*	2355-31-9	MeFOSAA	MS	REC	103	%	65-136
OP87176-MS*	2991-50-6	EtFOSAA	MS	REC	99	%	61-135
OP87176-MS*	757124-72-4	4:2 Fluorotelomer sulfonate	MS	REC	104	%	63-143
OP87176-MS*	27619-97-2	6:2 Fluorotelomer sulfonate	MS	REC	102	%	64-140
OP87176-MS*	39108-34-4	8:2 Fluorotelomer sulfonate	MS	REC	101	%	67-138
OP87176-MSD*	375-22-4	Perfluorobutanoic acid	MSD	REC	98	%	73-129
OP87176-MSD*	375-22-4	Perfluorobutanoic acid	MSD	RPD	1	%	30
OP87176-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	REC	101	%	72-129
OP87176-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	RPD	2	%	30
OP87176-MSD*	307-24-4	Perfluorohexanoic acid	MSD	REC	95	%	72-129
OP87176-MSD*	307-24-4	Perfluorohexanoic acid	MSD	RPD	3	%	30
OP87176-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	REC	107	%	72-130
OP87176-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	RPD	1	%	30
OP87176-MSD*	335-67-1	Perfluorooctanoic acid	MSD	REC	99	%	71-133
OP87176-MSD*	335-67-1	Perfluorooctanoic acid	MSD	RPD	3	%	30
OP87176-MSD*	375-95-1	Perfluorononanoic acid	MSD	REC	103	%	69-130
OP87176-MSD*	375-95-1	Perfluorononanoic acid	MSD	RPD	2	%	30
OP87176-MSD*	335-76-2	Perfluorodecanoic acid	MSD	REC	95	%	71-129
OP87176-MSD*	335-76-2	Perfluorodecanoic acid	MSD	RPD	3	%	30
OP87176-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	REC	100	%	69-133
OP87176-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	RPD	1	%	30
OP87176-MSD*	307-55-1	Perfluorododecanoic acid	MSD	REC	99	%	72-134
OP87176-MSD*	307-55-1	Perfluorododecanoic acid	MSD	RPD	1	%	30
OP87176-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	REC	96	%	65-144
OP87176-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	RPD	0	%	30
OP87176-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	REC	99	%	71-132
OP87176-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	RPD	1	%	30
OP87176-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	REC	107	%	73-130
OP87176-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	RPD	1	%	30
OP87176-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	REC	96	%	71-127
OP87176-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	RPD	3	%	30
OP87176-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	REC	101	%	68-131
OP87176-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	RPD	1	%	30
OP87176-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	REC	104	%	69-134
OP87176-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	RPD	2	%	30

* Sample used for QC is not from job FA88259

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88259
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/17/21 thru 08/18/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP87176-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	REC	103	%	65-140
OP87176-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	RPD	2	%	30
OP87176-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	REC	91	%	69-127
OP87176-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	RPD	9	%	30
OP87176-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	REC	96	%	53-142
OP87176-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	RPD	1	%	30
OP87176-MSD*	754-91-6	PFOSA	MSD	REC	102	%	67-137
OP87176-MSD*	754-91-6	PFOSA	MSD	RPD	1	%	30
OP87176-MSD*	2355-31-9	MeFOSAA	MSD	REC	102	%	65-136
OP87176-MSD*	2355-31-9	MeFOSAA	MSD	RPD	1	%	30
OP87176-MSD*	2991-50-6	EtFOSAA	MSD	REC	98	%	61-135
OP87176-MSD*	2991-50-6	EtFOSAA	MSD	RPD	1	%	30
OP87176-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	REC	102	%	63-143
OP87176-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	RPD	2	%	30
OP87176-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	REC	102	%	64-140
OP87176-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	RPD	0	%	30
OP87176-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	REC	100	%	67-138
OP87176-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	RPD	1	%	30

* Sample used for QC is not from job FA88259

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q641-IBLK	3Q44235.D	1	09/03/21	NG	n/a	n/a	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	110%	50-150%
	13C5-PFPeA	111%	50-150%
	13C5-PFHxA	111%	50-150%
	13C4-PFHpA	112%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q641-IBLK	3Q44235.D	1	09/03/21	NG	n/a	n/a	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	115%	50-150%
	13C9-PFNA	116%	50-150%
	13C6-PFDA	115%	50-150%
	13C7-PFUnDA	113%	50-150%
	13C2-PFDoDA	111%	50-150%
	13C2-PFTeDA	110%	50-150%
	13C3-PFBS	112%	50-150%
	13C3-PFHxS	115%	50-150%
	13C8-PFOS	114%	50-150%
	13C8-FOSA	115%	50-150%
	d3-MeFOSA	127%	50-150%
	d3-MeFOSAA	81%	50-150%
	d5-EtFOSAA	75%	50-150%
	13C2-4:2FTS	103%	50-150%
	13C2-6:2FTS	109%	50-150%
	13C2-8:2FTS	108%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q641-IBLK	3Q44326.D	1	09/04/21	NG	n/a	n/a	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	115%	50-150%
	13C5-PFPeA	115%	50-150%
	13C5-PFHxA	115%	50-150%
	13C4-PFHpA	117%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q641-IBLK	3Q44326.D	1	09/04/21	NG	n/a	n/a	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	119%	50-150%
	13C9-PFNA	119%	50-150%
	13C6-PFDA	120%	50-150%
	13C7-PFUnDA	117%	50-150%
	13C2-PFDoDA	115%	50-150%
	13C2-PFTeDA	113%	50-150%
	13C3-PFBS	117%	50-150%
	13C3-PFHxS	120%	50-150%
	13C8-PFOS	118%	50-150%
	13C8-FOSA	119%	50-150%
	d3-MeFOSAA	99%	50-150%
	d5-EtFOSAA	94%	50-150%
	13C2-4:2FTS	107%	50-150%
	13C2-6:2FTS	113%	50-150%
	13C2-8:2FTS	109%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1079-IBLK	2Q75788.D	1	09/11/21	NG	n/a	n/a	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	81%	50-150%
	13C5-PFPeA	77%	50-150%
	13C5-PFHxA	78%	50-150%
	13C4-PFHpA	73%	50-150%
	13C8-PFOA	76%	50-150%
	13C9-PFNA	75%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1079-IBLK	2Q75788.D	1	09/11/21	NG	n/a	n/a	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	ID Standard Recoveries		Limits
	13C6-PFDA	80%	50-150%
	13C7-PFUnDA	81%	50-150%
	13C2-PFDoDA	77%	50-150%
	13C2-PFTeDA	73%	50-150%
	13C3-PFBS	81%	50-150%
	13C3-PFHxS	79%	50-150%
	13C8-PFOS	80%	50-150%
	13C8-FOSA	86%	50-150%
	d3-MeFOSAA	93%	50-150%
	d5-EtFOSAA	98%	50-150%
	13C2-4:2FTS	74%	50-150%
	13C2-6:2FTS	78%	50-150%
	13C2-8:2FTS	78%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1079-IBLK	2Q75852.D	1	09/11/21	NG	n/a	n/a	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	80%	50-150%
	13C5-PFPeA	75%	50-150%
	13C5-PFHxA	76%	50-150%
	13C4-PFHpA	72%	50-150%
	13C8-PFOA	76%	50-150%
	13C9-PFNA	75%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1079-IBLK	2Q75852.D	1	09/11/21	NG	n/a	n/a	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	ID Standard Recoveries		Limits
	13C6-PFDA	80%	50-150%
	13C7-PFUnDA	82%	50-150%
	13C2-PFDoDA	78%	50-150%
	13C2-PFTeDA	74%	50-150%
	13C3-PFBS	79%	50-150%
	13C3-PFHxS	78%	50-150%
	13C8-PFOS	81%	50-150%
	13C8-FOSA	87%	50-150%
	d3-MeFOSAA	97%	50-150%
	d5-EtFOSAA	101%	50-150%
	13C2-4:2FTS	74%	50-150%
	13C2-6:2FTS	77%	50-150%
	13C2-8:2FTS	79%	50-150%

Instrument Blank

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1080-IBLK	2Q75903.D	1	09/13/21	NG	n/a	n/a	S2Q1080

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	63%	50-150%
	13C5-PFPeA	59%	50-150%
	13C5-PFHxA	61%	50-150%
	13C4-PFHpA	60%	50-150%
	13C8-PFOA	62%	50-150%
	13C9-PFNA	62%	50-150%
	13C6-PFDA	65%	50-150%
	13C7-PFUnDA	66%	50-150%
	13C2-PFDoDA	65%	50-150%
	13C2-PFTeDA	58%	50-150%
	13C3-PFBS	65%	50-150%
	13C3-PFHxS	63%	50-150%
	13C8-PFOS	65%	50-150%
	13C8-FOSA	68%	50-150%
	d3-MeFOSAA	77%	50-150%
	d5-EtFOSAA	80%	50-150%
	13C2-4:2FTS	57%	50-150%
	13C2-6:2FTS	61%	50-150%
	13C2-8:2FTS	61%	50-150%

Method Blank Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-MB	3Q44268.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	105%	50-150%
	13C5-PFPeA	105%	50-150%
	13C5-PFHxA	106%	50-150%
	13C4-PFHpA	108%	50-150%

Method Blank Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-MB	3Q44268.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	111%	50-150%
	13C9-PFNA	109%	50-150%
	13C6-PFDA	112%	50-150%
	13C7-PFUnDA	108%	50-150%
	13C2-PFDoDA	105%	50-150%
	13C2-PFTeDA	102%	50-150%
	13C3-PFBS	107%	50-150%
	13C3-PFHxS	109%	50-150%
	13C8-PFOS	111%	50-150%
	13C8-FOSA	104%	50-150%
	d3-MeFOSAA	91%	50-150%
	d5-EtFOSAA	83%	50-150%
	13C2-4:2FTS	99%	50-150%
	13C2-6:2FTS	105%	50-150%
	13C2-8:2FTS	104%	50-150%
	13C3-HFPO-DA	116%	50-150%

Method Blank Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-MB	2Q75796.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	74%	50-150%
	13C5-PFPeA	70%	50-150%
	13C5-PFHxA	70%	50-150%
	13C4-PFHpA	66%	50-150%

Method Blank Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-MB	2Q75796.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	66%	50-150%
	13C9-PFNA	62%	50-150%
	13C6-PFDA	64%	50-150%
	13C7-PFUnDA	66%	50-150%
	13C2-PFDoDA	60%	50-150%
	13C2-PFTeDA	52%	50-150%
	13C3-PFBS	74%	50-150%
	13C3-PFHxS	68%	50-150%
	13C8-PFOS	63%	50-150%
	13C8-FOSA	67%	50-150%
	d3-MeFOSAA	72%	50-150%
	d5-EtFOSAA	76%	50-150%
	13C2-4:2FTS	69%	50-150%
	13C2-6:2FTS	67%	50-150%
	13C2-8:2FTS	64%	50-150%
	13C3-HFPO-DA	103%	50-150%

Blank Spike Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-BS	3Q44267.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0681	85	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0695	87	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0681	85	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0681	85	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0676	85	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0690	86	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0687	86	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0686	86	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0711	89	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0696	87	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0712	89	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0689	86	73-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0693	87	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0675	84	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0711	89	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0673	84	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0678	85	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0685	86	53-142
754-91-6	PFOSA	0.08	0.0703	88	67-137
2355-31-9	MeFOSAA	0.08	0.0716	90	65-136
2991-50-6	EtFOSAA	0.08	0.0721	90	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0707	88	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0713	89	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0734	92	67-138
13252-13-6	HFPO-DA (GenX)	0.08	0.0659	82	60-140
919005-14-4	ADONA	0.08	0.0674	84	60-140
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.08	0.0637	80	60-140
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.08	0.0720	90	60-140

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	105%	50-150%
	13C5-PFPeA	106%	50-150%
	13C5-PFHxA	106%	50-150%
	13C4-PFHpA	108%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-BS	3Q44267.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	106%	50-150%
	13C9-PFNA	104%	50-150%
	13C6-PFDA	102%	50-150%
	13C7-PFUnDA	96%	50-150%
	13C2-PFDoDA	96%	50-150%
	13C2-PFTeDA	93%	50-150%
	13C3-PFBS	107%	50-150%
	13C3-PFHxS	107%	50-150%
	13C8-PFOS	102%	50-150%
	13C8-FOSA	91%	50-150%
	d3-MeFOSAA	76%	50-150%
	d5-EtFOSAA	72%	50-150%
	13C2-4:2FTS	105%	50-150%
	13C2-6:2FTS	103%	50-150%
	13C2-8:2FTS	100%	50-150%
	13C3-HFPO-DA	115%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-BS	2Q75795.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0799	100	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0823	103	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0776	97	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0853	107	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0811	101	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0843	105	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0783	98	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0814	102	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0800	100	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0760	95	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0803	100	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0817	102	73-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0778	97	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0824	103	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0793	99	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0842	105	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0827	103	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0794	99	53-142
754-91-6	PFOSA	0.08	0.0822	103	67-137
2355-31-9	MeFOSAA	0.08	0.0819	102	65-136
2991-50-6	EtFOSAA	0.08	0.0766	96	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0836	105	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0808	101	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0809	101	67-138
13252-13-6	HFPO-DA (GenX)	0.08	0.0638	80	60-140
919005-14-4	ADONA	0.08	0.0809	101	60-140
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.08	0.0762	95	60-140
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.08	0.0851	106	60-140

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	68%	50-150%
	13C5-PFPeA	65%	50-150%
	13C5-PFHxA	66%	50-150%
	13C4-PFHpA	62%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-BS	2Q75795.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	63%	50-150%
	13C9-PFNA	57%	50-150%
	13C6-PFDA	59%	50-150%
	13C7-PFUnDA	61%	50-150%
	13C2-PFDoDA	58%	50-150%
	13C2-PFTeDA	54%	50-150%
	13C3-PFBS	69%	50-150%
	13C3-PFHxS	66%	50-150%
	13C8-PFOS	60%	50-150%
	13C8-FOSA	62%	50-150%
	d3-MeFOSAA	67%	50-150%
	d5-EtFOSAA	70%	50-150%
	13C2-4:2FTS	68%	50-150%
	13C2-6:2FTS	67%	50-150%
	13C2-8:2FTS	62%	50-150%
	13C3-HFPO-DA	91%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-MS	3Q44289.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641
OP86989-MSD	3Q44290.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641
FA88259-7	3Q44288.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	Compound	FA88259-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.0044	J	0.0714	0.0656	86	0.0714	0.0656	86	0	73-129/30
2706-90-3	Perfluoropentanoic acid	0.0014	J	0.0714	0.0671	92	0.0714	0.0675	93	1	72-129/30
307-24-4	Perfluorohexanoic acid	0.0011	J	0.0714	0.0632	87	0.0714	0.0634	87	0	72-129/30
375-85-9	Perfluoroheptanoic acid	0.0036	U	0.0714	0.0646	90	0.0714	0.0637	89	1	72-130/30
335-67-1	Perfluorooctanoic acid	0.0061		0.0714	0.0681	87	0.0714	0.0670	85	2	71-133/30
375-95-1	Perfluorononanoic acid	0.0036	U	0.0714	0.0627	88	0.0714	0.0651	91	4	69-130/30
335-76-2	Perfluorodecanoic acid	0.0036	U	0.0714	0.0638	89	0.0714	0.0623	87	2	71-129/30
2058-94-8	Perfluoroundecanoic acid	0.0036	U	0.0714	0.0636	89	0.0714	0.0644	90	1	69-133/30
307-55-1	Perfluorododecanoic acid	0.0036	U	0.0714	0.0641	90	0.0714	0.0649	91	1	72-134/30
72629-94-8	Perfluorotridecanoic acid	0.0036	U	0.0714	0.0679	95	0.0714	0.0701	98	3	65-144/30
376-06-7	Perfluorotetradecanoic acid	0.0036	U	0.0714	0.0637	89	0.0714	0.0646	90	1	71-132/30
375-73-5	Perfluorobutanesulfonic acid	0.0013	J	0.0714	0.0649	89	0.0714	0.0649	89	0	73-130/30
2706-91-4	Perfluoropentanesulfonic acid	0.0036	U	0.0714	0.0673	94	0.0714	0.0666	93	1	71-127/30
355-46-4	Perfluorohexanesulfonic acid	0.0036	U	0.0714	0.0647	91	0.0714	0.0631	88	3	68-131/30
375-92-8	Perfluoroheptanesulfonic acid	0.0036	U	0.0714	0.0667	93	0.0714	0.0701	98	5	69-134/30
1763-23-1	Perfluorooctanesulfonic acid	0.0036	U	0.0714	0.0644	90	0.0714	0.0659	92	2	65-140/30
68259-12-1	Perfluorononanesulfonic acid	0.0036	U	0.0714	0.0653	91	0.0714	0.0632	88	3	69-127/30
335-77-3	Perfluorodecanesulfonic acid	0.0036	U	0.0714	0.0634	89	0.0714	0.0674	94	6	53-142/30
754-91-6	PFOSA	0.0036	U	0.0714	0.0665	93	0.0714	0.0658	92	1	67-137/30
2355-31-9	MeFOSAA	0.0071	U	0.0714	0.0643	90	0.0714	0.0654	92	2	65-136/30
2991-50-6	EtFOSAA	0.0071	U	0.0714	0.0664	93	0.0714	0.0665	93	0	61-135/30
757124-72-4	4:2 Fluorotelomer sulfonate	0.0071	U	0.0714	0.0664	93	0.0714	0.0663	93	0	63-143/30
27619-97-2	6:2 Fluorotelomer sulfonate	0.0071	U	0.0714	0.0647	91	0.0714	0.0667	93	3	64-140/30
39108-34-4	8:2 Fluorotelomer sulfonate	0.0071	U	0.0714	0.0657	92	0.0714	0.0685	96	4	67-138/30
13252-13-6	HFPO-DA (GenX)	0.0071	U	0.0714	0.0638	89	0.0714	0.0649	91	2	60-140/30
919005-14-4	ADONA	0.0071	U	0.0714	0.0632	88	0.0714	0.0561	79	12	60-140/30
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.0071	U	0.0714	0.0569	80	0.0714	0.0601	84	5	60-140/30
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.0071	U	0.0714	0.0638	89	0.0714	0.0683	96	7	60-140/30

CAS No.	ID Standard Recoveries	MS	MSD	FA88259-7	Limits
	13C4-PFBA	78%	78%	78%	50-150%
	13C5-PFPeA	82%	80%	84%	50-150%
	13C5-PFHxA	83%	80%	84%	50-150%
	13C4-PFHpA	86%	86%	89%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86989-MS	3Q44289.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641
OP86989-MSD	3Q44290.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641
FA88259-7	3Q44288.D	1	09/04/21	NG	08/25/21	OP86989	S3Q641

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-7, FA88259-8, FA88259-9, FA88259-10

CAS No.	ID Standard Recoveries	MS	MSD	FA88259-7	Limits
	13C8-PFOA	94%	91%	98%	50-150%
	13C9-PFNA	94%	90%	98%	50-150%
	13C6-PFDA	92%	89%	99%	50-150%
	13C7-PFUnDA	88%	81%	90%	50-150%
	13C2-PFDoDA	86%	81%	86%	50-150%
	13C2-PFTeDA	82%	80%	73%	50-150%
	13C3-PFBS	83%	88%	86%	50-150%
	13C3-PFHxS	91%	97%	95%	50-150%
	13C8-PFOS	90%	90%	93%	50-150%
	13C8-FOSA	84%	77%	84%	50-150%
	d3-MeFOSAA	78%	72%	80%	50-150%
	d5-EtFOSAA	75%	68%	75%	50-150%
	13C2-4:2FTS	85%	89%	83%	50-150%
	13C2-6:2FTS	101%	104%	100%	50-150%
	13C2-8:2FTS	96%	97%	95%	50-150%
	13C3-HFPO-DA	88%	86%	90%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-MS	2Q75811.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079
OP87176-MSD	2Q75812.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079
FA88592-3	2Q75810.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	Compound	FA88592-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.016	U	0.16	0.159	99	0.16	0.157	98	1	73-129/30
2706-90-3	Perfluoropentanoic acid	0.0026	J	0.16	0.167	103	0.16	0.164	101	2	72-129/30
307-24-4	Perfluorohexanoic acid	0.0080	U	0.16	0.156	98	0.16	0.152	95	3	72-129/30
375-85-9	Perfluoroheptanoic acid	0.0080	U	0.16	0.173	108	0.16	0.171	107	1	72-130/30
335-67-1	Perfluorooctanoic acid	0.0080	U	0.16	0.163	102	0.16	0.158	99	3	71-133/30
375-95-1	Perfluorononanoic acid	0.0080	U	0.16	0.167	104	0.16	0.164	103	2	69-130/30
335-76-2	Perfluorodecanoic acid	0.0080	U	0.16	0.157	98	0.16	0.152	95	3	71-129/30
2058-94-8	Perfluoroundecanoic acid	0.0080	U	0.16	0.161	101	0.16	0.160	100	1	69-133/30
307-55-1	Perfluorododecanoic acid	0.0080	U	0.16	0.161	101	0.16	0.159	99	1	72-134/30
72629-94-8	Perfluorotridecanoic acid	0.0080	U	0.16	0.154	96	0.16	0.154	96	0	65-144/30
376-06-7	Perfluorotetradecanoic acid	0.0080	U	0.16	0.161	101	0.16	0.159	99	1	71-132/30
375-73-5	Perfluorobutanesulfonic acid	0.0080	U	0.16	0.172	108	0.16	0.171	107	1	73-130/30
2706-91-4	Perfluoropentanesulfonic acid	0.0080	U	0.16	0.157	98	0.16	0.153	96	3	71-127/30
355-46-4	Perfluorohexanesulfonic acid	0.0080	U	0.16	0.163	102	0.16	0.162	101	1	68-131/30
375-92-8	Perfluoroheptanesulfonic acid	0.0080	U	0.16	0.170	106	0.16	0.167	104	2	69-134/30
1763-23-1	Perfluorooctanesulfonic acid	0.0080	U	0.16	0.168	105	0.16	0.164	103	2	65-140/30
68259-12-1	Perfluorononanesulfonic acid	0.0080	U	0.16	0.160	100	0.16	0.146	91	9	69-127/30
335-77-3	Perfluorodecanesulfonic acid	0.0080	U	0.16	0.155	97	0.16	0.154	96	1	53-142/30
754-91-6	PFOSA	0.0080	U	0.16	0.165	103	0.16	0.163	102	1	67-137/30
2355-31-9	MeFOSAA	0.016	U	0.16	0.165	103	0.16	0.163	102	1	65-136/30
2991-50-6	EtFOSAA	0.016	U	0.16	0.158	99	0.16	0.156	98	1	61-135/30
757124-72-4	4:2 Fluorotelomer sulfonate	0.016	U	0.16	0.166	104	0.16	0.163	102	2	63-143/30
27619-97-2	6:2 Fluorotelomer sulfonate	0.016	U	0.16	0.163	102	0.16	0.163	102	0	64-140/30
39108-34-4	8:2 Fluorotelomer sulfonate	0.016	U	0.16	0.162	101	0.16	0.160	100	1	67-138/30
13252-13-6	HFPO-DA (GenX)	0.016	U	0.16	0.120	75	0.16	0.120	75	0	60-140/30
919005-14-4	ADONA	0.016	U	0.16	0.157	98	0.16	0.151	94	4	60-140/30
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.016	U	0.16	0.153	96	0.16	0.146	91	5	60-140/30
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.016	U	0.16	0.176	110	0.16	0.171	107	3	60-140/30

CAS No.	ID Standard Recoveries	MS	MSD	FA88592-3	Limits
	13C4-PFBA	76%	70%	66%	50-150%
	13C5-PFPeA	71%	66%	62%	50-150%
	13C5-PFHxA	73%	67%	64%	50-150%
	13C4-PFHpA	68%	63%	61%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88259
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87176-MS	2Q75811.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079
OP87176-MSD	2Q75812.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079
FA88592-3	2Q75810.D	1	09/11/21	NG	09/08/21	OP87176	S2Q1079

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88259-1, FA88259-2, FA88259-3, FA88259-4, FA88259-5, FA88259-6

CAS No.	ID Standard Recoveries	MS	MSD	FA88592-3	Limits
	13C8-PFOA	72%	68%	64%	50-150%
	13C9-PFNA	69%	66%	61%	50-150%
	13C6-PFDA	72%	67%	63%	50-150%
	13C7-PFUnDA	72%	65%	59%	50-150%
	13C2-PFDoDA	67%	61%	54%	50-150%
	13C2-PFTeDA	62%	58%	50%	50-150%
	13C3-PFBS	76%	70%	65%	50-150%
	13C3-PFHxS	78%	72%	67%	50-150%
	13C8-PFOS	75%	70%	64%	50-150%
	13C8-FOSA	75%	72%	68%	50-150%
	d3-MeFOSAA	83%	78%	70%	50-150%
	d5-EtFOSAA	83%	76%	70%	50-150%
	13C2-4:2FTS	77%	70%		50-150%
	13C2-6:2FTS	77%	71%		50-150%
	13C2-8:2FTS	76%	72%		50-150%
	13C3-HFPO-DA	106%	96%		50-150%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

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Automated Report



Technical Report for

Arcadis

Racer Saginaw; 77 W Center St, Saginaw, MI

30076323

SGS Job Number: FA88260

Sampling Date: 08/19/21

Report to:

andrea.colby@sgs.com

Total number of pages in report: 47

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

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SGS North America Inc.

Sample Summary

Arcadis

Job No: FA88260

Racer Saginaw; 77 W Center St, Saginaw, MI
Project No: 30076323

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA88260-1	08/19/21	08:55	AWWC	08/20/21	AQ	Ground Water	B-3R_08192021
FA88260-2	08/19/21	10:25	AWWC	08/20/21	AQ	Ground Water	MW-131WT_08192021
FA88260-3	08/19/21	12:05	AWWC	08/20/21	AQ	Ground Water	MW-134WT_08192021
FA88260-4	08/19/21	13:30	AWWC	08/20/21	AQ	Ground Water	QPTW-13R_08192021
FA88260-5	08/19/21	13:30	AWWC	08/20/21	AQ	Ground Water	MW-108WT_08192021
FA88260-6	08/19/21	00:00	AWWC	08/20/21	AQ	Ground Water	DUP-05_08192021
FA88260-7	08/19/21	13:55	AWWC	08/20/21	AQ	Field Blank Water	FB-01_08192021

Summary of Hits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88260-1	**B-3R_08192021**					
Perfluoroheptanoic acid		1.8 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		2.7 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		0.98 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		13.7	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-2	**MW-131WT_08192021**					
Perfluorobutanoic acid		6.2 J	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		1.3 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		1.8 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		1.6 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		3.7	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorononanoic acid		1.3 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		2.0 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanesulfonic acid		1.3 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		9.1	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		11.0	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-3	**MW-134WT_08192021**					
Perfluorobutanoic acid		3.0 J	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		1.0 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		1.7 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		1.1 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-4	**QPTW-13R_08192021**					
Perfluorobutanoic acid [a]		11.3	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid [a]		1.9 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid [a]		1.6 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid [a]		3.8	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		1.9 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		6.6	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-5	**MW-108WT_08192021**					
Perfluorobutanoic acid		3.7 J	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		1.8 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		1.9 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		1.9 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		4.6	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorononanoic acid		1.4 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		3.5 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15

Summary of Hits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
Perfluorooctanesulfonic acid		15.1	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-6	**DUP-05_08192021**					
Perfluorobutanoic acid [a]		12.9	7.1	3.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid [a]		2.1 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid [a]		4.0	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		1.5 J	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		8.4	3.6	1.8	ng/l	EPA 537M QSM5.3 B-15
FA88260-7	**FB-01_08192021**					

No hits reported in this sample.

(a) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	B-3R_08192021		
Lab Sample ID:	FA88260-1	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44487.D	1	09/10/21 02:27	MV	09/04/21 12:30	OP87137	S3Q644
Run #2 [a]	4Q17692.D	1	08/31/21 14:14	NG	08/25/21 12:30	OP86992	S4Q251

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.6 U	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid	2.7	3.6	1.8	0.89	ng/l	J
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	0.98	3.6	1.8	0.89	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	13.7	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [c]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B-3R_08192021		
Lab Sample ID:	FA88260-1	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	54%	38% d	50-150%
	13C5-PFPeA	55%	48% d	50-150%
	13C5-PFHxA	55%	54%	50-150%
	13C4-PFHpA	53%	64%	50-150%
	13C8-PFOA	57%	68%	50-150%
	13C9-PFNA	62%	69%	50-150%
	13C6-PFDA	70%	72%	50-150%
	13C7-PFUnDA	60%	66%	50-150%
	13C2-PFDoDA	58%	68%	50-150%
	13C2-PFTeDA	46% d	64%	50-150%
	13C3-PFBS	68%	60%	50-150%
	13C3-PFHxS	61%	70%	50-150%
	13C8-PFOS	68%	68%	50-150%
	13C8-FOSA	18% d	24% d	50-150%
	d3-MeFOSAA	101%	85%	50-150%
	d5-EtFOSAA	98%	78%	50-150%
	13C2-4:2FTS	60%	66%	50-150%
	13C2-6:2FTS	73%	88%	50-150%
	13C2-8:2FTS	90%	89%	50-150%
	13C3-HFPO-DA	68%	61%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits.
(c) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(d) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-131WT_08192021		
Lab Sample ID:	FA88260-2	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44488.D	1	09/10/21 02:43	MV	09/04/21 12:30	OP87137	S3Q644
Run #2 [a]	4Q17693.D	1	08/31/21 14:29	NG	08/25/21 12:30	OP86992	S4Q251

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	6.2	7.1	3.6	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	1.3	3.6	1.8	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.8	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.6	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid	3.7	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.3	3.6	1.8	0.89	ng/l	J
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	2.0	3.6	1.8	0.89	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.3	3.6	1.8	0.89	ng/l	J
355-46-4	Perfluorohexanesulfonic acid	9.1	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	11.0	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [c]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-131WT_08192021		
Lab Sample ID:	FA88260-2	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	59%	45% d	50-150%
	13C5-PFPeA	58%	55%	50-150%
	13C5-PFHxA	60%	61%	50-150%
	13C4-PFHpA	55%	69%	50-150%
	13C8-PFOA	58%	73%	50-150%
	13C9-PFNA	62%	76%	50-150%
	13C6-PFDA	70%	79%	50-150%
	13C7-PFUnDA	64%	76%	50-150%
	13C2-PFDoDA	53%	77%	50-150%
	13C2-PFTeDA	19% d	73%	50-150%
	13C3-PFBS	69%	64%	50-150%
	13C3-PFHxS	59%	73%	50-150%
	13C8-PFOS	65%	73%	50-150%
	13C8-FOSA	21% d	42% d	50-150%
	d3-MeFOSAA	88%	91%	50-150%
	d5-EtFOSAA	78%	81%	50-150%
	13C2-4:2FTS	64%	74%	50-150%
	13C2-6:2FTS	74%	90%	50-150%
	13C2-8:2FTS	82%	90%	50-150%
	13C3-HFPO-DA	70%	63%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits.
(c) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(d) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-134WT_08192021		
Lab Sample ID:	FA88260-3	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4Q17694.D	1	08/31/21 14:44	NG	08/25/21 12:30	OP86992	S4Q251
Run #2	3Q44489.D	1	09/10/21 03:00	MV	09/04/21 12:30	OP87137	S3Q644

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.0	7.1	3.6	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	1.0	3.6	1.8	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	1.7	3.6	1.8	0.89	ng/l	J
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.1	3.6	1.8	0.89	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [a]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U [b]	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-134WT_08192021		
Lab Sample ID:	FA88260-3	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U [b]	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	83%	54%	50-150%
	13C5-PFPeA	100%	52%	50-150%
	13C5-PFHxA	107%	53%	50-150%
	13C4-PFHpA	120%	48% [c]	50-150%
	13C8-PFOA	123%	50%	50-150%
	13C9-PFNA	121%	52%	50-150%
	13C6-PFDA	119%	57%	50-150%
	13C7-PFUnDA	118%	50%	50-150%
	13C2-PFDoDA	125%	48% [c]	50-150%
	13C2-PFTeDA	106%	24% [c]	50-150%
	13C3-PFBS	112%	61%	50-150%
	13C3-PFHxS	124%	51%	50-150%
	13C8-PFOS	122%	58%	50-150%
	13C8-FOSA	37% [c]	15% [c]	50-150%
	d3-MeFOSAA	149%	78%	50-150%
	d5-EtFOSAA	142%	71%	50-150%
	13C2-4:2FTS	129%	56%	50-150%
	13C2-6:2FTS	157% [c]	63%	50-150%
	13C2-8:2FTS	152% [c]	74%	50-150%
	13C3-HFPO-DA	111%	62%	50-150%

(a) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(b) Result is from Run# 2
(c) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	QPTW-13R_08192021		
Lab Sample ID:	FA88260-4	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4Q17695.D	1	08/31/21 15:05	NG	08/25/21 12:30	OP86992	S4Q251
Run #2 [a]	3Q44490.D	1	09/10/21 03:16	MV	09/04/21 12:30	OP87137	S3Q644
Run #3	4Q17885.D	5	09/02/21 19:58	NG	08/25/21 12:30	OP86992	S4Q253

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid [b]	11.3	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid [b]	8.9 U [c]	18	8.9	4.5	ng/l	
307-24-4	Perfluorohexanoic acid [b]	1.9	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid [b]	1.6	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid [b]	3.8	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9	3.6	1.8	0.89	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	6.6	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	18 U [c]	36	18	8.9	ng/l	
2991-50-6	EtFOSAA	18 U [c]	36	18	8.9	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	QPTW-13R_08192021		
Lab Sample ID:	FA88260-4	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate [b]	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	18 U [c]	36	18	8.9	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	18 U [c]	36	18	8.9	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX) [b]	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA [b]	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major) [b]	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [b]	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	32% [d]	46% [d]	32% [d]	50-150%
	13C5-PFPeA	36% [d]	48% [d]	37% [d]	50-150%
	13C5-PFHxA	38% [d]	39% [d]	41% [d]	50-150%
	13C4-PFHpA	42% [d]	35% [d]	43% [d]	50-150%
	13C8-PFOA	44% [d]	37% [d]	46% [d]	50-150%
	13C9-PFNA	45% [d]	41% [d]	45% [d]	50-150%
	13C6-PFDA	48% [d]	47% [d]	41% [d]	50-150%
	13C7-PFUnDA	47% [d]	44% [d]	38% [d]	50-150%
	13C2-PFDoDA	46% [d]	40% [d]	48% [d]	50-150%
	13C2-PFTeDA	41% [d]	28% [d]	45% [d]	50-150%
	13C3-PFBS	50%	61%	44% [d]	50-150%
	13C3-PFHxS	59%	49% [d]	49% [d]	50-150%
	13C8-PFOS	54%	58%	45% [d]	50-150%
	13C8-FOSA	7% [d]	5% [d]	18% [d]	50-150%
	d3-MeFOSAA	39% [d]	34% [d]	57%	50-150%
	d5-EtFOSAA	37% [d]	32% [d]	52%	50-150%
	13C2-4:2FTS	46% [d]	44% [d]	48% [d]	50-150%
	13C2-6:2FTS	61%	49% [d]	60%	50-150%
	13C2-8:2FTS	69%	68%	58%	50-150%
	13C3-HFPO-DA	49% [d]	55%	41% [d]	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(c) Result is from Run# 3
(d) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-108WT_08192021		
Lab Sample ID:	FA88260-5	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44491.D	1	09/10/21 03:33	MV	09/04/21 12:30	OP87137	S3Q644
Run #2 [a]	4Q17696.D	1	08/31/21 15:20	NG	08/25/21 12:30	OP86992	S4Q251

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.7	7.1	3.6	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	1.8	3.6	1.8	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.9	3.6	1.8	0.89	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.9	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid	4.6	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.4	3.6	1.8	0.89	ng/l	J
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	3.5	3.6	1.8	0.89	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	15.1	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-108WT_08192021		
Lab Sample ID:	FA88260-5	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	62%	45% [c]	50-150%
	13C5-PFPeA	61%	54%	50-150%
	13C5-PFHxA	63%	60%	50-150%
	13C4-PFHpA	59%	70%	50-150%
	13C8-PFOA	61%	73%	50-150%
	13C9-PFNA	65%	74%	50-150%
	13C6-PFDA	72%	78%	50-150%
	13C7-PFUnDA	70%	83%	50-150%
	13C2-PFDoDA	74%	88%	50-150%
	13C2-PFTeDA	73%	81%	50-150%
	13C3-PFBS	73%	63%	50-150%
	13C3-PFHxS	63%	74%	50-150%
	13C8-PFOS	70%	74%	50-150%
	13C8-FOSA	41% [c]	45% [c]	50-150%
	d3-MeFOSAA	92%	91%	50-150%
	d5-EtFOSAA	84%	85%	50-150%
	13C2-4:2FTS	67%	72%	50-150%
	13C2-6:2FTS	78%	90%	50-150%
	13C2-8:2FTS	86%	86%	50-150%
	13C3-HFPO-DA	71%	62%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(c) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-05_08192021		
Lab Sample ID:	FA88260-6	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4Q17697.D	1	08/31/21 15:35	NG	08/25/21 12:30	OP86992	S4Q251
Run #2 [a]	3Q44492.D	1	09/10/21 03:49	MV	09/04/21 12:30	OP87137	S3Q644
Run #3	4Q17830.D	5	09/02/21 04:04	NG	08/25/21 12:30	OP86992	S4Q252

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2	280 ml	1.0 ml
Run #3	280 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid [b]	12.9	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	8.9 U [c]	18	8.9	4.5	ng/l	
307-24-4	Perfluorohexanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid [b]	2.1	3.6	1.8	0.89	ng/l	J
335-67-1	Perfluorooctanoic acid [b]	4.0	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic aci [b]	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.5	3.6	1.8	0.89	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	8.4	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA [b]	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA [b]	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA [b]	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP-05_08192021		
Lab Sample ID:	FA88260-6	**Date Sampled:**	08/19/21
Matrix:	AQ - Ground Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate [b]	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX) [b]	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA [b]	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major) [b]	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Mino [b]	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	31% [d]	45% [d]	44% [d]	50-150%
	13C5-PFPeA	35% [d]	46% [d]	51%	50-150%
	13C5-PFHxA	36% [d]	39% [d]	53%	50-150%
	13C4-PFHpA	40% [d]	34% [d]	60%	50-150%
	13C8-PFOA	43% [d]	36% [d]	61%	50-150%
	13C9-PFNA	43% [d]	41% [d]	60%	50-150%
	13C6-PFDA	45% [d]	47% [d]	59%	50-150%
	13C7-PFUnDA	45% [d]	44% [d]	55%	50-150%
	13C2-PFDoDA	42% [d]	39% [d]	62%	50-150%
	13C2-PFTeDA	41% [d]	30% [d]	56%	50-150%
	13C3-PFBS	49% [d]	58%	59%	50-150%
	13C3-PFHxS	57%	46% [d]	61%	50-150%
	13C8-PFOS	53%	53%	62%	50-150%
	13C8-FOSA	6% [d]	7% [d]	20% [d]	50-150%
	d3-MeFOSAA	37% [d]	38% [d]	84%	50-150%
	d5-EtFOSAA	34% [d]	37% [d]	74%	50-150%
	13C2-4:2FTS	43% [d]	42% [d]	66%	50-150%
	13C2-6:2FTS	58%	49% [d]	82%	50-150%
	13C2-8:2FTS	66%	67%	82%	50-150%
	13C3-HFPO-DA	48% [d]	54%	61%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(c) Result is from Run# 3
(d) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB-01_08192021		
Lab Sample ID:	FA88260-7	**Date Sampled:**	08/19/21
Matrix:	AQ - Field Blank Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3Q44493.D	1	09/10/21 04:06	MV	09/04/21 12:30	OP87137	S3Q644
Run #2							

	Initial Volume	Final Volume
Run #1	280 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	3.6 U	7.1	3.6	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-67-1	Perfluorooctanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	1.8 U	3.6	1.8	0.89	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
2991-50-6	EtFOSAA	3.6 U	7.1	3.6	1.8	ng/l	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB-01_08192021		
Lab Sample ID:	FA88260-7	**Date Sampled:**	08/19/21
Matrix:	AQ - Field Blank Water	**Date Received:**	08/20/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	3.6 U	7.1	3.6	1.8	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.6 U	7.1	3.6	1.8	ng/l	
919005-14-4	ADONA	3.6 U	7.1	3.6	1.8	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.1	3.6	1.8	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.1	3.6	1.8	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	90%		50-150%
	13C5-PFPeA	86%		50-150%
	13C5-PFHxA	91%		50-150%
	13C4-PFHpA	90%		50-150%
	13C8-PFOA	88%		50-150%
	13C9-PFNA	87%		50-150%
	13C6-PFDA	90%		50-150%
	13C7-PFUnDA	85%		50-150%
	13C2-PFDoDA	81%		50-150%
	13C2-PFTeDA	73%		50-150%
	13C3-PFBS	92%		50-150%
	13C3-PFHxS	90%		50-150%
	13C8-PFOS	86%		50-150%
	13C8-FOSA	96%		50-150%
	d3-MeFOSAA	102%		50-150%
	d5-EtFOSAA	93%		50-150%
	13C2-4:2FTS	86%		50-150%
	13C2-6:2FTS	92%		50-150%
	13C2-8:2FTS	92%		50-150%
	13C3-HFPO-DA	99%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.us.sgs.com

SGS SMI

FA88260

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Arcadis
Address: 3855D Cabot Drive, Suite 500
City: Novi State: MI Zip: 48377
Project Contact: Email: Amanda.Robinson@arcadis.com
Phone #: 989-854-8672
Sampler(s) Name(s) (Printed) Austin Westhuis
Sampler 1: Sampler 2: Bill Cobern

Project Information

Project Name: Racer Saginaw
Street
City: Saginaw State: MI
Project # 30076323
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION	PFAS	LAB USE ONLY
1	B-3R_08192021	8/19/21	0855	AW	GW	2	2	X	
2	MW-131WT_08192021	8/19/21	1025	AW	GW	2	2	X	
3	MW-134WT_08192021	8/19/21	1205	AW	GW	2	2	X	
4	QPTW-13R_08192021	8/19/21	1330	AW	GW	2	2	X	
5	MW-103WT_08192021	8/19/21	1330	BC	GW	2	2	X	
6	Dup-05_08192021	8/19/21	—	AW	GW	2	2	X	
7	FB-01_08192021	8/19/21	1355	AW	GW	2	2	X	

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other

Rush T/A Data Available VIA Email or Labink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

INITIAL ASSESSMENT PEDV

LABEL VERIFICATION

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	8/19/21 1624	2 FedEx	3	8/20/21	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7	930	8

Lab Use Only: Cooler Temperature (s) Celsius (corrected) 3.0-1.1

www.sgs.com/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

FA88260: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA88260 **Client:** ARCADIS **Project:** RACER SAGINAW

Date / Time Received: 8/20/2021 9:30:00 AM **Delivery Method:** FX **Airbill #'s:** 5061 4510 2473

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 8/20/2021 9:30:00 AM Reviewer: _____ Date: _____

FA88260: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86992	EPA 537M QSM5.3 B-15						
OP86992-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	93	%	73-129
OP86992-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	95	%	72-129
OP86992-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	95	%	72-129
OP86992-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	93	%	72-130
OP86992-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	96	%	71-133
OP86992-BS	375-95-1	Perfluorononanoic acid	BSP	REC	94	%	69-130
OP86992-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	96	%	71-129
OP86992-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	93	%	69-133
OP86992-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	92	%	72-134
OP86992-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	100	%	65-144
OP86992-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	95	%	71-132
OP86992-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	90	%	73-130
OP86992-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	92	%	71-127
OP86992-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	94	%	68-131
OP86992-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	95	%	69-134
OP86992-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	93	%	65-140
OP86992-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	102	%	69-127
OP86992-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	89	%	53-142
OP86992-BS	754-91-6	PFOSA	BSP	REC	94	%	67-137
OP86992-BS	2355-31-9	MeFOSAA	BSP	REC	95	%	65-136
OP86992-BS	2991-50-6	EtFOSAA	BSP	REC	94	%	61-135
OP86992-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	90	%	63-143
OP86992-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	93	%	64-140
OP86992-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	99	%	67-138
OP86992-MS*	375-22-4	Perfluorobutanoic acid	MS	REC	99	%	73-129
OP86992-MS*	2706-90-3	Perfluoropentanoic acid	MS	REC	101	%	72-129
OP86992-MS*	307-24-4	Perfluorohexanoic acid	MS	REC	100	%	72-129
OP86992-MS*	375-85-9	Perfluoroheptanoic acid	MS	REC	100	%	72-130
OP86992-MS*	335-67-1	Perfluorooctanoic acid	MS	REC	100	%	71-133
OP86992-MS*	375-95-1	Perfluorononanoic acid	MS	REC	101	%	69-130
OP86992-MS*	335-76-2	Perfluorodecanoic acid	MS	REC	101	%	71-129
OP86992-MS*	2058-94-8	Perfluoroundecanoic acid	MS	REC	99	%	69-133
OP86992-MS*	307-55-1	Perfluorododecanoic acid	MS	REC	98	%	72-134
OP86992-MS*	72629-94-8	Perfluorotridecanoic acid	MS	REC	93	%	65-144
OP86992-MS*	376-06-7	Perfluorotetradecanoic acid	MS	REC	97	%	71-132
OP86992-MS*	375-73-5	Perfluorobutanesulfonic acid	MS	REC	97	%	73-130
OP86992-MS*	2706-91-4	Perfluoropentanesulfonic acid	MS	REC	98	%	71-127
OP86992-MS*	355-46-4	Perfluorohexanesulfonic acid	MS	REC	103	%	68-131
OP86992-MS*	375-92-8	Perfluoroheptanesulfonic acid	MS	REC	100	%	69-134
OP86992-MS*	1763-23-1	Perfluorooctanesulfonic acid	MS	REC	95	%	65-140
OP86992-MS*	68259-12-1	Perfluorononanesulfonic acid	MS	REC	103	%	69-127
OP86992-MS*	335-77-3	Perfluorodecanesulfonic acid	MS	REC	96	%	53-142

* Sample used for QC is not from job FA88260

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86992-MS*	754-91-6	PFOSA	MS	REC	99	%	67-137
OP86992-MS*	2355-31-9	MeFOSAA	MS	REC	101	%	65-136
OP86992-MS*	2991-50-6	EtFOSAA	MS	REC	101	%	61-135
OP86992-MS*	757124-72-4	4:2 Fluorotelomer sulfonate	MS	REC	94	%	63-143
OP86992-MS*	27619-97-2	6:2 Fluorotelomer sulfonate	MS	REC	98	%	64-140
OP86992-MS*	39108-34-4	8:2 Fluorotelomer sulfonate	MS	REC	103	%	67-138
OP86992-MSD*	375-22-4	Perfluorobutanoic acid	MSD	REC	97	%	73-129
OP86992-MSD*	375-22-4	Perfluorobutanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	REC	98	%	72-129
OP86992-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	307-24-4	Perfluorohexanoic acid	MSD	REC	96	%	72-129
OP86992-MSD*	307-24-4	Perfluorohexanoic acid	MSD	RPD	3	%	30
OP86992-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	REC	98	%	72-130
OP86992-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	335-67-1	Perfluorooctanoic acid	MSD	REC	97	%	71-133
OP86992-MSD*	335-67-1	Perfluorooctanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	375-95-1	Perfluorononanoic acid	MSD	REC	98	%	69-130
OP86992-MSD*	375-95-1	Perfluorononanoic acid	MSD	RPD	4	%	30
OP86992-MSD*	335-76-2	Perfluorodecanoic acid	MSD	REC	99	%	71-129
OP86992-MSD*	335-76-2	Perfluorodecanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	REC	97	%	69-133
OP86992-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	RPD	2	%	30
OP86992-MSD*	307-55-1	Perfluorododecanoic acid	MSD	REC	98	%	72-134
OP86992-MSD*	307-55-1	Perfluorododecanoic acid	MSD	RPD	0	%	30
OP86992-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	REC	94	%	65-144
OP86992-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	RPD	1	%	30
OP86992-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	REC	98	%	71-132
OP86992-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	RPD	1	%	30
OP86992-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	REC	93	%	73-130
OP86992-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	RPD	4	%	30
OP86992-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	REC	96	%	71-127
OP86992-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	RPD	3	%	30
OP86992-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	REC	101	%	68-131
OP86992-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	RPD	2	%	30
OP86992-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	REC	98	%	69-134
OP86992-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	RPD	2	%	30
OP86992-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	REC	94	%	65-140
OP86992-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	RPD	1	%	30
OP86992-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	REC	96	%	69-127
OP86992-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	RPD	7	%	30
OP86992-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	REC	94	%	53-142
OP86992-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	RPD	3	%	30
OP86992-MSD*	754-91-6	PFOSA	MSD	REC	99	%	67-137
OP86992-MSD*	754-91-6	PFOSA	MSD	RPD	0	%	30
OP86992-MSD*	2355-31-9	MeFOSAA	MSD	REC	99	%	65-136

* Sample used for QC is not from job FA88260

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP86992-MSD*	2355-31-9	MeFOSAA	MSD	RPD	2	%	30
OP86992-MSD*	2991-50-6	EtFOSAA	MSD	REC	103	%	61-135
OP86992-MSD*	2991-50-6	EtFOSAA	MSD	RPD	2	%	30
OP86992-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	REC	92	%	63-143
OP86992-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	RPD	3	%	30
OP86992-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	REC	96	%	64-140
OP86992-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	RPD	1	%	30
OP86992-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	REC	101	%	67-138
OP86992-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	RPD	2	%	30
OP87137	EPA 537M QSM5.3 B-15						
OP87137-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	89	%	73-129
OP87137-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	97	%	72-129
OP87137-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	89	%	72-129
OP87137-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	94	%	72-130
OP87137-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	91	%	71-133
OP87137-BS	375-95-1	Perfluorononanoic acid	BSP	REC	97	%	69-130
OP87137-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	92	%	71-129
OP87137-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	94	%	69-133
OP87137-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	91	%	72-134
OP87137-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	98	%	65-144
OP87137-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	99	%	71-132
OP87137-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	92	%	73-130
OP87137-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	92	%	71-127
OP87137-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	92	%	68-131
OP87137-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	99	%	69-134
OP87137-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	93	%	65-140
OP87137-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	92	%	69-127
OP87137-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	89	%	53-142
OP87137-BS	754-91-6	PFOSA	BSP	REC	90	%	67-137
OP87137-BS	2355-31-9	MeFOSAA	BSP	REC	90	%	65-136
OP87137-BS	2991-50-6	EtFOSAA	BSP	REC	92	%	61-135
OP87137-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	93	%	63-143
OP87137-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	97	%	64-140
OP87137-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	96	%	67-138
OP87137-MS*	375-22-4	Perfluorobutanoic acid	MS	REC	87	%	73-129
OP87137-MS*	2706-90-3	Perfluoropentanoic acid	MS	REC	95	%	72-129
OP87137-MS*	307-24-4	Perfluorohexanoic acid	MS	REC	89	%	72-129
OP87137-MS*	375-85-9	Perfluoroheptanoic acid	MS	REC	94	%	72-130
OP87137-MS*	335-67-1	Perfluorooctanoic acid	MS	REC	92	%	71-133
OP87137-MS*	375-95-1	Perfluorononanoic acid	MS	REC	98	%	69-130
OP87137-MS*	335-76-2	Perfluorodecanoic acid	MS	REC	93	%	71-129
OP87137-MS*	2058-94-8	Perfluoroundecanoic acid	MS	REC	93	%	69-133
OP87137-MS*	307-55-1	Perfluorododecanoic acid	MS	REC	90	%	72-134

* Sample used for QC is not from job FA88260

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP87137-MS*	72629-94-8	Perfluorotridecanoic acid	MS	REC	96	%	65-144
OP87137-MS*	376-06-7	Perfluorotetradecanoic acid	MS	REC	99	%	71-132
OP87137-MS*	375-73-5	Perfluorobutanesulfonic acid	MS	REC	93	%	73-130
OP87137-MS*	2706-91-4	Perfluoropentanesulfonic acid	MS	REC	91	%	71-127
OP87137-MS*	355-46-4	Perfluorohexanesulfonic acid	MS	REC	94	%	68-131
OP87137-MS*	375-92-8	Perfluoroheptanesulfonic acid	MS	REC	96	%	69-134
OP87137-MS*	1763-23-1	Perfluorooctanesulfonic acid	MS	REC	87	%	65-140
OP87137-MS*	68259-12-1	Perfluorononanesulfonic acid	MS	REC	90	%	69-127
OP87137-MS*	335-77-3	Perfluorodecanesulfonic acid	MS	REC	86	%	53-142
OP87137-MS*	754-91-6	PFOSA	MS	REC	89	%	67-137
OP87137-MS*	2355-31-9	MeFOSAA	MS	REC	89	%	65-136
OP87137-MS*	2991-50-6	EtFOSAA	MS	REC	94	%	61-135
OP87137-MS*	757124-72-4	4:2 Fluorotelomer sulfonate	MS	REC	93	%	63-143
OP87137-MS*	27619-97-2	6:2 Fluorotelomer sulfonate	MS	REC	94	%	64-140
OP87137-MS*	39108-34-4	8:2 Fluorotelomer sulfonate	MS	REC	94	%	67-138
OP87137-MSD*	375-22-4	Perfluorobutanoic acid	MSD	REC	86	%	73-129
OP87137-MSD*	375-22-4	Perfluorobutanoic acid	MSD	RPD	1	%	30
OP87137-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	REC	95	%	72-129
OP87137-MSD*	2706-90-3	Perfluoropentanoic acid	MSD	RPD	1	%	30
OP87137-MSD*	307-24-4	Perfluorohexanoic acid	MSD	REC	87	%	72-129
OP87137-MSD*	307-24-4	Perfluorohexanoic acid	MSD	RPD	2	%	30
OP87137-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	REC	92	%	72-130
OP87137-MSD*	375-85-9	Perfluoroheptanoic acid	MSD	RPD	2	%	30
OP87137-MSD*	335-67-1	Perfluorooctanoic acid	MSD	REC	92	%	71-133
OP87137-MSD*	335-67-1	Perfluorooctanoic acid	MSD	RPD	0	%	30
OP87137-MSD*	375-95-1	Perfluorononanoic acid	MSD	REC	99	%	69-130
OP87137-MSD*	375-95-1	Perfluorononanoic acid	MSD	RPD	2	%	30
OP87137-MSD*	335-76-2	Perfluorodecanoic acid	MSD	REC	95	%	71-129
OP87137-MSD*	335-76-2	Perfluorodecanoic acid	MSD	RPD	2	%	30
OP87137-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	REC	95	%	69-133
OP87137-MSD*	2058-94-8	Perfluoroundecanoic acid	MSD	RPD	3	%	30
OP87137-MSD*	307-55-1	Perfluorododecanoic acid	MSD	REC	93	%	72-134
OP87137-MSD*	307-55-1	Perfluorododecanoic acid	MSD	RPD	3	%	30
OP87137-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	REC	96	%	65-144
OP87137-MSD*	72629-94-8	Perfluorotridecanoic acid	MSD	RPD	0	%	30
OP87137-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	REC	101	%	71-132
OP87137-MSD*	376-06-7	Perfluorotetradecanoic acid	MSD	RPD	3	%	30
OP87137-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	REC	91	%	73-130
OP87137-MSD*	375-73-5	Perfluorobutanesulfonic acid	MSD	RPD	1	%	30
OP87137-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	REC	92	%	71-127
OP87137-MSD*	2706-91-4	Perfluoropentanesulfonic acid	MSD	RPD	1	%	30
OP87137-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	REC	94	%	68-131
OP87137-MSD*	355-46-4	Perfluorohexanesulfonic acid	MSD	RPD	1	%	30
OP87137-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	REC	99	%	69-134
OP87137-MSD*	375-92-8	Perfluoroheptanesulfonic acid	MSD	RPD	3	%	30

* Sample used for QC is not from job FA88260

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88260
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/19/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP87137-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	REC	91	%	65-140
OP87137-MSD*	1763-23-1	Perfluorooctanesulfonic acid	MSD	RPD	4	%	30
OP87137-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	REC	93	%	69-127
OP87137-MSD*	68259-12-1	Perfluorononanesulfonic acid	MSD	RPD	3	%	30
OP87137-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	REC	88	%	53-142
OP87137-MSD*	335-77-3	Perfluorodecanesulfonic acid	MSD	RPD	1	%	30
OP87137-MSD*	754-91-6	PFOSA	MSD	REC	94	%	67-137
OP87137-MSD*	754-91-6	PFOSA	MSD	RPD	5	%	30
OP87137-MSD*	2355-31-9	MeFOSAA	MSD	REC	94	%	65-136
OP87137-MSD*	2355-31-9	MeFOSAA	MSD	RPD	5	%	30
OP87137-MSD*	2991-50-6	EtFOSAA	MSD	REC	96	%	61-135
OP87137-MSD*	2991-50-6	EtFOSAA	MSD	RPD	2	%	30
OP87137-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	REC	93	%	63-143
OP87137-MSD*	757124-72-4	4:2 Fluorotelomer sulfonate	MSD	RPD	0	%	30
OP87137-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	REC	95	%	64-140
OP87137-MSD*	27619-97-2	6:2 Fluorotelomer sulfonate	MSD	RPD	1	%	30
OP87137-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	REC	95	%	67-138
OP87137-MSD*	39108-34-4	8:2 Fluorotelomer sulfonate	MSD	RPD	1	%	30

* Sample used for QC is not from job FA88260

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q251-IBLK	4Q17679.D	1	08/31/21	NG	n/a	n/a	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	100%	50-150%
	13C5-PFPeA	98%	50-150%
	13C5-PFHxA	97%	50-150%
	13C4-PFHpA	97%	50-150%

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q251-IBLK	4Q17679.D	1	08/31/21	NG	n/a	n/a	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	100%	50-150%
	13C9-PFNA	102%	50-150%
	13C6-PFDA	102%	50-150%
	13C7-PFUnDA	103%	50-150%
	13C2-PFDoDA	102%	50-150%
	13C2-PFTeDA	96%	50-150%
	13C3-PFBS	98%	50-150%
	13C3-PFHxS	97%	50-150%
	13C8-PFOS	101%	50-150%
	13C8-FOSA	104%	50-150%
	d3-MeFOSAA	110%	50-150%
	d5-EtFOSAA	103%	50-150%
	13C2-4:2FTS	92%	50-150%
	13C2-6:2FTS	98%	50-150%
	13C2-8:2FTS	101%	50-150%

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q252-IBLK	4Q17765.D	1	09/01/21	NG	n/a	n/a	S4Q252

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-6

CAS No.	Compound	Result	RL	MDL	Units	Q
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	96%	50-150%
	13C5-PFPeA	94%	50-150%
	13C5-PFHxA	93%	50-150%
	13C4-PFHpA	94%	50-150%
	13C8-PFOA	97%	50-150%
	13C9-PFNA	97%	50-150%
	13C6-PFDA	99%	50-150%
	13C7-PFUnDA	99%	50-150%
	13C2-PFDoDA	98%	50-150%
	13C2-PFTeDA	93%	50-150%
	13C3-PFBS	94%	50-150%
	13C3-PFHxS	91%	50-150%
	13C8-PFOS	94%	50-150%
	13C8-FOSA	99%	50-150%
	d3-MeFOSAA	111%	50-150%
	d5-EtFOSAA	102%	50-150%
	13C2-4:2FTS	90%	50-150%
	13C2-6:2FTS	96%	50-150%
	13C2-8:2FTS	103%	50-150%

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q253-IBLK	4Q17879.D	1	09/02/21	NG	n/a	n/a	S4Q253

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-4

CAS No.	Compound	Result	RL	MDL	Units	Q
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	74%	50-150%
	13C5-PFPeA	71%	50-150%
	13C5-PFHxA	71%	50-150%
	13C4-PFHpA	74%	50-150%
	13C8-PFOA	76%	50-150%
	13C9-PFNA	79%	50-150%
	13C6-PFDA	78%	50-150%
	13C7-PFUnDA	77%	50-150%
	13C2-PFDoDA	78%	50-150%
	13C2-PFTeDA	79%	50-150%
	13C3-PFBS	73%	50-150%
	13C3-PFHxS	72%	50-150%
	13C8-PFOS	74%	50-150%
	13C8-FOSA	76%	50-150%
	d3-MeFOSAA	87%	50-150%
	d5-EtFOSAA	80%	50-150%
	13C2-4:2FTS	69%	50-150%
	13C2-6:2FTS	76%	50-150%
	13C2-8:2FTS	80%	50-150%

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q644-IBLK	3Q44438.D	1	09/09/21	MV	n/a	n/a	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	97%	50-150%
	13C5-PFPeA	97%	50-150%
	13C5-PFHxA	97%	50-150%
	13C4-PFHpA	98%	50-150%

Instrument Blank

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S3Q644-IBLK	3Q44438.D	1	09/09/21	MV	n/a	n/a	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	97%	50-150%
	13C9-PFNA	99%	50-150%
	13C6-PFDA	100%	50-150%
	13C7-PFUnDA	100%	50-150%
	13C2-PFDoDA	98%	50-150%
	13C2-PFTeDA	96%	50-150%
	13C3-PFBS	97%	50-150%
	13C3-PFHxS	96%	50-150%
	13C8-PFOS	101%	50-150%
	13C8-FOSA	104%	50-150%
	d3-MeFOSA	112%	50-150%
	d3-MeFOSAA	104%	50-150%
	d5-EtFOSAA	103%	50-150%
	13C2-4:2FTS	89%	50-150%
	13C2-6:2FTS	95%	50-150%
	13C2-8:2FTS	96%	50-150%

Method Blank Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-MB	4Q17683.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	79%	50-150%
	13C5-PFPeA	78%	50-150%
	13C5-PFHxA	78%	50-150%
	13C4-PFHpA	78%	50-150%

Method Blank Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-MB	4Q17683.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	80%	50-150%
	13C9-PFNA	82%	50-150%
	13C6-PFDA	82%	50-150%
	13C7-PFUnDA	80%	50-150%
	13C2-PFDoDA	75%	50-150%
	13C2-PFTeDA	66%	50-150%
	13C3-PFBS	78%	50-150%
	13C3-PFHxS	78%	50-150%
	13C8-PFOS	78%	50-150%
	13C8-FOSA	76%	50-150%
	d3-MeFOSAA	83%	50-150%
	d5-EtFOSAA	73%	50-150%
	13C2-4:2FTS	74%	50-150%
	13C2-6:2FTS	79%	50-150%
	13C2-8:2FTS	83%	50-150%
	13C3-HFPO-DA	81%	50-150%

Method Blank Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-MB	3Q44485.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	90%	50-150%
	13C5-PFPeA	86%	50-150%
	13C5-PFHxA	90%	50-150%
	13C4-PFHpA	90%	50-150%

Method Blank Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-MB	3Q44485.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	90%	50-150%
	13C9-PFNA	87%	50-150%
	13C6-PFDA	93%	50-150%
	13C7-PFUnDA	82%	50-150%
	13C2-PFDoDA	78%	50-150%
	13C2-PFTeDA	74%	50-150%
	13C3-PFBS	92%	50-150%
	13C3-PFHxS	89%	50-150%
	13C8-PFOS	86%	50-150%
	13C8-FOSA	88%	50-150%
	d3-MeFOSA	69%	50-150%
	d3-MeFOSAA	91%	50-150%
	d5-EtFOSAA	78%	50-150%
	13C2-4:2FTS	85%	50-150%
	13C2-6:2FTS	91%	50-150%
	13C2-8:2FTS	91%	50-150%
	13C3-HFPO-DA	101%	50-150%

Blank Spike Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-BS	4Q17682.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0746	93	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0758	95	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0757	95	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0745	93	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0764	96	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0755	94	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0769	96	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0741	93	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0732	92	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0803	100	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0757	95	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0716	90	73-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0738	92	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0754	94	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0759	95	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0740	93	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0816	102	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0711	89	53-142
754-91-6	PFOSA	0.08	0.0753	94	67-137
2355-31-9	MeFOSAA	0.08	0.0758	95	65-136
2991-50-6	EtFOSAA	0.08	0.0750	94	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0720	90	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0745	93	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0795	99	67-138
13252-13-6	HFPO-DA (GenX)	0.08	0.0705	88	60-140
919005-14-4	ADONA	0.08	0.0725	91	60-140
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.08	0.0697	87	60-140
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.08	0.0747	93	60-140

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	95%	50-150%
	13C5-PFPeA	94%	50-150%
	13C5-PFHxA	94%	50-150%
	13C4-PFHpA	96%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-BS	4Q17682.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	96%	50-150%
	13C9-PFNA	98%	50-150%
	13C6-PFDA	97%	50-150%
	13C7-PFUnDA	94%	50-150%
	13C2-PFDoDA	89%	50-150%
	13C2-PFTeDA	69%	50-150%
	13C3-PFBS	95%	50-150%
	13C3-PFHxS	97%	50-150%
	13C8-PFOS	95%	50-150%
	13C8-FOSA	82%	50-150%
	d3-MeFOSAA	96%	50-150%
	d5-EtFOSAA	86%	50-150%
	13C2-4:2FTS	96%	50-150%
	13C2-6:2FTS	98%	50-150%
	13C2-8:2FTS	101%	50-150%
	13C3-HFPO-DA	99%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-BS	3Q44484.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0714	89	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0775	97	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0713	89	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0753	94	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0727	91	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0772	97	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0737	92	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0753	94	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0729	91	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0787	98	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0795	99	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0733	92	73-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0736	92	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0735	92	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0795	99	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0747	93	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0737	92	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0715	89	53-142
754-91-6	PFOSA	0.08	0.0718	90	67-137
2355-31-9	MeFOSAA	0.08	0.0723	90	65-136
2991-50-6	EtFOSAA	0.08	0.0738	92	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0745	93	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0772	97	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0765	96	67-138
13252-13-6	HFPO-DA (GenX)	0.08	0.0669	84	60-140
919005-14-4	ADONA	0.08	0.0729	91	60-140
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.08	0.0685	86	60-140
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.08	0.0833	104	60-140

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	98%	50-150%
	13C5-PFPeA	93%	50-150%
	13C5-PFHxA	98%	50-150%
	13C4-PFHpA	96%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-BS	3Q44484.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	96%	50-150%
	13C9-PFNA	94%	50-150%
	13C6-PFDA	95%	50-150%
	13C7-PFUnDA	85%	50-150%
	13C2-PFDoDA	83%	50-150%
	13C2-PFTeDA	77%	50-150%
	13C3-PFBS	100%	50-150%
	13C3-PFHxS	97%	50-150%
	13C8-PFOS	91%	50-150%
	13C8-FOSA	97%	50-150%
	d3-MeFOSA	72%	50-150%
	d3-MeFOSAA	100%	50-150%
	d5-EtFOSAA	95%	50-150%
	13C2-4:2FTS	99%	50-150%
	13C2-6:2FTS	102%	50-150%
	13C2-8:2FTS	99%	50-150%
	13C3-HFPO-DA	109%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-MS	4Q17687.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251
OP86992-MSD	4Q17688.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251
FA88311-3	4Q17686.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	Compound	FA88311-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.0157	J	0.16	0.174	99	0.16	0.171	97	2	73-129/30
2706-90-3	Perfluoropentanoic acid	0.0475		0.16	0.209	101	0.16	0.205	98	2	72-129/30
307-24-4	Perfluorohexanoic acid	0.0297		0.16	0.189	100	0.16	0.184	96	3	72-129/30
375-85-9	Perfluoroheptanoic acid	0.0106		0.16	0.170	100	0.16	0.167	98	2	72-130/30
335-67-1	Perfluorooctanoic acid	0.0174		0.16	0.177	100	0.16	0.173	97	2	71-133/30
375-95-1	Perfluorononanoic acid	0.0080	U	0.16	0.162	101	0.16	0.156	98	4	69-130/30
335-76-2	Perfluorodecanoic acid	0.0080	U	0.16	0.161	101	0.16	0.158	99	2	71-129/30
2058-94-8	Perfluoroundecanoic acid	0.0080	U	0.16	0.158	99	0.16	0.155	97	2	69-133/30
307-55-1	Perfluorododecanoic acid	0.0080	U	0.16	0.157	98	0.16	0.157	98	0	72-134/30
72629-94-8	Perfluorotridecanoic acid	0.0080	U	0.16	0.149	93	0.16	0.150	94	1	65-144/30
376-06-7	Perfluorotetradecanoic acid	0.0080	U	0.16	0.155	97	0.16	0.157	98	1	71-132/30
375-73-5	Perfluorobutanesulfonic acid	0.0370		0.16	0.192	97	0.16	0.185	93	4	73-130/30
2706-91-4	Perfluoropentanesulfonic acid	0.0035	J	0.16	0.161	98	0.16	0.157	96	3	71-127/30
355-46-4	Perfluorohexanesulfonic acid	0.0409		0.16	0.206	103	0.16	0.202	101	2	68-131/30
375-92-8	Perfluoroheptanesulfonic acid	0.0080	U	0.16	0.160	100	0.16	0.157	98	2	69-134/30
1763-23-1	Perfluorooctanesulfonic acid	0.0424		0.16	0.194	95	0.16	0.193	94	1	65-140/30
68259-12-1	Perfluorononanesulfonic acid	0.0080	U	0.16	0.164	103	0.16	0.153	96	7	69-127/30
335-77-3	Perfluorodecanesulfonic acid	0.0080	U	0.16	0.154	96	0.16	0.150	94	3	53-142/30
754-91-6	PFOSA	0.0080	U	0.16	0.159	99	0.16	0.159	99	0	67-137/30
2355-31-9	MeFOSAA	0.016	U	0.16	0.162	101	0.16	0.159	99	2	65-136/30
2991-50-6	EtFOSAA	0.016	U	0.16	0.161	101	0.16	0.164	103	2	61-135/30
757124-72-4	4:2 Fluorotelomer sulfonate	0.016	U	0.16	0.151	94	0.16	0.147	92	3	63-143/30
27619-97-2	6:2 Fluorotelomer sulfonate	0.016	U	0.16	0.156	98	0.16	0.154	96	1	64-140/30
39108-34-4	8:2 Fluorotelomer sulfonate	0.016	U	0.16	0.164	103	0.16	0.161	101	2	67-138/30
13252-13-6	HFPO-DA (GenX)	0.016	U	0.16	0.153	96	0.16	0.149	93	3	60-140/30
919005-14-4	ADONA	0.016	U	0.16	0.152	95	0.16	0.153	96	1	60-140/30
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.016	U	0.16	0.154	96	0.16	0.146	91	5	60-140/30
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.016	U	0.16	0.153	96	0.16	0.157	98	3	60-140/30

CAS No.	ID Standard Recoveries	MS	MSD	FA88311-3	Limits
	13C4-PFBA	75%	80%	68%	50-150%
	13C5-PFPeA	82%	88%	75%	50-150%
	13C5-PFHxA	83%	90%	76%	50-150%
	13C4-PFHpA	82%	90%	77%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP86992-MS	4Q17687.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251
OP86992-MSD	4Q17688.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251
FA88311-3	4Q17686.D	1	08/31/21	NG	08/25/21	OP86992	S4Q251

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-3, FA88260-4, FA88260-6

CAS No.	ID Standard Recoveries	MS	MSD	FA88311-3	Limits
	13C8-PFOA	85%	92%	79%	50-150%
	13C9-PFNA	86%	92%	81%	50-150%
	13C6-PFDA	84%	91%	83%	50-150%
	13C7-PFUnDA	82%	86%	80%	50-150%
	13C2-PFDoDA	87%	88%	84%	50-150%
	13C2-PFTeDA	80%	81%	80%	50-150%
	13C3-PFBS	83%	90%	89%	50-150%
	13C3-PFHxS	84%	90%	88%	50-150%
	13C8-PFOS	85%	91%	86%	50-150%
	13C8-FOSA	86%	90%	78%	50-150%
	d3-MeFOSAA	85%	89%	85%	50-150%
	d5-EtFOSAA	83%	85%	77%	50-150%
	13C2-4:2FTS	87%	93%	85%	50-150%
	13C2-6:2FTS	89%	97%	90%	50-150%
	13C2-8:2FTS	90%	96%	92%	50-150%
	13C3-HFPO-DA	83%	92%		50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-MS	3Q44497.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644
OP87137-MSD	3Q44498.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644
FA88545-1	3Q44496.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	Compound	FA88545-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.0125	J	0.16	0.151	87	0.16	0.150	86	1	73-129/30
2706-90-3	Perfluoropentanoic acid	0.0333		0.16	0.186	95	0.16	0.185	95	1	72-129/30
307-24-4	Perfluorohexanoic acid	0.0291		0.16	0.171	89	0.16	0.168	87	2	72-129/30
375-85-9	Perfluoroheptanoic acid	0.0172		0.16	0.168	94	0.16	0.165	92	2	72-130/30
335-67-1	Perfluorooctanoic acid	0.0430		0.16	0.190	92	0.16	0.190	92	0	71-133/30
375-95-1	Perfluorononanoic acid	0.0080	U	0.16	0.156	98	0.16	0.159	99	2	69-130/30
335-76-2	Perfluorodecanoic acid	0.0080	U	0.16	0.149	93	0.16	0.152	95	2	71-129/30
2058-94-8	Perfluoroundecanoic acid	0.0080	U	0.16	0.148	93	0.16	0.152	95	3	69-133/30
307-55-1	Perfluorododecanoic acid	0.0080	U	0.16	0.144	90	0.16	0.149	93	3	72-134/30
72629-94-8	Perfluorotridecanoic acid	0.0080	U	0.16	0.153	96	0.16	0.153	96	0	65-144/30
376-06-7	Perfluorotetradecanoic acid	0.0080	U	0.16	0.158	99	0.16	0.162	101	3	71-132/30
375-73-5	Perfluorobutanesulfonic acid	0.0080	U	0.16	0.148	93	0.16	0.146	91	1	73-130/30
2706-91-4	Perfluoropentanesulfonic acid	0.0080	U	0.16	0.145	91	0.16	0.147	92	1	71-127/30
355-46-4	Perfluorohexanesulfonic acid	0.0080	U	0.16	0.151	94	0.16	0.150	94	1	68-131/30
375-92-8	Perfluoroheptanesulfonic acid	0.0080	U	0.16	0.153	96	0.16	0.158	99	3	69-134/30
1763-23-1	Perfluorooctanesulfonic acid	0.0159		0.16	0.155	87	0.16	0.162	91	4	65-140/30
68259-12-1	Perfluorononanesulfonic acid	0.0080	U	0.16	0.144	90	0.16	0.148	93	3	69-127/30
335-77-3	Perfluorodecanesulfonic acid	0.0080	U	0.16	0.138	86	0.16	0.140	88	1	53-142/30
754-91-6	PFOSA	0.0080	U	0.16	0.142	89	0.16	0.150	94	5	67-137/30
2355-31-9	MeFOSAA	0.016	U	0.16	0.143	89	0.16	0.150	94	5	65-136/30
2991-50-6	EtFOSAA	0.016	U	0.16	0.151	94	0.16	0.154	96	2	61-135/30
757124-72-4	4:2 Fluorotelomer sulfonate	0.016	U	0.16	0.149	93	0.16	0.149	93	0	63-143/30
27619-97-2	6:2 Fluorotelomer sulfonate	0.016	U	0.16	0.151	94	0.16	0.152	95	1	64-140/30
39108-34-4	8:2 Fluorotelomer sulfonate	0.016	U	0.16	0.151	94	0.16	0.152	95	1	67-138/30
13252-13-6	HFPO-DA (GenX)	0.016	U	0.16	0.138	86	0.16	0.135	84	2	60-140/30
919005-14-4	ADONA	0.016	U	0.16	0.149	93	0.16	0.147	92	1	60-140/30
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.016	U	0.16	0.138	86	0.16	0.140	88	1	60-140/30
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.016	U	0.16	0.168	105	0.16	0.168	105	0	60-140/30

CAS No.	ID Standard Recoveries	MS	MSD	FA88545-1	Limits
	13C4-PFBA	105%	97%	87%	50-150%
	13C5-PFPeA	100%	92%	83%	50-150%
	13C5-PFHxA	105%	97%	87%	50-150%
	13C4-PFHpA	103%	96%	87%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA88260
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87137-MS	3Q44497.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644
OP87137-MSD	3Q44498.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644
FA88545-1	3Q44496.D	1	09/10/21	MV	09/04/21	OP87137	S3Q644

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88260-1, FA88260-2, FA88260-3, FA88260-5, FA88260-7

CAS No.	ID Standard Recoveries	MS	MSD	FA88545-1	Limits
	13C8-PFOA	101%	93%	85%	50-150%
	13C9-PFNA	102%	91%	86%	50-150%
	13C6-PFDA	102%	92%	89%	50-150%
	13C7-PFUnDA	96%	86%	81%	50-150%
	13C2-PFDoDA	93%	85%	79%	50-150%
	13C2-PFTeDA	89%	82%	74%	50-150%
	13C3-PFBS	108%	101%	91%	50-150%
	13C3-PFHxS	102%	96%	86%	50-150%
	13C8-PFOS	100%	88%	83%	50-150%
	13C8-FOSA	101%	94%	91%	50-150%
	d3-MeFOSAA	114%	103%	96%	50-150%
	d5-EtFOSAA	104%	97%	87%	50-150%
	13C2-4:2FTS	107%	98%	83%	50-150%
	13C2-6:2FTS	111%	103%	89%	50-150%
	13C2-8:2FTS	111%	99%	90%	50-150%
	13C3-HFPO-DA	115%	109%		50-150%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

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Automated Report



Technical Report for

Arcadis

Racer Saginaw; 77 W Center St, Saginaw, MI

30042836.05001

SGS Job Number: FA88431

Sampling Date: 08/24/21

Report to:

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Total number of pages in report: **18**

Norm Farmer
Technical Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, UT, VT, WA, WV

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Sample Summary

Arcadis

Job No: FA88431

Racer Saginaw; 77 W Center St, Saginaw, MI
Project No: 30042836.05001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA88431-1	08/24/21	13:45	SC	08/26/21	AQ	Ground Water	MW-183WT_08242021

Summary of Hits

Job Number: FA88431
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/24/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA88431-1	**MW-183WT_08242021**					
Perfluorobutanoic acid		8.3	6.5	3.2	ng/l	EPA 537M QSM5.3 B-15
Perfluoropentanoic acid		0.83 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanoic acid		1.0 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluoroheptanoic acid		1.1 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanoic acid		2.9 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorobutanesulfonic acid		1.1 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorohexanesulfonic acid		1.7 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15
Perfluorooctanesulfonic acid		1.5 J	3.2	1.6	ng/l	EPA 537M QSM5.3 B-15

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-183WT_08242021		
Lab Sample ID:	FA88431-1	**Date Sampled:**	08/24/21
Matrix:	AQ - Ground Water	**Date Received:**	08/26/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q76164.D	1	09/16/21 16:13	NG	09/15/21 10:30	OP87279	S2Q1083
Run #2 [a]	2Q75864.D	1	09/12/21 00:37	NG	08/31/21 09:30	OP87071	S2Q1079
Run #3	2Q76165.D	10	09/16/21 16:31	NG	09/15/21 10:30	OP87279	S2Q1083

	Initial Volume	Final Volume
Run #1	310 ml	1.0 ml
Run #2	300 ml	1.0 ml
Run #3	310 ml	1.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	8.3	6.5	3.2	1.6	ng/l	
2706-90-3	Perfluoropentanoic acid	0.83	3.2	1.6	0.81	ng/l	J
307-24-4	Perfluorohexanoic acid	1.0	3.2	1.6	0.81	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.1	3.2	1.6	0.81	ng/l	J
335-67-1	Perfluorooctanoic acid	2.9	3.2	1.6	0.81	ng/l	J
375-95-1	Perfluorononanoic acid	1.6 U	3.2	1.6	0.81	ng/l	
335-76-2	Perfluorodecanoic acid	1.6 U	3.2	1.6	0.81	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.6 U	3.2	1.6	0.81	ng/l	
307-55-1	Perfluorododecanoic acid	1.6 U	3.2	1.6	0.81	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.6 U	3.2	1.6	0.81	ng/l	
376-06-7	Perfluorotetradecanoic acid [b]	16 U [c]	32	16	8.1	ng/l	
PERFLUOROALKYLSULFONIC ACIDS							
375-73-5	Perfluorobutanesulfonic acid	1.1	3.2	1.6	0.81	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	1.6 U	3.2	1.6	0.81	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.7	3.2	1.6	0.81	ng/l	J
375-92-8	Perfluoroheptanesulfonic acid	1.6 U	3.2	1.6	0.81	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.5	3.2	1.6	0.81	ng/l	J
68259-12-1	Perfluorononanesulfonic acid	1.6 U	3.2	1.6	0.81	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.6 U	3.2	1.6	0.81	ng/l	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	16 U [c]	32	16	8.1	ng/l	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	3.2 U	6.5	3.2	1.6	ng/l	
2991-50-6	EtFOSAA	3.2 U	6.5	3.2	1.6	ng/l	
FLUOROTELOMER SULFONATES							

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-183WT_08242021		
Lab Sample ID:	FA88431-1	**Date Sampled:**	08/24/21
Matrix:	AQ - Ground Water	**Date Received:**	08/26/21
Method:	EPA 537M QSM5.3 B-15 EPA 537 MOD	**Percent Solids:**	n/a
Project:	Racer Saginaw; 77 W Center St, Saginaw, MI		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
757124-72-4	4:2 Fluorotelomer sulfonate	3.2 U	6.5	3.2	1.6	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	3.2 U	6.5	3.2	1.6	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	3.2 U	6.5	3.2	1.6	ng/l	
NEXT GENERATION PFAS ANALYTES							
13252-13-6	HFPO-DA (GenX)	3.2 U	6.5	3.2	1.6	ng/l	
919005-14-4	ADONA	3.2 U	6.5	3.2	1.6	ng/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	3.2 U	6.5	3.2	1.6	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.2 U	6.5	3.2	1.6	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C4-PFBA	52%	44% [d]	65%	50-150%
	13C5-PFPeA	75%	54%	99%	50-150%
	13C5-PFHxA	75%	54%	99%	50-150%
	13C4-PFHpA	77%	53%	99%	50-150%
	13C8-PFOA	84%	59%	100%	50-150%
	13C9-PFNA	77%	57%	101%	50-150%
	13C6-PFDA	84%	58%	98%	50-150%
	13C7-PFUnDA	72%	51%	85%	50-150%
	13C2-PFDoDA	55%	32% [d]	75%	50-150%
	13C2-PFTeDA	22% [d]	5% [d]	49% [d]	50-150%
	13C3-PFBS	79%	58%	96%	50-150%
	13C3-PFHxS	82%	59%	104%	50-150%
	13C8-PFOS	79%	58%	104%	50-150%
	13C8-FOSA	31% [d]	15% [d]	57%	50-150%
	d3-MeFOSAA	94%	67%	103%	50-150%
	d5-EtFOSAA	78%	62%	87%	50-150%
	13C2-4:2FTS	78%	62%	95%	50-150%
	13C2-6:2FTS	90%	72%	98%	50-150%
	13C2-8:2FTS	86%	64%	92%	50-150%
	13C3-HFPO-DA	78%	71%	114%	50-150%

(a) Confirmation run.
(b) Associated ID Standard outside control limits. Confirmed by re-extraction and reanalysis.
(c) Result is from Run# 3
(d) Outside control limits.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

Chain of Custody Record

554961

FA88431

eurofins | Environment Testing TestAmerica

Address

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Seth Cushwa -	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email:	Lab Contact:	Carrier:	of COCs
Address: 28550 CABOT DR STE 500	Analysis Turnaround Time			Sampler:
City/State/Zip: NOVI MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 248-994-2240	TAT if different from Below			Walk-in Client:
Fax: 248-994-2240	☐ 2 weeks			Lab Sampling:
Project Name: RACER SAGINAW	☐ 1 week			Job / SDG No.
Site: GDL	☐ 2 days			
PO# 30076323	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PFAS	Sample Specific Notes:
MW-183WT_08242021	8/24/21	13:45	GRAB	GW	2	N	N	X	

INITIAL ASSESSMENT SP

LABEL VERIFICATION

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 5.4 corr'd:	Therm ID No.:
Relinquished by	Company: ARCADIS	Date/Time: 8/25/21 16:00	Received by:	Company:	Date/Time:
Relinquished by	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by	Company:	Date/Time:	Received in Laboratory by:	Company: SGS	Date/Time: 8/26/21 1520

FA88431: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA88431 **Client:** ARCADIS **Project:** RACER SAGINAN

Date / Time Received: 8/26/2021 3:20:00 PM **Delivery Method:** FED EX **Airbill #'s:** 7746 3142 9316

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (5.4);

Cooler Temps (Corrected) °C: Cooler 1: (5.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: CARLOSD Date: 8/26/2021 3:20:00 PM Reviewer: _____ Date: _____

FA88431: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FA88431
Account: Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI
Collected: 08/24/21

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP87279	EPA 537M QSM5.3 B-15						
OP87279-BS	375-22-4	Perfluorobutanoic acid	BSP	REC	95	%	73-129
OP87279-BS	2706-90-3	Perfluoropentanoic acid	BSP	REC	94	%	72-129
OP87279-BS	307-24-4	Perfluorohexanoic acid	BSP	REC	95	%	72-129
OP87279-BS	375-85-9	Perfluoroheptanoic acid	BSP	REC	94	%	72-130
OP87279-BS	335-67-1	Perfluorooctanoic acid	BSP	REC	94	%	71-133
OP87279-BS	375-95-1	Perfluorononanoic acid	BSP	REC	93	%	69-130
OP87279-BS	335-76-2	Perfluorodecanoic acid	BSP	REC	93	%	71-129
OP87279-BS	2058-94-8	Perfluoroundecanoic acid	BSP	REC	95	%	69-133
OP87279-BS	307-55-1	Perfluorododecanoic acid	BSP	REC	97	%	72-134
OP87279-BS	72629-94-8	Perfluorotridecanoic acid	BSP	REC	86	%	65-144
OP87279-BS	376-06-7	Perfluorotetradecanoic acid	BSP	REC	95	%	71-132
OP87279-BS	375-73-5	Perfluorobutanesulfonic acid	BSP	REC	94	%	73-130
OP87279-BS	2706-91-4	Perfluoropentanesulfonic acid	BSP	REC	95	%	71-127
OP87279-BS	355-46-4	Perfluorohexanesulfonic acid	BSP	REC	96	%	68-131
OP87279-BS	375-92-8	Perfluoroheptanesulfonic acid	BSP	REC	98	%	69-134
OP87279-BS	1763-23-1	Perfluorooctanesulfonic acid	BSP	REC	93	%	65-140
OP87279-BS	68259-12-1	Perfluorononanesulfonic acid	BSP	REC	97	%	69-127
OP87279-BS	335-77-3	Perfluorodecanesulfonic acid	BSP	REC	89	%	53-142
OP87279-BS	754-91-6	PFOSA	BSP	REC	95	%	67-137
OP87279-BS	2355-31-9	MeFOSAA	BSP	REC	93	%	65-136
OP87279-BS	2991-50-6	EtFOSAA	BSP	REC	96	%	61-135
OP87279-BS	757124-72-4	4:2 Fluorotelomer sulfonate	BSP	REC	97	%	63-143
OP87279-BS	27619-97-2	6:2 Fluorotelomer sulfonate	BSP	REC	96	%	64-140
OP87279-BS	39108-34-4	8:2 Fluorotelomer sulfonate	BSP	REC	95	%	67-138

* Sample used for QC is not from job FA88431

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Instrument Blank

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1083-IBLK	2Q76159.D	1	09/16/21	NG	n/a	n/a	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	109%	50-150%
	13C5-PFPeA	108%	50-150%
	13C5-PFHxA	108%	50-150%
	13C4-PFHpA	107%	50-150%

Instrument Blank

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q1083-IBLK	2Q76159.D	1	09/16/21	NG	n/a	n/a	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	110%	50-150%
	13C9-PFNA	108%	50-150%
	13C6-PFDA	114%	50-150%
	13C7-PFUnDA	109%	50-150%
	13C2-PFDoDA	110%	50-150%
	13C2-PFTeDA	107%	50-150%
	13C3-PFBS	108%	50-150%
	13C3-PFHxS	105%	50-150%
	13C8-PFOS	109%	50-150%
	13C8-FOSA	112%	50-150%
	d3-MeFOSAA	130%	50-150%
	d5-EtFOSAA	119%	50-150%
	13C2-4:2FTS	100%	50-150%
	13C2-6:2FTS	101%	50-150%
	13C2-8:2FTS	101%	50-150%

Method Blank Summary

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87279-MB	2Q76163.D	1	09/16/21	NG	09/15/21	OP87279	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.0010	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.0010	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.0010	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.0010	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	0.0010	ug/l	
754-91-6	PFOSA	ND	0.0040	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0080	0.0020	ug/l	
2991-50-6	EtFOSAA	ND	0.0080	0.0020	ug/l	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0020	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
756426-58-1	9Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	107%	50-150%
	13C5-PFPeA	109%	50-150%
	13C5-PFHxA	108%	50-150%
	13C4-PFHpA	108%	50-150%

Method Blank Summary

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87279-MB	2Q76163.D	1	09/16/21	NG	09/15/21	OP87279	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	ID Standard Recoveries		Limits
	13C8-PFOA	109%	50-150%
	13C9-PFNA	105%	50-150%
	13C6-PFDA	106%	50-150%
	13C7-PFUnDA	100%	50-150%
	13C2-PFDoDA	99%	50-150%
	13C2-PFTeDA	91%	50-150%
	13C3-PFBS	106%	50-150%
	13C3-PFHxS	107%	50-150%
	13C8-PFOS	103%	50-150%
	13C8-FOSA	100%	50-150%
	d3-MeFOSAA	114%	50-150%
	d5-EtFOSAA	108%	50-150%
	13C2-4:2FTS	102%	50-150%
	13C2-6:2FTS	101%	50-150%
	13C2-8:2FTS	94%	50-150%
	13C3-HFPO-DA	116%	50-150%

Blank Spike Summary

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87279-BS [a]	2Q76162.D	1	09/16/21	NG	09/15/21	OP87279	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0760	95	73-129
2706-90-3	Perfluoropentanoic acid	0.08	0.0751	94	72-129
307-24-4	Perfluorohexanoic acid	0.08	0.0760	95	72-129
375-85-9	Perfluoroheptanoic acid	0.08	0.0749	94	72-130
335-67-1	Perfluorooctanoic acid	0.08	0.0752	94	71-133
375-95-1	Perfluorononanoic acid	0.08	0.0745	93	69-130
335-76-2	Perfluorodecanoic acid	0.08	0.0745	93	71-129
2058-94-8	Perfluoroundecanoic acid	0.08	0.0756	95	69-133
307-55-1	Perfluorododecanoic acid	0.08	0.0779	97	72-134
72629-94-8	Perfluorotridecanoic acid	0.08	0.0690	86	65-144
376-06-7	Perfluorotetradecanoic acid	0.08	0.0763	95	71-132
375-73-5	Perfluorobutanesulfonic acid	0.08	0.0751	94	73-130
2706-91-4	Perfluoropentanesulfonic acid	0.08	0.0756	95	71-127
355-46-4	Perfluorohexanesulfonic acid	0.08	0.0764	96	68-131
375-92-8	Perfluoroheptanesulfonic acid	0.08	0.0782	98	69-134
1763-23-1	Perfluorooctanesulfonic acid	0.08	0.0746	93	65-140
68259-12-1	Perfluorononanesulfonic acid	0.08	0.0779	97	69-127
335-77-3	Perfluorodecanesulfonic acid	0.08	0.0712	89	53-142
754-91-6	PFOSA	0.08	0.0763	95	67-137
2355-31-9	MeFOSAA	0.08	0.0741	93	65-136
2991-50-6	EtFOSAA	0.08	0.0769	96	61-135
757124-72-4	4:2 Fluorotelomer sulfonate	0.08	0.0776	97	63-143
27619-97-2	6:2 Fluorotelomer sulfonate	0.08	0.0771	96	64-140
39108-34-4	8:2 Fluorotelomer sulfonate	0.08	0.0756	95	67-138
13252-13-6	HFPO-DA (GenX)	0.08	0.0732	92	60-140
919005-14-4	ADONA	0.08	0.0708	89	60-140
756426-58-1	9Cl-PF3ONS (F-53B Major)	0.08	0.0699	87	60-140
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	0.08	0.0757	95	60-140

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	98%	50-150%
	13C5-PFPeA	100%	50-150%
	13C5-PFHxA	100%	50-150%
	13C4-PFHpA	99%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA88431
Account: ARCMIN Arcadis
Project: Racer Saginaw; 77 W Center St, Saginaw, MI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP87279-BS [a]	2Q76162.D	1	09/16/21	NG	09/15/21	OP87279	S2Q1083

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.3 B-15

FA88431-1

CAS No.	ID Standard Recoveries	BSP	Limits
	13C8-PFOA	100%	50-150%
	13C9-PFNA	100%	50-150%
	13C6-PFDA	103%	50-150%
	13C7-PFUnDA	99%	50-150%
	13C2-PFDoDA	95%	50-150%
	13C2-PFTeDA	85%	50-150%
	13C3-PFBS	99%	50-150%
	13C3-PFHxS	99%	50-150%
	13C8-PFOS	99%	50-150%
	13C8-FOSA	89%	50-150%
	d3-MeFOSAA	108%	50-150%
	d5-EtFOSAA	101%	50-150%
	13C2-4:2FTS	97%	50-150%
	13C2-6:2FTS	97%	50-150%
	13C2-8:2FTS	98%	50-150%
	13C3-HFPO-DA	109%	50-150%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

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ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-154788-1
Client Project/Site: Racer Saginaw

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Scott Clearwater

Authorized for release by:
8/31/2021 2:11:00 PM

Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@Eurofinset.com

LINKS
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Have a Question? Ask The Expert
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-154788-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-154788-1

Comments
No additional comments.

Receipt
The samples were received on 8/19/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.3º C and 3.4º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 300.0: The following samples contained carbonate which caused chromatographic interference that could adversely impact the identification and quantitation of target analytes: MW-118WT_08172021 (240-154788-4) and MW-117S1_08172021 (240-154788-5) These interferences could cause false positive results. Sample is being reported as secondary for in hold results and will be re-run out of hold at a dilution to remove the interference.

Method 300.0: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. Samples contained carbonate interference and needed to be run at a dilution to remove this interference: MW-118WT_08172021 (240-154788-4) and MW-117S1_08172021 (240-154788-5).

Method 300.0: The following sample(s) was received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: X-4CAUGR_08172021 (240-154788-1), X-4D_08172021 (240-154788-2) and MW-118S1_08172021 (240-154788-3).

Method 300.0: The following sample was diluted due to the nature of the sample matrix: X-4CAUGR_08172021 (240-154788-1), MW-118S1_08172021 (240-154788-3), MW-118WT_08172021 (240-154788-4), MW-117S1_08172021 (240-154788-5) and MW-117WT_08172021 (240-154788-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
6010B	Metals (ICP)	SW846	TAL CAN
2540 C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	TAL CAN
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	TAL CAN
4500 NH3 H	Ammonia	SM	TAL CAN
9012A	Cyanide, Total and/or Amenable	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-154788-1	X-4CAUGR_08172021	Water	08/17/21 15:30	08/19/21 08:00
240-154788-2	X-4D_08172021	Water	08/17/21 17:25	08/19/21 08:00
240-154788-3	MW-118S1_08172021	Water	08/17/21 10:00	08/19/21 08:00
240-154788-4	MW-118WT_08172021	Water	08/17/21 11:55	08/19/21 08:00
240-154788-5	MW-117S1_08172021	Water	08/17/21 15:10	08/19/21 08:00
240-154788-6	MW-117WT_08172021	Water	08/17/21 16:55	08/19/21 08:00
240-154788-7	X-9AR_08182021	Water	08/18/21 08:45	08/19/21 08:00
240-154788-8	X-9BR_08182021	Water	08/18/21 10:25	08/19/21 08:00
240-154788-9	X-9CAUGR_08182021	Water	08/18/21 12:40	08/19/21 08:00
240-154788-10	TWW-1_08182021	Water	08/18/21 11:35	08/19/21 08:00
240-154788-11	DUP-01_08182021	Water	08/18/21 00:00	08/19/21 08:00
240-154788-12	TW-242_08182021	Water	08/18/21 13:10	08/19/21 08:00
240-154788-13	TRIP BLANK_08182021	Water	08/18/21 00:00	08/19/21 08:00

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-4CAUGR_08172021 — Lab Sample ID: 240-154788-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	52	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	2600		100	83	ug/L	1		6010B	Total Recoverable
Manganese	290		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	13000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	53	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	2300		100	83	ug/L	1		6010B	Dissolved
Manganese	290		15	6.2	ug/L	1		6010B	Dissolved
Sodium	13000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	320		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	21		1.0	0.28	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	0.25		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Cyanide, Total	0.0066	J	0.010	0.0060	mg/L	1		9012A	Total/NA

Client Sample ID: X-4D_08172021 — Lab Sample ID: 240-154788-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	61	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	340		100	83	ug/L	1		6010B	Total Recoverable
Manganese	260		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	350000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	95	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	940		100	83	ug/L	1		6010B	Dissolved
Manganese	280		15	6.2	ug/L	1		6010B	Dissolved
Sodium	640000		10000	4200	ug/L	2		6010B	Dissolved
Total Dissolved Solids	2500		40	31	mg/L	1		2540 C-2011	Total/NA
Chloride	1300		25	7.1	mg/L	25		300.0-1993 R2.1	Total/NA
Sulfate	170		5.0	1.7	mg/L	5		300.0-1993 R2.1	Total/NA
Ammonia-N	5.7		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Cyanide, Total	0.0072	J	0.010	0.0060	mg/L	1		9012A	Total/NA

Client Sample ID: MW-118S1_08172021 — Lab Sample ID: 240-154788-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	300		200	1.3	ug/L	1		6010B	Total Recoverable
Iron	13000		100	83	ug/L	1		6010B	Total Recoverable
Manganese	2100		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	97000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	300		200	1.3	ug/L	1		6010B	Dissolved
Iron	12000		100	83	ug/L	1		6010B	Dissolved
Manganese	2100		15	6.2	ug/L	1		6010B	Dissolved
Sodium	97000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	830		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	220		5.0	1.4	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample ID: MW-118S1_08172021 (Continued) — Lab Sample ID: 240-154788-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.24		0.10	0.014	mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	3.2		1.0	0.35	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	3.8		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: MW-118WT_08172021 — Lab Sample ID: 240-154788-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	390		200	1.3	ug/L	1		6010B	Total Recoverable
Iron	12000		100	83	ug/L	1		6010B	Total Recoverable
Manganese	390		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	100000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	360		200	1.3	ug/L	1		6010B	Dissolved
Iron	11000		100	83	ug/L	1		6010B	Dissolved
Manganese	390		15	6.2	ug/L	1		6010B	Dissolved
Sodium	96000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	1200		20	16	mg/L	1		2540 C-2011	Total/NA
Chloride	300		10	2.8	mg/L	10		300.0-1993 R2.1	Total/NA
Nitrite as N	0.17		0.10	0.014	mg/L	1		300.0-1993 R2.1	Total/NA
Nitrate as N	8.0		0.10	0.036	mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	14		1.0	0.35	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	27		2.0	0.76	mg/L	10		4500 NH3 H	Total/NA
Cyanide, Total	0.0064	J	0.010	0.0060	mg/L	1		9012A	Total/NA

Client Sample ID: MW-117S1_08172021 — Lab Sample ID: 240-154788-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	1800		200	1.3	ug/L	1		6010B	Total Recoverable
Iron	7800		100	83	ug/L	1		6010B	Total Recoverable
Manganese	290		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	120000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	1800		200	1.3	ug/L	1		6010B	Dissolved
Iron	7600		100	83	ug/L	1		6010B	Dissolved
Manganese	270		15	6.2	ug/L	1		6010B	Dissolved
Sodium	120000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	1100		20	16	mg/L	1		2540 C-2011	Total/NA
Chloride	230		5.0	1.4	mg/L	5		300.0-1993 R2.1	Total/NA
Nitrite as N	0.071	J	0.10	0.014	mg/L	1		300.0-1993 R2.1	Total/NA
Nitrate as N	7.2		0.10	0.036	mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	7.3		5.0	1.7	mg/L	5		300.0-1993 R2.1	Total/NA
Ammonia-N	7.2		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: MW-117WT_08172021 — Lab Sample ID: 240-154788-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.6	J	10	4.1	ug/L	1		6010B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-117WT_08172021 (Continued) — Lab Sample ID: 240-154788-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	3800		200	1.3	ug/L	1		6010B	Total Recoverable
Iron	130000		100	83	ug/L	1		6010B	Total Recoverable
Manganese	4600		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	680000		25000	11000	ug/L	5		6010B	Total Recoverable
Arsenic	4.5	J	10	4.1	ug/L	1		6010B	Dissolved
Barium	3500		200	1.3	ug/L	1		6010B	Dissolved
Iron	120000		100	83	ug/L	1		6010B	Dissolved
Manganese	4400		15	6.2	ug/L	1		6010B	Dissolved
Sodium	650000		25000	11000	ug/L	5		6010B	Dissolved
Total Dissolved Solids	9400		100	78	mg/L	1		2540 C-2011	Total/NA
Chloride	4700		100	28	mg/L	100		300.0-1993 R2.1	Total/NA
Ammonia-N	83		20	7.6	mg/L	100		4500 NH3 H	Total/NA

Client Sample ID: X-9AR_08182021 — Lab Sample ID: 240-154788-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11		10	4.1	ug/L	1		6010B	Total Recoverable
Barium	71	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	7500		100	83	ug/L	1		6010B	Total Recoverable
Manganese	2500		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	13000		5000	2100	ug/L	1		6010B	Total Recoverable
Arsenic	10		10	4.1	ug/L	1		6010B	Dissolved
Barium	72	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	7800		100	83	ug/L	1		6010B	Dissolved
Manganese	2600		15	6.2	ug/L	1		6010B	Dissolved
Sodium	13000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	410		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	19		1.0	0.28	mg/L	1		300.0-1993 R2.1	Total/NA
Nitrite as N	0.018	J	0.10	0.014	mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	8.9		1.0	0.35	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	0.21		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: X-9BR_08182021 — Lab Sample ID: 240-154788-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	53	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	3700		100	83	ug/L	1		6010B	Total Recoverable
Manganese	330		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	59000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	53	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	3500		100	83	ug/L	1		6010B	Dissolved
Manganese	340		15	6.2	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: X-9BR_08182021 (Continued) — Lab Sample ID: 240-154788-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	59000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	350		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	69		1.0	0.28	mg/L	1		300.0-1993 R2.1	Total/NA
Sulfate	5.4		1.0	0.35	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	1.1		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: X-9CAUGR_08182021 — Lab Sample ID: 240-154788-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	130	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	8500		100	83	ug/L	1		6010B	Total Recoverable
Manganese	510		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	21000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	130	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	7900		100	83	ug/L	1		6010B	Dissolved
Manganese	520		15	6.2	ug/L	1		6010B	Dissolved
Sodium	20000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	550		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	23		1.0	0.28	mg/L	1		300.0-1993 R2.1	Total/NA
Ammonia-N	1.7		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: TWW-1_08182021 — Lab Sample ID: 240-154788-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.72	J	1.0	0.47	ug/L	1		8260B	Total/NA
Vinyl chloride	0.92	J	1.0	0.45	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.47	J	1.0	0.46	ug/L	1		8260B	Total/NA

Client Sample ID: DUP-01_08182021 — Lab Sample ID: 240-154788-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.72	J	1.0	0.47	ug/L	1		8260B	Total/NA
Vinyl chloride	1.0		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: TW-242_08182021 — Lab Sample ID: 240-154788-12

No Detections.

Client Sample ID: TRIP BLANK_08182021 — Lab Sample ID: 240-154788-13

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-4CAUGR_08172021

Lab Sample ID: 240-154788-1

Date Collected: 08/17/21 15:30

Matrix: Water

Date Received: 08/19/21 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 12:31	1
Barium	**52**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 12:31	1
Iron	**2600**		100	83	ug/L		08/20/21 14:00	08/24/21 12:31	1
Manganese	**290**		15	6.2	ug/L		08/20/21 14:00	08/24/21 12:31	1
Sodium	**13000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 12:31	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 12:31	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 12:35	1
Barium	**53**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 12:35	1
Iron	**2300**		100	83	ug/L		08/20/21 14:00	08/24/21 12:35	1
Manganese	**290**		15	6.2	ug/L		08/20/21 14:00	08/24/21 12:35	1
Sodium	**13000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 12:35	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 12:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**320**		10	7.8	mg/L			08/20/21 08:05	1
Chloride	**21**		1.0	0.28	mg/L			08/19/21 15:55	1
Nitrite as N	0.10	U H	0.10	0.014	mg/L			08/19/21 15:55	1
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/24/21 00:11	5
Sulfate	5.0	U	5.0	1.7	mg/L			08/24/21 00:11	5
Ammonia-N	**0.25**		0.20	0.076	mg/L			08/23/21 14:07	1
Cyanide, Total	**0.0066**	**J**	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:38	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-4D_08172021
Date Collected: 08/17/21 17:25
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-2
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 12:39	1
Barium	**61**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 12:39	1
Iron	**340**		100	83	ug/L		08/20/21 14:00	08/24/21 12:39	1
Manganese	**260**		15	6.2	ug/L		08/20/21 14:00	08/24/21 12:39	1
Sodium	**350000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 12:39	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 12:39	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 12:52	1
Barium	**95**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 12:52	1
Iron	**940**		100	83	ug/L		08/20/21 14:00	08/24/21 12:52	1
Manganese	**280**		15	6.2	ug/L		08/20/21 14:00	08/24/21 12:52	1
Sodium	**640000**		10000	4200	ug/L		08/20/21 14:00	08/24/21 12:57	2
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 12:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2500**		40	31	mg/L			08/20/21 08:05	1
Chloride	**1300**		25	7.1	mg/L			08/19/21 22:38	25
Nitrite as N	0.50	U H	0.50	0.070	mg/L			08/19/21 17:36	5
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/19/21 17:36	5
Sulfate	**170**		5.0	1.7	mg/L			08/19/21 17:36	5
Ammonia-N	**5.7**		0.20	0.076	mg/L			08/23/21 14:10	1
Cyanide, Total	**0.0072**	**J**	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:20	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:40	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: MW-118S1_08172021

Lab Sample ID: 240-154788-3

Date Collected: 08/17/21 10:00

Matrix: Water

Date Received: 08/19/21 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:01	1
Barium	**300**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:01	1
Iron	**13000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:01	1
Manganese	**2100**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:01	1
Sodium	**97000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:01	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:01	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:05	1
Barium	**300**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:05	1
Iron	**12000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:05	1
Manganese	**2100**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:05	1
Sodium	**97000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:05	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10	7.8	mg/L			08/20/21 08:05	1
Chloride	**220**		5.0	1.4	mg/L			08/19/21 10:58	5
Nitrite as N	**0.24**		0.10	0.014	mg/L			08/19/21 09:50	1
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/19/21 10:58	5
Sulfate	**3.2**		1.0	0.35	mg/L			08/19/21 09:50	1
Ammonia-N	**3.8**		0.20	0.076	mg/L			08/23/21 14:13	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:41	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: MW-118WT_08172021

Lab Sample ID: 240-154788-4

Date Collected: 08/17/21 11:55

Matrix: Water

Date Received: 08/19/21 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:09	1
Barium	**390**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:09	1
Iron	**12000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:09	1
Manganese	**390**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:09	1
Sodium	**100000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:09	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:09	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:14	1
Barium	**360**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:14	1
Iron	**11000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:14	1
Manganese	**390**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:14	1
Sodium	**96000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:14	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		20	16	mg/L			08/20/21 08:05	1
Chloride	**300**		10	2.8	mg/L			08/19/21 13:34	10
Nitrite as N	**0.17**		0.10	0.014	mg/L			08/19/21 11:34	1
Nitrate as N	**8.0**		0.10	0.036	mg/L			08/19/21 11:34	1
Sulfate	**14**		1.0	0.35	mg/L			08/19/21 11:34	1
Ammonia-N	**27**		2.0	0.76	mg/L			08/25/21 19:18	10
Cyanide, Total	**0.0064**	**J**	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:24	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.0	U H	1.0	0.36	mg/L			08/19/21 13:34	10

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:43	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: MW-117S1_08172021

Lab Sample ID: 240-154788-5

Date Collected: 08/17/21 15:10

Matrix: Water

Date Received: 08/19/21 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:18	1
Barium	**1800**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:18	1
Iron	**7800**		100	83	ug/L		08/20/21 14:00	08/24/21 13:18	1
Manganese	**290**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:18	1
Sodium	**120000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:18	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:18	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:22	1
Barium	**1800**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:22	1
Iron	**7600**		100	83	ug/L		08/20/21 14:00	08/24/21 13:22	1
Manganese	**270**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:22	1
Sodium	**120000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:22	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		20	16	mg/L			08/20/21 08:05	1
Chloride	**230**		5.0	1.4	mg/L			08/19/21 19:57	5
Nitrite as N	**0.071**	**J**	0.10	0.014	mg/L			08/19/21 14:55	1
Nitrate as N	**7.2**		0.10	0.036	mg/L			08/19/21 14:55	1
Sulfate	**7.3**		5.0	1.7	mg/L			08/19/21 19:57	5
Ammonia-N	**7.2**		0.20	0.076	mg/L			08/25/21 16:36	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:25	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/19/21 19:57	5

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:45	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: MW-117WT_08172021
Date Collected: 08/17/21 16:55
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-6
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.6**	**J**	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:27	1
Barium	**3800**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:27	1
Iron	**130000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:27	1
Manganese	**4600**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:27	1
Sodium	**680000**		25000	11000	ug/L		08/20/21 14:00	08/24/21 13:31	5
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:27	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.5**	**J**	10	4.1	ug/L		08/20/21 14:00	08/24/21 13:44	1
Barium	**3500**		200	1.3	ug/L		08/20/21 14:00	08/24/21 13:44	1
Iron	**120000**		100	83	ug/L		08/20/21 14:00	08/24/21 13:44	1
Manganese	**4400**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:44	1
Sodium	**650000**		25000	11000	ug/L		08/20/21 14:00	08/24/21 13:49	5
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**9400**		100	78	mg/L			08/20/21 08:05	1
Chloride	**4700**		100	28	mg/L			08/19/21 21:17	100
Nitrite as N	1.0	U	1.0	0.14	mg/L			08/19/21 16:36	10
Nitrate as N	1.0	U	1.0	0.36	mg/L			08/19/21 16:36	10
Sulfate	100	U	100	35	mg/L			08/19/21 21:17	100
Ammonia-N	**83**		20	7.6	mg/L			08/26/21 12:14	100
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:47	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-9AR_08182021
Date Collected: 08/18/21 08:45
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-7
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		10	4.1	ug/L		08/20/21 14:00	08/24/21 13:53	1
Barium	**71**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 13:53	1
Iron	**7500**		100	83	ug/L		08/20/21 14:00	08/24/21 13:53	1
Manganese	**2500**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:53	1
Sodium	**13000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:53	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:53	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		10	4.1	ug/L		08/20/21 14:00	08/24/21 13:57	1
Barium	**72**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 13:57	1
Iron	**7800**		100	83	ug/L		08/20/21 14:00	08/24/21 13:57	1
Manganese	**2600**		15	6.2	ug/L		08/20/21 14:00	08/24/21 13:57	1
Sodium	**13000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 13:57	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		10	7.8	mg/L			08/23/21 08:08	1
Chloride	**19**		1.0	0.28	mg/L			08/19/21 19:39	1
Nitrite as N	**0.018**	**J**	0.10	0.014	mg/L			08/19/21 19:39	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 19:39	1
Sulfate	**8.9**		1.0	0.35	mg/L			08/19/21 19:39	1
Ammonia-N	**0.21**		0.20	0.076	mg/L			08/25/21 16:42	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:48	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-9BR_08182021
Date Collected: 08/18/21 10:25
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-8
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 14:02	1
Barium	**53**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 14:02	1
Iron	**3700**		100	83	ug/L		08/20/21 14:00	08/24/21 14:02	1
Manganese	**330**		15	6.2	ug/L		08/20/21 14:00	08/24/21 14:02	1
Sodium	**59000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 14:02	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 14:02	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 14:06	1
Barium	**53**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 14:06	1
Iron	**3500**		100	83	ug/L		08/20/21 14:00	08/24/21 14:06	1
Manganese	**340**		15	6.2	ug/L		08/20/21 14:00	08/24/21 14:06	1
Sodium	**59000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 14:06	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**350**		10	7.8	mg/L			08/23/21 08:08	1
Chloride	**69**		1.0	0.28	mg/L			08/19/21 20:01	1
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/19/21 20:01	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 20:01	1
Sulfate	**5.4**		1.0	0.35	mg/L			08/19/21 20:01	1
Ammonia-N	**1.1**		0.20	0.076	mg/L			08/25/21 16:45	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:54	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-9CAUGR_08182021

Lab Sample ID: 240-154788-9

Date Collected: 08/18/21 12:40

Matrix: Water

Date Received: 08/19/21 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 14:10	1
Barium	**130**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 14:10	1
Iron	**8500**		100	83	ug/L		08/20/21 14:00	08/24/21 14:10	1
Manganese	**510**		15	6.2	ug/L		08/20/21 14:00	08/24/21 14:10	1
Sodium	**21000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 14:10	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 14:10	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 14:14	1
Barium	**130**	**J**	200	1.3	ug/L		08/20/21 14:00	08/24/21 14:14	1
Iron	**7900**		100	83	ug/L		08/20/21 14:00	08/24/21 14:14	1
Manganese	**520**		15	6.2	ug/L		08/20/21 14:00	08/24/21 14:14	1
Sodium	**20000**		5000	2100	ug/L		08/20/21 14:00	08/24/21 14:14	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**550**		10	7.8	mg/L			08/23/21 08:08	1
Chloride	**23**		1.0	0.28	mg/L			08/19/21 21:49	1
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/19/21 21:49	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 21:49	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/19/21 21:49	1
Ammonia-N	**1.7**		0.20	0.076	mg/L			08/25/21 16:48	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:55	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TWW-1_08182021

Date Collected: 08/18/21 11:35
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-10

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			08/24/21 16:23	1
Benzene	1.0	U	1.0	0.42	ug/L			08/24/21 16:23	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			08/24/21 16:23	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/24/21 16:23	1
Bromomethane	1.0	U	1.0	0.42	ug/L			08/24/21 16:23	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			08/24/21 16:23	1
Carbon disulfide	1.0	U	1.0	0.59	ug/L			08/24/21 16:23	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			08/24/21 16:23	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			08/24/21 16:23	1
Chloroethane	1.0	U	1.0	0.83	ug/L			08/24/21 16:23	1
Chloroform	1.0	U	1.0	0.47	ug/L			08/24/21 16:23	1
Chloromethane	1.0	U	1.0	0.63	ug/L			08/24/21 16:23	1
1,1-Dichloroethane	**0.72**	**J**	1.0	0.47	ug/L			08/24/21 16:23	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			08/24/21 16:23	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/24/21 16:23	1
1,2-Dichloropropane	1.0	U	1.0	0.47	ug/L			08/24/21 16:23	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			08/24/21 16:23	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			08/24/21 16:23	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			08/24/21 16:23	1
2-Hexanone	10	U	10	1.1	ug/L			08/24/21 16:23	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			08/24/21 16:23	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/24/21 16:23	1
Styrene	1.0	U	1.0	0.45	ug/L			08/24/21 16:23	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			08/24/21 16:23	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 16:23	1
Toluene	1.0	U	1.0	0.44	ug/L			08/24/21 16:23	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 16:23	1
Vinyl chloride	**0.92**	**J**	1.0	0.45	ug/L			08/24/21 16:23	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			08/24/21 16:23	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 16:23	1
1,1,2-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 16:23	1
Cyclohexane	1.0	U	1.0	0.48	ug/L			08/24/21 16:23	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			08/24/21 16:23	1
Ethylene Dibromide	1.0	U	1.0	0.41	ug/L			08/24/21 16:23	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			08/24/21 16:23	1
cis-1,2-Dichloroethene	**0.47**	**J**	1.0	0.46	ug/L			08/24/21 16:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/24/21 16:23	1
Isopropylbenzene	1.0	U	1.0	0.49	ug/L			08/24/21 16:23	1
Methyl acetate	10	U	10	1.7	ug/L			08/24/21 16:23	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			08/24/21 16:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			08/24/21 16:23	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.77	ug/L			08/24/21 16:23	1
1,2-Dichlorobenzene	1.0	U	1.0	0.48	ug/L			08/24/21 16:23	1
1,3-Dichlorobenzene	1.0	U	1.0	0.45	ug/L			08/24/21 16:23	1
1,4-Dichlorobenzene	1.0	U	1.0	0.41	ug/L			08/24/21 16:23	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			08/24/21 16:23	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			08/24/21 16:23	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			08/24/21 16:23	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TWW-1_08182021
Date Collected: 08/18/21 11:35
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-10
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		62 - 137		08/24/21 16:23	1
4-Bromofluorobenzene (Surr)	117		56 - 136		08/24/21 16:23	1
Toluene-d8 (Surr)	101		78 - 122		08/24/21 16:23	1
Dibromofluoromethane (Surr)	94		73 - 120		08/24/21 16:23	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: DUP-01_08182021
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			08/24/21 16:46	1
Benzene	1.0	U	1.0	0.42	ug/L			08/24/21 16:46	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			08/24/21 16:46	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/24/21 16:46	1
Bromomethane	1.0	U	1.0	0.42	ug/L			08/24/21 16:46	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			08/24/21 16:46	1
Carbon disulfide	1.0	U	1.0	0.59	ug/L			08/24/21 16:46	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			08/24/21 16:46	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			08/24/21 16:46	1
Chloroethane	1.0	U	1.0	0.83	ug/L			08/24/21 16:46	1
Chloroform	1.0	U	1.0	0.47	ug/L			08/24/21 16:46	1
Chloromethane	1.0	U	1.0	0.63	ug/L			08/24/21 16:46	1
1,1-Dichloroethane	**0.72**	**J**	1.0	0.47	ug/L			08/24/21 16:46	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			08/24/21 16:46	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/24/21 16:46	1
1,2-Dichloropropane	1.0	U	1.0	0.47	ug/L			08/24/21 16:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			08/24/21 16:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			08/24/21 16:46	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			08/24/21 16:46	1
2-Hexanone	10	U	10	1.1	ug/L			08/24/21 16:46	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			08/24/21 16:46	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/24/21 16:46	1
Styrene	1.0	U	1.0	0.45	ug/L			08/24/21 16:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			08/24/21 16:46	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 16:46	1
Toluene	1.0	U	1.0	0.44	ug/L			08/24/21 16:46	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 16:46	1
Vinyl chloride	**1.0**		1.0	0.45	ug/L			08/24/21 16:46	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			08/24/21 16:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 16:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 16:46	1
Cyclohexane	1.0	U	1.0	0.48	ug/L			08/24/21 16:46	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			08/24/21 16:46	1
Ethylene Dibromide	1.0	U	1.0	0.41	ug/L			08/24/21 16:46	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			08/24/21 16:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/24/21 16:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/24/21 16:46	1
Isopropylbenzene	1.0	U	1.0	0.49	ug/L			08/24/21 16:46	1
Methyl acetate	10	U	10	1.7	ug/L			08/24/21 16:46	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			08/24/21 16:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			08/24/21 16:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.77	ug/L			08/24/21 16:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.48	ug/L			08/24/21 16:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.45	ug/L			08/24/21 16:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.41	ug/L			08/24/21 16:46	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			08/24/21 16:46	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			08/24/21 16:46	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			08/24/21 16:46	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: DUP-01_08182021
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-11
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		62 - 137		08/24/21 16:46	1
4-Bromofluorobenzene (Surr)	111		56 - 136		08/24/21 16:46	1
Toluene-d8 (Surr)	98		78 - 122		08/24/21 16:46	1
Dibromofluoromethane (Surr)	94		73 - 120		08/24/21 16:46	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TW-242_08182021
Date Collected: 08/18/21 13:10
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			08/24/21 17:10	1
Benzene	1.0	U	1.0	0.42	ug/L			08/24/21 17:10	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			08/24/21 17:10	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/24/21 17:10	1
Bromomethane	1.0	U	1.0	0.42	ug/L			08/24/21 17:10	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			08/24/21 17:10	1
Carbon disulfide	1.0	U	1.0	0.59	ug/L			08/24/21 17:10	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			08/24/21 17:10	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			08/24/21 17:10	1
Chloroethane	1.0	U	1.0	0.83	ug/L			08/24/21 17:10	1
Chloroform	1.0	U	1.0	0.47	ug/L			08/24/21 17:10	1
Chloromethane	1.0	U	1.0	0.63	ug/L			08/24/21 17:10	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			08/24/21 17:10	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			08/24/21 17:10	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/24/21 17:10	1
1,2-Dichloropropane	1.0	U	1.0	0.47	ug/L			08/24/21 17:10	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			08/24/21 17:10	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			08/24/21 17:10	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			08/24/21 17:10	1
2-Hexanone	10	U	10	1.1	ug/L			08/24/21 17:10	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			08/24/21 17:10	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/24/21 17:10	1
Styrene	1.0	U	1.0	0.45	ug/L			08/24/21 17:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			08/24/21 17:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 17:10	1
Toluene	1.0	U	1.0	0.44	ug/L			08/24/21 17:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 17:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/24/21 17:10	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			08/24/21 17:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 17:10	1
1,1,2-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 17:10	1
Cyclohexane	1.0	U	1.0	0.48	ug/L			08/24/21 17:10	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			08/24/21 17:10	1
Ethylene Dibromide	1.0	U	1.0	0.41	ug/L			08/24/21 17:10	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			08/24/21 17:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/24/21 17:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/24/21 17:10	1
Isopropylbenzene	1.0	U	1.0	0.49	ug/L			08/24/21 17:10	1
Methyl acetate	10	U	10	1.7	ug/L			08/24/21 17:10	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			08/24/21 17:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			08/24/21 17:10	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.77	ug/L			08/24/21 17:10	1
1,2-Dichlorobenzene	1.0	U	1.0	0.48	ug/L			08/24/21 17:10	1
1,3-Dichlorobenzene	1.0	U	1.0	0.45	ug/L			08/24/21 17:10	1
1,4-Dichlorobenzene	1.0	U	1.0	0.41	ug/L			08/24/21 17:10	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			08/24/21 17:10	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			08/24/21 17:10	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			08/24/21 17:10	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TW-242_08182021
Date Collected: 08/18/21 13:10
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		62 - 137		08/24/21 17:10	1
4-Bromofluorobenzene (Surr)	115		56 - 136		08/24/21 17:10	1
Toluene-d8 (Surr)	98		78 - 122		08/24/21 17:10	1
Dibromofluoromethane (Surr)	96		73 - 120		08/24/21 17:10	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TRIP BLANK_08182021
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			08/24/21 18:21	1
Benzene	1.0	U	1.0	0.42	ug/L			08/24/21 18:21	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			08/24/21 18:21	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/24/21 18:21	1
Bromomethane	1.0	U	1.0	0.42	ug/L			08/24/21 18:21	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			08/24/21 18:21	1
Carbon disulfide	1.0	U	1.0	0.59	ug/L			08/24/21 18:21	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			08/24/21 18:21	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			08/24/21 18:21	1
Chloroethane	1.0	U	1.0	0.83	ug/L			08/24/21 18:21	1
Chloroform	1.0	U	1.0	0.47	ug/L			08/24/21 18:21	1
Chloromethane	1.0	U	1.0	0.63	ug/L			08/24/21 18:21	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			08/24/21 18:21	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			08/24/21 18:21	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/24/21 18:21	1
1,2-Dichloropropane	1.0	U	1.0	0.47	ug/L			08/24/21 18:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			08/24/21 18:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			08/24/21 18:21	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			08/24/21 18:21	1
2-Hexanone	10	U	10	1.1	ug/L			08/24/21 18:21	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			08/24/21 18:21	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/24/21 18:21	1
Styrene	1.0	U	1.0	0.45	ug/L			08/24/21 18:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			08/24/21 18:21	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 18:21	1
Toluene	1.0	U	1.0	0.44	ug/L			08/24/21 18:21	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 18:21	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/24/21 18:21	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			08/24/21 18:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 18:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 18:21	1
Cyclohexane	1.0	U	1.0	0.48	ug/L			08/24/21 18:21	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			08/24/21 18:21	1
Ethylene Dibromide	1.0	U	1.0	0.41	ug/L			08/24/21 18:21	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			08/24/21 18:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/24/21 18:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/24/21 18:21	1
Isopropylbenzene	1.0	U	1.0	0.49	ug/L			08/24/21 18:21	1
Methyl acetate	10	U	10	1.7	ug/L			08/24/21 18:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			08/24/21 18:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			08/24/21 18:21	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.77	ug/L			08/24/21 18:21	1
1,2-Dichlorobenzene	1.0	U	1.0	0.48	ug/L			08/24/21 18:21	1
1,3-Dichlorobenzene	1.0	U	1.0	0.45	ug/L			08/24/21 18:21	1
1,4-Dichlorobenzene	1.0	U	1.0	0.41	ug/L			08/24/21 18:21	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			08/24/21 18:21	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			08/24/21 18:21	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			08/24/21 18:21	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TRIP BLANK_08182021
Date Collected: 08/18/21 00:00
Date Received: 08/19/21 08:00

Lab Sample ID: 240-154788-13
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		62 - 137		08/24/21 18:21	1
4-Bromofluorobenzene (Surr)	115		56 - 136		08/24/21 18:21	1
Toluene-d8 (Surr)	94		78 - 122		08/24/21 18:21	1
Dibromofluoromethane (Surr)	95		73 - 120		08/24/21 18:21	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)
240-154788-10	TWW-1_08182021	84	117	101	94
240-154788-11	DUP-01_08182021	82	111	98	94
240-154788-12	TW-242_08182021	83	115	98	96
240-154788-12 MS	TW-242_08182021	84	113	96	100
240-154788-12 MSD	TW-242_08182021	82	118	100	99
240-154788-13	TRIP BLANK_08182021	84	115	94	95
LCS 240-500818/4	Lab Control Sample	83	116	100	99
MB 240-500818/7	Method Blank	82	114	98	92

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-500818/7
Matrix: Water
Analysis Batch: 500818

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10	5.4	ug/L			08/24/21 15:35	1
Benzene	1.0	U	1.0	0.42	ug/L			08/24/21 15:35	1
Dichlorobromomethane	1.0	U	1.0	0.17	ug/L			08/24/21 15:35	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/24/21 15:35	1
Bromomethane	1.0	U	1.0	0.42	ug/L			08/24/21 15:35	1
2-Butanone (MEK)	10	U	10	1.2	ug/L			08/24/21 15:35	1
Carbon disulfide	1.0	U	1.0	0.59	ug/L			08/24/21 15:35	1
Carbon tetrachloride	1.0	U	1.0	0.26	ug/L			08/24/21 15:35	1
Chlorobenzene	1.0	U	1.0	0.38	ug/L			08/24/21 15:35	1
Chloroethane	1.0	U	1.0	0.83	ug/L			08/24/21 15:35	1
Chloroform	1.0	U	1.0	0.47	ug/L			08/24/21 15:35	1
Chloromethane	1.0	U	1.0	0.63	ug/L			08/24/21 15:35	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			08/24/21 15:35	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			08/24/21 15:35	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			08/24/21 15:35	1
1,2-Dichloropropane	1.0	U	1.0	0.47	ug/L			08/24/21 15:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.61	ug/L			08/24/21 15:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.67	ug/L			08/24/21 15:35	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			08/24/21 15:35	1
2-Hexanone	10	U	10	1.1	ug/L			08/24/21 15:35	1
Methylene Chloride	5.0	U	5.0	2.6	ug/L			08/24/21 15:35	1
4-Methyl-2-pentanone (MIBK)	10	U	10	0.99	ug/L			08/24/21 15:35	1
Styrene	1.0	U	1.0	0.45	ug/L			08/24/21 15:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			08/24/21 15:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 15:35	1
Toluene	1.0	U	1.0	0.44	ug/L			08/24/21 15:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			08/24/21 15:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			08/24/21 15:35	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			08/24/21 15:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 15:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.48	ug/L			08/24/21 15:35	1
Cyclohexane	1.0	U	1.0	0.48	ug/L			08/24/21 15:35	1
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.91	ug/L			08/24/21 15:35	1
Ethylene Dibromide	1.0	U	1.0	0.41	ug/L			08/24/21 15:35	1
Dichlorodifluoromethane	1.0	U	1.0	0.35	ug/L			08/24/21 15:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			08/24/21 15:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			08/24/21 15:35	1
Isopropylbenzene	1.0	U	1.0	0.49	ug/L			08/24/21 15:35	1
Methyl acetate	10	U	10	1.7	ug/L			08/24/21 15:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.47	ug/L			08/24/21 15:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.41	ug/L			08/24/21 15:35	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.77	ug/L			08/24/21 15:35	1
1,2-Dichlorobenzene	1.0	U	1.0	0.48	ug/L			08/24/21 15:35	1
1,3-Dichlorobenzene	1.0	U	1.0	0.45	ug/L			08/24/21 15:35	1
1,4-Dichlorobenzene	1.0	U	1.0	0.41	ug/L			08/24/21 15:35	1
Trichlorofluoromethane	1.0	U	1.0	0.45	ug/L			08/24/21 15:35	1
Chlorodibromomethane	1.0	U	1.0	0.39	ug/L			08/24/21 15:35	1
Methylcyclohexane	1.0	U	1.0	0.33	ug/L			08/24/21 15:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-500818/7
Matrix: Water
Analysis Batch: 500818

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		62 - 137		08/24/21 15:35	1
4-Bromofluorobenzene (Surr)	114		56 - 136		08/24/21 15:35	1
Toluene-d8 (Surr)	98		78 - 122		08/24/21 15:35	1
Dibromofluoromethane (Surr)	92		73 - 120		08/24/21 15:35	1

Lab Sample ID: LCS 240-500818/4
Matrix: Water
Analysis Batch: 500818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	22.3		ug/L		111	50 - 149
Benzene	10.0	10.5		ug/L		105	77 - 123
Dichlorobromomethane	10.0	9.74		ug/L		97	69 - 126
Bromoform	10.0	8.86		ug/L		89	57 - 129
Bromomethane	10.0	7.43		ug/L		74	36 - 142
2-Butanone (MEK)	20.0	24.9		ug/L		125	54 - 156
Carbon disulfide	10.0	11.0		ug/L		110	43 - 140
Carbon tetrachloride	10.0	9.63		ug/L		96	55 - 137
Chlorobenzene	10.0	9.42		ug/L		94	80 - 121
Chloroethane	10.0	9.84		ug/L		98	38 - 152
Chloroform	10.0	9.85		ug/L		98	74 - 122
Chloromethane	10.0	9.47		ug/L		95	47 - 143
1,1-Dichloroethane	10.0	10.5		ug/L		105	72 - 127
1,2-Dichloroethane	10.0	9.64		ug/L		96	66 - 128
1,1-Dichloroethene	10.0	10.8		ug/L		108	63 - 134
1,2-Dichloropropane	10.0	11.4		ug/L		114	75 - 133
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	64 - 130
trans-1,3-Dichloropropene	10.0	9.50		ug/L		95	57 - 129
Ethylbenzene	10.0	9.53		ug/L		95	80 - 121
2-Hexanone	20.0	24.5		ug/L		122	43 - 167
Methylene Chloride	10.0	10.4		ug/L		104	71 - 125
4-Methyl-2-pentanone (MIBK)	20.0	24.9		ug/L		125	46 - 158
Styrene	10.0	11.0		ug/L		110	80 - 135
1,1,2,2-Tetrachloroethane	10.0	9.80		ug/L		98	58 - 157
Tetrachloroethene	10.0	9.70		ug/L		97	76 - 123
Toluene	10.0	9.76		ug/L		98	80 - 123
Trichloroethene	10.0	10.1		ug/L		101	70 - 122
Vinyl chloride	10.0	9.39		ug/L		94	60 - 144
Xylenes, Total	20.0	18.9		ug/L		94	80 - 121
1,1,1-Trichloroethane	10.0	9.90		ug/L		99	64 - 131
1,1,2-Trichloroethane	10.0	9.96		ug/L		100	70 - 138
Cyclohexane	10.0	12.9		ug/L		129	58 - 146
1,2-Dibromo-3-Chloropropane	10.0	8.89		ug/L		89	53 - 135
Ethylene Dibromide	10.0	9.21		ug/L		92	71 - 134
Dichlorodifluoromethane	10.0	7.47		ug/L		75	34 - 153
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	77 - 123
trans-1,2-Dichloroethene	10.0	10.4		ug/L		104	75 - 124
Isopropylbenzene	10.0	9.35		ug/L		94	74 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-500818/4
Matrix: Water
Analysis Batch: 500818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	20.0	27.0		ug/L		135	42 - 169
Methyl tert-butyl ether	10.0	10.1		ug/L		101	65 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.7		ug/L		107	51 - 146
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	44 - 147
1,2-Dichlorobenzene	10.0	9.45		ug/L		95	78 - 120
1,3-Dichlorobenzene	10.0	9.81		ug/L		98	80 - 120
1,4-Dichlorobenzene	10.0	9.60		ug/L		96	80 - 120
Trichlorofluoromethane	10.0	8.83		ug/L		88	30 - 170
Chlorodibromomethane	10.0	9.00		ug/L		90	70 - 124
Methylcyclohexane	10.0	10.6		ug/L		106	62 - 136
m-Xylene & p-Xylene	10.0	9.52		ug/L		95	80 - 120
o-Xylene	10.0	9.35		ug/L		93	80 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*83*		*62 - 137*
4-Bromofluorobenzene (Surr)	*116*		*56 - 136*
Toluene-d8 (Surr)	*100*		*78 - 122*
Dibromofluoromethane (Surr)	*99*		*73 - 120*

Lab Sample ID: 240-154788-12 MS
Matrix: Water
Analysis Batch: 500818

Client Sample ID: TW-242_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10	U	20.0	20.8		ug/L		104	33 - 149
Benzene	1.0	U	10.0	10.7		ug/L		107	64 - 128
Dichlorobromomethane	1.0	U	10.0	9.73		ug/L		97	62 - 125
Bromoform	1.0	U	10.0	8.38		ug/L		84	47 - 125
Bromomethane	1.0	U	10.0	7.27		ug/L		73	28 - 150
2-Butanone (MEK)	10	U	20.0	25.1		ug/L		125	40 - 151
Carbon disulfide	1.0	U	10.0	10.9		ug/L		109	38 - 140
Carbon tetrachloride	1.0	U	10.0	9.57		ug/L		96	51 - 133
Chlorobenzene	1.0	U	10.0	9.27		ug/L		93	74 - 121
Chloroethane	1.0	U	10.0	10.0		ug/L		100	10 - 199
Chloroform	1.0	U	10.0	9.95		ug/L		100	70 - 122
Chloromethane	1.0	U	10.0	9.95		ug/L		99	32 - 149
1,1-Dichloroethane	1.0	U	10.0	10.8		ug/L		108	68 - 125
1,2-Dichloroethane	1.0	U	10.0	9.87		ug/L		99	63 - 126
1,1-Dichloroethene	1.0	U	10.0	10.3		ug/L		103	56 - 135
1,2-Dichloropropane	1.0	U	10.0	11.3		ug/L		113	69 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	10.1		ug/L		101	47 - 125
trans-1,3-Dichloropropene	1.0	U	10.0	9.01		ug/L		90	47 - 120
Ethylbenzene	1.0	U	10.0	9.24		ug/L		92	67 - 127
2-Hexanone	10	U	20.0	24.8		ug/L		124	35 - 156
Methylene Chloride	5.0	U	10.0	10.6		ug/L		106	62 - 129
4-Methyl-2-pentanone (MIBK)	10	U	20.0	26.4		ug/L		132	31 - 153
Styrene	1.0	U	10.0	10.8		ug/L		108	70 - 139
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.1		ug/L		101	54 - 145

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-154788-12 MS
Matrix: Water
Analysis Batch: 500818

Client Sample ID: TW-242_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	1.0	U	10.0	9.43		ug/L		94	62 - 131
Toluene	1.0	U	10.0	9.50		ug/L		95	58 - 135
Trichloroethene	1.0	U	10.0	10.2		ug/L		102	61 - 124
Vinyl chloride	1.0	U	10.0	9.55		ug/L		96	43 - 157
Xylenes, Total	2.0	U	20.0	18.4		ug/L		92	71 - 123
1,1,1-Trichloroethane	1.0	U	10.0	9.87		ug/L		99	60 - 130
1,1,2-Trichloroethane	1.0	U	10.0	9.76		ug/L		98	69 - 131
Cyclohexane	1.0	U	10.0	12.7		ug/L		127	42 - 147
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	9.13		ug/L		91	41 - 129
Ethylene Dibromide	1.0	U	10.0	9.29		ug/L		93	69 - 125
Dichlorodifluoromethane	1.0	U	10.0	7.46		ug/L		75	38 - 139
cis-1,2-Dichloroethene	1.0	U	10.0	10.9		ug/L		109	66 - 128
trans-1,2-Dichloroethene	1.0	U	10.0	10.4		ug/L		104	56 - 136
Isopropylbenzene	1.0	U	10.0	9.35		ug/L		94	64 - 129
Methyl acetate	10	U	20.0	28.1		ug/L		141	37 - 155
Methyl tert-butyl ether	1.0	U	10.0	10.1		ug/L		101	47 - 134
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	10.4		ug/L		104	41 - 147
1,2,4-Trichlorobenzene	1.0	U	10.0	10.5		ug/L		105	29 - 156
1,2-Dichlorobenzene	1.0	U	10.0	9.48		ug/L		95	73 - 120
1,3-Dichlorobenzene	1.0	U	10.0	9.93		ug/L		99	73 - 120
1,4-Dichlorobenzene	1.0	U	10.0	9.59		ug/L		96	74 - 120
Trichlorofluoromethane	1.0	U	10.0	9.05		ug/L		91	24 - 177
Chlorodibromomethane	1.0	U	10.0	8.80		ug/L		88	65 - 120
Methylcyclohexane	1.0	U	10.0	10.7		ug/L		107	39 - 144
m-Xylene & p-Xylene	2.0	U	10.0	9.29		ug/L		93	71 - 123
o-Xylene	1.0	U	10.0	9.13		ug/L		91	70 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*84*		*62 - 137*
4-Bromofluorobenzene (Surr)	*113*		*56 - 136*
Toluene-d8 (Surr)	*96*		*78 - 122*
Dibromofluoromethane (Surr)	*100*		*73 - 120*

Lab Sample ID: 240-154788-12 MSD
Matrix: Water
Analysis Batch: 500818

Client Sample ID: TW-242_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	10	U	20.0	23.2		ug/L		116	33 - 149	11	34
Benzene	1.0	U	10.0	10.8		ug/L		108	64 - 128	1	14
Dichlorobromomethane	1.0	U	10.0	9.92		ug/L		99	62 - 125	2	13
Bromoform	1.0	U	10.0	8.73		ug/L		87	47 - 125	4	15
Bromomethane	1.0	U	10.0	7.78		ug/L		78	28 - 150	7	26
2-Butanone (MEK)	10	U	20.0	26.6		ug/L		133	40 - 151	6	20
Carbon disulfide	1.0	U	10.0	11.6		ug/L		116	38 - 140	7	23
Carbon tetrachloride	1.0	U	10.0	10.1		ug/L		101	51 - 133	5	24
Chlorobenzene	1.0	U	10.0	9.71		ug/L		97	74 - 121	5	14
Chloroethane	1.0	U	10.0	9.98		ug/L		100	10 - 199	0	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-154788-12 MSD
Matrix: Water
Analysis Batch: 500818

Client Sample ID: TW-242_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	1.0	U	10.0	10.2		ug/L		102	70 - 122	3	14
Chloromethane	1.0	U	10.0	10.0		ug/L		100	32 - 149	1	27
1,1-Dichloroethane	1.0	U	10.0	11.4		ug/L		114	68 - 125	5	13
1,2-Dichloroethane	1.0	U	10.0	9.89		ug/L		99	63 - 126	0	12
1,1-Dichloroethene	1.0	U	10.0	11.0		ug/L		110	56 - 135	6	26
1,2-Dichloropropane	1.0	U	10.0	12.0		ug/L		120	69 - 130	6	13
cis-1,3-Dichloropropene	1.0	U	10.0	10.5		ug/L		105	47 - 125	4	13
trans-1,3-Dichloropropene	1.0	U	10.0	9.81		ug/L		98	47 - 120	9	14
Ethylbenzene	1.0	U	10.0	9.99		ug/L		100	67 - 127	8	15
2-Hexanone	10	U	20.0	27.1		ug/L		136	35 - 156	9	17
Methylene Chloride	5.0	U	10.0	11.2		ug/L		112	62 - 129	5	17
4-Methyl-2-pentanone (MIBK)	10	U	20.0	27.7		ug/L		139	31 - 153	5	15
Styrene	1.0	U	10.0	11.7		ug/L		117	70 - 139	8	18
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.5		ug/L		105	54 - 145	3	15
Tetrachloroethene	1.0	U	10.0	10.1		ug/L		101	62 - 131	6	20
Toluene	1.0	U	10.0	10.1		ug/L		101	58 - 135	6	14
Trichloroethene	1.0	U	10.0	10.7		ug/L		107	61 - 124	5	15
Vinyl chloride	1.0	U	10.0	9.71		ug/L		97	43 - 157	2	24
Xylenes, Total	2.0	U	20.0	20.2		ug/L		101	71 - 123	9	15
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	60 - 130	5	17
1,1,2-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	69 - 131	7	14
Cyclohexane	1.0	U	10.0	13.5		ug/L		135	42 - 147	7	35
1,2-Dibromo-3-Chloropropane	2.0	U	10.0	9.51		ug/L		95	41 - 129	4	22
Ethylene Dibromide	1.0	U	10.0	9.98		ug/L		100	69 - 125	7	14
Dichlorodifluoromethane	1.0	U	10.0	7.94		ug/L		79	38 - 139	6	35
cis-1,2-Dichloroethene	1.0	U	10.0	11.0		ug/L		110	66 - 128	1	14
trans-1,2-Dichloroethene	1.0	U	10.0	10.9		ug/L		109	56 - 136	4	15
Isopropylbenzene	1.0	U	10.0	9.94		ug/L		99	64 - 129	6	18
Methyl acetate	10	U	20.0	29.8		ug/L		149	37 - 155	6	18
Methyl tert-butyl ether	1.0	U	10.0	10.6		ug/L		106	47 - 134	5	16
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	10.0	11.3		ug/L		113	41 - 147	8	35
1,2,4-Trichlorobenzene	1.0	U	10.0	10.5		ug/L		105	29 - 156	1	19
1,2-Dichlorobenzene	1.0	U	10.0	9.80		ug/L		98	73 - 120	3	14
1,3-Dichlorobenzene	1.0	U	10.0	10.3		ug/L		103	73 - 120	4	14
1,4-Dichlorobenzene	1.0	U	10.0	9.99		ug/L		100	74 - 120	4	15
Trichlorofluoromethane	1.0	U	10.0	9.31		ug/L		93	24 - 177	3	34
Chlorodibromomethane	1.0	U	10.0	9.43		ug/L		94	65 - 120	7	13
Methylcyclohexane	1.0	U	10.0	11.1		ug/L		111	39 - 144	4	35
m-Xylene & p-Xylene	2.0	U	10.0	10.1		ug/L		101	71 - 123	9	16
o-Xylene	1.0	U	10.0	10.1		ug/L		101	70 - 125	10	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*62 - 137*
4-Bromofluorobenzene (Surr)	*118*		*56 - 136*
Toluene-d8 (Surr)	*100*		*78 - 122*
Dibromofluoromethane (Surr)	*99*		*73 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-500412/1-A
Matrix: Water
Analysis Batch: 500953

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500412

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/20/21 14:00	08/24/21 12:06	1
Barium	200	U	200	1.3	ug/L		08/20/21 14:00	08/24/21 12:06	1
Iron	100	U	100	83	ug/L		08/20/21 14:00	08/24/21 12:06	1
Manganese	15	U	15	6.2	ug/L		08/20/21 14:00	08/24/21 12:06	1
Sodium	5000	U	5000	2100	ug/L		08/20/21 14:00	08/24/21 12:06	1
Selenium	15	U	15	6.0	ug/L		08/20/21 14:00	08/24/21 12:06	1

Lab Sample ID: LCS 240-500412/2-A
Matrix: Water
Analysis Batch: 500953

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500412

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2000	2140		ug/L		107	80 - 120
Barium	2000	2040		ug/L		102	80 - 120
Iron	10000	9510		ug/L		95	80 - 120
Manganese	1000	990		ug/L		99	80 - 120
Sodium	50000	49800		ug/L		100	80 - 120
Selenium	2000	2130		ug/L		106	80 - 120

Method: 2540 C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 240-500350/1
Matrix: Water
Analysis Batch: 500350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	7.8	mg/L			08/20/21 08:05	1

Lab Sample ID: LCS 240-500350/2
Matrix: Water
Analysis Batch: 500350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	685	680		mg/L		99	80 - 120

Lab Sample ID: MB 240-500575/1
Matrix: Water
Analysis Batch: 500575

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	7.8	mg/L			08/23/21 08:08	1

Lab Sample ID: LCS 240-500575/2
Matrix: Water
Analysis Batch: 500575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	685	689		mg/L		101	80 - 120

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-500084/4
Matrix: Water
Analysis Batch: 500084

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/19/21 00:42	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/19/21 00:42	1

Lab Sample ID: MB 240-500084/41
Matrix: Water
Analysis Batch: 500084

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/19/21 14:13	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/19/21 14:13	1

Lab Sample ID: LCS 240-500084/42
Matrix: Water
Analysis Batch: 500084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: LCS 240-500084/5
Matrix: Water
Analysis Batch: 500084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.4		mg/L		101	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: MB 240-500233/41
Matrix: Water
Analysis Batch: 500233

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/19/21 14:13	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 14:13	1

Lab Sample ID: LCS 240-500233/42
Matrix: Water
Analysis Batch: 500233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.63		mg/L		105	90 - 110
Nitrate as N	2.50	2.56		mg/L		102	90 - 110

Lab Sample ID: MB 240-500252/3
Matrix: Water
Analysis Batch: 500252

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/19/21 10:53	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/19/21 10:53	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: LCS 240-500252/12
Matrix: Water
Analysis Batch: 500252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.1		mg/L		100	90 - 110
Sulfate	50.0	50.3		mg/L		101	90 - 110

Lab Sample ID: 240-154788-1 MS
Matrix: Water
Analysis Batch: 500252

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21		50.0	74.5		mg/L		107	80 - 120
Sulfate	1.0	U	50.0	56.1		mg/L		112	80 - 120

Lab Sample ID: 240-154788-1 MSD
Matrix: Water
Analysis Batch: 500252

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	21		50.0	74.7		mg/L		108	80 - 120	0	15
Sulfate	1.0	U	50.0	56.1		mg/L		112	80 - 120	0	15

Lab Sample ID: MB 240-500253/3
Matrix: Water
Analysis Batch: 500253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/19/21 10:53	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 10:53	1

Lab Sample ID: LCS 240-500253/12
Matrix: Water
Analysis Batch: 500253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.53		mg/L		101	90 - 110
Nitrate as N	2.50	2.56		mg/L		103	90 - 110

Lab Sample ID: 240-154788-1 MS
Matrix: Water
Analysis Batch: 500253

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.10	U H	2.50	2.69		mg/L		107	80 - 120

Lab Sample ID: 240-154788-1 MSD
Matrix: Water
Analysis Batch: 500253

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.10	U H	2.50	2.71		mg/L		108	80 - 120	1	15

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-500260/3
Matrix: Water
Analysis Batch: 500260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/19/21 18:55	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/19/21 18:55	1

Lab Sample ID: LCS 240-500260/4
Matrix: Water
Analysis Batch: 500260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Lab Sample ID: 240-154788-8 MS
Matrix: Water
Analysis Batch: 500260

Client Sample ID: X-9BR_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	69		50.0	121		mg/L		105	80 - 120
Sulfate	5.4		50.0	60.9		mg/L		111	80 - 120

Lab Sample ID: 240-154788-8 MSD
Matrix: Water
Analysis Batch: 500260

Client Sample ID: X-9BR_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	69		50.0	122		mg/L		106	80 - 120	0	15
Sulfate	5.4		50.0	61.4		mg/L		112	80 - 120	1	15

Lab Sample ID: MB 240-500261/3
Matrix: Water
Analysis Batch: 500261

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/19/21 18:55	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/19/21 18:55	1

Lab Sample ID: LCS 240-500261/4
Matrix: Water
Analysis Batch: 500261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.54		mg/L		102	90 - 110
Nitrate as N	2.50	2.57		mg/L		103	90 - 110

Lab Sample ID: 240-154788-8 MS
Matrix: Water
Analysis Batch: 500261

Client Sample ID: X-9BR_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.10	U	2.50	2.85		mg/L		114	80 - 120
Nitrate as N	0.10	U	2.50	2.77		mg/L		111	80 - 120

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: 240-154788-8 MSD
Matrix: Water
Analysis Batch: 500261

Client Sample ID: X-9BR_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.10	U	2.50	2.90		mg/L		116	80 - 120	2	15
Nitrate as N	0.10	U	2.50	2.80		mg/L		112	80 - 120	1	15

Lab Sample ID: MB 240-500431/3
Matrix: Water
Analysis Batch: 500431

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/20/21 15:05	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/20/21 15:05	1

Lab Sample ID: LCS 240-500431/4
Matrix: Water
Analysis Batch: 500431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Lab Sample ID: MB 240-500432/3
Matrix: Water
Analysis Batch: 500432

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/20/21 15:05	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/20/21 15:05	1

Lab Sample ID: LCS 240-500432/4
Matrix: Water
Analysis Batch: 500432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.65		mg/L		106	90 - 110
Nitrate as N	2.50	2.56		mg/L		102	90 - 110

Lab Sample ID: MB 240-500704/3
Matrix: Water
Analysis Batch: 500704

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/23/21 20:55	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/23/21 20:55	1

Lab Sample ID: LCS 240-500704/4
Matrix: Water
Analysis Batch: 500704

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: 240-154788-1 MS
Matrix: Water
Analysis Batch: 500704

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	22		250	288		mg/L		106	80 - 120
Sulfate	5.0	U	250	274		mg/L		109	80 - 120

Lab Sample ID: 240-154788-1 MSD
Matrix: Water
Analysis Batch: 500704

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	22		250	285		mg/L		105	80 - 120	1	15
Sulfate	5.0	U	250	271		mg/L		108	80 - 120	1	15

Lab Sample ID: MB 240-500705/3
Matrix: Water
Analysis Batch: 500705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/23/21 20:55	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/23/21 20:55	1

Lab Sample ID: LCS 240-500705/4
Matrix: Water
Analysis Batch: 500705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.60		mg/L		104	90 - 110
Nitrate as N	2.50	2.58		mg/L		103	90 - 110

Lab Sample ID: 240-154788-1 MS
Matrix: Water
Analysis Batch: 500705

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.50	U H	12.5	13.5		mg/L		108	80 - 120
Nitrate as N	0.50	U H	12.5	13.7		mg/L		109	80 - 120

Lab Sample ID: 240-154788-1 MSD
Matrix: Water
Analysis Batch: 500705

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.50	U H	12.5	13.4		mg/L		107	80 - 120	0	15
Nitrate as N	0.50	U H	12.5	13.5		mg/L		108	80 - 120	1	15

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-500688/45
Matrix: Water
Analysis Batch: 500688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	0.20	U	0.20	0.076	mg/L			08/23/21 12:40	1

Lab Sample ID: LCS 240-500688/46
Matrix: Water
Analysis Batch: 500688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	6.90	6.36		mg/L		92	90 - 110

Lab Sample ID: MB 240-501163/23
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	0.0881	J	0.20	0.076	mg/L			08/25/21 16:27	1

Lab Sample ID: MB 240-501163/44
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	0.20	U	0.20	0.076	mg/L			08/25/21 17:30	1

Lab Sample ID: LCS 240-501163/14
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	6.90	6.34		mg/L		92	90 - 110

Lab Sample ID: LCS 240-501163/45
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	6.90	6.47		mg/L		94	90 - 110

Lab Sample ID: MB 240-501259/14
Matrix: Water
Analysis Batch: 501259

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	0.20	U	0.20	0.076	mg/L			08/26/21 12:08	1

Lab Sample ID: LCS 240-501259/15
Matrix: Water
Analysis Batch: 501259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	6.90	6.80		mg/L		99	90 - 110

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-500827/1-A
Matrix: Water
Analysis Batch: 500887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500827

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Dissolved	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:11	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/24/21 11:29	08/24/21 14:11	1

Lab Sample ID: LCS 240-500827/2-A
Matrix: Water
Analysis Batch: 500887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500827

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Dissolved	0.238	0.245		mg/L		103	85 - 115
Cyanide, Total	0.238	0.245		mg/L		103	85 - 115

Lab Sample ID: 240-154788-1 MS
Matrix: Water
Analysis Batch: 500887

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA
Prep Batch: 500827

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0066	J	0.0400	0.0442		mg/L		94	22 - 135

Lab Sample ID: 240-154788-1 MSD
Matrix: Water
Analysis Batch: 500887

Client Sample ID: X-4CAUGR_08172021
Prep Type: Total/NA
Prep Batch: 500827

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0066	J	0.0400	0.0413		mg/L		87	22 - 135	7	40

Lab Sample ID: 240-154788-9 MS
Matrix: Water
Analysis Batch: 500887

Client Sample ID: X-9CAUGR_08182021
Prep Type: Dissolved
Prep Batch: 500827

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Dissolved	0.010	U	0.0400	0.0425		mg/L		106	22 - 135

Lab Sample ID: 240-154788-9 MSD
Matrix: Water
Analysis Batch: 500887

Client Sample ID: X-9CAUGR_08182021
Prep Type: Dissolved
Prep Batch: 500827

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Dissolved	0.010	U	0.0400	0.0415		mg/L		104	22 - 135	2	40

GC/MS VOA

Analysis Batch: 500818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-10	TWW-1_08182021	Total/NA	Water	8260B	
240-154788-11	DUP-01_08182021	Total/NA	Water	8260B	
240-154788-12	TW-242_08182021	Total/NA	Water	8260B	
240-154788-13	TRIP BLANK_08182021	Total/NA	Water	8260B	
MB 240-500818/7	Method Blank	Total/NA	Water	8260B	
LCS 240-500818/4	Lab Control Sample	Total/NA	Water	8260B	
240-154788-12 MS	TW-242_08182021	Total/NA	Water	8260B	
240-154788-12 MSD	TW-242_08182021	Total/NA	Water	8260B	

Metals

Prep Batch: 500412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Dissolved	Water	3005A	
240-154788-1	X-4CAUGR_08172021	Total Recoverable	Water	3005A	
240-154788-2	X-4D_08172021	Dissolved	Water	3005A	
240-154788-2	X-4D_08172021	Total Recoverable	Water	3005A	
240-154788-3	MW-118S1_08172021	Dissolved	Water	3005A	
240-154788-3	MW-118S1_08172021	Total Recoverable	Water	3005A	
240-154788-4	MW-118WT_08172021	Dissolved	Water	3005A	
240-154788-4	MW-118WT_08172021	Total Recoverable	Water	3005A	
240-154788-5	MW-117S1_08172021	Dissolved	Water	3005A	
240-154788-5	MW-117S1_08172021	Total Recoverable	Water	3005A	
240-154788-6	MW-117WT_08172021	Dissolved	Water	3005A	
240-154788-6	MW-117WT_08172021	Total Recoverable	Water	3005A	
240-154788-7	X-9AR_08182021	Dissolved	Water	3005A	
240-154788-7	X-9AR_08182021	Total Recoverable	Water	3005A	
240-154788-8	X-9BR_08182021	Dissolved	Water	3005A	
240-154788-8	X-9BR_08182021	Total Recoverable	Water	3005A	
240-154788-9	X-9CAUGR_08182021	Dissolved	Water	3005A	
240-154788-9	X-9CAUGR_08182021	Total Recoverable	Water	3005A	
MB 240-500412/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-500412/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 500953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Dissolved	Water	6010B	500412
240-154788-1	X-4CAUGR_08172021	Total Recoverable	Water	6010B	500412
240-154788-2	X-4D_08172021	Dissolved	Water	6010B	500412
240-154788-2	X-4D_08172021	Dissolved	Water	6010B	500412
240-154788-2	X-4D_08172021	Total Recoverable	Water	6010B	500412
240-154788-3	MW-118S1_08172021	Dissolved	Water	6010B	500412
240-154788-3	MW-118S1_08172021	Total Recoverable	Water	6010B	500412
240-154788-4	MW-118WT_08172021	Dissolved	Water	6010B	500412
240-154788-4	MW-118WT_08172021	Total Recoverable	Water	6010B	500412
240-154788-5	MW-117S1_08172021	Dissolved	Water	6010B	500412
240-154788-5	MW-117S1_08172021	Total Recoverable	Water	6010B	500412
240-154788-6	MW-117WT_08172021	Dissolved	Water	6010B	500412
240-154788-6	MW-117WT_08172021	Dissolved	Water	6010B	500412
240-154788-6	MW-117WT_08172021	Total Recoverable	Water	6010B	500412
240-154788-6	MW-117WT_08172021	Total Recoverable	Water	6010B	500412

Metals (Continued)

Analysis Batch: 500953 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-7	X-9AR_08182021	Dissolved	Water	6010B	500412
240-154788-7	X-9AR_08182021	Total Recoverable	Water	6010B	500412
240-154788-8	X-9BR_08182021	Dissolved	Water	6010B	500412
240-154788-8	X-9BR_08182021	Total Recoverable	Water	6010B	500412
240-154788-9	X-9CAUGR_08182021	Dissolved	Water	6010B	500412
240-154788-9	X-9CAUGR_08182021	Total Recoverable	Water	6010B	500412
MB 240-500412/1-A	Method Blank	Total Recoverable	Water	6010B	500412
LCS 240-500412/2-A	Lab Control Sample	Total Recoverable	Water	6010B	500412

General Chemistry

Analysis Batch: 500084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-3	MW-118S1_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-3	MW-118S1_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500084/4	Method Blank	Total/NA	Water	300.0-1993 R2.1	
MB 240-500084/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500084/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500084/5	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-3	MW-118S1_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-3	MW-118S1_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500233/41	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500233/42	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-2	X-4D_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-2	X-4D_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-4	MW-118WT_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-4	MW-118WT_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-5	MW-117S1_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-6	MW-117WT_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500252/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500252/12	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-2	X-4D_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-4	MW-118WT_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-4 - RA	MW-118WT_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-5	MW-117S1_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-5 - RA	MW-117S1_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-6	MW-117WT_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500253/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	

General Chemistry (Continued)

Analysis Batch: 500253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-500253/12	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-7	X-9AR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-8	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500260/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500260/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-8 MS	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-8 MSD	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-7	X-9AR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-8	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500261/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500261/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-8 MS	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	
240-154788-8 MSD	X-9BR_08182021	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	2540 C-2011	
240-154788-2	X-4D_08172021	Total/NA	Water	2540 C-2011	
240-154788-3	MW-118S1_08172021	Total/NA	Water	2540 C-2011	
240-154788-4	MW-118WT_08172021	Total/NA	Water	2540 C-2011	
240-154788-5	MW-117S1_08172021	Total/NA	Water	2540 C-2011	
240-154788-6	MW-117WT_08172021	Total/NA	Water	2540 C-2011	
MB 240-500350/1	Method Blank	Total/NA	Water	2540 C-2011	
LCS 240-500350/2	Lab Control Sample	Total/NA	Water	2540 C-2011	

Analysis Batch: 500431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-500431/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500431/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-500432/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500432/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-7	X-9AR_08182021	Total/NA	Water	2540 C-2011	
240-154788-8	X-9BR_08182021	Total/NA	Water	2540 C-2011	
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	2540 C-2011	
MB 240-500575/1	Method Blank	Total/NA	Water	2540 C-2011	

General Chemistry (Continued)

Analysis Batch: 500575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-500575/2	Lab Control Sample	Total/NA	Water	2540 C-2011	

Analysis Batch: 500688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	4500 NH3 H	
240-154788-2	X-4D_08172021	Total/NA	Water	4500 NH3 H	
240-154788-3	MW-118S1_08172021	Total/NA	Water	4500 NH3 H	
MB 240-500688/45	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-500688/46	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 500704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500704/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500704/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 500705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
MB 240-500705/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-500705/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	300.0-1993 R2.1	

Prep Batch: 500827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Dissolved	Water	9012A	
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	9012A	
240-154788-2	X-4D_08172021	Dissolved	Water	9012A	
240-154788-2	X-4D_08172021	Total/NA	Water	9012A	
240-154788-3	MW-118S1_08172021	Dissolved	Water	9012A	
240-154788-3	MW-118S1_08172021	Total/NA	Water	9012A	
240-154788-4	MW-118WT_08172021	Dissolved	Water	9012A	
240-154788-4	MW-118WT_08172021	Total/NA	Water	9012A	
240-154788-5	MW-117S1_08172021	Dissolved	Water	9012A	
240-154788-5	MW-117S1_08172021	Total/NA	Water	9012A	
240-154788-6	MW-117WT_08172021	Dissolved	Water	9012A	
240-154788-6	MW-117WT_08172021	Total/NA	Water	9012A	
240-154788-7	X-9AR_08182021	Dissolved	Water	9012A	
240-154788-7	X-9AR_08182021	Total/NA	Water	9012A	
240-154788-8	X-9BR_08182021	Dissolved	Water	9012A	
240-154788-8	X-9BR_08182021	Total/NA	Water	9012A	
240-154788-9	X-9CAUGR_08182021	Dissolved	Water	9012A	
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	9012A	
MB 240-500827/1-A	Method Blank	Total/NA	Water	9012A	
LCS 240-500827/2-A	Lab Control Sample	Total/NA	Water	9012A	
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	9012A	
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	9012A	
240-154788-9 MS	X-9CAUGR_08182021	Dissolved	Water	9012A	

General Chemistry (Continued)

Prep Batch: 500827 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-9 MSD	X-9CAUGR_08182021	Dissolved	Water	9012A	

Analysis Batch: 500887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-1	X-4CAUGR_08172021	Dissolved	Water	9012A	500827
240-154788-1	X-4CAUGR_08172021	Total/NA	Water	9012A	500827
240-154788-2	X-4D_08172021	Dissolved	Water	9012A	500827
240-154788-2	X-4D_08172021	Total/NA	Water	9012A	500827
240-154788-3	MW-118S1_08172021	Dissolved	Water	9012A	500827
240-154788-3	MW-118S1_08172021	Total/NA	Water	9012A	500827
240-154788-4	MW-118WT_08172021	Dissolved	Water	9012A	500827
240-154788-4	MW-118WT_08172021	Total/NA	Water	9012A	500827
240-154788-5	MW-117S1_08172021	Dissolved	Water	9012A	500827
240-154788-5	MW-117S1_08172021	Total/NA	Water	9012A	500827
240-154788-6	MW-117WT_08172021	Dissolved	Water	9012A	500827
240-154788-6	MW-117WT_08172021	Total/NA	Water	9012A	500827
240-154788-7	X-9AR_08182021	Dissolved	Water	9012A	500827
240-154788-7	X-9AR_08182021	Total/NA	Water	9012A	500827
240-154788-8	X-9BR_08182021	Dissolved	Water	9012A	500827
240-154788-8	X-9BR_08182021	Total/NA	Water	9012A	500827
240-154788-9	X-9CAUGR_08182021	Dissolved	Water	9012A	500827
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	9012A	500827
MB 240-500827/1-A	Method Blank	Total/NA	Water	9012A	500827
LCS 240-500827/2-A	Lab Control Sample	Total/NA	Water	9012A	500827
240-154788-1 MS	X-4CAUGR_08172021	Total/NA	Water	9012A	500827
240-154788-1 MSD	X-4CAUGR_08172021	Total/NA	Water	9012A	500827
240-154788-9 MS	X-9CAUGR_08182021	Dissolved	Water	9012A	500827
240-154788-9 MSD	X-9CAUGR_08182021	Dissolved	Water	9012A	500827

Analysis Batch: 501163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-4	MW-118WT_08172021	Total/NA	Water	4500 NH3 H	
240-154788-5	MW-117S1_08172021	Total/NA	Water	4500 NH3 H	
240-154788-7	X-9AR_08182021	Total/NA	Water	4500 NH3 H	
240-154788-8	X-9BR_08182021	Total/NA	Water	4500 NH3 H	
240-154788-9	X-9CAUGR_08182021	Total/NA	Water	4500 NH3 H	
MB 240-501163/23	Method Blank	Total/NA	Water	4500 NH3 H	
MB 240-501163/44	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-501163/14	Lab Control Sample	Total/NA	Water	4500 NH3 H	
LCS 240-501163/45	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Analysis Batch: 501259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154788-6	MW-117WT_08172021	Total/NA	Water	4500 NH3 H	
MB 240-501259/14	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-501259/15	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-4CAUGR_08172021

Lab Sample ID: 240-154788-1

Date Collected: 08/17/21 15:30
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 12:35	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 12:31	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500704	08/24/21 00:11	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500705	08/24/21 00:11	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500252	08/19/21 15:55	JMB	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500253	08/19/21 15:55	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	500688	08/23/21 14:07	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:38	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:15	BLW	TAL CAN

Client Sample ID: X-4D_08172021

Lab Sample ID: 240-154788-2

Date Collected: 08/17/21 17:25
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 12:52	DSH	TAL CAN
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		2	500953	08/24/21 12:57	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 12:39	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500252	08/19/21 17:36	JMB	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500253	08/19/21 17:36	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		25	500252	08/19/21 22:38	JMB	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	500688	08/23/21 14:10	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:40	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:20	BLW	TAL CAN

Client Sample ID: MW-118S1_08172021

Lab Sample ID: 240-154788-3

Date Collected: 08/17/21 10:00
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 13:05	DSH	TAL CAN

Client Sample ID: MW-118S1_08172021

Lab Sample ID: 240-154788-3

Date Collected: 08/17/21 10:00

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 13:01	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500084	08/19/21 09:50	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500233	08/19/21 09:50	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500084	08/19/21 10:58	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500233	08/19/21 10:58	AGC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	500688	08/23/21 14:13	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:41	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:22	BLW	TAL CAN

Client Sample ID: MW-118WT_08172021

Lab Sample ID: 240-154788-4

Date Collected: 08/17/21 11:55

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 13:14	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 13:09	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500252	08/19/21 11:34	JMB	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500253	08/19/21 11:34	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		10	500252	08/19/21 13:34	JMB	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1	RA	10	500253	08/19/21 13:34	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		10	501163	08/25/21 19:18	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:43	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:24	BLW	TAL CAN

Client Sample ID: MW-117S1_08172021

Lab Sample ID: 240-154788-5

Date Collected: 08/17/21 15:10

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 13:22	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 13:18	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN

Client Sample ID: MW-117S1_08172021

Lab Sample ID: 240-154788-5

Date Collected: 08/17/21 15:10

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	500253	08/19/21 14:55	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		5	500252	08/19/21 19:57	JMB	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1	RA	5	500253	08/19/21 19:57	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 16:36	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:45	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:25	BLW	TAL CAN

Client Sample ID: MW-117WT_08172021

Lab Sample ID: 240-154788-6

Date Collected: 08/17/21 16:55

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 13:44	DSH	TAL CAN
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		5	500953	08/24/21 13:49	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 13:27	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		5	500953	08/24/21 13:31	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500350	08/20/21 08:05	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		10	500253	08/19/21 16:36	JWW	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		100	500252	08/19/21 21:17	JMB	TAL CAN
Total/NA	Analysis	4500 NH3 H		100	501259	08/26/21 12:14	JMB	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:47	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:27	BLW	TAL CAN

Client Sample ID: X-9AR_08182021

Lab Sample ID: 240-154788-7

Date Collected: 08/18/21 08:45

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 13:57	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 13:53	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500575	08/23/21 08:08	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500260	08/19/21 19:39	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500261	08/19/21 19:39	AGC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 16:42	JMR	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: X-9AR_08182021

Lab Sample ID: 240-154788-7

Date Collected: 08/18/21 08:45

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:48	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:33	BLW	TAL CAN

Client Sample ID: X-9BR_08182021

Lab Sample ID: 240-154788-8

Date Collected: 08/18/21 10:25

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 14:06	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 14:02	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500575	08/23/21 08:08	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500260	08/19/21 20:01	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500261	08/19/21 20:01	AGC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 16:45	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:54	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:34	BLW	TAL CAN

Client Sample ID: X-9CAUGR_08182021

Lab Sample ID: 240-154788-9

Date Collected: 08/18/21 12:40

Matrix: Water

Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 14:14	DSH	TAL CAN
Total Recoverable	Prep	3005A			500412	08/20/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 14:10	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500575	08/23/21 08:08	AJ	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500260	08/19/21 21:49	AGC	TAL CAN
Total/NA	Analysis	300.0-1993 R2.1		1	500261	08/19/21 21:49	AGC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 16:48	JMR	TAL CAN
Dissolved	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Dissolved	Analysis	9012A		1	500887	08/24/21 14:55	BLW	TAL CAN
Total/NA	Prep	9012A			500827	08/24/21 11:29	BLW	TAL CAN
Total/NA	Analysis	9012A		1	500887	08/24/21 14:36	BLW	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Client Sample ID: TWW-1_08182021
Lab Sample ID: 240-154788-10
Date Collected: 08/18/21 11:35
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	500818	08/24/21 16:23	LRW	TAL CAN

Client Sample ID: DUP-01_08182021
Lab Sample ID: 240-154788-11
Date Collected: 08/18/21 00:00
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	500818	08/24/21 16:46	LRW	TAL CAN

Client Sample ID: TW-242_08182021
Lab Sample ID: 240-154788-12
Date Collected: 08/18/21 13:10
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	500818	08/24/21 17:10	LRW	TAL CAN

Client Sample ID: TRIP BLANK_08182021
Lab Sample ID: 240-154788-13
Date Collected: 08/18/21 00:00
Matrix: Water
Date Received: 08/19/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	500818	08/24/21 18:21	LRW	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154788-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

3.2/3.3 3.3/3.4

MICHIGAN 190

Chain of Custody Record

397406

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-821

Client Contact	Project Manager: SCOTT CLEARWATER	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email: SCOTT.CLEARWATER@ARCADIS	Lab Contact:	Carrier:	___ of 2 COCs
Address: 28550 CABOT DR STE 500	Analysis Turnaround Time			Sampler: Bill Cabera
City/State/Zip: NOVI, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 248-994-2240	TAT if different from Below _____			Walk-in Client:
Fax: 248-994-2241	☐ 2 weeks			Lab Sampling:
Project Name: RACER SAGINAW	☐ 1 week			Job / SDG No.:
Site:	☐ 2 days			
PO # 30076323	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Total TAL Metals	Dissolved TAL Metals	Total Cyanide	Dissolved Cyanide	Total Sulfide, Cyanide, Nitrate/Nitrite	Ammonia, Nitrogen	VOC - 8260	Sample Specific Notes:
X-4CAVGR_08172021	8/17/21	15:30	G	GW	6	Y	N	1	1	1	1	1	1		
X-4D_08172021	8/17/21	17:25	G	GW	6	Y	N	1	1	1	1	1	1		
MW-118S1_08172021	8/17/21	1000	G	GW	6	Y	N	1	1	1	1	1	1		
MW-118WT_08172021	8/17/21	11:55	G	GW	6	Y	N	1	1	1	1	1	1		
MW-117S1_08172021	8/17/21	15:10	G	GW	6	Y	N	1	1	1	1	1	1		
MW-117WT_08172021	8/17/21	16:55	G	GW	6	Y	N	1	1	1	1	1	1		
X-9AR_08182021	8/18/21	8:45	G	GW	6	Y	N	1	1	1	1	1	1		
X-9BR_08182021	8/18/21	10:25	G	GW	6	Y	N	1	1	1	1	1	1		
X-9CAVGR_08182021	8/18/21	12:40	G	GW	6	Y	N	1	1	1	1	1	1		
TWW-1_08182021	8/18/21	11:35	G	GW	3	N	N							3	
DUP-01_08182021	8/16/21	—	G	GW	3	N	N							3	
TW-242_08182021	8/16/21	13:10	G	GW	9	N	Y							9	

240-154788 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Arcadis	8/18/21 1410	[signature]	ETA	8/18/21 1410
Relinquished by: [signature]	Company: ETA	Date/Time: 8/18/21 1539	Received by: [signature]	Company: ETA	Date/Time: 8-19-21 800
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

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MICHIGAN 190

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-821(

Client Contact	Project Manager: Scott Clearwater	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email: Scott.Clearwater@Arcadis	Lab Contact:	Carrier:	2 of 2 COCs
Address: 28550 CABOT DR SUITE 500	**Analysis Turnaround Time**			Sampler: Bill Cobern
City/State/Zip: NOVI, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone: 248-994-2240	TAT if different from Below _____			Walk-in Client:
Fax: 248-994-2241	☐ 2 weeks			Lab Sampling:
Project Name: RACER SAGINAW	☐ 1 week			
Site: GREEN POINT LANDFILL	☐ 2 days			Job / SDG No.:
PO# 30076326	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	VOC - 8260	Sample Specific Notes:
TRIP BLANK_08182021	—	—	G	W	2	N	N	2	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Arcadis	8/18/21 1410	[signature]	ETA	8/18/21 1410
Relinquished by: [signature]	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ETA	8/18/21 1539	[signature]	ETA	8-19-21 800
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Eurofins TestAmerica Billing Sheet

Client: Arcadis

Site: Saginaw

Field Personnel: Amanda Battershell

Date: 8/18/21

✓ Pickup	_____ City Split Pickup	_____ City Split Pickup & Pour Up
_____ Sampling	_____ Rush TAT	_____ Same Day TAT
_____ Composite	_____ Grab	_____ Available CN (field)
_____ On Site (Hrs.)	_____ Drive Time (Hrs.)	
_____ Truck Fee	_____ Mileage (out of area)	

Equipment Used

_____ ISCO/Composite Sampler	_____ Tyvek Suit
_____ Flow Meter	_____ SS Auger
_____ Tubing (Ft.)	_____ SS Shovel
_____ Rope (Ft.)	_____ Disposable Slot Sampler
_____ Coliwasa	_____ Drum Coring Bit
_____ pH Meter	_____ Air Comp. & Control Box

_____ Disposable Bailer _____ 3ft. _____ 6ft. _____ 7ft.

✓ Misc. /Other Equipment: drop off - bottles, coolers, DI Water

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 154788**
Canton Facility

Client ARCADIS Site Name _____ Cooler unpacked by: Tammy Page

Cooler Received on 8-19-21 Opened on 8-19-21

FedEx: 1st Grd Exp UPS FAS (Clipper) Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. 3.2 °C Corrected Cooler Temp. 3.3 °C

IR GUN #IR-12 (CF +0.2°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Yes)	No
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# **HC157842**
14. Were VOAs on the COC?	(Yes)	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 60282	(Yes)	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : 154788

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-11 IR-12	3.2	3.3	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-11 IR-12	3.3	3.4	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-11 IR-12	

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
X-4CAVGR_08172021	240-154788-A-1	Plastic 250ml - with Sodium Hydroxide	<2			
X-4CAVGR_08172021	240-154788-B-1	Plastic 250ml - with Sodium Hydroxide	<2			
X-4CAVGR_08172021	240-154788-D-1	Plastic 500ml - with Sulfuric Acid	<2			
X-4CAVGR_08172021	240-154788-E-1	Plastic 500ml - with Sulfuric Acid	<2			
X-4CAVGR_08172021	240-154788-F-1	Plastic 500ml - with Nitric Acid	<2			
X-4D_08172021	240-154788-A-2	Plastic 250ml - with Sodium Hydroxide	<2			
X-4D_08172021	240-154788-B-2	Plastic 250ml - with Sodium Hydroxide	<2			
X-4D_08172021	240-154788-D-2	Plastic 500ml - with Sulfuric Acid	<2			
X-4D_08172021	240-154788-E-2	Plastic 500ml - with Sulfuric Acid	<2			
X-4D_08172021	240-154788-F-2	Plastic 500ml - with Nitric Acid	<2			
MW-118SI_08172021	240-154788-A-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-118SI_08172021	240-154788-B-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-118SI_08172021	240-154788-D-3	Plastic 500ml - with Sulfuric Acid	<2			
MW-118SI_08172021	240-154788-E-3	Plastic 500ml - with Sulfuric Acid	<2			
MW-118SI_08172021	240-154788-F-3	Plastic 500ml - with Nitric Acid	<2			
MW-118WT_08172021	240-154788-A-4	Plastic 250ml - with Sodium Hydroxide	<2			
MW-118WT_08172021	240-154788-B-4	Plastic 250ml - with Sodium Hydroxide	<2			
MW-118WT_08172021	240-154788-D-4	Plastic 500ml - with Sulfuric Acid	<2			
MW-118WT_08172021	240-154788-E-4	Plastic 500ml - with Sulfuric Acid	<2			
MW-118WT_08172021	240-154788-F-4	Plastic 500ml - with Nitric Acid	<2			
MW-117SI_08172021	240-154788-A-5	Plastic 250ml - with Sodium Hydroxide	<2			
MW-117SI_08172021	240-154788-B-5	Plastic 250ml - with Sodium Hydroxide	<2			
MW-117SI_08172021	240-154788-D-5	Plastic 500ml - with Sulfuric Acid	<2			
MW-117SI_08172021	240-154788-E-5	Plastic 500ml - with Sulfuric Acid	<2			
MW-117SI_08172021	240-154788-F-5	Plastic 500ml - with Nitric Acid	<2			
MW-117WT_08172021	240-154788-A-6	Plastic 250ml - with Sodium Hydroxide	<2			
MW-117WT_08172021	240-154788-B-6	Plastic 250ml - with Sodium Hydroxide	<2			
MW-117WT_08172021	240-154788-D-6	Plastic 500ml - with Sulfuric Acid	<2			
MW-117WT_08172021	240-154788-E-6	Plastic 500ml - with Sulfuric Acid	<2			
MW-117WT_08172021	240-154788-F-6	Plastic 500ml - with Nitric Acid	<2			
X-9AR_08182021	240-154788-A-7	Plastic 250ml - with Sodium Hydroxide	<2			
X-9AR_08182021	240-154788-B-7	Plastic 250ml - with Sodium Hydroxide	<2			
X-9AR_08182021	240-154788-D-7	Plastic 500ml - with Sulfuric Acid	<2			
X-9AR_08182021	240-154788-E-7	Plastic 500ml - with Sulfuric Acid	<2			
X-9AR_08182021	240-154788-F-7	Plastic 500ml - with Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
X-9BR_08182021	240-154788-A-8	Plastic 250ml - with Sodium Hydroxide	<2			
X-9BR_08182021	240-154788-B-8	Plastic 250ml - with Sodium Hydroxide	<2			
X-9BR_08182021	240-154788-D-8	Plastic 500ml - with Sulfuric Acid	<2			
X-9BR_08182021	240-154788-E-8	Plastic 500ml - with Sulfuric Acid	<2			
X-9BR_08182021	240-154788-F-8	Plastic 500ml - with Nitric Acid	<2			
X-9CAVGR_08182021	240-154788-A-9	Plastic 250ml - with Sodium Hydroxide	<2			
X-9CAVGR_08182021	240-154788-B-9	Plastic 250ml - with Sodium Hydroxide	<2			
X-9CAVGR_08182021	240-154788-D-9	Plastic 500ml - with Sulfuric Acid	<2			
X-9CAVGR_08182021	240-154788-E-9	Plastic 500ml - with Sulfuric Acid	<2			
X-9CAVGR_08182021	240-154788-F-9	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-154838-1
Client Project/Site: Racer Saginaw

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Scott Clearwater

Authorized for release by:
8/31/2021 2:11:20 PM

Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@Eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-154838-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-154838-1

Comments
No additional comments.

Receipt
The samples were received on 8/20/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.2º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 300.0: The following samples were received with less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: X-9D_08182021 (240-154838-1), DUP-02_08182021 (240-154838-2) and MW-183WT_08182021 (240-154838-3).

Method 300.0: The following samples were diluted due to the nature of the sample matrix: X-9D_08182021 (240-154838-1), DUP-02_08182021 (240-154838-2) and MW-183WT_08182021 (240-154838-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CAN
2540 C-2011	Total Dissolved Solids (Dried at 180 °C)	SM	TAL CAN
300.0	Anions, Ion Chromatography	MCAWW	TAL CAN
4500 NH3 H	Ammonia	SM	TAL CAN
9012A	Cyanide, Total and/or Amenable	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	TAL CAN

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-154838-1	X-9D_08182021	Water	08/18/21 14:25	08/20/21 08:00
240-154838-2	DUP-02_08182021	Water	08/18/21 00:00	08/20/21 08:00
240-154838-3	MW-183WT_08182021	Water	08/18/21 09:00	08/20/21 08:00

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: X-9D_08182021 — Lab Sample ID: 240-154838-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	19		10	4.1	ug/L	1		6010B	Total Recoverable
Barium	170	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	13000		100	83	ug/L	1		6010B	Total Recoverable
Manganese	2400		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	420000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	130	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	5100		100	83	ug/L	1		6010B	Dissolved
Manganese	550		15	6.2	ug/L	1		6010B	Dissolved
Sodium	570000		10000	4200	ug/L	2		6010B	Dissolved
Total Dissolved Solids	2600		40	31	mg/L	1		2540 C-2011	Total/NA
Chloride	1300		20	5.7	mg/L	20		300.0	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		300.0	Total/NA
Ammonia-N	6.3	B	0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: DUP-02_08182021 — Lab Sample ID: 240-154838-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	13		10	4.1	ug/L	1		6010B	Total Recoverable
Barium	120	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	9500		100	83	ug/L	1		6010B	Total Recoverable
Manganese	2200		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	290000		5000	2100	ug/L	1		6010B	Total Recoverable
Barium	130	J	200	1.3	ug/L	1		6010B	Dissolved
Iron	5100		100	83	ug/L	1		6010B	Dissolved
Manganese	550		15	6.2	ug/L	1		6010B	Dissolved
Sodium	590000		10000	4200	ug/L	2		6010B	Dissolved
Total Dissolved Solids	2300		40	31	mg/L	1		2540 C-2011	Total/NA
Chloride	1200		20	5.7	mg/L	20		300.0	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		300.0	Total/NA
Ammonia-N	5.5	B	0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: MW-183WT_08182021 — Lab Sample ID: 240-154838-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	10		10	4.1	ug/L	1		6010B	Total Recoverable
Barium	45	J	200	1.3	ug/L	1		6010B	Total Recoverable
Iron	5800		100	83	ug/L	1		6010B	Total Recoverable
Manganese	1700		15	6.2	ug/L	1		6010B	Total Recoverable
Sodium	23000		5000	2100	ug/L	1		6010B	Total Recoverable
Arsenic	8.3	J	10	4.1	ug/L	1		6010B	Dissolved
Barium	43	J	200	1.3	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-183WT_08182021 (Continued)

Lab Sample ID: 240-154838-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	4400		100	83	ug/L	1		6010B	Dissolved
Manganese	1600		15	6.2	ug/L	1		6010B	Dissolved
Sodium	23000		5000	2100	ug/L	1		6010B	Dissolved
Total Dissolved Solids	350		10	7.8	mg/L	1		2540 C-2011	Total/NA
Chloride	19		1.0	0.28	mg/L	1		300.0	Total/NA
Sulfate	3.0		1.0	0.35	mg/L	1		300.0	Total/NA
Ammonia-N	0.085	J F1 B	0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: X-9D_08182021
Date Collected: 08/18/21 14:25
Date Received: 08/20/21 08:00

Lab Sample ID: 240-154838-1
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**19**		10	4.1	ug/L		08/23/21 14:00	08/24/21 19:15	1
Barium	**170**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 19:19	1
Iron	**13000**		100	83	ug/L		08/23/21 14:00	08/25/21 19:19	1
Manganese	**2400**		15	6.2	ug/L		08/23/21 14:00	08/24/21 19:15	1
Sodium	**420000**		5000	2100	ug/L		08/23/21 14:00	08/25/21 19:19	1
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 19:15	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/23/21 14:00	08/24/21 19:20	1
Barium	**130**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 19:24	1
Iron	**5100**		100	83	ug/L		08/23/21 14:00	08/25/21 19:24	1
Manganese	**550**		15	6.2	ug/L		08/23/21 14:00	08/24/21 19:20	1
Sodium	**570000**		10000	4200	ug/L		08/23/21 14:00	08/25/21 19:28	2
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 19:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2600**		40	31	mg/L			08/24/21 08:17	1
Chloride	**1300**		20	5.7	mg/L			08/23/21 22:44	20
Nitrite as N	0.50	U H	0.50	0.070	mg/L			08/23/21 22:24	5
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/23/21 22:24	5
Sulfate	**240**		5.0	1.7	mg/L			08/23/21 22:24	5
Ammonia-N	**6.3**	**B**	0.20	0.076	mg/L			08/25/21 17:15	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:32	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: DUP-02_08182021

Date Collected: 08/18/21 00:00
Date Received: 08/20/21 08:00

Lab Sample ID: 240-154838-2

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**13**		10	4.1	ug/L		08/23/21 14:00	08/24/21 19:24	1
Barium	**120**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 19:32	1
Iron	**9500**		100	83	ug/L		08/23/21 14:00	08/25/21 19:32	1
Manganese	**2200**		15	6.2	ug/L		08/23/21 14:00	08/24/21 19:24	1
Sodium	**290000**		5000	2100	ug/L		08/23/21 14:00	08/25/21 19:32	1
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 19:24	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/23/21 14:00	08/24/21 19:28	1
Barium	**130**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 19:37	1
Iron	**5100**		100	83	ug/L		08/23/21 14:00	08/25/21 19:37	1
Manganese	**550**		15	6.2	ug/L		08/23/21 14:00	08/24/21 19:28	1
Sodium	**590000**		10000	4200	ug/L		08/23/21 14:00	08/25/21 19:41	2
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 19:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**2300**		40	31	mg/L			08/24/21 08:17	1
Chloride	**1200**		20	5.7	mg/L			08/23/21 23:25	20
Nitrite as N	0.50	U H	0.50	0.070	mg/L			08/23/21 23:05	5
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/23/21 23:05	5
Sulfate	**240**		5.0	1.7	mg/L			08/23/21 23:05	5
Ammonia-N	**5.5**	**B**	0.20	0.076	mg/L			08/25/21 17:18	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:37	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:39	1

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: MW-183WT_08182021

Date Collected: 08/18/21 09:00
Date Received: 08/20/21 08:00

Lab Sample ID: 240-154838-3

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		10	4.1	ug/L		08/23/21 14:00	08/24/21 17:59	1
Barium	**45**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 18:38	1
Iron	**5800**		100	83	ug/L		08/23/21 14:00	08/25/21 18:38	1
Manganese	**1700**		15	6.2	ug/L		08/23/21 14:00	08/24/21 17:59	1
Sodium	**23000**		5000	2100	ug/L		08/23/21 14:00	08/25/21 18:38	1
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 17:59	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**8.3**	**J**	10	4.1	ug/L		08/23/21 14:00	08/24/21 18:16	1
Barium	**43**	**J**	200	1.3	ug/L		08/23/21 14:00	08/25/21 18:54	1
Iron	**4400**		100	83	ug/L		08/23/21 14:00	08/25/21 18:54	1
Manganese	**1600**		15	6.2	ug/L		08/23/21 14:00	08/24/21 18:16	1
Sodium	**23000**		5000	2100	ug/L		08/23/21 14:00	08/25/21 18:54	1
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 18:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**350**		10	7.8	mg/L			08/23/21 08:08	1
Chloride	**19**		1.0	0.28	mg/L			08/23/21 23:45	1
Nitrite as N	0.10	U H	0.10	0.014	mg/L			08/23/21 23:45	1
Nitrate as N	0.50	U H	0.50	0.18	mg/L			08/24/21 00:45	5
Sulfate	**3.0**		1.0	0.35	mg/L			08/23/21 23:45	1
Ammonia-N	**0.085**	**J F1 B**	0.20	0.076	mg/L			08/25/21 17:21	1
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:48	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-500649/1-A
Matrix: Water
Analysis Batch: 500953

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10	U	10	4.1	ug/L		08/23/21 14:00	08/24/21 17:43	1
Manganese	15	U	15	6.2	ug/L		08/23/21 14:00	08/24/21 17:43	1
Selenium	15	U	15	6.0	ug/L		08/23/21 14:00	08/24/21 17:43	1

Lab Sample ID: MB 240-500649/1-A
Matrix: Water
Analysis Batch: 501140

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	200	U	200	1.3	ug/L		08/23/21 14:00	08/25/21 18:29	1
Iron	100	U	100	83	ug/L		08/23/21 14:00	08/25/21 18:29	1
Sodium	5000	U	5000	2100	ug/L		08/23/21 14:00	08/25/21 18:29	1

Lab Sample ID: LCS 240-500649/2-A
Matrix: Water
Analysis Batch: 500953

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2000	2090		ug/L		104	80 - 120
Manganese	1000	900		ug/L		90	80 - 120
Selenium	2000	2080		ug/L		104	80 - 120

Lab Sample ID: LCS 240-500649/2-A
Matrix: Water
Analysis Batch: 501140

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2000	1830		ug/L		91	80 - 120
Iron	10000	8630		ug/L		86	80 - 120
Sodium	50000	44800		ug/L		90	80 - 120

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 500953

Client Sample ID: MW-183WT_08182021
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10		2000	2200		ug/L		110	75 - 125
Manganese	1700		1000	2580		ug/L		92	75 - 125
Selenium	15	U	2000	2180		ug/L		109	75 - 125

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 501140

Client Sample ID: MW-183WT_08182021
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	45	J	2000	1950		ug/L		95	75 - 125
Iron	5800		10000	14900		ug/L		91	75 - 125
Sodium	23000		50000	71800		ug/L		98	75 - 125

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 500953

Client Sample ID: MW-183WT_08182021
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	10		2000	2230		ug/L		111	75 - 125	1	20
Manganese	1700		1000	2570		ug/L		91	75 - 125	0	20
Selenium	15	U	2000	2200		ug/L		110	75 - 125	1	20

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 501140

Client Sample ID: MW-183WT_08182021
Prep Type: Total Recoverable
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	45	J	2000	1980		ug/L		97	75 - 125	1	20
Iron	5800		10000	14900		ug/L		91	75 - 125	0	20
Sodium	23000		50000	71200		ug/L		97	75 - 125	1	20

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 500953

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	8.3	J	2000	2230		ug/L		111	75 - 125
Manganese	1600		1000	2530		ug/L		98	75 - 125
Selenium	15	U	2000	2200		ug/L		110	75 - 125

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 501140

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	43	J	2000	1970		ug/L		97	75 - 125
Iron	4400		10000	13700		ug/L		92	75 - 125
Sodium	23000		50000	71700		ug/L		98	75 - 125

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 500953

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.3	J	2000	2270		ug/L		113	75 - 125	2	20
Manganese	1600		1000	2540		ug/L		99	75 - 125	0	20
Selenium	15	U	2000	2250		ug/L		112	75 - 125	2	20

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 501140

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 500649

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	43	J	2000	1990		ug/L		97	75 - 125	1	20
Iron	4400		10000	13600		ug/L		92	75 - 125	0	20
Sodium	23000		50000	71700		ug/L		98	75 - 125	0	20

Method: 2540 C-2011 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 240-500575/1
Matrix: Water
Analysis Batch: 500575

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	7.8	mg/L			08/23/21 08:08	1

Lab Sample ID: LCS 240-500575/2
Matrix: Water
Analysis Batch: 500575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	685	689		mg/L		101	80 - 120

Lab Sample ID: 240-154838-3 DU
Matrix: Water
Analysis Batch: 500575

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	350		366		mg/L		4	20

Lab Sample ID: MB 240-500758/1
Matrix: Water
Analysis Batch: 500758

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	7.8	mg/L			08/24/21 08:17	1

Lab Sample ID: LCS 240-500758/2
Matrix: Water
Analysis Batch: 500758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	685	670		mg/L		98	80 - 120

Lab Sample ID: 240-154838-1 DU
Matrix: Water
Analysis Batch: 500758

Client Sample ID: X-9D_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2600		2210		mg/L		14	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-500379/29
Matrix: Water
Analysis Batch: 500379

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	0.28	mg/L			08/23/21 17:02	1
Sulfate	1.0	U	1.0	0.35	mg/L			08/23/21 17:02	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-500379/30
Matrix: Water
Analysis Batch: 500379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	49.9		mg/L		100	90 - 110		
Sulfate			50.0	50.1		mg/L		100	90 - 110		

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 500379

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	19		50.0	71.7		mg/L		106	80 - 120		
Sulfate	3.0		50.0	55.8		mg/L		106	80 - 120		

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 500379

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	19		50.0	71.8		mg/L		106	80 - 120	0	15
Sulfate	3.0		50.0	56.0		mg/L		106	80 - 120	0	15

Lab Sample ID: MB 240-500380/29
Matrix: Water
Analysis Batch: 500380

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.10	U	0.10	0.014	mg/L			08/23/21 17:02	1
Nitrate as N	0.10	U	0.10	0.036	mg/L			08/23/21 17:02	1

Lab Sample ID: LCS 240-500380/30
Matrix: Water
Analysis Batch: 500380

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			2.50	2.51		mg/L		100	90 - 110		
Nitrate as N			2.50	2.54		mg/L		102	90 - 110		

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 500380

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	0.10	U H	2.50	2.64	H	mg/L		106	80 - 120		

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 500380

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	0.50	U H	12.5	13.2	H	mg/L		106	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-154838-3 MSD — **Client Sample ID: MW-183WT_08182021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.10	U H	2.50	2.64	H	mg/L		106	80 - 120	0	15

Lab Sample ID: 240-154838-3 MSD — **Client Sample ID: MW-183WT_08182021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 500380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.50	U H	12.5	13.0	H	mg/L		104	80 - 120	2	15

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-501163/23 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia-N	0.0881	J	0.20	0.076	mg/L			08/25/21 16:27	1

Lab Sample ID: LCS 240-501163/14 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	6.90	6.34		mg/L		92	90 - 110

Lab Sample ID: 240-154838-3 MS — **Client Sample ID: MW-183WT_08182021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia-N	0.085	J F1 B	2.50	2.34		mg/L		90	90 - 110

Lab Sample ID: 240-154838-3 MSD — **Client Sample ID: MW-183WT_08182021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia-N	0.085	J F1 B	2.50	2.28	F1	mg/L		88	90 - 110	3	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-501461/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 501479 — **Prep Batch: 501461**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0060	mg/L		08/27/21 18:24	08/27/21 19:17	1

Method: 9012A - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 240-501461/2-A
Matrix: Water
Analysis Batch: 501479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.238	0.239		mg/L		100	85 - 115

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 501479

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA
Prep Batch: 501461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.010	U	0.0400	0.0443		mg/L		111	22 - 135

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 501479

Client Sample ID: MW-183WT_08182021
Prep Type: Total/NA
Prep Batch: 501461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.010	U	0.0400	0.0429		mg/L		107	22 - 135	3	40

Lab Sample ID: MRL 240-501479/10
Matrix: Water
Analysis Batch: 501479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00990	J	mg/L		99	70 - 130

Lab Sample ID: 240-154838-3 MS
Matrix: Water
Analysis Batch: 501479

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 501461

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.010	U	0.0400	0.0418		mg/L		105	22 - 135

Lab Sample ID: 240-154838-3 MSD
Matrix: Water
Analysis Batch: 501479

Client Sample ID: MW-183WT_08182021
Prep Type: Dissolved
Prep Batch: 501461

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.010	U	0.0400	0.0423		mg/L		106	22 - 135	1	40

Metals

Prep Batch: 500649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Dissolved	Water	3005A	
240-154838-1	X-9D_08182021	Total Recoverable	Water	3005A	
240-154838-2	DUP-02_08182021	Dissolved	Water	3005A	
240-154838-2	DUP-02_08182021	Total Recoverable	Water	3005A	
240-154838-3	MW-183WT_08182021	Dissolved	Water	3005A	
240-154838-3	MW-183WT_08182021	Total Recoverable	Water	3005A	
MB 240-500649/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-500649/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-154838-3 MS	MW-183WT_08182021	Dissolved	Water	3005A	
240-154838-3 MS	MW-183WT_08182021	Total Recoverable	Water	3005A	
240-154838-3 MSD	MW-183WT_08182021	Dissolved	Water	3005A	
240-154838-3 MSD	MW-183WT_08182021	Total Recoverable	Water	3005A	

Analysis Batch: 500953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Dissolved	Water	6010B	500649
240-154838-1	X-9D_08182021	Total Recoverable	Water	6010B	500649
240-154838-2	DUP-02_08182021	Dissolved	Water	6010B	500649
240-154838-2	DUP-02_08182021	Total Recoverable	Water	6010B	500649
240-154838-3	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3	MW-183WT_08182021	Total Recoverable	Water	6010B	500649
MB 240-500649/1-A	Method Blank	Total Recoverable	Water	6010B	500649
LCS 240-500649/2-A	Lab Control Sample	Total Recoverable	Water	6010B	500649
240-154838-3 MS	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3 MS	MW-183WT_08182021	Total Recoverable	Water	6010B	500649
240-154838-3 MSD	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3 MSD	MW-183WT_08182021	Total Recoverable	Water	6010B	500649

Analysis Batch: 501140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Dissolved	Water	6010B	500649
240-154838-1	X-9D_08182021	Dissolved	Water	6010B	500649
240-154838-1	X-9D_08182021	Total Recoverable	Water	6010B	500649
240-154838-2	DUP-02_08182021	Dissolved	Water	6010B	500649
240-154838-2	DUP-02_08182021	Dissolved	Water	6010B	500649
240-154838-2	DUP-02_08182021	Total Recoverable	Water	6010B	500649
240-154838-3	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3	MW-183WT_08182021	Total Recoverable	Water	6010B	500649
MB 240-500649/1-A	Method Blank	Total Recoverable	Water	6010B	500649
LCS 240-500649/2-A	Lab Control Sample	Total Recoverable	Water	6010B	500649
240-154838-3 MS	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3 MS	MW-183WT_08182021	Total Recoverable	Water	6010B	500649
240-154838-3 MSD	MW-183WT_08182021	Dissolved	Water	6010B	500649
240-154838-3 MSD	MW-183WT_08182021	Total Recoverable	Water	6010B	500649

General Chemistry

Analysis Batch: 500379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Total/NA	Water	300.0	
240-154838-1	X-9D_08182021	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 500379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-2	DUP-02_08182021	Total/NA	Water	300.0	
240-154838-2	DUP-02_08182021	Total/NA	Water	300.0	
240-154838-3	MW-183WT_08182021	Total/NA	Water	300.0	
MB 240-500379/29	Method Blank	Total/NA	Water	300.0	
LCS 240-500379/30	Lab Control Sample	Total/NA	Water	300.0	
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	300.0	
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	300.0	

Analysis Batch: 500380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Total/NA	Water	300.0	
240-154838-2	DUP-02_08182021	Total/NA	Water	300.0	
240-154838-3	MW-183WT_08182021	Total/NA	Water	300.0	
240-154838-3	MW-183WT_08182021	Total/NA	Water	300.0	
MB 240-500380/29	Method Blank	Total/NA	Water	300.0	
LCS 240-500380/30	Lab Control Sample	Total/NA	Water	300.0	
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	300.0	
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	300.0	
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	300.0	
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	300.0	

Analysis Batch: 500575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-3	MW-183WT_08182021	Total/NA	Water	2540 C-2011	
MB 240-500575/1	Method Blank	Total/NA	Water	2540 C-2011	
LCS 240-500575/2	Lab Control Sample	Total/NA	Water	2540 C-2011	
240-154838-3 DU	MW-183WT_08182021	Total/NA	Water	2540 C-2011	

Analysis Batch: 500758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Total/NA	Water	2540 C-2011	
240-154838-2	DUP-02_08182021	Total/NA	Water	2540 C-2011	
MB 240-500758/1	Method Blank	Total/NA	Water	2540 C-2011	
LCS 240-500758/2	Lab Control Sample	Total/NA	Water	2540 C-2011	
240-154838-1 DU	X-9D_08182021	Total/NA	Water	2540 C-2011	

Analysis Batch: 501163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Total/NA	Water	4500 NH3 H	
240-154838-2	DUP-02_08182021	Total/NA	Water	4500 NH3 H	
240-154838-3	MW-183WT_08182021	Total/NA	Water	4500 NH3 H	
MB 240-501163/23	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-501163/14	Lab Control Sample	Total/NA	Water	4500 NH3 H	
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	4500 NH3 H	
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	4500 NH3 H	

Prep Batch: 501461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Dissolved	Water	9012A	
240-154838-1	X-9D_08182021	Total/NA	Water	9012A	
240-154838-2	DUP-02_08182021	Dissolved	Water	9012A	

General Chemistry (Continued)

Prep Batch: 501461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-2	DUP-02_08182021	Total/NA	Water	9012A	
240-154838-3	MW-183WT_08182021	Dissolved	Water	9012A	
240-154838-3	MW-183WT_08182021	Total/NA	Water	9012A	
MB 240-501461/1-A	Method Blank	Total/NA	Water	9012A	
LCS 240-501461/2-A	Lab Control Sample	Total/NA	Water	9012A	
240-154838-3 MS	MW-183WT_08182021	Dissolved	Water	9012A	
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	9012A	
240-154838-3 MSD	MW-183WT_08182021	Dissolved	Water	9012A	
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	9012A	

Analysis Batch: 501479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154838-1	X-9D_08182021	Dissolved	Water	9012A	501461
240-154838-1	X-9D_08182021	Total/NA	Water	9012A	501461
240-154838-2	DUP-02_08182021	Dissolved	Water	9012A	501461
240-154838-2	DUP-02_08182021	Total/NA	Water	9012A	501461
240-154838-3	MW-183WT_08182021	Dissolved	Water	9012A	501461
240-154838-3	MW-183WT_08182021	Total/NA	Water	9012A	501461
MB 240-501461/1-A	Method Blank	Total/NA	Water	9012A	501461
LCS 240-501461/2-A	Lab Control Sample	Total/NA	Water	9012A	501461
MRL 240-501479/10	Lab Control Sample	Total/NA	Water	9012A	
240-154838-3 MS	MW-183WT_08182021	Dissolved	Water	9012A	501461
240-154838-3 MS	MW-183WT_08182021	Total/NA	Water	9012A	501461
240-154838-3 MSD	MW-183WT_08182021	Dissolved	Water	9012A	501461
240-154838-3 MSD	MW-183WT_08182021	Total/NA	Water	9012A	501461

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: X-9D_08182021

Lab Sample ID: 240-154838-1

Date Collected: 08/18/21 14:25

Matrix: Water

Date Received: 08/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 19:20	DSH	TAL CAN
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	501140	08/25/21 19:24	DSH	TAL CAN
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		2	501140	08/25/21 19:28	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 19:15	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	501140	08/25/21 19:19	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500758	08/24/21 08:17	AJ	TAL CAN
Total/NA	Analysis	300.0		5	500379	08/23/21 22:24	JWW	TAL CAN
Total/NA	Analysis	300.0		5	500380	08/23/21 22:24	JWW	TAL CAN
Total/NA	Analysis	300.0		20	500379	08/23/21 22:44	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 17:15	JMR	TAL CAN
Dissolved	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Dissolved	Analysis	9012A		1	501479	08/27/21 19:32	AGC	TAL CAN
Total/NA	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Total/NA	Analysis	9012A		1	501479	08/27/21 19:30	AGC	TAL CAN

Client Sample ID: DUP-02_08182021

Lab Sample ID: 240-154838-2

Date Collected: 08/18/21 00:00

Matrix: Water

Date Received: 08/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 19:28	DSH	TAL CAN
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	501140	08/25/21 19:37	DSH	TAL CAN
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		2	501140	08/25/21 19:41	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 19:24	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	501140	08/25/21 19:32	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500758	08/24/21 08:17	AJ	TAL CAN
Total/NA	Analysis	300.0		5	500379	08/23/21 23:05	JWW	TAL CAN
Total/NA	Analysis	300.0		5	500380	08/23/21 23:05	JWW	TAL CAN
Total/NA	Analysis	300.0		20	500379	08/23/21 23:25	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 17:18	JMR	TAL CAN
Dissolved	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Dissolved	Analysis	9012A		1	501479	08/27/21 19:39	AGC	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Client Sample ID: DUP-02_08182021

Lab Sample ID: 240-154838-2

Date Collected: 08/18/21 00:00

Matrix: Water

Date Received: 08/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Total/NA	Analysis	9012A		1	501479	08/27/21 19:37	AGC	TAL CAN

Client Sample ID: MW-183WT_08182021

Lab Sample ID: 240-154838-3

Date Collected: 08/18/21 09:00

Matrix: Water

Date Received: 08/20/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	500953	08/24/21 18:16	DSH	TAL CAN
Dissolved	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6010B		1	501140	08/25/21 18:54	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	500953	08/24/21 17:59	DSH	TAL CAN
Total Recoverable	Prep	3005A			500649	08/23/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	501140	08/25/21 18:38	DSH	TAL CAN
Total/NA	Analysis	2540 C-2011		1	500575	08/23/21 08:08	AJ	TAL CAN
Total/NA	Analysis	300.0		1	500379	08/23/21 23:45	JWW	TAL CAN
Total/NA	Analysis	300.0		1	500380	08/23/21 23:45	JWW	TAL CAN
Total/NA	Analysis	300.0		5	500380	08/24/21 00:45	JWW	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 17:21	JMR	TAL CAN
Dissolved	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Dissolved	Analysis	9012A		1	501479	08/27/21 19:48	AGC	TAL CAN
Total/NA	Prep	9012A			501461	08/27/21 18:24	AGC	TAL CAN
Total/NA	Analysis	9012A		1	501479	08/27/21 19:23	AGC	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Saginaw

Job ID: 240-154838-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

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MICHIGAN 190

Chain of Custody Record 420530

eurofins | Environment Testi
TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-821(

Client Contact	Project Manager: Scott Clearwater	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email: Scott.Clearwater@arcadis	Lab Contact:	Carrier:	___ of ___ COCs
Address: 28550 Cabot Dr. Ste 500	Analysis Turnaround Time			Sampler:
City/State/Zip: Novi, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 248-994-2240	TAT if different from Below _____			Walk-in Client:
Fax: 248-994-2241	☐ 2 weeks			Lab Sampling:
Project Name: Racer Sagina	☐ 1 week			
Site: Green Point Landfill	☐ 2 days			Job / SDG No.:
PO# 30076323	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TOTAL TAL METALS	DISSOLVED TAL METALS	TOTAL CYANIDE	DISSOLVED CYANIDE	AMMONIA NITROGEN	TOS SULFIDE CHLORIDE NITRATE NITRITE	Sample Specific Notes:
X-90_08182021	8/18/21	14:25	G	GW	6	Y	N	1	1	1	1	1	1	
DUP-02_08182021	8/18/21	———	G	GW	6	Y	N	1	1	1	1	1	1	
MW-183WT_08192021	8/19/21	9:00	G	GW	18	Y	Y	3	3	3	3	3	3	MS/MSD

240-154838 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:
Please Report Nitrate & Nitrite Separately

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Arcadis	8/19/21	[signature]	EA	8/19/21 205
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EA	8/19/21 1532	[signature]	EA	8-20-21 0900
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

0.Y/0.2

Chain of Custody Record 420530

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Scott Clearwater	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email: Scott.Clearwater@arcadis	Lab Contact:	Carrier:	___ of ___ COCs
Address: 28550 Cabot Dr Ste 500	Analysis Turnaround Time			Sampler:
City/State/Zip: Novi, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 248-994-2240	TAT if different from Below _____			Walk-in Client:
Fax: 248.994.2241	☒ 2 weeks			Lab Sampling:
Project Name: Kaker Saginaw	☐ 1 week			
Site: Green Point Landfill	☐ 2 days			Job / SDG No.:
PO # 30076323	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total TAL Metals	Dissolved TAL Metals	Total Cyanide	Dissolved Cyanide	Ammonia Nitrogen	Total Sulfate, Chloride, Nitrate, Nitrite	Sample Specific Notes:
X-9D_08182021	8/18/21	14:25	G	GW	6	Y	N	1	1	1	1	1	1	
DUP-02_08182021	8/18/21	—	G	GW	6	Y	N	1	1	1	1	1	1	
MW-183WT_08192021	8/19/21	9:00	G	GW	18	Y	Y	3	3	3	3	3	3	MS/MSD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

PLEASE REPORT NITRATE & NITRITE SEPERATELY

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Arcadis	8/19/21	[signature]	ETA	8/19/21 205
[signature]	ETA	8/19/21 1552	[signature]		
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TA	8/20 0900

8/31/2021

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 154838**
Canton Facility

Client Arcadis Site Name

Cooler Received on 8-20-21 Opened on 8-20-21

Cooler unpacked by: Brandon

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

TestAmerica Cooler # 7A Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp. 0.1 °C Corrected Cooler Temp. 0.2 °C
   IR GUN #IR-12 (CF +0.2°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC157842
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

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Eurofins TestAmerica Billing Sheet

Client: Arcadis

Site: Saginaw

Field Personnel: Amanda Batteshell

Date: 8/19/21

✓ Pickup

_____ City Split Pickup

_____ City Split Pickup & Pour Up

_____ Sampling

_____ Rush TAT

_____ Same Day TAT

_____ Composite

_____ Grab

_____ Available CN (field)

_____ On Site (Hrs.)

_____ Drive Time (Hrs.)

_____ Truck Fee

_____ Mileage (out of area)

Equipment Used

_____ ISCO/Composite Sampler

_____ Tyvek Suit

_____ Flow Meter

_____ SS Auger

_____ Tubing (Ft.)

_____ SS Shovel

_____ Rope (Ft.)

_____ Disposable Slot Sampler

_____ Coliwasa

_____ Drum Coring Bit

_____ pH Meter

_____ Air Comp. & Control Box

_____ Disposable Bailer _____ 3ft. _____ 6ft. _____ 7ft.

_____ Misc. /Other Equipment: _____

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
X-9P_08182021	240-154838-A-1	Plastic 250ml - with Sodium Hydroxide	<2			
X-9P_08182021	240-154838-B-1	Plastic 250ml - with Sodium Hydroxide	<2			
X-9P_08182021	240-154838-D-1	Plastic 500ml - with Sulfuric Acid	<2			
X-9P_08182021	240-154838-E-1	Plastic 500ml - with Nitric Acid	<2			
X-9P_08182021	240-154838-F-1	Plastic 500ml - with Nitric Acid	<2			
DUP-02_08182021	240-154838-A-2	Plastic 250ml - with Sodium Hydroxide	<2			
DUP-02_08182021	240-154838-B-2	Plastic 250ml - with Sodium Hydroxide	<2			
DUP-02_08182021	240-154838-D-2	Plastic 500ml - with Sulfuric Acid	<2			
DUP-02_08182021	240-154838-E-2	Plastic 500ml - with Nitric Acid	<2			
DUP-02_08182021	240-154838-F-2	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-A-3	Plastic 250ml - with Sodium Hydroxide				
MW-183WT_08182021	240-154838-B-3	Plastic 250ml - with Sodium Hydroxide				
MW-183WT_08182021	240-154838-C-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-183WT_08182021	240-154838-D-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-183WT_08182021	240-154838-E-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-183WT_08182021	240-154838-F-3	Plastic 250ml - with Sodium Hydroxide	<2			
MW-183WT_08182021	240-154838-J-3	Plastic 500ml - with Sulfuric Acid	<2			
MW-183WT_08182021	240-154838-K-3	Plastic 500ml - with Sulfuric Acid	<2			
MW-183WT_08182021	240-154838-L-3	Plastic 500ml - with Sulfuric Acid	<2			
MW-183WT_08182021	240-154838-M-3	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-N-3	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-O-3	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-P-3	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-Q-3	Plastic 500ml - with Nitric Acid	<2			
MW-183WT_08182021	240-154838-R-3	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-154913-1
Client Project/Site: RACER Saginaw
Revision: 1

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Scott Clearwater

Authorized for release by:
10/4/2021 2:58:41 PM

Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@Eurofinset.com

LINKS
Review your project results through TotalAccess
Have a Question? Ask The Expert
Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Job ID: 240-154913-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-154913-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 8/31/2021. The report (revision 1) is being revised due to: additional requested analysis for total arsenic.

Receipt
The samples were received on 8/21/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8º C, 1.7º C and 1.8º C.

GC/MS Semi VOA
Method 8270C: The laboratory control sample (LCS) for preparation batch 240-500790 and analytical batch 240-501155 recovered outside control limits for the following analyte: 4-Chloroaniline. This has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. The results have been reported and qualified for the following samples: MW-108WT_08192021 (240-154913-1) and DUP-04_08192021 (240-154913-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: MW-110WTR_08192021 (240-154913-5) and MW-114WT_08202021 (240-154913-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6020: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: MW-108WT_08192021 (240-154913-1), MW-110WTR_08192021 (240-154913-5), DUP-07_08192021 (240-154913-6), MW-149WT_08192021 (240-154913-7), DUP-08_08192021 (240-154913-8), MW-114WT_08202021 (240-154913-9) and MW-107WT_08202021 (240-154913-11)The continuing calibration blanks and method blanks may not support the lower PQL.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Methods 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-500967.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
4500 NH3 H	Ammonia	SM	TAL CAN
SM4500 P E-1999	Phosphorus	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN
FILTRATION	Sample Filtration	None	TAL CAN

Protocol References:

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-154913-1	MW-108WT_08192021	Water	08/19/21 13:30	08/21/21 08:00
240-154913-2	DUP-04_08192021	Water	08/19/21 00:00	08/21/21 08:00
240-154913-3	MW-108S2_08192021	Water	08/19/21 16:15	08/21/21 08:00
240-154913-4	DUP-06_08192021	Water	08/19/21 00:00	08/21/21 08:00
240-154913-5	MW-110WTR_08192021	Water	08/19/21 18:00	08/21/21 08:00
240-154913-6	DUP-07_08192021	Water	08/19/21 00:00	08/21/21 08:00
240-154913-7	MW-149WT_08192021	Water	08/19/21 18:50	08/21/21 08:00
240-154913-8	DUP-08_08192021	Water	08/19/21 00:00	08/21/21 08:00
240-154913-9	MW-114WT_08202021	Water	08/19/21 09:15	08/21/21 08:00
240-154913-10	MW-114S2_08202021	Water	08/20/21 11:45	08/21/21 08:00
240-154913-11	MW-107WT_08202021	Water	08/20/21 09:05	08/21/21 08:00
240-154913-12	MW-107S1_08202021	Water	08/20/21 11:25	08/21/21 08:00

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-108WT_08192021 — Lab Sample ID: 240-154913-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	2600		6.2	6.2	ug/L	1		6020	Total Recoverable
Ammonia	1.2		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: DUP-04_08192021 — Lab Sample ID: 240-154913-2

No Detections.

Client Sample ID: MW-108S2_08192021 — Lab Sample ID: 240-154913-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	5.0		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: DUP-06_08192021 — Lab Sample ID: 240-154913-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	4.9		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: MW-110WTR_08192021 — Lab Sample ID: 240-154913-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	2400		6.2	6.2	ug/L	1		6020	Total Recoverable
Total Phosphorus as P	0.25		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: DUP-07_08192021 — Lab Sample ID: 240-154913-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	2400		6.2	6.2	ug/L	1		6020	Total Recoverable

Client Sample ID: MW-149WT_08192021 — Lab Sample ID: 240-154913-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	45		2.0	0.75	ug/L	1		6020	Total Recoverable
Arsenic	9.1		5.0	0.75	ug/L	1		6020	Dissolved
Ammonia	2.6		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	1.0		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: DUP-08_08192021 — Lab Sample ID: 240-154913-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	50		2.0	0.75	ug/L	1		6020	Total Recoverable
Arsenic	11		5.0	0.75	ug/L	1		6020	Dissolved
Ammonia	2.7		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	1.0		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: MW-114WT_08202021 — Lab Sample ID: 240-154913-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	860		6.2	6.2	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-114WT_08202021 (Continued) — Lab Sample ID: 240-154913-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	0.57		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	0.19		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: MW-114S2_08202021 — Lab Sample ID: 240-154913-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	1.5		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

Client Sample ID: MW-107WT_08202021 — Lab Sample ID: 240-154913-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	820		6.2	6.2	ug/L	1		6020	Total Recoverable
Arsenic	22		5.0	0.75	ug/L	1		6020	Total Recoverable
Arsenic	8.2		5.0	0.75	ug/L	1		6020	Dissolved
Ammonia	0.85		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	0.25		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: MW-107S1_08202021 — Lab Sample ID: 240-154913-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	1.2		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-108WT_08192021
Date Collected: 08/19/21 13:30
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 15:20	1
Acenaphthylene	0.19	U	0.19	0.12	ug/L		08/24/21 09:37	08/26/21 15:20	1
Acetophenone	0.95	U	0.95	0.35	ug/L		08/24/21 09:37	08/26/21 15:20	1
Anthracene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 15:20	1
Atrazine	0.95	U	0.95	0.91	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzaldehyde	0.95	U	0.95	0.72	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzo[a]anthracene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzo[a]pyrene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzo[b]fluoranthene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.17	ug/L		08/24/21 09:37	08/26/21 15:20	1
Benzo[k]fluoranthene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 15:20	1
1,1'-Biphenyl	0.95	U	0.95	0.47	ug/L		08/24/21 09:37	08/26/21 15:20	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.43	ug/L		08/24/21 09:37	08/26/21 15:20	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.38	ug/L		08/24/21 09:37	08/26/21 15:20	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9	2.1	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.48	ug/L		08/24/21 09:37	08/26/21 15:20	1
Butyl benzyl phthalate	0.95	U	0.95	0.63	ug/L		08/24/21 09:37	08/26/21 15:20	1
Caprolactam	4.8	U	4.8	0.89	ug/L		08/24/21 09:37	08/26/21 15:20	1
Carbazole	0.95	U	0.95	0.47	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Chloroaniline	1.9	U *- F1	1.9	0.30	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.28	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Chloronaphthalene	0.95	U	0.95	0.46	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Chlorophenol	0.95	U	0.95	0.26	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.52	ug/L		08/24/21 09:37	08/26/21 15:20	1
Chrysene	0.19	U	0.19	0.18	ug/L		08/24/21 09:37	08/26/21 15:20	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.14	ug/L		08/24/21 09:37	08/26/21 15:20	1
Dibenzofuran	0.95	U	0.95	0.53	ug/L		08/24/21 09:37	08/26/21 15:20	1
3,3'-Dichlorobenzidine	3.8	U F2	3.8	1.1	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4-Dichlorophenol	1.9	U	1.9	0.25	ug/L		08/24/21 09:37	08/26/21 15:20	1
Diethyl phthalate	0.95	U	0.95	3.6	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4-Dimethylphenol	1.9	U	1.9	0.49	ug/L		08/24/21 09:37	08/26/21 15:20	1
Dimethyl phthalate	0.95	U	0.95	0.49	ug/L		08/24/21 09:37	08/26/21 15:20	1
Di-n-butyl phthalate	0.95	U	0.95	1.7	ug/L		08/24/21 09:37	08/26/21 15:20	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.7	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4-Dinitrophenol	4.8	U	4.8	5.9	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,6-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		08/24/21 09:37	08/26/21 15:20	1
Di-n-octyl phthalate	0.95	U	0.95	0.78	ug/L		08/24/21 09:37	08/26/21 15:20	1
Fluoranthene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 15:20	1
Fluorene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 15:20	1
Hexachlorobenzene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 15:20	1
Hexachlorobutadiene	0.95	U	0.95	0.52	ug/L		08/24/21 09:37	08/26/21 15:20	1
Hexachlorocyclopentadiene	4.8	U	4.8	1.7	ug/L		08/24/21 09:37	08/26/21 15:20	1
Hexachloroethane	0.95	U	0.95	0.38	ug/L		08/24/21 09:37	08/26/21 15:20	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 15:20	1
Isophorone	0.95	U	0.95	0.31	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Methylnaphthalene	0.19	U	0.19	0.11	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Methylphenol	0.95	U	0.95	0.20	ug/L		08/24/21 09:37	08/26/21 15:20	1
3 & 4 Methylphenol	1.9	U	1.9	0.18	ug/L		08/24/21 09:37	08/26/21 15:20	1

Client Sample ID: MW-108WT_08192021
Date Collected: 08/19/21 13:30
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.10	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Nitroaniline	1.9	U	1.9	0.49	ug/L		08/24/21 09:37	08/26/21 15:20	1
3-Nitroaniline	1.9	U	1.9	0.54	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Nitroaniline	1.9	U	1.9	0.87	ug/L		08/24/21 09:37	08/26/21 15:20	1
Nitrobenzene	0.95	U	0.95	0.49	ug/L		08/24/21 09:37	08/26/21 15:20	1
2-Nitrophenol	1.9	U	1.9	0.54	ug/L		08/24/21 09:37	08/26/21 15:20	1
4-Nitrophenol	4.8	U	4.8	2.1	ug/L		08/24/21 09:37	08/26/21 15:20	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.24	ug/L		08/24/21 09:37	08/26/21 15:20	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.42	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.52	ug/L		08/24/21 09:37	08/26/21 15:20	1
Pentachlorophenol	4.8	U	4.8	3.0	ug/L		08/24/21 09:37	08/26/21 15:20	1
Phenanthrene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 15:20	1
Phenol	0.95	U	0.95	0.12	ug/L		08/24/21 09:37	08/26/21 15:20	1
Pyrene	0.19	U	0.19	0.17	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4,5-Trichlorophenol	4.8	U	4.8	1.9	ug/L		08/24/21 09:37	08/26/21 15:20	1
2,4,6-Trichlorophenol	3.8	U	3.8	1.7	ug/L		08/24/21 09:37	08/26/21 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*38 - 120*	*08/24/21 09:37*	*08/26/21 15:20*	*1*
2-Fluorophenol (Surr)	*40*		*10 - 120*	*08/24/21 09:37*	*08/26/21 15:20*	*1*
Nitrobenzene-d5 (Surr)	*83*		*34 - 120*	*08/24/21 09:37*	*08/26/21 15:20*	*1*
Phenol-d5 (Surr)	*24*		*10 - 120*	*08/24/21 09:37*	*08/26/21 15:20*	*1*
Terphenyl-d14 (Surr)	*84*		*31 - 126*	*08/24/21 09:37*	*08/26/21 15:20*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*26 - 120*	*08/24/21 09:37*	*08/26/21 15:20*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2600**		6.2	6.2	ug/L		08/24/21 14:00	08/25/21 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**1.2**		0.20	0.076	mg/L			08/25/21 18:30	1
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			08/25/21 13:33	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: DUP-04_08192021

Date Collected: 08/19/21 00:00
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 16:34	1
Acenaphthylene	0.19	U	0.19	0.12	ug/L		08/24/21 09:37	08/26/21 16:34	1
Acetophenone	0.95	U	0.95	0.35	ug/L		08/24/21 09:37	08/26/21 16:34	1
Anthracene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 16:34	1
Atrazine	0.95	U	0.95	0.91	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzaldehyde	0.95	U	0.95	0.72	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzo[a]anthracene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzo[a]pyrene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzo[b]fluoranthene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzo[g,h,i]perylene	0.19	U	0.19	0.17	ug/L		08/24/21 09:37	08/26/21 16:34	1
Benzo[k]fluoranthene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 16:34	1
1,1'-Biphenyl	0.95	U	0.95	0.47	ug/L		08/24/21 09:37	08/26/21 16:34	1
Bis(2-chloroethoxy)methane	0.95	U	0.95	0.43	ug/L		08/24/21 09:37	08/26/21 16:34	1
Bis(2-chloroethyl)ether	0.95	U	0.95	0.38	ug/L		08/24/21 09:37	08/26/21 16:34	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9	2.1	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Bromophenyl phenyl ether	1.9	U	1.9	0.48	ug/L		08/24/21 09:37	08/26/21 16:34	1
Butyl benzyl phthalate	0.95	U	0.95	0.63	ug/L		08/24/21 09:37	08/26/21 16:34	1
Caprolactam	4.8	U	4.8	0.89	ug/L		08/24/21 09:37	08/26/21 16:34	1
Carbazole	0.95	U	0.95	0.47	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Chloroaniline	1.9	U *-	1.9	0.30	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Chloro-3-methylphenol	1.9	U	1.9	0.28	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Chloronaphthalene	0.95	U	0.95	0.46	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Chlorophenol	0.95	U	0.95	0.26	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Chlorophenyl phenyl ether	1.9	U	1.9	0.52	ug/L		08/24/21 09:37	08/26/21 16:34	1
Chrysene	0.19	U	0.19	0.18	ug/L		08/24/21 09:37	08/26/21 16:34	1
Dibenz(a,h)anthracene	0.19	U	0.19	0.14	ug/L		08/24/21 09:37	08/26/21 16:34	1
Dibenzofuran	0.95	U	0.95	0.53	ug/L		08/24/21 09:37	08/26/21 16:34	1
3,3'-Dichlorobenzidine	3.8	U	3.8	1.1	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4-Dichlorophenol	1.9	U	1.9	0.25	ug/L		08/24/21 09:37	08/26/21 16:34	1
Diethyl phthalate	0.95	U	0.95	3.6	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4-Dimethylphenol	1.9	U	1.9	0.49	ug/L		08/24/21 09:37	08/26/21 16:34	1
Dimethyl phthalate	0.95	U	0.95	0.49	ug/L		08/24/21 09:37	08/26/21 16:34	1
Di-n-butyl phthalate	0.95	U	0.95	1.7	ug/L		08/24/21 09:37	08/26/21 16:34	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8	2.7	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4-Dinitrophenol	4.8	U	4.8	5.9	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,6-Dinitrotoluene	4.8	U	4.8	2.0	ug/L		08/24/21 09:37	08/26/21 16:34	1
Di-n-octyl phthalate	0.95	U	0.95	0.78	ug/L		08/24/21 09:37	08/26/21 16:34	1
Fluoranthene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 16:34	1
Fluorene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 16:34	1
Hexachlorobenzene	0.19	U	0.19	0.15	ug/L		08/24/21 09:37	08/26/21 16:34	1
Hexachlorobutadiene	0.95	U	0.95	0.52	ug/L		08/24/21 09:37	08/26/21 16:34	1
Hexachlorocyclopentadiene	4.8	U	4.8	1.7	ug/L		08/24/21 09:37	08/26/21 16:34	1
Hexachloroethane	0.95	U	0.95	0.38	ug/L		08/24/21 09:37	08/26/21 16:34	1
Indeno[1,2,3-cd]pyrene	0.19	U	0.19	0.13	ug/L		08/24/21 09:37	08/26/21 16:34	1
Isophorone	0.95	U	0.95	0.31	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Methylnaphthalene	0.19	U	0.19	0.11	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Methylphenol	0.95	U	0.95	0.20	ug/L		08/24/21 09:37	08/26/21 16:34	1
3 & 4 Methylphenol	1.9	U	1.9	0.18	ug/L		08/24/21 09:37	08/26/21 16:34	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: DUP-04_08192021
Date Collected: 08/19/21 00:00
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-2
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.19	U	0.19	0.10	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Nitroaniline	1.9	U	1.9	0.49	ug/L		08/24/21 09:37	08/26/21 16:34	1
3-Nitroaniline	1.9	U	1.9	0.54	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Nitroaniline	1.9	U	1.9	0.87	ug/L		08/24/21 09:37	08/26/21 16:34	1
Nitrobenzene	0.95	U	0.95	0.49	ug/L		08/24/21 09:37	08/26/21 16:34	1
2-Nitrophenol	1.9	U	1.9	0.54	ug/L		08/24/21 09:37	08/26/21 16:34	1
4-Nitrophenol	4.8	U	4.8	2.1	ug/L		08/24/21 09:37	08/26/21 16:34	1
N-Nitrosodi-n-propylamine	0.95	U	0.95	0.24	ug/L		08/24/21 09:37	08/26/21 16:34	1
N-Nitrosodiphenylamine	0.95	U	0.95	0.42	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,2'-oxybis[1-chloropropane]	0.95	U	0.95	0.52	ug/L		08/24/21 09:37	08/26/21 16:34	1
Pentachlorophenol	4.8	U	4.8	3.0	ug/L		08/24/21 09:37	08/26/21 16:34	1
Phenanthrene	0.19	U	0.19	0.16	ug/L		08/24/21 09:37	08/26/21 16:34	1
Phenol	0.95	U	0.95	0.12	ug/L		08/24/21 09:37	08/26/21 16:34	1
Pyrene	0.19	U	0.19	0.17	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4,5-Trichlorophenol	4.8	U	4.8	1.9	ug/L		08/24/21 09:37	08/26/21 16:34	1
2,4,6-Trichlorophenol	3.8	U	3.8	1.7	ug/L		08/24/21 09:37	08/26/21 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*38 - 120*	*08/24/21 09:37*	*08/26/21 16:34*	*1*
2-Fluorophenol (Surr)	*33*		*10 - 120*	*08/24/21 09:37*	*08/26/21 16:34*	*1*
Nitrobenzene-d5 (Surr)	*71*		*34 - 120*	*08/24/21 09:37*	*08/26/21 16:34*	*1*
Phenol-d5 (Surr)	*19*		*10 - 120*	*08/24/21 09:37*	*08/26/21 16:34*	*1*
Terphenyl-d14 (Surr)	*78*		*31 - 126*	*08/24/21 09:37*	*08/26/21 16:34*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*26 - 120*	*08/24/21 09:37*	*08/26/21 16:34*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-108S2_08192021
Date Collected: 08/19/21 16:15
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	5.0		0.20	0.076	mg/L			08/25/21 18:33	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: DUP-06_08192021
Date Collected: 08/19/21 00:00
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-4
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	4.9		0.20	0.076	mg/L			08/25/21 18:36	1

Client Sample ID: MW-110WTR_08192021
Date Collected: 08/19/21 18:00
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-5
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.097	U	0.097	0.054	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1221	0.097	U	0.097	0.055	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1232	0.097	U	0.097	0.072	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1242	0.097	U	0.097	0.074	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1248	0.097	U	0.097	0.049	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1254	0.097	U	0.097	0.039	ug/L		08/25/21 08:26	08/26/21 14:00	1
Aroclor-1260	0.097	U	0.097	0.045	ug/L		08/25/21 08:26	08/26/21 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*22 - 120*	*08/25/21 08:26*	*08/26/21 14:00*	*1*
DCB Decachlorobiphenyl	*24*		*10 - 120*	*08/25/21 08:26*	*08/26/21 14:00*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/25/21 08:26	08/26/21 16:07	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/25/21 08:26	08/26/21 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*22 - 120*	*08/25/21 08:26*	*08/26/21 16:07*	*1*
DCB Decachlorobiphenyl	*80*		*10 - 120*	*08/25/21 08:26*	*08/26/21 16:07*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**2400**		6.2	6.2	ug/L		08/24/21 14:00	08/25/21 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			08/25/21 18:39	1
Total Phosphorus as P	**0.25**		0.10	0.017	mg/L			08/25/21 13:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: DUP-07_08192021
Date Collected: 08/19/21 00:00
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	2400		6.2	6.2	ug/L		08/24/21 14:00	08/25/21 16:09	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-149WT_08192021

Lab Sample ID: 240-154913-7

Date Collected: 08/19/21 18:50

Matrix: Water

Date Received: 08/21/21 08:00

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	45		2.0	0.75	ug/L		08/24/21 14:00	08/25/21 16:11	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		5.0	0.75	ug/L		08/24/21 14:00	08/25/21 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.6		0.20	0.076	mg/L			08/25/21 18:42	1
Total Phosphorus as P	1.0		0.10	0.017	mg/L			08/25/21 13:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: DUP-08_08192021

Lab Sample ID: 240-154913-8

Date Collected: 08/19/21 00:00

Matrix: Water

Date Received: 08/21/21 08:00

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	50		2.0	0.75	ug/L		09/29/21 14:00	09/30/21 18:03	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		5.0	0.75	ug/L		08/24/21 14:00	08/25/21 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	2.7		0.20	0.076	mg/L			08/25/21 18:45	1
Total Phosphorus as P	1.0		0.10	0.017	mg/L			08/25/21 13:33	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-114WT_08202021

Lab Sample ID: 240-154913-9

Date Collected: 08/19/21 09:15

Matrix: Water

Date Received: 08/21/21 08:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/25/21 08:26	08/26/21 14:14	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/25/21 08:26	08/26/21 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*22 - 120*	*08/25/21 08:26*	*08/26/21 14:14*	*1*
DCB Decachlorobiphenyl	*45*		*10 - 120*	*08/25/21 08:26*	*08/26/21 14:14*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/25/21 08:26	08/26/21 16:21	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/25/21 08:26	08/26/21 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*22 - 120*	*08/25/21 08:26*	*08/26/21 16:21*	*1*
DCB Decachlorobiphenyl	*66*		*10 - 120*	*08/25/21 08:26*	*08/26/21 16:21*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**860**		6.2	6.2	ug/L		08/24/21 14:00	08/25/21 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.57**		0.20	0.076	mg/L			08/25/21 18:54	1
Total Phosphorus as P	**0.19**		0.10	0.017	mg/L			08/25/21 13:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-114S2_08202021
Date Collected: 08/20/21 11:45
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-10
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.5		0.20	0.076	mg/L			08/25/21 18:57	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-107WT_08202021

Lab Sample ID: 240-154913-11

Date Collected: 08/20/21 09:05

Matrix: Water

Date Received: 08/21/21 08:00

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	820		6.2	6.2	ug/L		08/24/21 14:00	08/25/21 15:47	1
Arsenic	22		5.0	0.75	ug/L		08/24/21 14:00	08/25/21 15:47	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.2		5.0	0.75	ug/L		08/24/21 14:00	08/25/21 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.85		0.20	0.076	mg/L			08/25/21 19:00	1
Total Phosphorus as P	0.25		0.10	0.017	mg/L			08/25/21 13:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-107S1_08202021
Date Collected: 08/20/21 11:25
Date Received: 08/21/21 08:00

Lab Sample ID: 240-154913-12
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	1.2		0.20	0.076	mg/L			08/25/21 19:15	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(38-120)	(10-120)	(34-120)	(10-120)	(31-126)	(26-120)
240-154913-1	MW-108WT_08192021	86	40	83	24	84	94
240-154913-1 MS	MW-108WT_08192021	75	43	74	26	90	91
240-154913-1 MSD	MW-108WT_08192021	72	37	72	23	82	82
240-154913-2	DUP-04_08192021	73	33	71	19	78	84
LCS 240-500790/14-A	Lab Control Sample	83	45	81	27	103	92
MB 240-500790/13-A	Method Blank	78	51	77	32	93	74

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
240-154913-5	MW-110WTR_08192021	75	24
240-154913-9	MW-114WT_08202021	67	45
LCS 240-500967/16-A	Lab Control Sample	76	85
MB 240-500967/15-A	Method Blank	77	84

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water — **Prep Type: Dissolved**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
240-154913-5	MW-110WTR_08192021	67	80
240-154913-9	MW-114WT_08202021	62	66

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-500790/13-A
Matrix: Water
Analysis Batch: 501155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500790

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.20	U	0.20	0.17	ug/L		08/24/21 09:37	08/26/21 09:14	1
Acenaphthylene	0.20	U	0.20	0.13	ug/L		08/24/21 09:37	08/26/21 09:14	1
Acetophenone	1.0	U	1.0	0.37	ug/L		08/24/21 09:37	08/26/21 09:14	1
Anthracene	0.20	U	0.20	0.14	ug/L		08/24/21 09:37	08/26/21 09:14	1
Atrazine	1.0	U	1.0	0.95	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzaldehyde	1.0	U	1.0	0.76	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzo[a]anthracene	0.20	U	0.20	0.17	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzo[a]pyrene	0.20	U	0.20	0.17	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzo[b]fluoranthene	0.20	U	0.20	0.15	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzo[g,h,i]perylene	0.20	U	0.20	0.18	ug/L		08/24/21 09:37	08/26/21 09:14	1
Benzo[k]fluoranthene	0.20	U	0.20	0.14	ug/L		08/24/21 09:37	08/26/21 09:14	1
1,1'-Biphenyl	1.0	U	1.0	0.49	ug/L		08/24/21 09:37	08/26/21 09:14	1
Bis(2-chloroethoxy)methane	1.0	U	1.0	0.46	ug/L		08/24/21 09:37	08/26/21 09:14	1
Bis(2-chloroethyl)ether	1.0	U	1.0	0.40	ug/L		08/24/21 09:37	08/26/21 09:14	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0	2.2	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Bromophenyl phenyl ether	2.0	U	2.0	0.50	ug/L		08/24/21 09:37	08/26/21 09:14	1
Butyl benzyl phthalate	1.0	U	1.0	0.67	ug/L		08/24/21 09:37	08/26/21 09:14	1
Caprolactam	5.0	U	5.0	0.93	ug/L		08/24/21 09:37	08/26/21 09:14	1
Carbazole	1.0	U	1.0	0.49	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Chloroaniline	2.0	U	2.0	0.32	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Chloro-3-methylphenol	2.0	U	2.0	0.30	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Chloronaphthalene	1.0	U	1.0	0.48	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Chlorophenol	1.0	U	1.0	0.27	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Chlorophenyl phenyl ether	2.0	U	2.0	0.55	ug/L		08/24/21 09:37	08/26/21 09:14	1
Chrysene	0.20	U	0.20	0.19	ug/L		08/24/21 09:37	08/26/21 09:14	1
Dibenz(a,h)anthracene	0.20	U	0.20	0.15	ug/L		08/24/21 09:37	08/26/21 09:14	1
Dibenzofuran	1.0	U	1.0	0.56	ug/L		08/24/21 09:37	08/26/21 09:14	1
3,3'-Dichlorobenzidine	4.0	U	4.0	1.2	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4-Dichlorophenol	2.0	U	2.0	0.26	ug/L		08/24/21 09:37	08/26/21 09:14	1
Diethyl phthalate	1.0	U	1.0	3.8	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4-Dimethylphenol	2.0	U	2.0	0.52	ug/L		08/24/21 09:37	08/26/21 09:14	1
Dimethyl phthalate	1.0	U	1.0	0.52	ug/L		08/24/21 09:37	08/26/21 09:14	1
Di-n-butyl phthalate	1.0	U	1.0	1.8	ug/L		08/24/21 09:37	08/26/21 09:14	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0	2.8	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4-Dinitrophenol	5.0	U	5.0	6.2	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4-Dinitrotoluene	5.0	U	5.0	2.1	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,6-Dinitrotoluene	5.0	U	5.0	2.1	ug/L		08/24/21 09:37	08/26/21 09:14	1
Di-n-octyl phthalate	1.0	U	1.0	0.82	ug/L		08/24/21 09:37	08/26/21 09:14	1
Fluoranthene	0.20	U	0.20	0.16	ug/L		08/24/21 09:37	08/26/21 09:14	1
Fluorene	0.20	U	0.20	0.17	ug/L		08/24/21 09:37	08/26/21 09:14	1
Hexachlorobenzene	0.20	U	0.20	0.16	ug/L		08/24/21 09:37	08/26/21 09:14	1
Hexachlorobutadiene	1.0	U	1.0	0.54	ug/L		08/24/21 09:37	08/26/21 09:14	1
Hexachlorocyclopentadiene	5.0	U	5.0	1.8	ug/L		08/24/21 09:37	08/26/21 09:14	1
Hexachloroethane	1.0	U	1.0	0.40	ug/L		08/24/21 09:37	08/26/21 09:14	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20	0.14	ug/L		08/24/21 09:37	08/26/21 09:14	1
Isophorone	1.0	U	1.0	0.32	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Methylnaphthalene	0.20	U	0.20	0.11	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Methylphenol	1.0	U	1.0	0.21	ug/L		08/24/21 09:37	08/26/21 09:14	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-500790/13-A
Matrix: Water
Analysis Batch: 501155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500790

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	2.0	U	2.0	0.19	ug/L		08/24/21 09:37	08/26/21 09:14	1
Naphthalene	0.20	U	0.20	0.11	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Nitroaniline	2.0	U	2.0	0.51	ug/L		08/24/21 09:37	08/26/21 09:14	1
3-Nitroaniline	2.0	U	2.0	0.57	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Nitroaniline	2.0	U	2.0	0.92	ug/L		08/24/21 09:37	08/26/21 09:14	1
Nitrobenzene	1.0	U	1.0	0.51	ug/L		08/24/21 09:37	08/26/21 09:14	1
2-Nitrophenol	2.0	U	2.0	0.56	ug/L		08/24/21 09:37	08/26/21 09:14	1
4-Nitrophenol	5.0	U	5.0	2.2	ug/L		08/24/21 09:37	08/26/21 09:14	1
N-Nitrosodi-n-propylamine	1.0	U	1.0	0.25	ug/L		08/24/21 09:37	08/26/21 09:14	1
N-Nitrosodiphenylamine	1.0	U	1.0	0.44	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,2'-oxybis[1-chloropropane]	1.0	U	1.0	0.55	ug/L		08/24/21 09:37	08/26/21 09:14	1
Pentachlorophenol	5.0	U	5.0	3.1	ug/L		08/24/21 09:37	08/26/21 09:14	1
Phenanthrene	0.20	U	0.20	0.17	ug/L		08/24/21 09:37	08/26/21 09:14	1
Phenol	1.0	U	1.0	0.13	ug/L		08/24/21 09:37	08/26/21 09:14	1
Pyrene	0.20	U	0.20	0.18	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4,5-Trichlorophenol	5.0	U	5.0	2.0	ug/L		08/24/21 09:37	08/26/21 09:14	1
2,4,6-Trichlorophenol	4.0	U	4.0	1.8	ug/L		08/24/21 09:37	08/26/21 09:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*78*		*38 - 120*	*08/24/21 09:37*	*08/26/21 09:14*	*1*
2-Fluorophenol (Surr)	*51*		*10 - 120*	*08/24/21 09:37*	*08/26/21 09:14*	*1*
Nitrobenzene-d5 (Surr)	*77*		*34 - 120*	*08/24/21 09:37*	*08/26/21 09:14*	*1*
Phenol-d5 (Surr)	*32*		*10 - 120*	*08/24/21 09:37*	*08/26/21 09:14*	*1*
Terphenyl-d14 (Surr)	*93*		*31 - 126*	*08/24/21 09:37*	*08/26/21 09:14*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*26 - 120*	*08/24/21 09:37*	*08/26/21 09:14*	*1*

Lab Sample ID: LCS 240-500790/14-A
Matrix: Water
Analysis Batch: 501155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20.0	17.0		ug/L		85	61 - 120
Acenaphthylene	20.0	15.8		ug/L		79	60 - 120
Acetophenone	20.0	16.2		ug/L		81	60 - 120
Anthracene	20.0	18.9		ug/L		94	65 - 120
Atrazine	40.0	40.2		ug/L		100	63 - 120
Benzaldehyde	40.0	33.9		ug/L		85	54 - 120
Benzo[a]anthracene	20.0	18.3		ug/L		91	64 - 120
Benzo[a]pyrene	20.0	18.4		ug/L		92	62 - 127
Benzo[b]fluoranthene	20.0	18.5		ug/L		92	63 - 124
Benzo[g,h,i]perylene	20.0	18.2		ug/L		91	60 - 129
Benzo[k]fluoranthene	20.0	18.1		ug/L		91	62 - 128
1,1'-Biphenyl	20.0	16.6		ug/L		83	58 - 120
Bis(2-chloroethoxy)methane	20.0	17.3		ug/L		87	59 - 120
Bis(2-chloroethyl)ether	20.0	15.7		ug/L		78	53 - 120
Bis(2-ethylhexyl) phthalate	20.0	19.9		ug/L		100	63 - 120
4-Bromophenyl phenyl ether	20.0	18.1		ug/L		90	62 - 120
Butyl benzyl phthalate	20.0	19.0		ug/L		95	63 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-500790/14-A
Matrix: Water
Analysis Batch: 501155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Caprolactam	40.0	4.47	J	ug/L		11	10 - 120
Carbazole	20.0	19.2		ug/L		96	62 - 127
4-Chloroaniline	20.0	1.72	J *-	ug/L		9	10 - 129
4-Chloro-3-methylphenol	20.0	16.1		ug/L		81	61 - 120
2-Chloronaphthalene	20.0	16.2		ug/L		81	58 - 120
2-Chlorophenol	20.0	14.5		ug/L		73	54 - 120
4-Chlorophenyl phenyl ether	20.0	17.2		ug/L		86	60 - 120
Chrysene	20.0	18.4		ug/L		92	61 - 120
Dibenz(a,h)anthracene	20.0	18.9		ug/L		94	60 - 132
Dibenzofuran	20.0	17.5		ug/L		87	59 - 120
3,3'-Dichlorobenzidine	40.0	43.6		ug/L		109	46 - 151
2,4-Dichlorophenol	20.0	16.2		ug/L		81	59 - 120
Diethyl phthalate	20.0	17.8		ug/L		89	60 - 120
2,4-Dimethylphenol	20.0	14.8		ug/L		74	53 - 120
Dimethyl phthalate	20.0	17.9		ug/L		89	57 - 120
Di-n-butyl phthalate	20.0	19.5		ug/L		97	65 - 120
4,6-Dinitro-2-methylphenol	40.0	35.7		ug/L		89	50 - 120
2,4-Dinitrophenol	40.0	30.2		ug/L		75	25 - 120
2,4-Dinitrotoluene	20.0	18.5		ug/L		93	65 - 120
2,6-Dinitrotoluene	20.0	18.1		ug/L		91	65 - 120
Di-n-octyl phthalate	20.0	19.0		ug/L		95	56 - 132
Fluoranthene	20.0	18.9		ug/L		94	64 - 120
Fluorene	20.0	17.8		ug/L		89	61 - 120
Hexachlorobenzene	20.0	18.0		ug/L		90	60 - 120
Hexachlorobutadiene	20.0	14.9		ug/L		75	48 - 120
Hexachlorocyclopentadiene	20.0	11.3		ug/L		57	21 - 120
Hexachloroethane	20.0	15.1		ug/L		75	47 - 120
Indeno[1,2,3-cd]pyrene	20.0	18.9		ug/L		95	62 - 129
Isophorone	20.0	17.1		ug/L		86	60 - 120
2-Methylnaphthalene	20.0	16.8		ug/L		84	60 - 120
2-Methylphenol	20.0	12.5		ug/L		63	45 - 120
3 & 4 Methylphenol	20.0	11.3		ug/L		56	41 - 120
Naphthalene	20.0	16.3		ug/L		81	57 - 120
2-Nitroaniline	20.0	17.8		ug/L		89	56 - 131
3-Nitroaniline	20.0	10.6		ug/L		53	25 - 120
4-Nitroaniline	20.0	17.7		ug/L		89	53 - 120
Nitrobenzene	20.0	17.3		ug/L		87	55 - 120
2-Nitrophenol	20.0	17.2		ug/L		86	58 - 120
4-Nitrophenol	40.0	13.5		ug/L		34	13 - 120
N-Nitrosodi-n-propylamine	20.0	17.0		ug/L		85	56 - 124
N-Nitrosodiphenylamine	20.0	17.8		ug/L		89	65 - 120
2,2'-oxybis[1-chloropropane]	20.0	15.7		ug/L		78	46 - 133
Pentachlorophenol	40.0	31.9		ug/L		80	38 - 120
Phenanthrene	20.0	18.2		ug/L		91	63 - 120
Phenol	20.0	5.71		ug/L		29	16 - 120
Pyrene	20.0	18.6		ug/L		93	64 - 120
2,4,5-Trichlorophenol	20.0	16.1		ug/L		80	56 - 120
2,4,6-Trichlorophenol	20.0	17.0		ug/L		85	58 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-500790/14-A
Matrix: Water
Analysis Batch: 501155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500790

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	83		38 - 120
2-Fluorophenol (Surr)	45		10 - 120
Nitrobenzene-d5 (Surr)	81		34 - 120
Phenol-d5 (Surr)	27		10 - 120
Terphenyl-d14 (Surr)	103		31 - 126
2,4,6-Tribromophenol (Surr)	92		26 - 120

Lab Sample ID: 240-154913-1 MS
Matrix: Water
Analysis Batch: 501155

Client Sample ID: MW-108WT_08192021
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.19	U	19.0	14.8		ug/L		78	40 - 120
Acenaphthylene	0.19	U	19.0	13.6		ug/L		72	42 - 120
Acetophenone	0.95	U	19.0	14.8		ug/L		78	39 - 120
Anthracene	0.19	U	19.0	17.3		ug/L		91	45 - 120
Atrazine	0.95	U	38.1	36.8		ug/L		97	45 - 129
Benzaldehyde	0.95	U	38.1	30.2		ug/L		79	36 - 120
Benzo[a]anthracene	0.19	U	19.0	17.0		ug/L		89	39 - 120
Benzo[a]pyrene	0.19	U	19.0	17.0		ug/L		89	36 - 129
Benzo[b]fluoranthene	0.19	U	19.0	17.2		ug/L		90	33 - 136
Benzo[g,h,i]perylene	0.19	U	19.0	16.7		ug/L		88	28 - 140
Benzo[k]fluoranthene	0.19	U	19.0	16.5		ug/L		87	34 - 137
1,1'-Biphenyl	0.95	U	19.0	14.3		ug/L		75	36 - 120
Bis(2-chloroethoxy)methane	0.95	U	19.0	14.9		ug/L		78	41 - 120
Bis(2-chloroethyl)ether	0.95	U	19.0	14.0		ug/L		74	36 - 120
Bis(2-ethylhexyl) phthalate	1.9	U	19.0	19.3		ug/L		101	31 - 140
4-Bromophenyl phenyl ether	1.9	U	19.0	16.4		ug/L		86	44 - 120
Butyl benzyl phthalate	0.95	U	19.0	18.4		ug/L		96	39 - 130
Caprolactam	4.8	U	38.1	4.20	J	ug/L		11	10 - 120
Carbazole	0.95	U	19.0	18.3		ug/L		96	45 - 132
4-Chloroaniline	1.9	U *- F1	19.0	1.23	J F1	ug/L		6	10 - 120
4-Chloro-3-methylphenol	1.9	U	19.0	15.6		ug/L		82	43 - 120
2-Chloronaphthalene	0.95	U	19.0	13.9		ug/L		73	39 - 120
2-Chlorophenol	0.95	U	19.0	13.4		ug/L		71	33 - 120
4-Chlorophenyl phenyl ether	1.9	U	19.0	15.6		ug/L		82	43 - 120
Chrysene	0.19	U	19.0	17.3		ug/L		91	39 - 120
Dibenz(a,h)anthracene	0.19	U	19.0	16.9		ug/L		89	33 - 135
Dibenzofuran	0.95	U	19.0	15.1		ug/L		79	42 - 120
3,3'-Dichlorobenzidine	3.8	U F2	38.1	6.00		ug/L		16	10 - 169
2,4-Dichlorophenol	1.9	U	19.0	14.7		ug/L		77	41 - 120
Diethyl phthalate	0.95	U	19.0	16.7		ug/L		87	43 - 120
2,4-Dimethylphenol	1.9	U	19.0	13.7		ug/L		72	28 - 120
Dimethyl phthalate	0.95	U	19.0	16.3		ug/L		86	47 - 120
Di-n-butyl phthalate	0.95	U	19.0	17.8		ug/L		93	44 - 128
4,6-Dinitro-2-methylphenol	4.8	U	38.1	33.5		ug/L		88	10 - 136
2,4-Dinitrophenol	4.8	U	38.1	31.8		ug/L		83	10 - 121
2,4-Dinitrotoluene	4.8	U	19.0	16.9		ug/L		89	48 - 121

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-154913-1 MS
Matrix: Water
Analysis Batch: 501155

Client Sample ID: MW-108WT_08192021
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,6-Dinitrotoluene	4.8	U	19.0	16.4		ug/L		86	49 - 120
Di-n-octyl phthalate	0.95	U	19.0	17.4		ug/L		91	30 - 144
Fluoranthene	0.19	U	19.0	17.6		ug/L		93	48 - 123
Fluorene	0.19	U	19.0	16.0		ug/L		84	45 - 120
Hexachlorobenzene	0.19	U	19.0	16.2		ug/L		85	42 - 120
Hexachlorobutadiene	0.95	U	19.0	10.1		ug/L		53	31 - 120
Hexachlorocyclopentadiene	4.8	U	19.0	7.85		ug/L		41	10 - 120
Hexachloroethane	0.95	U	19.0	10.8		ug/L		57	31 - 120
Indeno[1,2,3-cd]pyrene	0.19	U	19.0	18.0		ug/L		95	32 - 136
Isophorone	0.95	U	19.0	15.1		ug/L		79	43 - 120
2-Methylnaphthalene	0.19	U	19.0	14.3		ug/L		75	35 - 120
2-Methylphenol	0.95	U	19.0	12.2		ug/L		64	32 - 120
3 & 4 Methylphenol	1.9	U	19.0	10.5		ug/L		55	27 - 120
Naphthalene	0.19	U	19.0	13.7		ug/L		72	33 - 120
2-Nitroaniline	1.9	U	19.0	16.2		ug/L		85	50 - 122
3-Nitroaniline	1.9	U	19.0	9.36		ug/L		49	10 - 120
4-Nitroaniline	1.9	U	19.0	11.3		ug/L		59	21 - 120
Nitrobenzene	0.95	U	19.0	14.6		ug/L		77	40 - 120
2-Nitrophenol	1.9	U	19.0	15.1		ug/L		79	38 - 120
4-Nitrophenol	4.8	U	38.1	13.8		ug/L		36	10 - 120
N-Nitrosodi-n-propylamine	0.95	U	19.0	15.2		ug/L		80	43 - 120
N-Nitrosodiphenylamine	0.95	U	19.0	16.7		ug/L		88	44 - 120
2,2'-oxybis[1-chloropropane]	0.95	U	19.0	14.1		ug/L		74	36 - 120
Pentachlorophenol	4.8	U	38.1	34.0		ug/L		89	22 - 120
Phenanthrene	0.19	U	19.0	17.0		ug/L		89	45 - 120
Phenol	0.95	U	19.0	5.14		ug/L		27	10 - 120
Pyrene	0.19	U	19.0	17.4		ug/L		92	46 - 120
2,4,5-Trichlorophenol	4.8	U	19.0	16.1		ug/L		85	44 - 120
2,4,6-Trichlorophenol	3.8	U	19.0	16.1		ug/L		85	44 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*75*		*38 - 120*
2-Fluorophenol (Surr)	*43*		*10 - 120*
Nitrobenzene-d5 (Surr)	*74*		*34 - 120*
Phenol-d5 (Surr)	*26*		*10 - 120*
Terphenyl-d14 (Surr)	*90*		*31 - 126*
2,4,6-Tribromophenol (Surr)	*91*		*26 - 120*

Lab Sample ID: 240-154913-1 MSD
Matrix: Water
Analysis Batch: 501155

Client Sample ID: MW-108WT_08192021
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.19	U	19.0	14.7		ug/L		77	40 - 120	1	35
Acenaphthylene	0.19	U	19.0	13.7		ug/L		72	42 - 120	0	35
Acetophenone	0.95	U	19.0	14.0		ug/L		73	39 - 120	6	35
Anthracene	0.19	U	19.0	16.2		ug/L		85	45 - 120	7	35
Atrazine	0.95	U	38.1	34.7		ug/L		91	45 - 129	6	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-154913-1 MSD
Matrix: Water
Analysis Batch: 501155

Client Sample ID: MW-108WT_08192021
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde	0.95	U	38.1	28.3		ug/L		74	36 - 120	7	35
Benzo[a]anthracene	0.19	U	19.0	16.0		ug/L		84	39 - 120	6	35
Benzo[a]pyrene	0.19	U	19.0	16.2		ug/L		85	36 - 129	5	35
Benzo[b]fluoranthene	0.19	U	19.0	15.5		ug/L		82	33 - 136	10	35
Benzo[g,h,i]perylene	0.19	U	19.0	15.8		ug/L		83	28 - 140	6	35
Benzo[k]fluoranthene	0.19	U	19.0	16.7		ug/L		88	34 - 137	1	35
1,1'-Biphenyl	0.95	U	19.0	14.0		ug/L		73	36 - 120	2	35
Bis(2-chloroethoxy)methane	0.95	U	19.0	14.7		ug/L		77	41 - 120	2	35
Bis(2-chloroethyl)ether	0.95	U	19.0	13.2		ug/L		69	36 - 120	6	35
Bis(2-ethylhexyl) phthalate	1.9	U	19.0	17.7		ug/L		93	31 - 140	8	35
4-Bromophenyl phenyl ether	1.9	U	19.0	15.8		ug/L		83	44 - 120	4	35
Butyl benzyl phthalate	0.95	U	19.0	17.0		ug/L		89	39 - 130	8	35
Caprolactam	4.8	U	38.1	3.77	J	ug/L		10	10 - 120	11	35
Carbazole	0.95	U	19.0	17.3		ug/L		91	45 - 132	6	35
4-Chloroaniline	1.9	U *- F1	19.0	1.13	J F1	ug/L		6	10 - 120	9	35
4-Chloro-3-methylphenol	1.9	U	19.0	14.8		ug/L		78	43 - 120	5	35
2-Chloronaphthalene	0.95	U	19.0	13.8		ug/L		73	39 - 120	1	35
2-Chlorophenol	0.95	U	19.0	12.3		ug/L		64	33 - 120	9	35
4-Chlorophenyl phenyl ether	1.9	U	19.0	15.0		ug/L		79	43 - 120	4	35
Chrysene	0.19	U	19.0	16.5		ug/L		87	39 - 120	5	35
Dibenz(a,h)anthracene	0.19	U	19.0	16.1		ug/L		85	33 - 135	5	35
Dibenzofuran	0.95	U	19.0	14.8		ug/L		78	42 - 120	2	35
3,3'-Dichlorobenzidine	3.8	U F2	38.1	8.61	F2	ug/L		23	10 - 169	36	35
2,4-Dichlorophenol	1.9	U	19.0	14.6		ug/L		77	41 - 120	1	35
Diethyl phthalate	0.95	U	19.0	15.9		ug/L		84	43 - 120	4	35
2,4-Dimethylphenol	1.9	U	19.0	13.4		ug/L		71	28 - 120	2	35
Dimethyl phthalate	0.95	U	19.0	15.8		ug/L		83	47 - 120	3	35
Di-n-butyl phthalate	0.95	U	19.0	16.9		ug/L		89	44 - 128	5	35
4,6-Dinitro-2-methylphenol	4.8	U	38.1	30.1		ug/L		79	10 - 136	11	35
2,4-Dinitrophenol	4.8	U	38.1	26.8		ug/L		70	10 - 121	17	35
2,4-Dinitrotoluene	4.8	U	19.0	17.0		ug/L		89	48 - 121	0	35
2,6-Dinitrotoluene	4.8	U	19.0	15.8		ug/L		83	49 - 120	4	35
Di-n-octyl phthalate	0.95	U	19.0	16.6		ug/L		87	30 - 144	5	35
Fluoranthene	0.19	U	19.0	16.6		ug/L		87	48 - 123	6	35
Fluorene	0.19	U	19.0	15.5		ug/L		81	45 - 120	3	35
Hexachlorobenzene	0.19	U	19.0	15.9		ug/L		84	42 - 120	2	35
Hexachlorobutadiene	0.95	U	19.0	9.23		ug/L		48	31 - 120	9	35
Hexachlorocyclopentadiene	4.8	U	19.0	7.85		ug/L		41	10 - 120	0	35
Hexachloroethane	0.95	U	19.0	9.61		ug/L		50	31 - 120	12	35
Indeno[1,2,3-cd]pyrene	0.19	U	19.0	16.6		ug/L		87	32 - 136	8	35
Isophorone	0.95	U	19.0	14.8		ug/L		77	43 - 120	2	35
2-Methylnaphthalene	0.19	U	19.0	13.7		ug/L		72	35 - 120	4	35
2-Methylphenol	0.95	U	19.0	11.6		ug/L		61	32 - 120	6	35
3 & 4 Methylphenol	1.9	U	19.0	9.92		ug/L		52	27 - 120	5	35
Naphthalene	0.19	U	19.0	13.5		ug/L		71	33 - 120	2	35
2-Nitroaniline	1.9	U	19.0	15.5		ug/L		81	50 - 122	5	35
3-Nitroaniline	1.9	U	19.0	8.84		ug/L		46	10 - 120	6	35
4-Nitroaniline	1.9	U	19.0	11.3		ug/L		59	21 - 120	0	35
Nitrobenzene	0.95	U	19.0	14.5		ug/L		76	40 - 120	1	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-154913-1 MSD
Matrix: Water
Analysis Batch: 501155

Client Sample ID: MW-108WT_08192021
Prep Type: Total/NA
Prep Batch: 500790

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitrophenol	1.9	U	19.0	15.0		ug/L		79	38 - 120	1	35
4-Nitrophenol	4.8	U	38.1	11.4		ug/L		30	10 - 120	19	35
N-Nitrosodi-n-propylamine	0.95	U	19.0	14.2		ug/L		74	43 - 120	7	35
N-Nitrosodiphenylamine	0.95	U	19.0	15.9		ug/L		83	44 - 120	5	35
2,2'-oxybis[1-chloropropane]	0.95	U	19.0	13.5		ug/L		71	36 - 120	5	35
Pentachlorophenol	4.8	U	38.1	31.6		ug/L		83	22 - 120	7	35
Phenanthrene	0.19	U	19.0	16.1		ug/L		85	45 - 120	5	35
Phenol	0.95	U	19.0	4.60		ug/L		24	10 - 120	11	35
Pyrene	0.19	U	19.0	16.3		ug/L		86	46 - 120	7	35
2,4,5-Trichlorophenol	4.8	U	19.0	15.1		ug/L		80	44 - 120	6	35
2,4,6-Trichlorophenol	3.8	U	19.0	14.6		ug/L		77	44 - 120	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*72*		*38 - 120*
2-Fluorophenol (Surr)	*37*		*10 - 120*
Nitrobenzene-d5 (Surr)	*72*		*34 - 120*
Phenol-d5 (Surr)	*23*		*10 - 120*
Terphenyl-d14 (Surr)	*82*		*31 - 126*
2,4,6-Tribromophenol (Surr)	*82*		*26 - 120*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-500967/15-A
Matrix: Water
Analysis Batch: 501119

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500967

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/25/21 12:49	08/26/21 12:03	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/25/21 12:49	08/26/21 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*22 - 120*	*08/25/21 12:49*	*08/26/21 12:03*	*1*
DCB Decachlorobiphenyl	*84*		*10 - 120*	*08/25/21 12:49*	*08/26/21 12:03*	*1*

Lab Sample ID: LCS 240-500967/16-A
Matrix: Water
Analysis Batch: 501119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			2.50	1.86		ug/L		75	28 - 120		
Aroclor-1260			2.50	1.99		ug/L		79	30 - 120		

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 240-500967/16-A
Matrix: Water
Analysis Batch: 501119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500967

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	76		22 - 120
DCB Decachlorobiphenyl	85		10 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-500846/1-A
Matrix: Water
Analysis Batch: 501162

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 500846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.2	U	6.2	6.2	ug/L		08/24/21 14:00	08/25/21 15:42	1
Arsenic	5.0	U	5.0	0.75	ug/L		08/24/21 14:00	08/25/21 15:42	1

Lab Sample ID: LCS 240-500846/2-A
Matrix: Water
Analysis Batch: 501162

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 500846

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	500	489		ug/L		98	80 - 120
Arsenic	1000	946		ug/L		95	80 - 120

Lab Sample ID: 240-154913-11 MS
Matrix: Water
Analysis Batch: 501162

Client Sample ID: MW-107WT_08202021
Prep Type: Total Recoverable
Prep Batch: 500846

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	820		500	1330		ug/L		101	75 - 125
Arsenic	22		1000	991		ug/L		97	75 - 125

Lab Sample ID: 240-154913-11 MSD
Matrix: Water
Analysis Batch: 501162

Client Sample ID: MW-107WT_08202021
Prep Type: Total Recoverable
Prep Batch: 500846

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	820		500	1280		ug/L		90	75 - 125	4	20
Arsenic	22		1000	941		ug/L		92	75 - 125	5	20

Lab Sample ID: MB 240-505918/1-A
Matrix: Water
Analysis Batch: 506269

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 505918

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	U	2.0	0.75	ug/L		09/29/21 14:00	09/30/21 17:58	1

Lab Sample ID: LCS 240-505918/2-A
Matrix: Water
Analysis Batch: 506269

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 505918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1030		ug/L		103	80 - 120

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: 240-154913-8 MS
Matrix: Water
Analysis Batch: 506269

Client Sample ID: DUP-08_08192021
Prep Type: Total Recoverable
Prep Batch: 505918

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	50		1000	1050		ug/L		100	75 - 125		

Lab Sample ID: 240-154913-8 MSD
Matrix: Water
Analysis Batch: 506269

Client Sample ID: DUP-08_08192021
Prep Type: Total Recoverable
Prep Batch: 505918

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50		1000	1070		ug/L		103	75 - 125	2	20

Lab Sample ID: 240-154913-11 MS
Matrix: Water
Analysis Batch: 501162

Client Sample ID: MW-107WT_08202021
Prep Type: Dissolved
Prep Batch: 500846

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	8.2		1000	997		ug/L		99	75 - 125		

Lab Sample ID: 240-154913-11 MSD
Matrix: Water
Analysis Batch: 501162

Client Sample ID: MW-107WT_08202021
Prep Type: Dissolved
Prep Batch: 500846

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.2		1000	982		ug/L		97	75 - 125	1	20

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-501163/44
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			08/25/21 17:30	1

Lab Sample ID: LCS 240-501163/45
Matrix: Water
Analysis Batch: 501163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			6.90	6.47		mg/L		94	90 - 110		

Lab Sample ID: 240-154913-11 MS
Matrix: Water
Analysis Batch: 501163

Client Sample ID: MW-107WT_08202021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	0.85		2.50	3.16		mg/L		92	90 - 110		

Method: 4500 NH3 H - Ammonia (Continued)

Lab Sample ID: 240-154913-11 MSD
Matrix: Water
Analysis Batch: 501163

Client Sample ID: MW-107WT_08202021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.85		2.50	3.20		mg/L		94	90 - 110	1	20

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-501059/3
Matrix: Water
Analysis Batch: 501059

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			08/25/21 13:33	1

Lab Sample ID: LCS 240-501059/4
Matrix: Water
Analysis Batch: 501059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus as P	0.631	0.552		mg/L		87	77 - 120

Lab Sample ID: 240-154913-11 MS
Matrix: Water
Analysis Batch: 501059

Client Sample ID: MW-107WT_08202021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus as P	0.25		0.500	0.762		mg/L		102	38 - 156

Lab Sample ID: 240-154913-11 MSD
Matrix: Water
Analysis Batch: 501059

Client Sample ID: MW-107WT_08202021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Phosphorus as P	0.25		0.500	0.760		mg/L		102	38 - 156	0	29

GC/MS Semi VOA

Prep Batch: 500790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total/NA	Water	3510C	
240-154913-2	DUP-04_08192021	Total/NA	Water	3510C	
MB 240-500790/13-A	Method Blank	Total/NA	Water	3510C	
LCS 240-500790/14-A	Lab Control Sample	Total/NA	Water	3510C	
240-154913-1 MS	MW-108WT_08192021	Total/NA	Water	3510C	
240-154913-1 MSD	MW-108WT_08192021	Total/NA	Water	3510C	

Analysis Batch: 501155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total/NA	Water	8270C	500790
240-154913-2	DUP-04_08192021	Total/NA	Water	8270C	500790
MB 240-500790/13-A	Method Blank	Total/NA	Water	8270C	500790
LCS 240-500790/14-A	Lab Control Sample	Total/NA	Water	8270C	500790
240-154913-1 MS	MW-108WT_08192021	Total/NA	Water	8270C	500790
240-154913-1 MSD	MW-108WT_08192021	Total/NA	Water	8270C	500790

GC Semi VOA

Prep Batch: 500967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-5	MW-110WTR_08192021	Dissolved	Water	3510C	
240-154913-5	MW-110WTR_08192021	Total/NA	Water	3510C	
240-154913-9	MW-114WT_08202021	Dissolved	Water	3510C	
240-154913-9	MW-114WT_08202021	Total/NA	Water	3510C	
MB 240-500967/15-A	Method Blank	Total/NA	Water	3510C	
LCS 240-500967/16-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 501119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-5	MW-110WTR_08192021	Dissolved	Water	8082	500967
240-154913-5	MW-110WTR_08192021	Total/NA	Water	8082	500967
240-154913-9	MW-114WT_08202021	Dissolved	Water	8082	500967
240-154913-9	MW-114WT_08202021	Total/NA	Water	8082	500967
MB 240-500967/15-A	Method Blank	Total/NA	Water	8082	500967
LCS 240-500967/16-A	Lab Control Sample	Total/NA	Water	8082	500967

Metals

Filtration Batch: 500841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-7	MW-149WT_08192021	Dissolved	Water	FILTRATION	
240-154913-8	DUP-08_08192021	Dissolved	Water	FILTRATION	
240-154913-11	MW-107WT_08202021	Dissolved	Water	FILTRATION	
240-154913-11 MS	MW-107WT_08202021	Dissolved	Water	FILTRATION	
240-154913-11 MSD	MW-107WT_08202021	Dissolved	Water	FILTRATION	

Prep Batch: 500846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total Recoverable	Water	3005A	
240-154913-5	MW-110WTR_08192021	Total Recoverable	Water	3005A	
240-154913-6	DUP-07_08192021	Total Recoverable	Water	3005A	
240-154913-7	MW-149WT_08192021	Dissolved	Water	3005A	500841

Metals (Continued)

Prep Batch: 500846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-7	MW-149WT_08192021	Total Recoverable	Water	3005A	
240-154913-8	DUP-08_08192021	Dissolved	Water	3005A	500841
240-154913-9	MW-114WT_08202021	Total Recoverable	Water	3005A	
240-154913-11	MW-107WT_08202021	Dissolved	Water	3005A	500841
240-154913-11	MW-107WT_08202021	Total Recoverable	Water	3005A	
MB 240-500846/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-500846/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-154913-11 MS	MW-107WT_08202021	Dissolved	Water	3005A	500841
240-154913-11 MS	MW-107WT_08202021	Total Recoverable	Water	3005A	
240-154913-11 MSD	MW-107WT_08202021	Dissolved	Water	3005A	500841
240-154913-11 MSD	MW-107WT_08202021	Total Recoverable	Water	3005A	

Analysis Batch: 501162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total Recoverable	Water	6020	500846
240-154913-5	MW-110WTR_08192021	Total Recoverable	Water	6020	500846
240-154913-6	DUP-07_08192021	Total Recoverable	Water	6020	500846
240-154913-7	MW-149WT_08192021	Dissolved	Water	6020	500846
240-154913-7	MW-149WT_08192021	Total Recoverable	Water	6020	500846
240-154913-8	DUP-08_08192021	Dissolved	Water	6020	500846
240-154913-9	MW-114WT_08202021	Total Recoverable	Water	6020	500846
240-154913-11	MW-107WT_08202021	Dissolved	Water	6020	500846
240-154913-11	MW-107WT_08202021	Total Recoverable	Water	6020	500846
MB 240-500846/1-A	Method Blank	Total Recoverable	Water	6020	500846
LCS 240-500846/2-A	Lab Control Sample	Total Recoverable	Water	6020	500846
240-154913-11 MS	MW-107WT_08202021	Dissolved	Water	6020	500846
240-154913-11 MS	MW-107WT_08202021	Total Recoverable	Water	6020	500846
240-154913-11 MSD	MW-107WT_08202021	Dissolved	Water	6020	500846
240-154913-11 MSD	MW-107WT_08202021	Total Recoverable	Water	6020	500846

Prep Batch: 505918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-8	DUP-08_08192021	Total Recoverable	Water	3005A	
MB 240-505918/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-505918/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-154913-8 MS	DUP-08_08192021	Total Recoverable	Water	3005A	
240-154913-8 MSD	DUP-08_08192021	Total Recoverable	Water	3005A	

Analysis Batch: 506269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-8	DUP-08_08192021	Total Recoverable	Water	6020	505918
MB 240-505918/1-A	Method Blank	Total Recoverable	Water	6020	505918
LCS 240-505918/2-A	Lab Control Sample	Total Recoverable	Water	6020	505918
240-154913-8 MS	DUP-08_08192021	Total Recoverable	Water	6020	505918
240-154913-8 MSD	DUP-08_08192021	Total Recoverable	Water	6020	505918

General Chemistry

Analysis Batch: 501059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total/NA	Water	SM4500 P E-1999	

General Chemistry (Continued)

Analysis Batch: 501059 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-5	MW-110WTR_08192021	Total/NA	Water	SM4500 P E-1999	
240-154913-7	MW-149WT_08192021	Total/NA	Water	SM4500 P E-1999	
240-154913-8	DUP-08_08192021	Total/NA	Water	SM4500 P E-1999	
240-154913-9	MW-114WT_08202021	Total/NA	Water	SM4500 P E-1999	
240-154913-11	MW-107WT_08202021	Total/NA	Water	SM4500 P E-1999	
MB 240-501059/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-501059/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	
240-154913-11 MS	MW-107WT_08202021	Total/NA	Water	SM4500 P E-1999	
240-154913-11 MSD	MW-107WT_08202021	Total/NA	Water	SM4500 P E-1999	

Analysis Batch: 501163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-154913-1	MW-108WT_08192021	Total/NA	Water	4500 NH3 H	
240-154913-3	MW-108S2_08192021	Total/NA	Water	4500 NH3 H	
240-154913-4	DUP-06_08192021	Total/NA	Water	4500 NH3 H	
240-154913-5	MW-110WTR_08192021	Total/NA	Water	4500 NH3 H	
240-154913-7	MW-149WT_08192021	Total/NA	Water	4500 NH3 H	
240-154913-8	DUP-08_08192021	Total/NA	Water	4500 NH3 H	
240-154913-9	MW-114WT_08202021	Total/NA	Water	4500 NH3 H	
240-154913-10	MW-114S2_08202021	Total/NA	Water	4500 NH3 H	
240-154913-11	MW-107WT_08202021	Total/NA	Water	4500 NH3 H	
240-154913-12	MW-107S1_08202021	Total/NA	Water	4500 NH3 H	
MB 240-501163/44	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-501163/45	Lab Control Sample	Total/NA	Water	4500 NH3 H	
240-154913-11 MS	MW-107WT_08202021	Total/NA	Water	4500 NH3 H	
240-154913-11 MSD	MW-107WT_08202021	Total/NA	Water	4500 NH3 H	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-108WT_08192021

Lab Sample ID: 240-154913-1

Date Collected: 08/19/21 13:30

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			500790	08/24/21 09:37	MDH	TAL CAN
Total/NA	Analysis	8270C		1	501155	08/26/21 15:20	JMG	TAL CAN
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 15:59	RKT	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:30	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Client Sample ID: DUP-04_08192021

Lab Sample ID: 240-154913-2

Date Collected: 08/19/21 00:00

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			500790	08/24/21 09:37	MDH	TAL CAN
Total/NA	Analysis	8270C		1	501155	08/26/21 16:34	JMG	TAL CAN

Client Sample ID: MW-108S2_08192021

Lab Sample ID: 240-154913-3

Date Collected: 08/19/21 16:15

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:33	JMR	TAL CAN

Client Sample ID: DUP-06_08192021

Lab Sample ID: 240-154913-4

Date Collected: 08/19/21 00:00

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:36	JMR	TAL CAN

Client Sample ID: MW-110WTR_08192021

Lab Sample ID: 240-154913-5

Date Collected: 08/19/21 18:00

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			500967	08/25/21 08:26	MDH	TAL CAN
Dissolved	Analysis	8082		1	501119	08/26/21 16:07	KMG	TAL CAN
Total/NA	Prep	3510C			500967	08/25/21 08:26	MDH	TAL CAN
Total/NA	Analysis	8082		1	501119	08/26/21 14:00	KMG	TAL CAN
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 16:02	RKT	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:39	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Client Sample ID: DUP-07_08192021

Lab Sample ID: 240-154913-6

Date Collected: 08/19/21 00:00

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 16:09	RKT	TAL CAN

Client Sample ID: MW-149WT_08192021

Lab Sample ID: 240-154913-7

Date Collected: 08/19/21 18:50

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			500841	08/24/21 13:00	SHB	TAL CAN
Dissolved	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6020		1	501162	08/25/21 16:46	RKT	TAL CAN
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 16:11	RKT	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:42	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Client Sample ID: DUP-08_08192021

Lab Sample ID: 240-154913-8

Date Collected: 08/19/21 00:00

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			500841	08/24/21 13:00	SHB	TAL CAN
Dissolved	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6020		1	501162	08/25/21 16:48	RKT	TAL CAN
Total Recoverable	Prep	3005A			505918	09/29/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	506269	09/30/21 18:03	AJC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:45	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Client Sample ID: MW-114WT_08202021

Lab Sample ID: 240-154913-9

Date Collected: 08/19/21 09:15

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			500967	08/25/21 08:26	MDH	TAL CAN
Dissolved	Analysis	8082		1	501119	08/26/21 16:21	KMG	TAL CAN
Total/NA	Prep	3510C			500967	08/25/21 08:26	MDH	TAL CAN
Total/NA	Analysis	8082		1	501119	08/26/21 14:14	KMG	TAL CAN
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 16:14	RKT	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:54	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Client Sample ID: MW-114S2_08202021

Lab Sample ID: 240-154913-10

Date Collected: 08/20/21 11:45

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 18:57	JMR	TAL CAN

Client Sample ID: MW-107WT_08202021

Lab Sample ID: 240-154913-11

Date Collected: 08/20/21 09:05

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			500841	08/24/21 13:00	SHB	TAL CAN
Dissolved	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Dissolved	Analysis	6020		1	501162	08/25/21 16:29	RKT	TAL CAN
Total Recoverable	Prep	3005A			500846	08/24/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501162	08/25/21 15:47	RKT	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 19:00	JMR	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501059	08/25/21 13:33	KLR	TAL CAN

Client Sample ID: MW-107S1_08202021

Lab Sample ID: 240-154913-12

Date Collected: 08/20/21 11:25

Matrix: Water

Date Received: 08/21/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	4500 NH3 H		1	501163	08/25/21 19:15	JMR	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-154913-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

MICHIGAN 190 0.7/0.8 1.6/1.7 1.7/1.8

Chain of Custody Record

420531 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager: Scott Clearwater	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email: Scott.Clearwater@Arcadis	Lab Contact:	Carrier:	___ of ___ COCs
Address: 28550 Cabot Dr Ste 500	Analysis Turnaround Time			Sampler:
City/State/Zip: Novi, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 248-994-2240	TAT if different from Below _____			Walk-in Client:
Fax: 248-994-2241	☐ 2 weeks			Lab Sampling:
Project Name: RACER Saginaw	☐ 1 week			Job / SDG No.:
Site: SMI	☐ 2 days			
PO # 30076323-12000	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Ammonia Nitrogen Dissolved	Total Arsenic	Total Manganese	SVOCs	Ammonia Nitrogen	Total PCBs	Dissolved PCBs	Dissolved Arsenic	Total Manganese	Total Arsenic	Sample Specific Notes:
MW-108WT_08192021	8/19/21	13:30	G	GW	8	N	Y	1		1	6							MS/MSD For SVOCs
DUP-04_08192021	8/19/21	—	G	GW	2	N	N				2							
MW-108SZ_08192021	8/19/21	16:15	G	GW	1	N	N					1						
DUP-06_08192021	8/19/21	—	G	GW	1	N	N					1						
MW-110WTR_08192021	8/19/21	18:00	G	GW	6	Y	N	1		1			2	2				
DUP-07_08192021	8/19/21	—	G	GW	1	N	N			1								
MW-149WT_08192021	8/19/21	18:50	G	GW	3	Y	N	1	1						1			
DUP-08_08192021	8/19/21	—	G	GW	3	Y	N	1							1	1		
MW-114WT_08202021	8/20/21	9:15	G	GW	6	Y	N	1		1			2	2				
MW-114SZ_08202021	8/20/21	11:45	G	GW	1	N	N					1						
MW-107WT_08202021	8/20/21	9:05	G	GW	9	Y	Y	3							3	3		MS/MSD
MW-107SZ_08202021	8/20/21	1125	G	GW	1													

240-154913 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ARCADIS	8/20/21 14:30		ETA	8/20/21 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TA	8/20/21 1431		TA	8/21/21 0800
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by: Brandon

Cooler Received on 8-21-21 Opened on 8-21-21

FedEx: 1st Grd Exp UPS FAS (Clipper) Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt (X) See Multiple Cooler Form

IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

IR GUN #IR-12 (CF +0.2°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC157842
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

MW-149 Containers listed as 3, but 4 bottles.

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : _____

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA Client Box Other	IR-11 IR-12	0.7	0.8	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-11 IR-12	1.6	1.7	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-11 IR-12	1.7	1.8	Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-11 IR-12	

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ANALYTICAL REPORT

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

Laboratory Job ID: 240-155091-1
Client Project/Site: RACER Saginaw

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Scott Clearwater

Authorized for release by:
9/10/2021 2:51:13 PM

Michael DelMonico, Project Manager I
(330)497-9396
Michael.DelMonico@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-155091-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

Job Narrative
240-155091-1

Comments
No additional comments.

Receipt
The samples were received on 8/26/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8º C, 1.1º C and 1.2º C.

GC Semi VOA
Method 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: MW-111WT_08232021 (240-155091-1), DUP-09_08232021 (240-155091-2) and MW-186WT_08242021 (240-155091-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6020: Some requested practical quantitation limits (PQLs) on the following samples fall below the laboratory's verified standard quantitation limit: MW-111WT_08232021 (240-155091-1), MW-185WT_08232021 (240-155091-3) and MW-186WT_08242021 (240-155091-4). The continuing calibration blanks and method blanks may not support the lower PQL.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Methods 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 240-501564.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
4500 NH3 H	Ammonia	SM	TAL CAN
SM4500 P E-1999	Phosphorus	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-155091-1	MW-111WT_08232021	Water	08/23/21 10:35	08/26/21 08:00
240-155091-2	DUP-09_08232021	Water	08/23/21 00:00	08/26/21 08:00
240-155091-3	MW-185WT_08232021	Water	08/23/21 15:25	08/26/21 08:00
240-155091-4	MW-186WT_08242021	Water	08/24/21 08:10	08/26/21 08:00

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-111WT_08232021 — Lab Sample ID: 240-155091-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1700		6.2	6.2	ug/L	1		6020	Total Recoverable
Ammonia	1.9		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	0.96		0.20	0.034	mg/L	2		SM4500 P E-1999	Total/NA

Client Sample ID: DUP-09_08232021 — Lab Sample ID: 240-155091-2

No Detections.

Client Sample ID: MW-185WT_08232021 — Lab Sample ID: 240-155091-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	470		6.2	6.2	ug/L	1		6020	Total Recoverable
Ammonia	0.14	J	0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	0.070	J	0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

Client Sample ID: MW-186WT_08242021 — Lab Sample ID: 240-155091-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1000		6.2	6.2	ug/L	1		6020	Total Recoverable
Ammonia	1.2		0.20	0.076	mg/L	1		4500 NH3 H	Total/NA
Total Phosphorus as P	0.46		0.10	0.017	mg/L	1		SM4500 P E-1999	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-111WT_08232021

Lab Sample ID: 240-155091-1

Date Collected: 08/23/21 10:35

Matrix: Water

Date Received: 08/26/21 08:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 08:34	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 08:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*22 - 120*	*08/30/21 09:32*	*09/01/21 08:34*	*1*
DCB Decachlorobiphenyl	*37*		*10 - 120*	*08/30/21 09:32*	*09/01/21 08:34*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 09:33	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 09:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*22 - 120*	*08/30/21 09:32*	*09/01/21 09:33*	*1*
DCB Decachlorobiphenyl	*69*		*10 - 120*	*08/30/21 09:32*	*09/01/21 09:33*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**1700**		6.2	6.2	ug/L		08/27/21 14:00	08/30/21 12:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**1.9**		0.20	0.076	mg/L			09/07/21 17:10	1
Total Phosphorus as P	**0.96**		0.20	0.034	mg/L			08/31/21 07:57	2

Client Sample ID: DUP-09_08232021
Date Collected: 08/23/21 00:00
Date Received: 08/26/21 08:00

Lab Sample ID: 240-155091-2
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 08:49	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 08:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*22 - 120*	*08/30/21 09:32*	*09/01/21 08:49*	*1*
DCB Decachlorobiphenyl	*39*		*10 - 120*	*08/30/21 09:32*	*09/01/21 08:49*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/02/21 10:36	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/02/21 10:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*22 - 120*	*08/30/21 09:32*	*09/02/21 10:36*	*1*
DCB Decachlorobiphenyl	*53*		*10 - 120*	*08/30/21 09:32*	*09/02/21 10:36*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-185WT_08232021

Lab Sample ID: 240-155091-3

Date Collected: 08/23/21 15:25

Matrix: Water

Date Received: 08/26/21 08:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 09:04	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 09:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*22 - 120*	*08/30/21 09:32*	*09/01/21 09:04*	*1*
DCB Decachlorobiphenyl	*70*		*10 - 120*	*08/30/21 09:32*	*09/01/21 09:04*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 12:08	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*22 - 120*	*08/30/21 09:32*	*09/01/21 12:08*	*1*
DCB Decachlorobiphenyl	*76*		*10 - 120*	*08/30/21 09:32*	*09/01/21 12:08*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**470**		6.2	6.2	ug/L		08/27/21 14:00	08/30/21 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**0.14**	**J**	0.20	0.076	mg/L			09/07/21 17:13	1
Total Phosphorus as P	**0.070**	**J**	0.10	0.017	mg/L			08/31/21 08:13	1

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-186WT_08242021

Lab Sample ID: 240-155091-4

Date Collected: 08/24/21 08:10

Matrix: Water

Date Received: 08/26/21 08:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 09:18	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*22 - 120*	*08/30/21 09:32*	*09/01/21 09:18*	*1*
DCB Decachlorobiphenyl	*56*		*10 - 120*	*08/30/21 09:32*	*09/01/21 09:18*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.095	U	0.095	0.053	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1221	0.095	U	0.095	0.054	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1232	0.095	U	0.095	0.070	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1242	0.095	U	0.095	0.072	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1248	0.095	U	0.095	0.048	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1254	0.095	U	0.095	0.038	ug/L		08/30/21 09:32	09/01/21 12:23	1
Aroclor-1260	0.095	U	0.095	0.044	ug/L		08/30/21 09:32	09/01/21 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*22 - 120*	*08/30/21 09:32*	*09/01/21 12:23*	*1*
DCB Decachlorobiphenyl	*73*		*10 - 120*	*08/30/21 09:32*	*09/01/21 12:23*	*1*

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**1000**		6.2	6.2	ug/L		08/27/21 14:00	08/30/21 12:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	**1.2**		0.20	0.076	mg/L			09/07/21 17:16	1
Total Phosphorus as P	**0.46**		0.10	0.017	mg/L			08/31/21 08:18	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCBP2
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
240-155091-1	MW-111WT_08232021	73	37
240-155091-2	DUP-09_08232021	75	39
240-155091-3	MW-185WT_08232021	82	70
240-155091-4	MW-186WT_08242021	74	56
LCS 240-501564/22-A	Lab Control Sample	68	74
MB 240-501564/21-A	Method Blank	73	68

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
LCS 240-501564/22-A	Lab Control Sample	64	64
MB 240-501564/21-A	Method Blank	61	63

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Dissolved**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCBP2
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
240-155091-1	MW-111WT_08232021	72	69
240-155091-3	MW-185WT_08232021	84	76
240-155091-4	MW-186WT_08242021	70	73

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Dissolved**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCBP1
Lab Sample ID	Client Sample ID	(22-120)	(10-120)
240-155091-2	DUP-09_08232021	57	53

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 240-501564/21-A
Matrix: Water
Analysis Batch: 501877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/30/21 09:32	09/01/21 07:36	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/30/21 09:32	09/01/21 07:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*22 - 120*	*08/30/21 09:32*	*09/01/21 07:36*	*1*
DCB Decachlorobiphenyl	*68*		*10 - 120*	*08/30/21 09:32*	*09/01/21 07:36*	*1*

Lab Sample ID: MB 240-501564/21-A
Matrix: Water
Analysis Batch: 502018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 501564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	0.10	U	0.10	0.056	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1221	0.10	U	0.10	0.057	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1232	0.10	U	0.10	0.074	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1242	0.10	U	0.10	0.076	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1248	0.10	U	0.10	0.050	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1254	0.10	U	0.10	0.040	ug/L		08/30/21 09:32	09/02/21 10:07	1
Aroclor-1260	0.10	U	0.10	0.046	ug/L		08/30/21 09:32	09/02/21 10:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*22 - 120*	*08/30/21 09:32*	*09/02/21 10:07*	*1*
DCB Decachlorobiphenyl	*63*		*10 - 120*	*08/30/21 09:32*	*09/02/21 10:07*	*1*

Lab Sample ID: LCS 240-501564/22-A
Matrix: Water
Analysis Batch: 501877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501564

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			2.50	1.75		ug/L		70	28 - 120		
Aroclor-1260			2.50	1.56		ug/L		63	30 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*68*		*22 - 120*
DCB Decachlorobiphenyl	*74*		*10 - 120*

Lab Sample ID: LCS 240-501564/22-A
Matrix: Water
Analysis Batch: 502018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 501564

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor-1016			2.50	1.47		ug/L		59	28 - 120		
Aroclor-1260			2.50	1.44		ug/L		58	30 - 120		

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	*64*		*22 - 120*
DCB Decachlorobiphenyl	*64*		*10 - 120*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-501366/1-A
Matrix: Water
Analysis Batch: 501635

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 501366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	6.2	U	6.2	6.2	ug/L		08/27/21 14:00	08/30/21 12:19	1

Lab Sample ID: LCS 240-501366/3-A
Matrix: Water
Analysis Batch: 501635

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 501366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	500	493		ug/L		99	80 - 120

Method: 4500 NH3 H - Ammonia

Lab Sample ID: MB 240-502735/14
Matrix: Water
Analysis Batch: 502735

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			09/07/21 16:28	1

Lab Sample ID: MB 240-502735/50
Matrix: Water
Analysis Batch: 502735

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.20	U	0.20	0.076	mg/L			09/07/21 18:16	1

Lab Sample ID: LCS 240-502735/15
Matrix: Water
Analysis Batch: 502735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	6.90	6.37		mg/L		92	90 - 110

Lab Sample ID: LCS 240-502735/51
Matrix: Water
Analysis Batch: 502735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	6.90	6.50		mg/L		94	90 - 110

Method: SM4500 P E-1999 - Phosphorus

Lab Sample ID: MB 240-501721/3
Matrix: Water
Analysis Batch: 501721

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus as P	0.10	U	0.10	0.017	mg/L			08/31/21 06:05	1

Lab Sample ID: LCS 240-501721/4
Matrix: Water
Analysis Batch: 501721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Phosphorus as P	0.631	0.630		mg/L		100	77 - 120

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

GC Semi VOA

Prep Batch: 501564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Dissolved	Water	3510C	
240-155091-1	MW-111WT_08232021	Total/NA	Water	3510C	
240-155091-2	DUP-09_08232021	Dissolved	Water	3510C	
240-155091-2	DUP-09_08232021	Total/NA	Water	3510C	
240-155091-3	MW-185WT_08232021	Dissolved	Water	3510C	
240-155091-3	MW-185WT_08232021	Total/NA	Water	3510C	
240-155091-4	MW-186WT_08242021	Dissolved	Water	3510C	
240-155091-4	MW-186WT_08242021	Total/NA	Water	3510C	
MB 240-501564/21-A	Method Blank	Total/NA	Water	3510C	
LCS 240-501564/22-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 501877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Dissolved	Water	8082	501564
240-155091-1	MW-111WT_08232021	Total/NA	Water	8082	501564
240-155091-2	DUP-09_08232021	Total/NA	Water	8082	501564
240-155091-3	MW-185WT_08232021	Dissolved	Water	8082	501564
240-155091-3	MW-185WT_08232021	Total/NA	Water	8082	501564
240-155091-4	MW-186WT_08242021	Dissolved	Water	8082	501564
240-155091-4	MW-186WT_08242021	Total/NA	Water	8082	501564
MB 240-501564/21-A	Method Blank	Total/NA	Water	8082	501564
LCS 240-501564/22-A	Lab Control Sample	Total/NA	Water	8082	501564

Analysis Batch: 502018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-2	DUP-09_08232021	Dissolved	Water	8082	501564
MB 240-501564/21-A	Method Blank	Total/NA	Water	8082	501564
LCS 240-501564/22-A	Lab Control Sample	Total/NA	Water	8082	501564

Metals

Prep Batch: 501366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Total Recoverable	Water	3005A	
240-155091-3	MW-185WT_08232021	Total Recoverable	Water	3005A	
240-155091-4	MW-186WT_08242021	Total Recoverable	Water	3005A	
MB 240-501366/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-501366/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 501635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Total Recoverable	Water	6020	501366
240-155091-3	MW-185WT_08232021	Total Recoverable	Water	6020	501366
240-155091-4	MW-186WT_08242021	Total Recoverable	Water	6020	501366
MB 240-501366/1-A	Method Blank	Total Recoverable	Water	6020	501366
LCS 240-501366/3-A	Lab Control Sample	Total Recoverable	Water	6020	501366

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

General Chemistry

Analysis Batch: 501721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Total/NA	Water	SM4500 P E-1999	
240-155091-3	MW-185WT_08232021	Total/NA	Water	SM4500 P E-1999	
240-155091-4	MW-186WT_08242021	Total/NA	Water	SM4500 P E-1999	
MB 240-501721/3	Method Blank	Total/NA	Water	SM4500 P E-1999	
LCS 240-501721/4	Lab Control Sample	Total/NA	Water	SM4500 P E-1999	

Analysis Batch: 502735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-155091-1	MW-111WT_08232021	Total/NA	Water	4500 NH3 H	
240-155091-3	MW-185WT_08232021	Total/NA	Water	4500 NH3 H	
240-155091-4	MW-186WT_08242021	Total/NA	Water	4500 NH3 H	
MB 240-502735/14	Method Blank	Total/NA	Water	4500 NH3 H	
MB 240-502735/50	Method Blank	Total/NA	Water	4500 NH3 H	
LCS 240-502735/15	Lab Control Sample	Total/NA	Water	4500 NH3 H	
LCS 240-502735/51	Lab Control Sample	Total/NA	Water	4500 NH3 H	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-111WT_08232021
Lab Sample ID: 240-155091-1
Date Collected: 08/23/21 10:35
Matrix: Water
Date Received: 08/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Dissolved	Analysis	8082		1	501877	09/01/21 09:33	CSC	TAL CAN
Total/NA	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Total/NA	Analysis	8082		1	501877	09/01/21 08:34	CSC	TAL CAN
Total Recoverable	Prep	3005A			501366	08/27/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501635	08/30/21 12:35	AJC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	502735	09/07/21 17:10	JMB	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		2	501721	08/31/21 07:57	TPH	TAL CAN

Client Sample ID: DUP-09_08232021
Lab Sample ID: 240-155091-2
Date Collected: 08/23/21 00:00
Matrix: Water
Date Received: 08/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Dissolved	Analysis	8082		1	502018	09/02/21 10:36	CSC	TAL CAN
Total/NA	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Total/NA	Analysis	8082		1	501877	09/01/21 08:49	CSC	TAL CAN

Client Sample ID: MW-185WT_08232021
Lab Sample ID: 240-155091-3
Date Collected: 08/23/21 15:25
Matrix: Water
Date Received: 08/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Dissolved	Analysis	8082		1	501877	09/01/21 12:08	CSC	TAL CAN
Total/NA	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Total/NA	Analysis	8082		1	501877	09/01/21 09:04	CSC	TAL CAN
Total Recoverable	Prep	3005A			501366	08/27/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501635	08/30/21 12:38	AJC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	502735	09/07/21 17:13	JMB	TAL CAN
Total/NA	Analysis	SM4500 P E-1999		1	501721	08/31/21 08:13	TPH	TAL CAN

Client Sample ID: MW-186WT_08242021
Lab Sample ID: 240-155091-4
Date Collected: 08/24/21 08:10
Matrix: Water
Date Received: 08/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Dissolved	Analysis	8082		1	501877	09/01/21 12:23	CSC	TAL CAN
Total/NA	Prep	3510C			501564	08/30/21 09:32	BMB	TAL CAN
Total/NA	Analysis	8082		1	501877	09/01/21 09:18	CSC	TAL CAN
Total Recoverable	Prep	3005A			501366	08/27/21 14:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	501635	08/30/21 12:40	AJC	TAL CAN
Total/NA	Analysis	4500 NH3 H		1	502735	09/07/21 17:16	JMB	TAL CAN

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Client Sample ID: MW-186WT_08242021

Lab Sample ID: 240-155091-4

Date Collected: 08/24/21 08:10

Matrix: Water

Date Received: 08/26/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM4500 P E-1999		1	501721	08/31/21 08:18	TPH	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: RACER Saginaw

Job ID: 240-155091-1

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	OH00048	12-31-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	02-23-22
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-18-10	08-31-22
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-31-21

MICHIGAN
190

Address:

Chain of Custody Record

554962

eurofins | Environment Testing TestAmerica

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: ARCADIS	Tel/Email:	Lab Contact:	Carrier:	____ of ____ COCs
Address: 28550 CABOT DR STE 500	**Analysis Turnaround Time**			Sampler:
City/State/Zip: NOVI, MI 48377	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone: 248-994-2240	TAT if different from Below ____			Walk-in Client:
Fax: 248-994-2241	☐ 2 weeks			Lab Sampling:
Project Name: RACER SAGINAW	☐ 1 week			
Site: SMI	☐ 2 days			Job / SDG No.:
PO # 30076323	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total PCBs	Dissolved PCBs	Nitrogen, Nitrate-Nitrite	Total Manganese	Sample Specific Notes:
MW-111WT_08232021	8/23/21	10:35	G	GW	6	Y	N	2	2	1	1	
DUP-09_08232021	8/23/21	—	G	GW	4	Y	N	2	2			
MW-185WT_08232021	8/23/21	15:25	G	GW	6	Y	N	2	2	1	1	
MW-186WT_08242021	8/24/21	8:10	G	GW	14	Y	N	6	6	1	1	MS/MSD Dissolved Total PCBs

240-155091 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ | Therm ID No.:____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ARCADIS	8/25/21 13:15		EFA	8/25/21 1316
Relinquished by: Jen Hall	Company: EFA	Date/Time: 8/25/21 1317	Received by:	Company: EFA	Date/Time: 8/26/21 ECO
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # :**_____
Canton Facility

Client Arcadis Site Name_____ Cooler unpacked by: Trent

Cooler Received on 8/26/21 Opened on 8/26/21

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other_____

Receipt After-hours: Drop-off Date/Time_____ Storage Location_____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other_____

Packing material used: Bubble Wrap Foam Plastic Bag None Other_____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-11 (CF +0.1 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #IR-12 (CF +0.2°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
-Were tamper/custody seals intact and uncompromised?	Yes No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes No
4. Did custody papers accompany the sample(s)?	Yes No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7. Did all bottles arrive in good condition (Unbroken)?	Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10. Were correct bottle(s) used for the test(s) indicated?	Yes No
11. Sufficient quantity received to perform indicated analyses?	Yes No
12. Are these work share samples and all listed on the COC?	Yes No
If yes, Questions 13-17 have been checked at the originating laboratory.	
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# **HC157842**
14. Were VOAs on the COC?	Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : 155091

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(TA) Client Box Other	(IR-11) IR-12	1.0	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(TA) Client Box Other	IR-11 (IR-12)	1.1	1.2	(Wet Ice) Blue Ice Dry Ice Water None
(TA) Client Box Other	IR-11 (IR-12)	0.7	0.8	Wet Ice Blue Ice Dry Ice (Water) None
TA Client Box Other	IR-11 IR-12			Wet Ice Blue Ice Dry Ice Water

ATTACHMENT 4

Field Sampling Logs

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	B-3R			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	65.1 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.1	**Total Depth (ft-bmp)**	18.6	**Water Column(ft)**	9.5	**Gallons in Well**	1.54
MP Elevation		**Pump Intake (ft-bmp)**	16.1	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	08:55	**Volumes Purged**	1.54	**Sample ID**	B-3R_08192021	**Sampled by**	Austin Westhuis
Purge Start	08:15	**Gallons Purged**	2.38	**Replicate/ Code No.**			
Purge End	09:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:20	0	0	200	9.1	0.26	8.12	0.822	87.8	0.08	15	-230.6	Clear	None
08:25	5	5	200	9.1	0.53	8.13	0.817	71.1	0.08	14.8	-236	Clear	None
08:30	5	10	200	9.1	0.79	8.13	0.813	55	0.07	15.1	-236.3	Clear	None
08:35	5	15	200	9.1	1.06	8.14	0.804	32.9	0.06	15.4	-239.7	Clear	None
08:40	5	20	200	9.1	1.32	8.13	0.801	26.6	0.06	16	-241	Clear	None
08:45	5	25	200	9.1	1.59	8.13	0.803	22.1	0.06	16.1	-240.2	Clear	None
08:50	5	30	200	9.1	1.85	8.1	0.801	22.9	0.06	15.9	-233.8	Clear	None
08:55	5	35	200	9.1	2.11	8.09	0.799	20.8	0.06	15.8	-231.5	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: Best lock

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-107S1			**Date**	08/20/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	64.2 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.98	**Total Depth (ft-bmp)**	20.2	**Water Column(ft)**	10.22	**Gallons in Well**	1.66
MP Elevation		**Pump Intake (ft-bmp)**	17.7	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:25	**Volumes Purged**	1.27	**Sample ID**	MW-107S1_08202021	**Sampled by**	Austin Westhuis
Purge Start	10:55	**Gallons Purged**	2.11	**Replicate/ Code No.**			
Purge End	11:30						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:00	0	0	200	10.02	0.26	7.48	1.235	5.88	0.25	18.8	-122.4	Clear	None
11:05	5	5	200	10.02	0.53	7.47	1.225	2.8	0.09	18.5	-134.6	Clear	None
11:10	5	10	200	10.02	0.79	7.47	1.198	2.15	0.09	17.5	-136.2	Clear	None
11:15	5	15	200	10.02	1.06	7.46	1.206	1.79	0.08	18.1	-136.3	Clear	None
11:20	5	20	200	10.02	1.32	7.45	1.196	1.71	0.08	18.1	-135.8	Clear	None
11:25	5	25	200	10.02	1.59	7.45	1.186	1.46	0.08	17.9	-135.7	Clear	None

Constituent Sampled	Container	Number	Preservative
Ammonia Nitrogen	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: no
Well Locked at Departure: no
Key Number To Well: Best

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-107WT			**Date**	08/20/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	64.2 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.95	**Total Depth (ft-bmp)**	11.82	**Water Column(ft)**	1.87	**Gallons in Well**	0.3
MP Elevation		**Pump Intake (ft-bmp)**	9.32	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	09:05	**Volumes Purged**	14.09	**Sample ID**	MW-107WT_08202021	**Sampled by**	Austin Westhuis
Purge Start	08:20	**Gallons Purged**	4.23	**Replicate/ Code No.**			
Purge End	10:45						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:25	0	0	200	10.1	0.26	7.36	0.816	14.1	0.6	16.5	-133.1	Clear	None
08:30	5	5	200	10.2	0.53	7.31	0.799	6.31	0.83	16.6	-115.7	Clear	None
08:35	5	10	200	10.28	0.79	7.34	0.798	3.59	0.71	16.6	-116.6	Clear	None
08:40	5	15	200	10.34	1.06	7.37	0.798	2.44	0.64	16.6	-122.4	Clear	None
08:45	5	20	200	10.36	1.32	7.44	0.801	2.23	0.42	16.7	-137.3	Clear	None
08:50	5	25	200	10.36	1.59	7.45	0.801	2.01	0.38	16.7	-138.4	Clear	None
08:55	5	30	200	10.36	1.85	7.5	0.809	1.84	0.2	16.8	-153.6	Clear	None
09:00	5	35	200	10.36	2.11	7.53	0.808	1.56	0.19	16.9	-158.7	Clear	None
09:05	5	40	200	10.36	2.38	7.53	0.813	1.42	0.19	16.9	-162.1	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Arsenic and Total Mangan	500 mL Plastic	3	HNO3
Dissolved Arsenic	500 mL Plastic	3	None
Ammonia Nitrogen and Phosphoru	500 mL Plastic	3	H2SO4

Comments: MS/MSD collected.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: Best

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-108S2			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	83.7 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.54	**Total Depth (ft-bmp)**	30.6	**Water Column(ft)**	21.06	**Gallons in Well**	3.42
MP Elevation		**Pump Intake (ft-bmp)**	28	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	16:15	**Volumes Purged**	0.42	**Sample ID**	MW-108S2	**Sampled by**	Billy Cobern
Purge Start	15:30	**Gallons Purged**	1.45	**Replicate/ Code No.**	DUP-06_08192021		
Purge End	16:25						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:35	0	0	100	9.57	0.13	7.24	1.03	22.6	0.74	20	-21.3	Clear	None
15:40	5	5	100	9.57	0.26	7	1.02	10.5	0.43	19.5	-44.5	Clear	None
15:45	5	10	100	9.57	0.40	7.03	0.99	17.5	0.31	19.1	-64.1	Clear	None
15:50	5	15	100	9.57	0.53	7.12	0.98	10.7	0.23	19.1	-89.4	Clear	None
15:55	5	20	100	9.57	0.66	7.16	0.99	9.82	0.19	18.7	-100.3	Clear	None
16:00	5	25	100	9.57	0.79	7.2	1.01	7.82	0.16	18.5	-105	Clear	None
16:05	5	30	100	9.57	0.92	7.27	1.03	6.53	0.14	18.5	-109.7	Clear	None
16:10	5	35	100	9.57	1.06	7.27	1.02	6.02	0.15	18.5	-109.8	Clear	None
16:15	5	40	100	9.57	1.19	7.27	1.03	5.95	0.15	18.4	-110.9	Clear	None

Constituent Sampled	Container	Number	Preservative
Nitrogen, Ammonia (as N)	500 mL Plastic	2	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-108WT			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	85.1 degrees F and Clear. The wind is blowing W/NW at 8.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.34	**Total Depth (ft-bmp)**	10.45	**Water Column(ft)**	1.11	**Gallons in Well**	0.18
MP Elevation		**Pump Intake (ft-bmp)**	10	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	13:30	**Volumes Purged**	24.95	**Sample ID**	MW-108WT_08192021	**Sampled by**	Billy Cobern
Purge Start	12:15	**Gallons Purged**	4.49	**Replicate/ Code No.**	DUP-01_08192021 collected for SVOCs		
Purge End	15:10						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:20	0	0	100	9.45	0.13	7	0.77	9.17	2.7	23.1	240.9	Clear	None
12:25	5	5	100	9.45	0.26	6.52	0.76	2.36	1.65	21.9	104.1	Clear	None
12:30	5	10	100	9.45	0.40	6.58	0.77	5.67	1.58	21.5	59.5	Clear	None
12:35	5	15	100	9.45	0.53	6.59	0.77	8.93	1.48	21.6	46.9	Clear	None
12:40	5	20	100	9.45	0.66	6.6	0.78	10.9	1.38	21.6	38.4	Clear	None
12:45	5	25	100	9.45	0.79	6.61	0.78	14.8	1.37	21.8	31.7	Clear	None
12:50	5	30	100	9.45	0.92	6.62	0.77	13.2	1.28	22	18.5	Clear	None
12:55	5	35	100	9.45	1.06	6.63	0.77	10.2	1.27	22.2	8.1	Clear	None
13:00	5	40	100	9.45	1.19	6.67	0.77	8.95	1.25	22.1	-3.7	Clear	None
13:05	5	45	100	9.45	1.32	6.7	0.77	7.63	1.19	22.3	-8.2	Clear	None
13:10	5	50	100	9.45	1.45	6.75	0.77	6.31	1.01	22.5	-17.7	Clear	None
13:15	5	55	100	9.45	1.59	6.78	0.78	4.12	0.99	22.7	-22.9	Clear	None
13:20	5	60	100	9.45	1.72	6.8	0.78	1.85	0.93	22.9	-27	Clear	None
13:25	5	65	100	9.45	1.85	6.84	0.78	1.12	0.9	23	-32	Clear	None
13:30	5	70	100	9.45	1.98	6.9	0.78	1.01	0.87	23.2	-36.1	Clear	None

Constituent Sampled	Container	Number	Preservative
SVOCs	1L Amber	8	None
Total Manganese	500 mL Plastic	1	HNO3
Nitrogen, Ammonia (as N),Phosp	500 mL Plastic	1	H2SO4
PFAS	250mL HDPE Plastic	2	None

Comments: MS/MSD collected for SVOCs.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-110WTR			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	86.2 degrees F and Cloudy. The wind is blowing N/NW at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	11.48	**Total Depth (ft-bmp)**	14	**Water Column(ft)**	2.52	**Gallons in Well**	0.41
MP Elevation		**Pump Intake (ft-bmp)**	13.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	18:00	**Volumes Purged**	5.96	**Sample ID**	MW-110WTR_08192021	**Sampled by**	Billy Cobern
Purge Start	16:45	**Gallons Purged**	2.44	**Replicate/ Code No.**	DUP-07_08102021 collected for total Manganese		
Purge End	20:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:50	0	0	50	11.69	0.07	6.97	1.12	15.4	1.7	23.1	-70.3	Clear	None
16:55	5	5	50	11.79	0.13	6.83	1.08	6.12	0.85	22.4	-76.4	Clear	None
17:00	5	10	50	11.82	0.20	6.53	1.05	8.25	0.54	21.9	-66.3	Clear	None
17:05	5	15	50	11.9	0.26	6.6	1.05	7.32	0.36	21.1	-72.5	Clear	None
17:10	5	20	50	11.95	0.33	6.75	1.05	6.98	0.28	21.9	-83.7	Clear	None
17:15	5	25	50	12.01	0.40	6.76	1.05	6.36	0.22	21.2	-83	Clear	None
17:20	5	30	50	12.08	0.46	6.73	1.06	5.98	0.21	20.6	-82.3	Clear	None
17:25	5	35	50	12.11	0.53	6.74	1.05	5.76	1.05	20.6	-82.3	Clear	None
17:30	5	40	50	12.14	0.59	6.81	1.05	5.42	0.19	21	-86.5	Clear	None
17:35	5	45	50	12.17	0.66	6.76	1.06	4.64	0.18	20.6	-84.3	Clear	None
17:40	5	50	50	12.19	0.73	6.75	1.06	4.32	1.06	20.6	-83.2	Clear	None
17:45	5	55	50	12.21	0.79	6.75	1.06	3.69	0.18	20.4	-83.7	Clear	None
17:50	5	60	50	12.24	0.86	6.76	1.06	2.87	0.17	20.4	-84.1	Clear	None
17:55	5	65	50	12.26	0.92	6.77	1.06	2.31	0.17	20.3	-84.4	Clear	None
18:00	5	70	50	12.28	0.99	6.77	1.06	1.96	0.18	20.5	-84.4	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved,PCBs	1L Amber	2	None
PCBs	1L Amber	2	None
Nitrogen, Ammonia (as N),Phosp	500 mL Plastic	1	H2SO4
Total Manganese	500 mL Plastic	2	HNO3

Comments: Drawdown didn't stabilize

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-111WT			**Date**	08/23/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	68.9 degrees F and Cloudy. The wind is blowing W at 8.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	8.82	**Total Depth (ft-bmp)**	12.9	**Water Column(ft)**	4.08	**Gallons in Well**	0.66
MP Elevation		**Pump Intake (ft-bmp)**	12.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:35	**Volumes Purged**	4.40	**Sample ID**	MW-111WT-08232021	**Sampled by**	Billy Cobern
Purge Start	09:55	**Gallons Purged**	2.91	**Replicate/ Code No.**	DUP-09_08232021 collected for total and dissolved PCBs		
Purge End	13:35						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:00	0	0	50	9.06	0.07	6.58	0.98	17.9	1.22	20.8	-31.4	Clear	None
10:05	5	5	50	9.12	0.13	6.83	0.9	8.92	0.44	20.7	-101.8	Clear	None
10:10	5	10	50	9.2	0.20	6.85	0.85	3.3	0.41	20.8	-109.3	Clear	None
10:15	5	15	50	9.2	0.26	6.89	0.83	2.53	0.33	20.8	-122.4	Clear	None
10:20	5	20	50	9.2	0.33	6.91	0.82	2.02	0.28	20.7	-125.8	Clear	None
10:25	5	25	50	9.2	0.40	6.91	0.82	1.42	0.39	20.8	-122.3	Clear	None
10:30	5	30	50	9.2	0.46	6.91	0.82	1.03	0.4	20.8	-117.4	Clear	None
10:35	5	35	50	9.2	0.53	6.91	0.82	0.74	0.38	20.8	-118.2	Clear	None

Constituent Sampled	Container	Number	Preservative
PCBs,Total	1L Amber	4	None
Dissolved ,PCBs	1L Amber	4	None
Nitrogen, Ammonia (as N),Phosp	500 mL Plastic	1	H2SO4
Total Manganese	500 mL Plastic	1	HNO3

Comments: Didn't meet drawdown requirements

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-114S2			**Date**	08/20/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	NA			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.75	**Total Depth (ft-bmp)**	30.9	**Water Column(ft)**	21.15	**Gallons in Well**	3.44
MP Elevation		**Pump Intake (ft-bmp)**	28.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:45	**Volumes Purged**	0.35	**Sample ID**	MW-114S2_08202021	**Sampled by**	Billy Cobern
Purge Start	11:05	**Gallons Purged**	1.19	**Replicate/ Code No.**			
Purge End	11:50						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:10	0	0	100	9.76	0.13	7.92	0.56	2.51	2.09	19.4	138.6	Clear	None
11:15	5	5	100	9.76	0.26	7.65	0.515	2.81	0.93	18.8	111.1	Clear	None
11:20	5	10	100	9.76	0.40	6.93	0.493	2.36	0.39	18.5	1.5	Clear	None
11:25	5	15	100	9.76	0.53	7.01	0.49	2.12	0.16	18.2	-32.6	Clear	None
11:30	5	20	100	9.76	0.66	7.14	0.492	2.61	0.11	18.1	-51	Clear	None
11:35	5	25	100	9.76	0.79	7.2	0.517	1.85	0.12	18.3	-62.6	Clear	None
11:40	5	30	100	9.76	0.92	7.2	0.518	2.07	0.12	18.3	-63.7	Clear	None
11:45	5	35	100	9.76	1.06	7.21	0.52	1.94	0.13	18.3	-64.9	Clear	None

Constituent Sampled	Container	Number	Preservative
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-114WT			**Date**	08/20/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	64.2 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	8.12	**Total Depth (ft-bmp)**	11	**Water Column(ft)**	2.88	**Gallons in Well**	0.47
MP Elevation		**Pump Intake (ft-bmp)**	10.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	09:15	**Volumes Purged**	4.50	**Sample ID**	MW-114WT_08202021	**Sampled by**	Billy Cobern
Purge Start	08:15	**Gallons Purged**	2.11	**Replicate/ Code No.**			
Purge End	10:55						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:20	0	0	50	8.25	0.07	6.99	0.8	56.9	0.33	19.2	-35.5	Clear	None
08:40	20	20	50	8.45	0.33	6.9	0.77	23.1	0.25	19.4	-70.3	Clear	None
09:00	20	40	50	8.77	0.59	7.02	0.74	3.23	0.31	20	-84	Clear	None
09:05	5	45	50	8.88	0.66	7.08	0.73	2.69	0.26	20.2	-92.4	Clear	None
09:10	5	50	50	8.93	0.73	7.06	0.73	2.07	0.27	20.3	-94.7	Clear	None
09:15	5	55	50	8.99	0.79	7.05	0.73	1.71	0.26	20.4	-96.3	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Manganese	500 mL Plastic	1	HNO3
Nitrogen, Ammonia (as N),Total Phos	500 mL Plastic	1	H2SO4
PCBs,Total	1L Amber	2	None
Dissolved ,PCBs	1L Amber	2	None

Comments: Drawdown didn't stabilize

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-131WT			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	75.7 degrees F and Clear. The wind is blowing W at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	6.02	**Total Depth (ft-bmp)**	14.4	**Water Column(ft)**	8.38	**Gallons in Well**	1.36
MP Elevation		**Pump Intake (ft-bmp)**	11.9	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	08:55	**Volumes Purged**	1.75	**Sample ID**	MW-131WT_08192021	**Sampled by**	Austin Westhuis
Purge Start	09:45	**Gallons Purged**	2.38	**Replicate/ Code No.**			
Purge End	10:35						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:50	0	0	200	6.04	0.26	7.46	0.604	56.4	0.28	18.8	-132.9	Clear	None
09:55	5	5	200	6.04	0.53	7.5	0.59	25.5	0.16	18.6	-143.9	Clear	None
10:00	5	10	200	6.04	0.79	7.53	0.59	7.83	0.11	18.8	-151.9	Clear	None
10:05	5	15	200	6.04	1.06	7.55	0.589	4.13	0.11	19	-154.2	Clear	None
10:10	5	20	200	6.04	1.32	7.56	0.585	3.77	0.1	18.8	-153.2	Clear	None
10:15	5	25	200	6.04	1.59	7.57	0.582	2.8	0.09	18.9	-152.7	Clear	None
10:20	5	30	200	6.04	1.85	7.57	0.583	2.4	0.09	19	-151	Clear	None
10:25	5	35	200	6.04	2.11	7.57	0.581	1.88	0.09	19	-148.8	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: Best lock

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-134WT			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	80.2 degrees F and Clear. The wind is blowing W/NW at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	7.46	**Total Depth (ft-bmp)**	15.4	**Water Column(ft)**	7.94	**Gallons in Well**	1.29
MP Elevation		**Pump Intake (ft-bmp)**	12.9	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	12:05	**Volumes Purged**	1.84	**Sample ID**	MW-134WT_08192021	**Sampled by**	Austin Westhuis
Purge Start	11:25	**Gallons Purged**	2.38	**Replicate/ Code No.**			
Purge End	12:10						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:30	0	0	200	7.5	0.26	7.03	0.896	20.6	0.27	18.5	-128.5	Clear	None
11:35	5	5	200	7.5	0.53	7.04	0.878	11.2	0.18	18.1	-135.7	Clear	None
11:40	5	10	200	7.5	0.79	7.05	0.874	5.59	0.11	18.1	-137.5	Clear	None
11:45	5	15	200	7.5	1.06	7.05	0.867	2.81	0.11	18	-137.2	Clear	None
11:50	5	20	200	7.5	1.32	7.06	0.863	2.05	0.1	18.6	-137.2	Clear	None
11:55	5	25	200	7.5	1.59	7.06	0.856	1.71	0.11	18.6	-137.6	Clear	None
12:00	5	30	200	7.5	1.85	7.05	0.835	1.6	0.11	18.2	-133.3	Clear	None
12:05	5	35	200	7.5	2.11	7.06	0.835	1.44	0.11	18.5	-135.9	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: Masterlock

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-149WT			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	83.7 degrees F and Cloudy. The wind is blowing NE at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	11.38	**Total Depth (ft-bmp)**	20.4	**Water Column(ft)**	9.02	**Gallons in Well**	1.47
MP Elevation		**Pump Intake (ft-bmp)**	17.9	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	18:50	**Volumes Purged**	2.88	**Sample ID**	MW-149WT_08192021	**Sampled by**	Austin Westhuis
Purge Start	18:05	**Gallons Purged**	4.23	**Replicate/ Code No.**	Dup-08_08192021 collected for Ammonia Nitrogen, Phosphorus, and Dissolved Arsenic		
Purge End	19:40						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
18:10	0	0	200	11.38	0.26	6.88	0.868	33.6	0.23	15.9	-118.2	Clear	None
18:15	5	5	200	11.68	0.53	6.88	0.862	26.4	0.18	15.8	-119.2	Clear	None
18:20	5	10	200	11.98	0.79	6.88	0.861	14.8	0.18	16	-119.8	Clear	None
18:25	5	15	200	12.08	1.06	6.89	0.865	8.9	0.11	16	-119.8	Clear	None
18:30	5	20	200	12.1	1.32	6.89	0.867	7.41	0.12	16.2	-119.4	Clear	None
18:35	5	25	200	12.1	1.59	6.89	0.872	5.94	0.11	16.4	-119.1	Clear	None
18:40	5	30	200	12.1	1.85	6.89	0.869	5.12	0.11	16.3	-118.6	Clear	None
18:45	5	35	200	12.1	2.11	6.9	0.864	4.88	0.11	16.3	-117.6	Clear	None
18:50	5	40	200	12.1	2.38	6.91	0.856	4.6	0.11	16.1	-118	Clear	None

Constituent Sampled	Container	Number	Preservative
Ammonia Nitrogen and Phosphorus	500 mL Plastic	2	H2SO4
Total Arsenic	500 mL Plastic	1	HNO3
Dissolved Arsenic	500 mL Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-185WT			**Date**	08/23/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	78.3 degrees F and Clear. The wind is blowing W at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	6.85	**Total Depth (ft-bmp)**	10.45	**Water Column(ft)**	3.6	**Gallons in Well**	0.58
MP Elevation		**Pump Intake (ft-bmp)**	9.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	15:25	**Volumes Purged**	3.42	**Sample ID**	MW-185WT_08232021	**Sampled by**	Billy Cobern
Purge Start	13:55	**Gallons Purged**	1.98	**Replicate/ Code No.**			
Purge End	17:10						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:00	0	0	50	6.88	0.07			431				Clear	None
14:20	20	20	50	6.88	0.33			49.7				Clear	None
14:40	20	40	50	6.88	0.59			20.7				Clear	None
14:55	15	55	50	6.88	0.79	7.46	0.56	13	0.32	23.1	49.4	Clear	None
15:05	10	65	50	6.88	0.92	7.54	0.56	4.08	0.3	24	54.5	Clear	None
15:10	5	70	50	6.88	0.99	7.58	0.56	3.51	0.29	23.1	58.9	Clear	None
15:15	5	75	50	6.88	1.06	7.59	0.56	2.84	0.27	23.2	60.9	Clear	None
15:20	5	80	50	6.88	1.12	7.6	0.56	2.04	0.28	23.1	63.7	Clear	None
15:25	5	85	50	6.88	1.19	7.62	0.56	1.98	0.26	23.2	63.8	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved ,PCBs	1L Amber	2	None
PCBs,Total	1L Amber	2	None
Total Manganese	500 mL Plastic	1	HNO3
Nitrogen, Ammonia (as N),Phosp	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-186WT			**Date**	08/24/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	62.6 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	8.14	**Total Depth (ft-bmp)**	21.25	**Water Column(ft)**	13.11	**Gallons in Well**	2.13
MP Elevation		**Pump Intake (ft-bmp)**	18.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	08:10	**Volumes Purged**	2.57	**Sample ID**	MW-186WT_08242021	**Sampled by**	Billy Cobern
Purge Start	07:15	**Gallons Purged**	5.48	**Replicate/ Code No.**			
Purge End	12:45						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
07:20	0	0	50	8.65	0.07	6.62	0.65	29.2	1.55	17.9	6.1	Clear	None
07:30	10	10	50	8.8	0.20	6.79	0.571	23.1	0.47	18.5	-100.7	Clear	None
07:40	10	20	50	8.95	0.33	6.82	0.556	13.7	0.48	18.7	-109.7	Clear	None
07:50	10	30	50	9.09	0.46	6.88	0.552	4.7	0.41	18.8	-112.3	Clear	None
07:55	5	35	50	9.15	0.53	6.91	0.551	2.02	0.38	18.8	-114.3	Clear	None
08:00	5	40	50	9.19	0.59	6.93	0.549	1.13	0.38	18.9	-115.7	Clear	None
08:05	5	45	50	9.25	0.66	6.95	0.548	0.86	0.38	18.9	-118	Clear	None
08:10	5	50	50	9.29	0.73	6.96	0.547	0.65	0.38	18.9	-119.8	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved ,PCBs	1L Amber	6	None
PCBs,Total	1L Amber	6	None
Total Manganese	500 mL Plastic	1	HNO3
Nitrogen, Ammonia (as N),Phosp	500 mL Plastic	1	H2SO4

Comments: Didn't meet drawdown requirements. MS/MSD collected for total and dissolved PCBs.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: SMI

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	QPTW-13R			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	80.2 degrees F and Clear. The wind is blowing W/NW at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	5.35	**Total Depth (ft-bmp)**	14.3	**Water Column(ft)**	8.95	**Gallons in Well**	1.45
MP Elevation		**Pump Intake (ft-bmp)**	11.8	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	13:30	**Volumes Purged**	1.82	**Sample ID**	QPTW-13R_08192021	**Sampled by**	Austin Westhuis
Purge Start	12:50	**Gallons Purged**	2.64	**Replicate/ Code No.**	Dup-05_08192021 collected for PFAS		
Purge End	13:40						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:55	0	0	200	5.35	0.26	6.83	1.064	22.9	0.21	19.5	-61.4	Clear	None
13:00	5	5	200	5.35	0.53	6.83	1.04	16.7	0.18	18.9	-60.7	Clear	None
13:05	5	10	200	5.35	0.79	6.85	1.063	10.1	0.1	19.9	-62.4	Clear	None
13:10	5	15	200	5.35	1.06	6.84	1.059	7.73	0.09	19.9	-62.8	Clear	None
13:15	5	20	200	5.35	1.32	6.83	1.057	5.95	0.09	19.8	-63.6	Clear	None
13:20	5	25	200	5.35	1.59	6.84	1.057	5.11	0.09	19.9	-64.5	Clear	None
13:25	5	30	200	5.35	1.85	6.84	1.056	4.49	0.09	20	-65.3	Clear	None
13:30	5	35	200	5.35	2.11	6.84	1.064	4.22	0.09	20	-67.2	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	4	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot — 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: no
Well Locked at Departure: no
Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-117S1			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	76.3 degrees F and Partly Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	3.68	**Total Depth (ft-bmp)**	35.48	**Water Column(ft)**	31.8	**Gallons in Well**	5.17
MP Elevation		**Pump Intake (ft-bmp)**	32.98	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	15:10	**Volumes Purged**	0.29	**Sample ID**	MW-117S1_08172021	**Sampled by**	Austin Westhuis
Purge Start	14:15	**Gallons Purged**	1.52	**Replicate/ Code No.**			
Purge End	16:10						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:20	0	0	50	3.68	0.07	6.84	1.487	28.1	0.5	22.1	-106.5	Clear	None
14:25	5	5	50	3.68	0.13	6.84	1.487	28.1	0.5	22.1	-106.5	Clear	None
14:30	5	10	50	3.68	0.20	6.89	1.578	24.2	0.19	22.2	-105.8	Clear	None
14:35	5	15	50	3.68	0.26	6.91	1.561	21.1	0.15	22	-106.1	Clear	None
14:40	5	20	50	3.68	0.33	6.91	1.562	15.9	0.12	21.9	-105.4	Clear	None
14:45	5	25	50	3.68	0.40	6.92	1.558	11.3	0.11	21.9	-106.6	Clear	None
14:50	5	30	50	3.68	0.46	6.93	1.558	8.81	0.1	21.8	-106.4	Clear	None
14:55	5	35	50	3.68	0.53	6.93	1.555	5.33	0.1	21.7	-106.1	Clear	None
15:00	5	40	50	3.68	0.59	6.93	1.536	2.19	0.1	21.7	-104.5	Clear	None
15:05	5	45	50	3.68	0.66	6.94	1.533	1.95	0.1	21.6	-104.4	Clear	None
15:10	5	50	50	3.68	0.73	6.94	1.528	1.82	0.1	21.4	-104.2	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Metals	500 mL Plastic	1	HNO3
Dissolved Metals	500 mL Plastic	1	HNO3
Total Cyanide	250 mL Plastic	1	NaOh
Dissolved Cyanide	250 mL Plastic	1	NaOh
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Ammonia nitrogen	500 mL Plastic	1	H2SO4
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-117WT			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	80.4 degrees F and Mostly Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	2.9	**Total Depth (ft-bmp)**	18.47	**Water Column(ft)**	15.57	**Gallons in Well**	2.53
MP Elevation		**Pump Intake (ft-bmp)**	15.97	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	16:55	**Volumes Purged**	0.63	**Sample ID**	MW-117WT_08172021	**Sampled by**	Austin Westhuis
Purge Start	16:10	**Gallons Purged**	1.59	**Replicate/ Code No.**			
Purge End	18:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:15	0	0	50	2.9	0.07	6.3	11.95	13.5	0.68	22.3	-88.8	Clear	None
16:20	5	5	50	2.9	0.13	6.41	12.51	11.1	0.17	22.1	-97	Clear	None
16:25	5	10	50	2.9	0.20	6.42	12.26	7.54	0.18	21.1	-96.6	Clear	None
16:30	5	15	50	2.9	0.26	6.44	12.17	3.91	0.12	20.9	-95.9	Clear	None
16:35	5	20	50	2.9	0.33	6.44	12.14	3.02	0.12	20.9	-95.3	Clear	None
16:40	5	25	50	2.9	0.40	6.45	12.25	2.81	0.11	21.2	-95.7	Clear	None
16:45	5	30	50	2.9	0.46	6.45	12.24	2.23	0.11	21.1	-95.1	Clear	None
16:50	5	35	50	2.9	0.53	6.45	12.31	1.79	0.11	21.2	-95.6	Clear	None
16:55	5	40	50	2.9	0.59	6.45	12.3	1.79	0.11	21.2	-95.5	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Metals	500 mL Plastic	1	HNO3
Dissolved Metals	500 mL Plastic	1	HNO3
Total Cyanide	250 mL Plastic	1	NaOh
Dissolved Cyanide	250 mL Plastic	1	NaOh
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Ammonia nitrogen	500 mL Plastic	1	H2SO4
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-118S1			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	62.6 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	3.27	**Total Depth (ft-bmp)**	34.4	**Water Column(ft)**	31.13	**Gallons in Well**	5.06
MP Elevation		**Pump Intake (ft-bmp)**	31.9	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:00	**Volumes Purged**	0.30	**Sample ID**	MW-118S1_08172021	**Sampled by**	Austin Westhuis
Purge Start	09:10	**Gallons Purged**	1.52	**Replicate/ Code No.**			
Purge End	11:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:15	0	0	50	3.27	0.07	7	1.376	16.5	0.3	20.2	-118.7	Clear	None
09:20	5	5	50	3.31	0.13	7.01	1.348	14.5	0.22	20.1	-117.4	Clear	None
09:25	5	10	50	3.32	0.20	7.01	1.332	12.1	0.17	20.1	-116.8	Clear	None
09:30	5	15	50	3.32	0.26	7.01	1.326	9.33	0.15	20.1	-114.2	Clear	None
09:35	5	20	50	3.33	0.33	7.01	1.328	8.66	0.16	20.2	-113.4	Clear	None
09:40	5	25	50	3.33	0.40	7.01	1.331	6.12	0.15	20.2	-112.8	Clear	None
09:45	5	30	50	3.33	0.46	7	1.338	3.52	0.16	20.3	-111.8	Clear	None
09:50	5	35	50	3.33	0.53	7.01	1.344	1.89	0.15	20.3	-111.3	Clear	None
09:55	5	40	50	3.33	0.59	7.01	1.35	1.72	0.15	20.4	-111	Clear	None
10:00	5	45	50	3.33	0.66	7.01	1.358	1.51	0.14	20.4	-110.9	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Metals	500 mL Plastic	1	HNO3
Dissolved Metals	500 mL Plastic	1	HNO3
Total Cyanide	250 mL Plastic	1	NaOh
Dissolved Cyanide	250 mL Plastic	1	NaOh
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Ammonia nitrogen	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-118WT			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	72.7 degrees F and Clear. The wind is blowing SW at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	2.35	**Total Depth (ft-bmp)**	16.94	**Water Column(ft)**	14.59	**Gallons in Well**	2.37
MP Elevation		**Pump Intake (ft-bmp)**	14.44	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:55	**Volumes Purged**	0.56	**Sample ID**	MW-118WT_08172021	**Sampled by**	Austin Westhuis
Purge Start	11:15	**Gallons Purged**	1.32	**Replicate/ Code No.**			
Purge End	13:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:20	0	0	50	2.99	0.07	6.89	2.018	3.4	0.43	22.7	-107.1	Clear	None
11:25	5	5	50	2.99	0.13	6.9	2.037	3.11	0.24	23	-108.4	Clear	None
11:30	5	10	50	2.99	0.20	6.91	2.025	2.83	0.16	22.4	-109.7	Clear	None
11:35	5	15	50	2.99	0.26	6.91	2.023	2.21	0.14	22.5	-109.5	Clear	None
11:40	5	20	50	2.99	0.33	6.92	2.034	1.94	0.15	22.7	-108.8	Clear	None
11:45	5	25	50	2.99	0.40	6.92	2.038	1.67	0.13	22.7	-107.6	Clear	None
11:50	5	30	50	2.99	0.46	6.92	2.047	1.39	0.13	22.8	-109.6	Clear	None
11:55	5	35	50	2.99	0.53	6.92	2.045	1.31	0.13	22.9	-109.4	Clear	None

Constituent Sampled	Container	Number	Preservative
Total Metals	500 mL Plastic	1	HNO3
Dissolved Metals	500 mL Plastic	1	HNO3
Total Cyanide	250 mL Plastic	1	NaOh
Dissolved Cyanide	250 mL Plastic	1	NaOh
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Ammonia nitrogen	500 mL Plastic	1	H2SO4
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-122WT			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	66.0 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	3.1	**Total Depth (ft-bmp)**	14.98	**Water Column(ft)**	11.88	**Gallons in Well**	1.93
MP Elevation		**Pump Intake (ft-bmp)**	12.48	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	09:45	**Volumes Purged**	1.23	**Sample ID**	MW-122WT_08182021	**Sampled by**	Austin Westhuis
Purge Start	09:05	**Gallons Purged**	2.38	**Replicate/ Code No.**			
Purge End	09:50						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:10	0	0	200	3.28	0.26	6.85	0.983	84.6	0.36	19	-102.8	Clear	None
09:15	5	5	200	3.28	0.53	6.86	0.958	59.7	0.18	18.9	-104.7	Clear	None
09:20	5	10	200	3.28	0.79	6.87	0.923	31.1	0.14	18.8	-105	Clear	None
09:25	5	15	200	3.28	1.06	6.87	0.837	21.1	0.14	19	-107.4	Clear	None
09:30	5	20	200	3.28	1.32	6.88	0.827	16.4	0.13	19	-107.6	Clear	None
09:35	5	25	200	3.28	1.59	6.88	0.817	9.44	0.13	18.9	-107.7	Clear	None
09:40	5	30	200	3.28	1.85	6.88	0.813	9.22	0.13	18.9	-107.5	Clear	None
09:45	5	35	200	3.28	2.11	6.89	0.809	8.79	0.12	18.8	-107.1	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-183WT			**Date**	08/19/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	65.1 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	7.47	**Total Depth (ft-bmp)**	18.45	**Water Column(ft)**	10.98	**Gallons in Well**	1.78
MP Elevation		**Pump Intake (ft-bmp)**	16	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	09:00	**Volumes Purged**	1.41	**Sample ID**	MW-183WT_08192021	**Sampled by**	Billy Cobern
Purge Start	08:20	**Gallons Purged**	2.51	**Replicate/ Code No.**			
Purge End	11:30						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:25	0	0	50	7.58	0.07	6.58	0.74	13.8	1.25	19.5	99.8	Clear	None
08:30	5	5	50	7.62	0.13	6.67	0.68	3.22	0.51	19.1	-19.6	Clear	None
08:35	5	10	50	7.64	0.20	6.79	0.66	0.81	0.49	19.1	-46.7	Clear	None
08:40	5	15	50	7.64	0.26	6.93	0.65	0.77	0.42	19.1	-65.1	Clear	None
08:45	5	20	50	7.64	0.33	6.98	0.64	0.54	0.42	19.4	-75.2	Clear	None
08:50	5	25	50	7.64	0.40	7.05	0.64	0.02	0.3	19.6	-83.4	Clear	None
08:55	5	30	50	7.64	0.46	7.05	0.64	0.02	0.33	19.6	-84.8	Clear	None
09:00	5	35	50	7.64	0.53	7.04	0.64	0.02	0.33	19.7	-84.8	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	3	HNO3
Cyanide	250 mL Plastic	3	NaOh
Total Cyanide	250 mL Plastic	3	NaOh
Total Metals	500 mL Plastic	3	HNO3
Nitrogen, Ammonia (as N)	500 mL Plastic	3	H2SO4
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	3	None

Comments: MS/MSD collected

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	MW-183WT			**Date**	08/24/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	85.6 degrees F and Clear. The wind is blowing S at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	7.61	**Total Depth (ft-bmp)**	18.45	**Water Column(ft)**	10.84	**Gallons in Well**	1.76
MP Elevation		**Pump Intake (ft-bmp)**	16	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	13:45	**Volumes Purged**	0.30	**Sample ID**	MW-183WT_08242021	**Sampled by**	Billy Cobern
Purge Start	13:15	**Gallons Purged**	0.53	**Replicate/ Code No.**			
Purge End	13:55						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:20	0	0	50	7.61	0.07	7.02	0.64	6.4	1.25	19.2	-46.9	Clear	None
13:25	5	5	50	7.67	0.13	7.08	0.65	4.23	0.42	19.3	-56.2	Clear	None
13:30	5	10	50	7.69	0.20	7.08	0.66	2.21	0.38	19.4	-67.1	Clear	None
13:35	5	15	50	7.69	0.26	7.09	0.65	0.56	0.37	19.4	-73.4	Clear	None
13:40	5	20	50	7.69	0.33	7.09	0.66	0.54	0.37	19.4	-75.2	Clear	None
13:45	5	25	50	7.69	0.40	7.09	0.66	0.41	0.37	19.5	-77.9	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	500 mL Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	TW-242			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	77.4 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	8.12	**Total Depth (ft-bmp)**	10.2	**Water Column(ft)**	2.08	**Gallons in Well**	0.34
MP Elevation		**Pump Intake (ft-bmp)**	9.2	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	13:10	**Volumes Purged**	4.66	**Sample ID**	TW-242_08182021	**Sampled by**	Austin Westhuis
Purge Start	12:20	**Gallons Purged**	1.59	**Replicate/ Code No.**			
Purge End	13:15						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:25	0	0	200	8.32	0.26	7.1	0.771	12.1	0.41	19	-14.5	Clear	None
12:30	5	5	200	8.37	0.53	7.09	0.806	5.44	0.32	19	-16.1	Clear	None
12:35	5	10	200	8.5	0.79	7.08	0.835	3.71	0.27	18.8	-27	Clear	None
12:40	5	15	200	8.79	1.06	7.08	0.846	3.11	0.27	18.7	-29	Clear	None
12:45	5	20	200	8.95	1.32	7.07	0.862	2.81	0.26	18.7	-31.1	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL Glass	9	HCL

Comments: TW-242 purged dry while collecting parameter readings. Waited for well to recharge before collecting samples. MS/MSD collected.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:	See Figure 1	Well Locked at Arrival:	yes
Condition of Well:	Good condition	Well Locked at Departure:	yes
Well Completion:	Stick-up	Key Number To Well:	2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	TWW-1			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	77.4 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	6.16	**Total Depth (ft-bmp)**	10.8	**Water Column(ft)**	4.64	**Gallons in Well**	0.75
MP Elevation		**Pump Intake (ft-bmp)**	8.3	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:35	**Volumes Purged**	2.82	**Sample ID**	TWW-1_08182021	**Sampled by**	Austin Westhuis
Purge Start	11:00	**Gallons Purged**	2.11	**Replicate/ Code No.**	Dup-01_08182021 collected for VOCs		
Purge End	11:40						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:05	0	0	200	6.31	0.26	6.99	2.022	4.58	0.23	20.8	-101.1	Clear	None
11:10	5	5	200	6.31	0.53	6.99	1.938	2.77	0.22	20.6	-94.2	Clear	None
11:15	5	10	200	6.31	0.79	6.95	1.77	2.12	0.11	20.7	-81.5	Clear	None
11:20	5	15	200	6.31	1.06	6.94	1.742	1.94	0.11	20.6	-83.9	Clear	None
11:25	5	20	200	6.31	1.32	6.9	1.638	1.71	0.11	20.7	-81.5	Clear	None
11:30	5	25	200	6.31	1.59	6.9	1.641	1.4	0.11	20.8	-75.5	Clear	None
11:35	5	30	200	6.31	1.85	6.89	1.622	1.32	0.11	20.8	-74.1	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	4	None
VOCs	40 mL Glass	6	HCL

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-2A			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	83.1 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	5.71	**Total Depth (ft-bmp)**	11.55	**Water Column(ft)**	5.84	**Gallons in Well**	0.95
MP Elevation		**Pump Intake (ft-bmp)**	9.05	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	17:20	**Volumes Purged**	2.78	**Sample ID**	X-2A_08182021	**Sampled by**	Austin Westhuis
Purge Start	16:45	**Gallons Purged**	2.64	**Replicate/ Code No.**	Dup-03_08182021 collected for PFAS		
Purge End	17:35						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:50	0	0	200	5.96	0.26	9.05	0.662	22	0.1	18.1	-111.4	Clear	None
16:55	5	5	200	5.96	0.53	9.17	0.657	17.3	0.06	17.7	-125.7	Clear	None
17:00	5	10	200	5.96	0.79	9.19	0.656	11.1	0.06	17.3	-130.1	Clear	None
17:05	5	15	200	5.96	1.06	9.23	0.657	6.71	0.06	17.5	-139.7	Clear	None
17:10	5	20	200	5.96	1.32	9.26	0.654	4.45	0.06	17.6	-140.5	Clear	None
17:15	5	25	200	5.96	1.59	9.27	0.654	4.22	0.06	17.5	-139.9	Clear	None
17:20	5	30	200	5.96	1.85	9.29	0.652	4.11	0.06	17.6	-143.5	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	4	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot — 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-4AR			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	76.3 degrees F and Partly Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	5.15	**Total Depth (ft-bmp)**	7.75	**Water Column(ft)**	2.6	**Gallons in Well**	0.42
MP Elevation		**Pump Intake (ft-bmp)**	7.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time		**Volumes Purged**	0.99	**Sample ID**	NA	**Sampled by**	Billy Cobern
Purge Start	14:05	**Gallons Purged**	0.41	**Replicate/ Code No.**			
Purge End	14:37						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:10	5	5	50	5.78	0.07	7.09	0.62	13.1	1.39	24.1	203.61		
14:15	5	10	50	6.53	0.13	7.14	0.59	10.7	2.18	24.5	193.8		
14:20	5	15	50	7.01	0.20	7.27	0.58	9.64	2.41	24.9	189.8		
14:25	5	20	50	7.28	0.26	7.31	0.56	12.3	2.12	25.1	180.2		
14:30	5	25	50	7.53	0.33	7.32	0.56	14.7	2.02	25.3	177.6		
14:35	5	30	50	7.69	0.40	7.33	0.54	16.7	2.83	25.8	175.4		

Constituent Sampled	Container	Number	Preservative

Comments: Well pumped dry. Will attempt to sample after recharge. Unable to sample.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL

Condition of Well: Needs repairs

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-4CAUGR			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	76.6 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	4.43	**Total Depth (ft-bmp)**	16.85	**Water Column(ft)**	12.42	**Gallons in Well**	2.02
MP Elevation		**Pump Intake (ft-bmp)**	14.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	15:30	**Volumes Purged**	0.59	**Sample ID**	X-4CAUGR_08172021	**Sampled by**	Billy Cobern
Purge Start	14:50	**Gallons Purged**	1.19	**Replicate/ Code No.**			
Purge End	16:15						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:55	0	0	50	4.65	0.07	6.61	0.54	12.1	0.31	23.6	-22.1	Clear	None
15:00	5	5	50	4.65	0.13	6.64	0.54	8.95	0.36	23.2	-42.6	Clear	None
15:05	5	10	50	4.65	0.20	6.69	0.54	6.14	0.31	22.7	-53.1	Clear	None
15:10	5	15	50	4.65	0.26	7.01	0.54	4.12	0.29	22.7	-61.2	Clear	None
15:15	5	20	50	4.65	0.33	7.03	0.54	3.11	0.28	22.8	-69.8	Clear	None
15:20	5	25	50	4.65	0.40	7.04	0.54	2.83	0.26	22.9	-76.7	Clear	None
15:25	5	30	50	4.65	0.46	7.05	0.53	2.06	0.25	22.9	-81.3	Clear	None
15:30	5	35	50	4.65	0.53	7.05	0.54	1.98	0.25	22.9	-86.5	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	1	HNO3
Total Metals	500 mL Plastic	1	HNO3
Cyanide	250 mL Plastic	1	NaOh
Cyanide	250 mL Plastic	1	NaOh
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot — 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-4D			**Date**	08/17/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	79.2 degrees F and Cloudy. The wind is blowing S at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	1.88	**Total Depth (ft-bmp)**	47.5	**Water Column(ft)**	45.62	**Gallons in Well**	7.41
MP Elevation		**Pump Intake (ft-bmp)**	45	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	17:25	**Volumes Purged**	0.19	**Sample ID**	X-4D_08172021	**Sampled by**	Billy Cobern
Purge Start	16:30	**Gallons Purged**	1.39	**Replicate/ Code No.**			
Purge End	18:15						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:35	0	0	50	1.91	0.07	6.73	0.72	12.1	2.58	22.6	142.2	Clear	None
16:40	5	5	50	1.91	0.13	6.77	0.71	6.16	2.21	22.9	127.5	Clear	None
16:45	5	10	50	1.91	0.20	6.87	0.72	5.42	2.04	22.2	116.4	Clear	None
16:50	5	15	50	1.91	0.26	6.93	0.72	5.09	1.82	22.2	107.9	Clear	None
16:55	5	20	50	1.91	0.33	6.95	0.72	4.71	1.84	22	105.3	Clear	None
17:00	5	25	50	1.91	0.40	6.96	0.73	4.02	2.13	21.3	105.8	Clear	None
17:05	5	30	50	1.91	0.46	6.97	0.73	3.51	2.05	21.6	106.1	Clear	None
17:10	5	35	50	1.91	0.53	6.97	0.73	3.02	2.01	21.8	106.7	Clear	None
17:15	5	40	50	1.91	0.59	6.96	0.73	2.55	1.98	21.9	107.6	Clear	None
17:20	5	45	50	1.91	0.66	6.96	0.73	2.04	1.95	21.8	108.5	Clear	None
17:25	5	50	50	1.91	0.73	6.96	0.73	1.96	1.92	22	109.4	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	1	HNO3
Total Metals	500 mL Plastic	1	HNO3
Cyanide	250 mL Plastic	1	NaOh
Cyanide	250 mL Plastic	1	NaOh
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-9AR			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	62.2 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	6.32	**Total Depth (ft-bmp)**	16.1	**Water Column(ft)**	9.78	**Gallons in Well**	1.59
MP Elevation		**Pump Intake (ft-bmp)**	13.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	08:45	**Volumes Purged**	0.54	**Sample ID**	X-9AR_08182021	**Sampled by**	Billy Cobern
Purge Start	08:10	**Gallons Purged**	0.86	**Replicate/ Code No.**			
Purge End	09:45						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:15	0	0	50	6.39	0.07	6.67	0.75	2.64	0.53	15.4	-33.3	Clear	None
08:20	5	5	50	6.39	0.13	6.77	0.74	2.22	0.34	15.5	-57	Clear	None
08:25	5	10	50	6.39	0.20	6.91	0.73	1.92	0.35	15.9	-73.8	Clear	None
08:30	5	15	50	6.39	0.26	7	0.72	1.52	0.24	15.9	-83.2	Clear	None
08:35	5	20	50	6.39	0.33	7.04	0.72	1.21	0.29	15.9	-93.1	Clear	None
08:40	5	25	50	6.39	0.40	7.08	0.72	1.13	0.28	15.8	-97.2	Clear	None
08:45	5	30	50	6.39	0.46	7.06	0.72	0.93	0.27	15.8	-100.2	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	1	HNO3
Cyanide	250 mL Plastic	1	NaOh
Total Cyanide	250 mL Plastic	1	NaOh
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4
Total Metals	500 mL Plastic	1	HNO3
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
PFAS	250 mL Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-9BR			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	73.0 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	6.11	**Total Depth (ft-bmp)**	34.2	**Water Column(ft)**	28.09	**Gallons in Well**	4.56
MP Elevation		**Pump Intake (ft-bmp)**	31.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:25	**Volumes Purged**	0.23	**Sample ID**	X-9BR_08182021	**Sampled by**	Billy Cobern
Purge Start	09:55	**Gallons Purged**	1.06	**Replicate/ Code No.**			
Purge End	11:15						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:00	0	0	50	6.21	0.07	6.81	0.588	0.38	0.58	15.6	-45.8	Clear	None
10:05	5	5	50	6.21	0.13	6.87	0.59	0.25	0.37	15.7	-75.8	Clear	None
10:10	5	10	50	6.21	0.20	6.94	0.592	0.02	0.27	15.5	-86.9	Clear	None
10:15	5	15	50	6.21	0.26	6.97	0.593	0.02	0.06	15.5	-95.4	Clear	None
10:20	5	20	50	6.21	0.33	6.97	0.594	0.02	0.06	15.6	-100.6	Clear	None
10:25	5	25	50	6.21	0.40	6.97	0.595	0.02	0.06	15.7	-105.3	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	1	HNO3
Cyanide	250 mL Plastic	1	NaOh
Total Metals	500 mL Plastic	1	HNO3
Total Cyanide	250 mL Plastic	1	NaOh
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter

mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-9CAUGR			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	NA			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	5.85	**Total Depth (ft-bmp)**	28.35	**Water Column(ft)**	22.5	**Gallons in Well**	3.66
MP Elevation		**Pump Intake (ft-bmp)**	26	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	12:40	**Volumes Purged**	0.43	**Sample ID**	X-9CAUGR_08182021	**Sampled by**	Billy Cobern
Purge Start	11:30	**Gallons Purged**	1.59	**Replicate/ Code No.**			
Purge End	13:30						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:35	0	0	50	5.86	0.07	6.67	0.87	22.5	0.68	18.8	-65.8	Clear	None
12:00	25	25	50	5.86	0.40	6.98	0.9	9.3	0.18	18.7	-102.5	Clear	None
12:20	20	45	50	5.86	0.66	6.97	0.92	4.52	0.2	19	-103	Clear	None
12:25	5	50	50	5.86	0.73	6.98	0.92	3.83	0.19	19.2	-100.8	Clear	None
12:30	5	55	50	5.86	0.79	6.98	0.92	2.4	0.2	19.3	-99.3	Clear	None
12:35	5	60	50	5.86	0.86	6.98	0.92	2.11	0.19	19.4	-98.5	Clear	None
12:40	5	65	50	5.86	0.92	6.97	0.91	1.92	0.19	19.4	-97.3	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	1	HNO3
Cyanide	250 mL Plastic	1	NaOh
Total Cyanide	250 mL Plastic	1	NaOh
Total Metals	500 mL Plastic	1	HNO3
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	1	None
Nitrogen, Ammonia (as N)	500 mL Plastic	1	H2SO4

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-9D			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	79.0 degrees F and Clear. The wind is blowing N/NW at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	3.93	**Total Depth (ft-bmp)**	50.25	**Water Column(ft)**	46.32	**Gallons in Well**	7.53
MP Elevation		**Pump Intake (ft-bmp)**	47.5	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	14:25	**Volumes Purged**	0.24	**Sample ID**	X-9D_08182021	**Sampled by**	Billy Cobern
Purge Start	13:50	**Gallons Purged**	1.78	**Replicate/ Code No.**	DUP-02_08182021		
Purge End	16:05						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:55	0	0	50	3.94	0.07	7.02	1.13	4.84	1.01	20.2	-60.6	Clear	None
14:00	5	5	50	3.94	0.13	7.12	1.13	2.36	0.41	19.5	-87.5	Clear	None
14:05	5	10	50	3.94	0.20	7.27	1.13	2.56	0.44	20.3	-110.8	Clear	None
14:10	5	15	50	3.94	0.26	7.29	1.13	2.63	0.45	20.7	-119	Clear	None
14:15	5	20	50	3.94	0.33	7.29	1.14	2.18	0.43	20.9	-123.4	Clear	None
14:20	5	25	50	3.94	0.40	7.31	1.13	2.04	0.43	21.1	-127.2	Clear	None
14:25	5	30	50	3.94	0.46	7.32	1.14	1.98	0.42	21.2	-129.7	Clear	None

Constituent Sampled	Container	Number	Preservative
Dissolved Metals	500 mL Plastic	2	HNO3
Cyanide	250 mL Plastic	2	NaOh
Total Metals	500 mL Plastic	2	HNO3
Total Cyanide	250 mL Plastic	2	NaOh
Nitrogen, Ammonia (as N)	500 mL Plastic	2	H2SO4
Chloride,Nitrate/Nitrite,Sulfa	500 mL Plastic	2	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: GPL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30076323	**Well ID**	X-10AR2			**Date**	08/18/2021
Project Name/Location	Racer Saginaw		**Weather(°F)**	82.2 degrees F and Clear. The wind is blowing N/NE at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	--	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	8.21	**Total Depth (ft-bmp)**	18.6	**Water Column(ft)**	10.39	**Gallons in Well**	1.69
MP Elevation		**Pump Intake (ft-bmp)**	16.1	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	15:35	**Volumes Purged**	1.41	**Sample ID**	X-10AR2_08182021	**Sampled by**	Austin Westhuis
Purge Start	15:00	**Gallons Purged**	2.38	**Replicate/ Code No.**			
Purge End	15:50						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:05	0	0	200	8.42	0.26	6.96	0.837	17.3	0.14	19.7	-72	Clear	None
15:10	5	5	200	8.5	0.53	6.96	0.838	7.52	0.16	19.8	-69.9	Clear	None
15:15	5	10	200	8.5	0.79	6.98	0.822	4.66	0.1	18.9	-68.3	Clear	None
15:20	5	15	200	8.5	1.06	6.98	0.819	2.88	0.11	18.9	-68.4	Clear	None
15:25	5	20	200	8.5	1.32	6.99	0.822	2.21	0.11	19	-69.2	Clear	None
15:30	5	25	200	8.5	1.59	6.99	0.822	1.94	0.11	19.1	-69.3	Clear	None
15:35	5	30	200	8.5	1.85	6.99	0.825	1.9	0.11	19.1	-70.4	Clear	None

Constituent Sampled	Container	Number	Preservative
PFAS	250mL HDPE Plastic	6	None

Comments: MS/MSD collected.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot — 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: See Figure 1
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: 2035

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = milliv

ATTACHMENT 5

SMI, GPL, and Peninsula Property Site Inspection Forms

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Inspector Name:	Billy Cobern
Inspector Date and Time:	8/16/2021 12:00:00 AM / 08:45
Weather Conditions:	69.26 degrees F and Clear
Inspector Signature:	

Green Point Landfill

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Site Access Road			
Erosion/Washout/Settlement	x	No erosion observed	
Sufficient Gravel	x	Sufficient gravel observed	

Photo with description



East gate and access road



South access road

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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Novi, MI 48377
(248) 994-2240



West access road



West gate and access road



Access road to the top

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Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Landfill Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No signs of stressed vegetation	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No wash out areas observed	
Settlement	x	No signs of settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth		1) Woody growth observed between west access road and vent riser. It may not be on the landfill cover.	
Slope Movement	x	No slope movement observed	

Photo with description



Top of landfill



North side of landfill

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



South side of landfill



West side of landfill



Small woody growth between west access road and vent pipe

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Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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East side of landfill

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Leachate Breakouts			
Area Locations	x	No leachate breakouts observed	
Seepage or groundwater discharge	x	No seepage or groundwater discharge observed	

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Surface Water Drainage System			
Drainage Swales	x	Drainage swales good	
Culverts	x	Culverts good	
Downchutes	x	Downchutes good	
Primary Sedimentation Basin	x	Basin good	
Bank Erosion	x	No bank erosion observed	
Silt Levels	x	Silt levels good	

Photo with description



Drainage swale on west side

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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(248) 994-2240



Collection area on west side



Top of downchute at southwest corner



Southwest corner downchute to corner

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Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

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North end of culverts at the bottom of the SW downchute



South end of the SW downchute culvert where it enters the mitigation wetland

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Gas Management System			
Vent Riser Condition	x	Vents good	
Vent Screen Condition	x	Vent screen good	
Detectable Odor	x	No odor detected	
Surface Seal	x	Surface seals good	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

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Vent Riser



Vent Screen



Vent Surface Seal

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Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Overall Site Appearance	x	Appearance good	

Photo with description



View of landfill from the NNW

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Mitigation Wetlands	x	Mitigation Wetlands good	

Photo with description



Mitigation wetland directly south of landfill

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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Southeast mitigation wetland near the River



Southwest Mitigation Wetland area



Southwest Mitigation Wetland area

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Client Contact: Dave Favero
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Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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SMI terminated Type III Landfills			
Location	**No Issue**	**Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring**	**Date Record of Maintenance Was Completed**
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed	
Slope Movement	x	No slope movement observed	

Photo with description



Southerly type 3 landfill



Northerly type 3 landfill

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Saginaw, MI 48605

Site Inspection Form

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Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Leachate Breakouts			
Area Locations	x	No leachate observed	
Seepage or groundwater discharge	x	No seepage or groundwater discharge observed	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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Former Railyard Area			
Location	**No Issue**	**Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring**	**Date Record of Maintenance Was Completed**
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed	
Slope Movement	x	No slope movement observed	

Photo with description



Former railyard area



Former railyard area close up

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
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Peninsula Property

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed in the cover areas.	
Slope Movement	x	No slope movement observed	

Photo with description



Deer trails through the north gate



South exposure barrier area

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



North exposure barrier area



Deer trails through the South Gate

SMI Stormwater Pond

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Intrusive Restriction			
Disturbance to pond lining		One hole observed in lining on the east side. (see photo)	
Erosion	x	No erosion observed	
Evidence of Sheen	x	No sheen observed	
Signs of intrusive activity	x	No signs of intrusive activity. But there is a hole in the liner that may have been made by an animal at some time.	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

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Novi, MI 48377
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	East side concrete structure, exposed liner, tree needs removal.
	Hole in lining on the east side of the pond
	south of the concrete structure

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Saginaw, MI 48605

Site Inspection Form

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Pond view from the east side

Overall Site Condition

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Monitoring Wells / LNAPL Systems			
Have any monitoring wells or LNAPL systems been damaged or destroyed?	x	All wells intact	
Well Cap Integrity	x	Compiled a list of wells that need replaced	
Well lock integrity	x	Compiled a list of wells that need locks	

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Water Wells			
Have any water wells been installed at the Property?	x	No known water wells on site	08/24/2021
Building Construction/Additions:			
Have any new buildings been constructed, added onto or any other redevelopment occurred at the Site?	x	No buildings on site	

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Permanent Markers			
Are the markers visible and is the map and wording in legible condition with no vegetation blocking it?	x	Not installed	
Evidence of Disturbance	x	Not installed	

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Land Use - Non-Residential/Passive Recreational			
In accordance with the RC the land use needs to remain non-residential/passive recreational, is the property still non-residential/passive recreational use?	x	Remains non-residential/passive recreational use	

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Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Other items, if any			
Please describe any other notable items identified during Inspection.		The south fence has several trees on it and several openings.	

Notes:

1. If issue is identified, a Record of Maintenance Form must be completed

'- Use related refers to any wear or development that occurs as part of the daily use of the Property. An example would be trail use, etc.

'- Naturally occurring refers to any wear or damage caused by natural phenomenon. Examples include flooding, rain, spontaneous tree growth, etc.

'- Inspections to be completed annually

Submit completed form to EGLE Saginaw Bay District Office RRD, 401 Ketchum Street, Suite B, Bay City, MI 48708 attention Amanda Armbruster annually by December 20.

ATTACHMENT 6

Green Point Landfill Well Construction Logs, Sampling Parameters and Field Parameters

Attachment 6
Monitoring Well Sampling Plan and Construction Summary
2021 Annual Report
RACER Trust
Green Point Landfill
Saginaw, Michigan

Well ID	Screen Interval (ft bgs)[1]	Screened Unit/Zone	Well Construction	Date Installed	TIC[2] Elevation (ft AMSL)[3]
MW-117WT	3-13	Water Table	2" PVC	5/3/1995	582.37
MW-117S1	24.2-29.2	Lower Sand	2" PVC	5/3/1995	583.70
MW-118WT	1.6-11.6	Water Table	2" PVC	5/2/1995	582.98
MW-118S1	23.5-28.5	Lower Sand	2" PVC	5/2/1995	583.28
MW-122 WT	2-12	Water Table	2” PVC	1/11/1995	584.97
MW-183WT	6-16	Water Table	2" PVC	7/24/2000	588.77
X-2A	8.6-11.6	Water Table	2” PVC	6/2/1980	593.12
X-4AR	3.3-8.3	Water Table	2" PVC	NA	586.82
X-4CAUGR	14-19	Upper Sand	2" PVC	7/24/2007	586.36
X-4D	40-45	Lower Sand	2" PVC	7/23/2007	586.32
X-9AR	3-13	Water Table	2" PVC	5/26/1995	586.95
X-9BR	26-31	Upper Sand	2" PVC	5/17/1995	586.85
X-9CAUG	20-25	Upper Sand	2" PVC	5/5/1995	586.62
X-9D	42.5-47.5	Lower Sand	2" PVC	7/23/2007	587.47
X-10AR2	6-16	Water Table	2” PVC	11/6/2001	594.67
TWW-1	1.5-6.5	Water Table	2” PVC	1/22/1997	587.31
TW-242	2-7	Water Table	2” PVC	7/16/1998	589.58

Notes:

[1] Depths are in feet below ground surface (ft bgs)

[2] TIC = top of inner casing

[3] Elevations are in feet above mean sea level (ft AMSL)

“ PVC = inch polyvinyl chloride

NA = not available

Attachment 6
Groundwater Sampling Analytical Parameters
RACER Green Point Landfill
Saginaw, Michigan

Well ID	Proposed Monitoring Plan (2020)	Constituent & Preservative - Container Description: Total TAL Metals [1] (ULF Only [2]) HNO_3 - 500mL Poly	TAL Dissolved Metals [1] HNO_3 - 500mL Poly	Total Cyanide NaOH - 250mL Poly	Dissolved Cyanide NaOH - 250mL Poly	TDS, Sulfate, Chloride, Nitrite, Nitrate [3] unpreserved - 500mL Poly	Ammonia nitrogen H_2SO_4 - 500 mL Poly	VOCs HCl - 3x40mL VOA	PFAS unpreserved - 2x250mL HDPE	Screen interval	QA/QC/Comments
MW-117S1	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	X	X	X	X	X	X		X	24.2-29.2	
MW-117WT	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	X	X	X	X	X	X		X	3-13	
MW-118S1	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			23.5-28.5	
MW-118WT	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	X	X	X	X	X	X		X	1.6-11.6	
MW-183WT	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	X	X	X	X	X	X		X	6-16	MS/MSD for total and dissolved TAL metals, total and dissolved cyanide, chloride, sulfate, nitrite, nitrate, and TDS
X-4AR[4]	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen									NA-8.3	Dry
X-4CAUGR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			14-19	
X-4D	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			40-45	
X-9AR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	X	X	X	X	X	X		X	3-13	
X-9BR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			26-31	
X-9CAUG	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			20-25	
X-9D	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	X	X	X	X	X	X			42.5-47.5	Duplicate for ammonia nitrogen, total and dissolved TAL metals, total and dissolved cyanide, chloride, sulphate, nitrite, nitrate, and TDS
TWW-1	VOC and PFAS							X	X	1.5-6.5	Duplicate for VOCs
TW-242	VOC							X		2-7	MS/MSD for VOCs
MW-122WT	PFAS								X	2-12	
X-10AR2	PFAS								X	6-16	MS/MSD for PFAS
X-2A	PFAS								X	8.6-11.6	Duplicate for PFAS Equipment Blank for PFAS

Notes:

[1]TAL dissolved metals plus cyanide, and indicator parameters (sulfate, chloride, total dissolved solids, nitrate, nitrite, and ammonia nitrogen).

[2]Ultra Low Flow (ULF) sampling refers to the use of a purge and sampling rate of approximately 1 liter per hour, implemented to minimize sample turbidity.

[3]TDS, sulfate, chloride, nitrite, and nitrate will all be included in one unpreserved 500 mL poly bottle and will be reported seperately using method 300.

[4]Well went dry during sampling, unable to sample.

HDPE = high-density ploye thylene

HNO_3 = nitric acid

H_2SO_4 = sulfuric acid

mL = milliliter

MS/MSD = matrix spike/matrix spike duplicate

NA = not available

NaOH = sodium hydroxide

PFAS = per- and ploy fluoroalkyl substances

VOC = volatile organic compound

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
MW-117S1	**10/01/10**	1.243	0.21	-82.5	8.14	13.15	1.3
MW-117S1	**09/27/11**	1.7	1.26	-82.3	6.89	15.7	0.8
MW-117S1	**09/13/12**	1.310	-[2]	-90.3	6.77	15.61	0.42
MW-117S1	**09/24/13**	4.123	0.75	-126.0	6.87	11.23	0.4
MW-117S1	**09/22/14**	1.307	0.58	-50.4	6.45	12.14	4.5
MW-117S1	**10/01/15**	1.681	0.17	127.91	6.69	13.28	8.03
MW-117S1	**09/27/16**	0.643	0.89	-34.7	6.56	15.64	7.99
MW-117S1	**11/13/17**	1.043	0.20	161.4	5.88	10.34	3.58
MW-117S1	**08/21/19**	0.464	7.87	-44.6	6.88	18.6	1.49
MW-117S1	**08/13/20**	1.52	0.20	-90.6	6.91	27	8.98
MW-117S1	**08/17/21**	1.53	0.10	-104.2	6.94	21.4	1.82
MW-117WT	**10/01/10**	8.45	0.11	-90	8.45	16.51	0.9
MW-117WT	**09/27/11**	9.535	0.68	-103	6.60	13.39	1.1
MW-117WT	**09/13/12**	10.33	-[2]	-77.2	6.23	16.32	0.68
MW-117WT	**09/24/13**	29.95	0.41	-109.8	6.37	12.72	0.80
MW-117WT	**09/23/14**	8.05	0.70	-57.8	6.25	12.05	8.60
MW-117WT	**10/01/15**	9.684	0.43	-97.38	6.55	12.74	5.96
MW-117WT	**09/27/16**	9.531	0.30	-157.64	6.71	15.85	2.72
MW-117WT	**08/13/20**	9.25	0.13	-95.7	6.41	25.1	12.2
MW-117WT	**08/17/21**	12.3	0.11	-95.5	6.45	21.2	1.79
MW-118S1[1]	**09/27/11**	1.81	1.19	-91.9	7.02	17.6	0.3
MW-118S1	**09/13/12**	1.803	3.82	-230.3	6.83	15.83	1.03
MW-118S1	**09/24/13**	4.289	0.72	-95.8	6.36	13.17	0.9
MW-118S1	**09/22/14**	1.38	0.30	-56	6.35	12.49	9.7
MW-118S1	**10/01/15**	1.753	0.20	116.27	6.77	12.78	1.4
MW-118S1	**09/27/16**	0.662	0.94	13.84	6.71	14.3	7.91
MW-118S1	**11/13/17**	1.303	0.2	4.2	5.94	10.19	7.41
MW-118S1	**08/14/20**	0.37	0.1	-101.7	7.03	24.2	8.87
MW-118S1	**08/17/21**	1.358	0.14	-110.9	7.01	20.4	1.51

MW-118WT	**09/30/10**	3.435	0.22	-104.2	7.27	14.89	1.8
MW-118WT	**09/27/11**	3.261	0.71	-92.8	6.43	17.13	0.3
MW-118WT	**09/13/12**	2.451	1.37	-201.4	6.74	16.99	0.66
MW-118WT	**09/24/13**	5.017	0.95	-115.3	6.38	15.17	0.4
MW-118WT	**09/22/14**	1.521	0.20	-60.4	6.72	12.88	8.2
MW-118WT	**10/01/15**	1.939	0.36	-126.86	6.99	17.02	1.4
MW-118WT	**09/27/16**	2.072	0.79	-161.44	6.99	15.74	0.79
MW-118WT	**11/13/17**	1.654	0.26	-27.8	6.05	11.51	0.87
MW-118WT	**08/14/20**	1.58	0.15	-114.6	6.79	22.2	5.45
MW-118WT	**08/17/21**	2.045	0.13	-109.4	6.92	22.9	1.31
MW-122WT	**08/18/21**	0.809	0.12	-107.1	6.9	18.8	8.79
MW-125WT	**09/08/20**	1.21	0.21	-47.1	6.8	16.9	8.85
MW-183WT	**09/28/10**	0.633	0.33	-119.6	7.45	13.01	3.5
MW-183WT	**09/28/11**	0.814	0.26	-128.1	7.73	13.82	1.2
MW-183WT	**09/14/12**	0.962	0.25	-207.6	7.11	15.30	0.43
MW-183WT	**09/24/13**	2.390	0.51	-105.2	6.56	17.12	1.8
MW-183WT	**09/22/14**	Missing field notes					
MW-183WT	**10/01/15**	0.750	0.37	-139.06	7.28	13.45	0.9
MW-183WT	**09/28/16**	1.299	0.20	-125.02	7.23	16.52	0.20
MW-183WT	**08/29/17**	0.665	1.09	-91.4	6.94	20.50	1.74
MW-183WT	**09/26/18**	0.55	0.60	-83.7	6.65	16.0	0.96
MW-183WT	**08/21/19**	0.70	0.27	-67.5	7.11	15.2	1.96
MW-183WT	**08/18/20**	0.67	0.50	-69.8	6.86	17.6	0.02
MW-183WT	**08/19/21**	0.64	0.33	-84.8	7.04	19.7	0.02
MW-183WT	**08/24/21**	0.66	0.37	-77.9	7.09	19.5	0.41
TW-242	**08/30/17**	1.019	0.45	-96.1	7.01	17.1	9.02
TW-242	**09/25/18**	0.780	1.29	81.71	7.11	19.03	20.16
TW-242	**08/22/19**	1.11	0.37	-1.5	7.03	17.7	49.4
TW-242	**08/12/20**	1.13	0.31	21.1	7.04	21.4	2.42
TW-242	**08/18/21**	0.86	0.26	-31.1	7.07	18.7	2.81

TWW-1	**09/29/10**	3.924	1.15	-54.7	6.99	15.08	9.1
TWW-1	**09/21/11**	2.89	3.11	-7.1	6.87	18.42	1.2
TWW-1	**09/14/12**	2.289	-[2]	19.0	6.87	19.30	0.59
TWW-1	**09/24/13**	3.004	0.64	-139.6	6.84	17.47	2.27
TWW-1	**09/23/14**	2.342	0.23	-89.9	6.91	17.35	1.01
TWW-1	**10/01/15**	2.534	0.49	84.32	6.79	17.82	6.09
TWW-1	**09/28/16**	2.531	0.34	-156.95	7.06	18.04	1.56
TWW-1	**08/30/17**	1.712	7.70	-52.6	7.22	19.10	8.43
TWW-1	**09/25/18**	1.48[3]	0.54	-89.8	6.75	21.30	0.58
TWW-1	**08/22/19**	1.59	0.21	-10.1	6.91	20.80	0.02
TWW-1	**08/12/20**	1.92	0.22	-90.2	6.88	22.8	0.65
TWW-1	**09/08/20**	1.71	1.69	-51.3	6.94	17.6	11.20
TWW-1	**08/18/21**	1.622	0.11	-74.1	6.89	20.8	1.32
X-2A	**08/11/20**	0.72	0.62	61.8	8.88	20.4	6.68
X-2A	**09/08/20**	0.71	0.08	-124.6	8.83	15.3	9.73
X-2A	**08/18/21**	0.652	0.06	-143.5	9.29	17.6	4.11
X-4AR	**DRY 2010, 2011, 2012, 2013**	NA	NA	NA	NA	NA	NA
X-4AR	**10/01/15**	1.008	8.26	45.81	8	22.09	142.9
X-4AR[4]	**09/28/16**	0.360	2.07	9.63	7.23	17.08	20.11
X-4AR[4]	**08/29/17**	Well was pumped dry and sampled upon recharge					
X-4AR[5]	**09/26/18**	0.71	0.53	3.1	7.37	17.1	8.14
X-4AR	**08/18/20**	0.51	3.82	118.9	8.27	26.2	0.02
X-4AR	**08/17/21**	Well was pumped dry, unable to sample					
X-4CAUGR	**09/28/10**	1.03	0.34	-79.8	7.11	12.29	1.1
X-4CAUGR	**09/26/11**	0.971	1.17	-97.1	6.96	17.25	1.2
X-4CAUGR	**09/14/12**	1.050	0.19	-293.7	6.93	11.83	0.48
X-4CAUGR	**09/24/13**	0.783	0.19	-64.1	6.22	13.21	1.49
X-4CAUGR	**09/22/14**	Missing field notes					
X-4CAUGR	**10/01/15**	1.225	0.25	-116.75	7.10	13.43	2.29
X-4CAUGR	**09/28/16**	0.396	0.85	-14.23	6.78	14.88	0.68
X-4CAUGR	**08/29/17**	0.910	0.16	-45.2	7.26	25.8	1.89
X-4CAUGR	**09/26/18**	0.500	0.40	-23.1	6.72	16.1	4.69
X-4CAUGR	**08/22/19**	0.568	0.23	-62.8	7.02	17.8	1.83
X-4CAUGR	**08/17/20**	0.528	0.25	-72.9	6.85	19.6	0.02
X-4CAUGR	**08/17/21**	0.540	0.25	-86.5	7.05	22.9	1.98

X-4D	**09/28/10**	4.58	0.53	-146.7	7.41	13.45	1.3
X-4D	**09/26/11**	4.897	1.67	-105.7	7.62	15.94	0.0
X-4D	**09/14/12**	4.884	0.50	-208.1	7.20	11.92	0.4
X-4D	**09/24/13**	3.937	0.23	-36.8	6.40	13.30	1.45
X-4D	**09/22/14**	Missing field notes					
X-4D	**10/01/15**	4.561	0.18	110.66	7.19	12.91	4.08
X-4D	**09/28/16**	4.908	0.22	-151.91	7.35	15.05	0.10
X-4D	**08/29/17**	4.451	0.94	117.2	7.18	24.2	0.38
X-4D	**09/26/18**	2.89	0.39	2.4	6.82	16.2	3.87
X-4D	**08/22/19**	0.71	0.37	18.7	7.11	17.9	1.93
X-4D	**08/17/20**	4.47	0.30	-97.7	7.33	23.5	0.02
X-4D	**08/17/21**	0.73	1.92	109.4	6.96	22	1.96
X-9AR	**09/29/10**	0.815	0.24	-81.5	7.45	11.44	0.9
X-9AR	**09/23/11**	1.142	0.38	-114.8	7.09	11.63	0.0
X-9AR	**09/12/12**	1.056	8.20	-92.7	6.88	14.03	0.45
X-9AR	**09/25/13**	5.685	0.26	-122.6	6.95	10.54	1.90
X-9AR	**09/22/14**	Missing field notes					
X-9AR	**10/01/15**	1.224	0.71	-126.9	6.90	12.1	1.34
X-9AR	**09/28/16**	0.417	0.66	-56.94	6.63	15.03	1.95
X-9AR	**08/29/17**	0.816	0.28	-55.5	7.33	19.7	1.09
X-9AR	**09/26/18**	0.79	0.27	-70.4	6.30	17.6	2.54
X-9AR	**08/21/19**	0.73	0.28	-61.2	7.06	20.1	0.02
X-9AR	**08/17/20**	0.556	0.34	-94.7	7.09	19.3	0.02
X-9AR	**08/18/21**	0.72	0.27	-100.2	7.06	15.8	0.93
X-9BR	**09/28/10**	1.215	0.10	-93.4	7.09	14.53	0.8
X-9BR	**09/23/11**	1.41	0.20	-113.8	7.13	11.29	0.0
X-9BR	**09/12/12**	1.358	0.21	-217.9	6.69	14.02	0.97
X-9BR	**09/25/13**	6.571	0.24	-146.0	6.98	11.31	1.76
X-9BR	**09/22/14**	Missing field notes					
X-9BR	**10/01/15**	1.859	0.36	129.69	6.92	11.49	7.27
X-9BR	**09/28/16**	2.020	0.08	-168.87	7.19	15.33	2.36
X-9BR	**08/29/17**	1.595	1.42	-168.3	7.06	17.3	1.64
X-9BR	**09/26/18**	0.428	0.30	-23.6	6.64	16.1	3.06
X-9BR	**08/21/19**	1.29	2.47	-145.5	7.04	20.9	1.95
X-9BR	**08/18/20**	0.72	0.46	-91.4	7.08	21.2	0.02
X-9BR	**08/18/21**	0.60	0.06	-105.3	6.97	15.7	0.02

X-9CAUG	**09/28/10**	0.995	0.29	-72.3	6.97	12.45	0.1
X-9CAUG	**09/23/11**	1.07	0.45	-116.9	7.03	12.79	0.0
X-9CAUG	**09/12/12**	1.132	1.98	-137.1	6.65	21.04	0.76
X-9CAUG	**09/25/13**	5.046	0.27	-69.0	6.54	15.64	1.29
X-9CAUG	**09/22/14**	Missing field notes					
X-9CAUG	**10/01/15**	1.469	0.27	-156.66	7.12	12.32	4.73
X-9CAUG	**09/28/16**	0.634	0.60	0.50	6.74	12.24	3.95
X-9CAUG	**08/29/17**	0.956	0.34	-99.40	7.33	17	1.71
X-9CAUG	**09/25/18**	0.80[3]	0.43	-98.2	7.11	19.82	516.53[6]
X-9CAUG	**08/21/19**	0.93	0.35	-109.5	6.92	18.8	1.97
X-9CAUG	**08/18/20**	0.87	0.91	-88.0	6.92	17.4	1.82
X-9CAUGR	**08/18/21**	0.91	0.19	-97.3	6.97	19.4	1.92
X-9D	**09/28/10**	3.257	0.41	-93.2	7.31	12.54	0.1
X-9D	**09/23/11**	4.27	0.56	-113.8	7.44	11.73	0.0
X-9D	**09/12/12**	3.510	-[2]	-83.1	7.13	14.20	0.10
X-9D	**09/25/13**	19.53	0.17	-113.1	7.08	13.03	1.71
X-9D	**09/22/14**	Missing field notes					
X-9D	**10/01/15**	4.496	0.16	89.53	7.24	12.68	6.59
X-9D	**09/28/16**	4.567	0.12	166.31	7.23	11.2	1.24
X-9D	**08/29/17**	2.140	0.82	133.4	7.00	17	1.07
X-9D	**09/25/18**	3.44[3]	0.15	-138.8	7.11	18.64	14.86[6]
X-9D	**08/20/19**	4.52	0.30	-101.9	7.21	22.2	7.82
X-9D	**08/17/20**	1.05	0.33	-167.8	7.43	23.8	1.89
X-9D	**08/18/21**	1.14	0.42	-129.7	7.32	21.2	1.98
X-10AR2	**08/12/20**	0.87	0.17	-62.4	6.89	17.1	0.02
X-10AR2	**09/08/20**	0.88	0.31	-63.3	7.01	15.5	9.45
X-10AR2	**08/18/21**	0.83	0.11	-70.4	6.99	19.1	1.90

X-10BR	**09/29/10**	2.446	0.20	-101.2	6.69	14.17	1.4
X-10BR	**09/22/11**	1.692	0.79	-88.1	6.87	13.25	4.8
X-10BR	**09/14/12**	1.953	-[2]	-91.6	6.59	14.58	0.42
X-10BR	**09/24/13**	21.55	0.28	-104.5	6.40	14.21	4.89
X-10BR	**Well Abandoned**						

Notes:

ºC = Celsius.
mg/L = milligrams per liter.
mV = millivolts.
NTUs = Nephelometric Turbidity Units.
SU = Standard Units.
mS/cm = milliSiemens per centimeter.
NA = not applicable/not available.

1. Monitoring well MW-188S1 was sampled on October 10, 2010 but the sampling log was not found.
2. No reading due to faulty dissolved oxygen sensor.
3. Conductivity not recorded. Specific conductance reported instead.
4. Monitoring well purged dry upon sampling. Well was allowed to recharge and then a sample was collected.
5. Monitoring well purged dry. Well did not sufficiently recharge during sampling event; therefore, no sample was collected.
6. Turbidimeter malfunctioned during sampling. Turbidity result is not accurate.

ATTACHMENT 7

Well Modification and Maintenance Memo

Memo

SUBJECT
Monitoring Well Modification
RACER Saginaw Malleable Industrial Land, Green Point Landfill and Peninsula Properties Saginaw, Michigan

DATE
October 6, 2021

DEPARTMENT
Environment

TO
Dave Favero
RACER Trust

PROJECT NUMBER
30076323

NAME
Scott Clearwater, Certified Project Manager
Scott.clearwater@arcadis.com
810.225.1921

This Monitoring Well Modification Memo has been prepared by Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust for modification activities at the Saginaw Malleable Industrial Land (SMI), Green Point Landfill (GPL), and Peninsula Properties, collectively referred to as the Site located at 77 W. Center Street, Saginaw, Michigan (**Figure 1 and 2**).

A total of 27 monitoring wells throughout the Site were modified or repaired. From September 7 through 9, 2021, Arcadis mobilized with Job Site Services (JSS) to complete modification maintenance activities at the Site. Well casings were all found to be in good condition and only the protective covers needed repair or replacement. Well casings were cut down for the locations converted to flush mount covers. A table summarizing the monitoring well depths and static water levels collected during this event in relation to the 2021 annual gauging are provided in **Table 1**.

During the modification activities stick-up covers and/or bollards were removed, and the monitoring wells cut down to allow 8” flush mount covers to be installed and set within a concrete pad at 13 locations. This was performed at 11 monitoring wells at SMI: B-5R, B-5BAUG, B-5CAUG, MW-103WT, MW-103S1, MW-103S2, MW-107WT, MW-107S1, MW-134WT, MW-134S1, and MW-134S2; and two monitoring wells at GPL: MW-128WT and MW-128S1. Planned modifications at X-4AR, X-4CAUGR, and X-4D at GPL were unable to be completed due to surface conditions and will be attempted when accessible.

Aluminum stick-up covers that are powder coated and painted black were used to replace two rusted through stick up covers at monitoring wells: X-16A and X-16B; and were added to three monitoring wells that had been without protective covers: TWW-1, TWW-241, and TWW-242.

Arcadis additionally repainted six monitoring well covers black at SMI and included the following monitoring well locations: MW-105WT, MW105S1, MW-105S2, MW-140WT, MW-140S1, and MW-140S2.

Photographic records depicting conditions before and after the modification activities are included in **Attachment 1**.

Dave Favero
RACER Trust
October 6, 2021

Enclosures:

FIGURES

Figure 1 Well Modification Locations SMI Site O&M Plan

Figure 2 Well Modification Locations GPL Site O&M Plan

TABLES

Table 1 Summary of Total Well Depths and Static Water Levels

ATTACHMENTS

1 Photographic Log

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-138WT

MW-103WT,S1,S2

Damaged stick-up protective covers replaced with flush mount covers at:
MW-103WT,
MW-103S1,
MW-103S2

Stick-up protective covers re-painted black:
MW-140WT,
MW-140S1,
MW-140S2

NEW PARKING LOT

MW-140WT,S1,S2

Stick-up protective covers re-painted black:
MW-105WT,
MW-105S1,
MW-105S2

MW-105WT,S1,S2

B-5R,BAUG,CAUG

RECREATION PLAZA

MW-149WT

RG1

MW-107WT,S1

Damaged stick-up protective covers replaced with flush mount covers at:
MW-107WT,
MW-107S1

QPTW-04R
QP-1R
QPTW-03R2
QPTW-05R
QP-2R
QP-3R
QPTW-10R
QPTW-01R
QPTW-13R

MW-134WT,S1,S2

Damaged stick-up protective covers replaced with flush mount covers at:
B-5R,
B-5BAUG,
B-5CAUG

MW-108WT,S1,S2,S3,S4

Damaged stick-up protective covers replaced with flush mount covers at:
MW-134WT,
MW-134S1,
MW-134S2

VIEWING PLATFORM

MW-110WTR

MW-131WT,S1,S2

MW-111WT,S1,S2,S3,S4

MW-185WT

MW-186WT

MW-143WT

B-3R,BAUG

SG1

MW-114WT,S1,S2,S3,S4

X-2A

MW-115WT,S1,S2,S3

X-1A,B

X-1CR2

MW-183WT

LEGEND

- PERMANENT MARKER LOCATION
- EXISTING MONITORING WELL
- INACCESSIBLE MONITORING WELL TO BE ABANDONED
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

0 350 700

SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

WELL MODIFICATION LOCATIONS
SMI SITE O&M PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\Documents\SiteLayout_Marker_SMI_202105.mxd PLOTTED: 5/24/2021 2:52:58 PM BY: TYarbrough

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MW-143WT
B-3R,BAUG
SG1
MW-114WT,S1,S2,S3,S4
X-2A
MW-115WT,S1,S2,S3
X-1A,B
X-1CR2
MW-183WT

Damaged stick-up protective covers replaced with aluminum stick-up covers when next accessible at:
X-4AR,
X-4CAUGR,
X-4D

X-4AR,CAUGR,D
MW-117WT,S1,S2

Damaged stick-up protective covers replaced with flush mount covers at:
MW-128WT,
MW-128S1

MW-118WT,S1,S2
X-16A,B
MW-128WT,S1
X-10AR2
MW-2A,B,CAUG
VIEWING PLATFORM
MW-119WT,S1,S2
X-9AR,BR,CAUG,D

Damaged stick-up protective covers replaced with Aluminum stick-up covers at:
X-16A,
X-16B

MW-3A,B
X-13AR,B,CAUG

Damaged stick-up protective covers replaced with Aluminum stick-up covers at:
TWW-1,
TW-241,
TW-242

TW-241
MW-127WT,S1
TW-242
TWW-1
X-12AR,B,CAUG
MW-120WT,S1,S2
MW-121WT,S1,S2
VIEWING PLATFORM
MW-125WT
MW-124WT,S1
MW-123WT,S1
MW-122WT,S1,S2
X-14A,B,CAUG

LEGEND

- EXISTING MONITORING WELL
- INACCESSIBLE MONITORING WELL TO BE ABANDONED
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- PERMANENT MARKER LOCATION
- SMI PROPERTY BOUNDARY
- GPL PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

0 300 600
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

WELL MODIFICATION LOCATIONS
GPL SITE O&M PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE
2

CITY: NOVI, MI DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
D:\GIS\Project Files\MotorsLiquidationCompany\Saginaw\Documents\SiteLayout_Marker_GPL_202105.mxd PLOTTED: 5/24/2021 2:34:57 PM BY: TYarbrough

Table 1
Summary of Total Well Depth and Static Water Levels
September 7-9, 2021
RACER Trust, Saginaw, Michigan

Location	Well Type	Depth to Water 9/7-9/2021 (feet)	Total Depth[1] 8/24/2021 (feet)	Total Depth [2] 9/7-9/2021 (feet)
Saginaw Malleable Industrial				
B-5BAUG	Flushmount	9.48	42.95	40.85
B-5CAUG	Flushmount	9.31	50.20	48.09
B-5R	Flushmount	4.78	18.15	14.45
MW-103WT	Flushmount	10.58	40.45	37.66
MW-103S1	Flushmount	9.96	21.10	17.97
MW-103S2	Flushmount	10.66	57.25	53.86
MW-107WT	Flushmount	6.98	11.80	8.82
MW-107S1	Flushmount	6.74	20.25	17.30
MW-134WT	Flushmount	4.33	15.40	12.49
MW-134S1	Flushmount	8.04	42.00	39.45
MW-134S2	Flushmount	7.50	53.95	51.11
Green Point Landfill				
MW-128WT	Flushmount	5.75	24.90	27.81
MW-128S1	Flushmount	4.80	18.95	18.60
TW-241	Stick Up	6.80	9.95	9.95
TW-242	Stick Up	8.07	10.20	10.19
TWW-1	Stick Up	4.33	10.80	10.55
X-16A	Stick Up	NA[3]	5.90	5.36
X-16B	Stick Up	5.42	23.00	24.75

Notes:

• Elevations are shown in feet above mean sea level (AMSL) relative to the NGVD datum of 1929.

• Depth to water measurements were taken from the top of well casing (TOC).

1 Total Depth measurments collected during the annual gauging event on August 24, 2021.

2 Total Depth measurements collected after casings were modified during the September 7 through 9, 2021 event.

3 A water level could not be measured at X-16A, and was identified as dry.

GPL	Green Point Landfill
NA	Not available
SMI	Saginaw Malleable Industrial Land

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 1

Description:
B-5BAUG Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 2

Description:
B-5BAUG After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 3

Description:
B-5CAUG Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 4

Description:
B-5CAUG After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 5

Description:
B-5R Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 6

Description:
B-5R After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 7

Description:
MW-103S1 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 8

Description:
MW-103S1 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 9

Description:
MW-103S2 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 10

Description:
MW-103S2 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 11

Description:
MW-103WT Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 12

Description:
MW-103WT After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 13

Description:
MW-105S1 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 14

Description:
MW-105S1 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 15

Description:
MW-105S2 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 16

Description:
MW-105S2 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 17

Description:
MW-105WT Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 18

Description:
MW-105WT After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 19

Description:
MW-107S1 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 20

Description:
MW-107S1 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 21

Description:
MW-107WT Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 22

Description:
MW-107WT After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 23

Description:
MW-134S1 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 24

Description:
MW-134S1 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 25

Description:
MW-134S2 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 26

Description:
MW-134S2 After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 27

Description:
MW-134WT Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 28

Description:
MW-134WT After

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 29

Description:
MW-140S2 Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 30

Description:
MW-140S2 After

Location:
SMI

Photograph taken by:
Jon Lust

Date: 12/9/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 31

Description:
MW-140WT Before

Location:
SMI

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 32

Description:
MW-140WT After

Location:
SMI

Photograph taken by:
Jon Lust

Date: 12/9/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 33

Description:
MW-128S1 Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 34

Description:
MW-128S1 After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 35

Description:
MW-128WT Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 36

Description:
MW-128WT After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 37

Description:
TW-241 Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 38

Description:
TW-241 After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 39

Description:
TW-242 Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 40

Description:
TW-242 After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 41

Description:
TWW-1 Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 42

Description:
TWW-1 After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 43

Description:
X-4 Series Wells

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/7/2021



Photograph: 44

Description:
X-4 Series Wells
(too wet to modify at this time).

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 45

Description:
X-4C Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 46

Description:
X-4D Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 47

Description:
X-16A Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 48

Description:
X-16A After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

Photograph Log

RACER Trust
Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 49

Description:
X-16B Before

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021



Photograph: 50

Description:
X-16B After

Location:
GPL

Photograph taken by:
Justin McCrimmon

Date: 9/8/2021

ATTACHMENT 8

Peninsula Well Replacement

Memo

SUBJECT
Peninsula Well Replacement
RACER Saginaw Malleable Industrial Land, Green Point Landfill and Peninsula Properties Saginaw, Michigan

DATE
December 6, 2021

DEPARTMENT
Environment

TO
Dave Favero – RACER Trust

PROJECT NUMBER
30076323

NAME
Scott Clearwater, Certified Project Manager
Scott.clearwater@arcadis.com
810.225.1921

This Memo has been prepared by Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust to summarize replacement well installation activities at the Peninsula Property area at Saginaw Malleable Industrial Land (SMI) Site located at 77 W. Center Street, Saginaw, Michigan.

Replacement well installation activities were completed at the Peninsula Property on November 1 through 3, 2021. The well replacement was completed based on discussions with DPH Trust and EGLE that indicated eight monitoring wells at the Peninsula Property would need to remain part of the DPH Trust monitoring program. The monitoring wells were inadvertently included within a 2020 well abandonment work plan and were abandoned during the abandonment event in January 2021. Refer to **Table 1** for the well list and a summary of well construction details and to **Figure 1** for well locations.

Boring Log / Well Construction Logs depicting the well construction details are included in **Attachment 1**.

Dave Favero
RACER Trust
December 6, 2021

Enclosures:

TABLES

1 Well Construction Summary for Well Replacements

FIGURES

1 Well Replacement Location Map

ATTACHMENTS

1 Boring Log / Well Construction Logs

Table 1
Well Construction Summary for Well Replacements
RACER Trust Peninsula Property
Saginaw, Michigan

Well Name	Date Installed	Screen Interval (feet bgs)	Well Completion	X-Coordinate (Easting)	Y-Coordinate (Northing)	Screen Slot Size	Well Diameter (inches)	Well Casing Material
MW-11-05R	11/2/2021	11 - 16	Stick Up	13227391.74	691542.96	0.01	2	PVC
MW-11-08R	11/2/2021	11.5 - 16.5	Stick Up	13227390.85	691415.06	0.01	2	PVC
MW-11-11R	11/1/2021	11.5 - 16.5	Stick Up	13227391.74	691291.64	0.01	2	PVC
MW-11-14R	11/1/2021	15 - 20	Stick Up	13227499.15	691323.09	0.01	2	PVC
MW-12-01R	11/1/2021	12 - 17	Stick Up	13227439.78	691321.04	0.01	2	PVC
MW-12-04R	11/1/2021	13.5 - 18.5	Stick Up	13227479.75	691371.23	0.01	2	PVC
MW-12-05R	11/1/2021	12 - 17	Stick Up	13227424.75	691296.24	0.01	2	PVC
*MW-21-01	11/2/2021	14.5 - 19.5	Stick Up	13227427.31	691264.31	0.01	2	PVC

Notes:
R - replacement well
amsl - above mean sea level
bgs - below ground surface
NA - not applicable
PVC - polyvinyl chloride
TOC - top of casing
* - new location for MW-12-02

MW-11-05R

MW-11-08R

MW-12-04R

MW-12-01R

MW-11-14R

MW-11-11R

MW-12-05R

MW-21-01 (MW-12-02)

MDNR WETLAND AREA

MDNR PENINSULA PROPERTY

LEGEND

- REPLACEMENT MONITORING WELL TO BE MOVED
- ABANDONED MONITORING WELL TO BE REPLACED
- FENCE
- APPROXIMATE DPH ERT SAGINAW BOUNDARY
- APPROXIMATE MDNR PROPERTY BOUNDARY

N

0 20 40 80 Feet

Bar Measures 1 inch

TETRA TECH

710 AVIS DRIVE, SUITE 100
ANN ARBOR, MI 48108
PHONE: 734.665.6000

PENINSULA PROPERTY WELL REPLACEMENTS

DPH ENVIRONMENTAL RESPONSE TRUST
FORMER STEERING GEAR PLANT #2
SAGINAW, MI

WELL REPLACEMENT LOCATION MAP

Project No:	117-7503001
Date:	9/27/2021
Designed by:	JMM

FIGURE
1

Copyright: Tetra Tech

9/27/2021 - 3:05:04 PM - D:\SAGINAW\FIGURE 2 - OU-3 MONITORING WELL REPLACEMENTS_MC_EXT.MXD - MARCO.CAPODIVACCA

Date Start: 11/02/2021
Date Finish: 11/02/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-11-05R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0									
	1	0.0-5.0	NA	NM			(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-11-05.		Backfill (0-1.0' bgs)
5 / -5	2	5.0-10.0	NA	NM					Well casing (-2.6-11.0' bgs.)
10 / -10	3	10.0-15.0	NA	NM					Bentonite Chips (1.0-8.8' bgs.)
15 / -15	4	15.0-20.0	NA	NM					Sand Pack (8.8-16.0' bgs)
20 / -20							End of Boring 20.0' bgs		Sch. 40 PVC 10 Slot Well Screen (11.0-16.0' bgs.)
									Natural Collapse (16.0-20.0 bgs.)

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

Date Start: 11/02/2021
Date Finish: 11/02/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0'
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-11-08R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0							(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-11-08.		Backfill (0-1.0' bgs)
	1	0.0-5.0	NA	NM					Well casing (-2.5-11.5' bgs.)
				NM					Bentonite Chips (1.0-9.3' bgs.)
				NM					
				NM					
5 / -5				NM					
	2	5.0-10.0	NA	NM					
				NM					
				NM					
10 / -10				NM					
	3	10.0-15.0	NA	NM					Sand Pack (9.3-16.5' bgs)
				NM					Sch. 40 PVC 10 Slot Well Screen (11.5-16.5' bgs.)
				NM					
15 / -15				NM					
	4	15.0-20.0	NA	NM					Natural Collapse (16.5-20.0' bgs)
				NM					
				NM					
20 / -20				NM			End of Boring 20.0' bgs		

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

Date Start: 11/01/2021
Date Finish: 11/01/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0'
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth (ft. bgs.): 19.0'
Surface Elevation: NA

Descriptions By: A. Robinson

Well/Boring ID: MW-11-11R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0							(0.0-19.0') Replacement Well - soil descriptions not logged. Refer to MW-11-11.		Backfill (0-0.5' bgs)
	1	0.0-5.0	NA	NM					Well casing (-3.5-11.5' bgs.)
5 / -5				NM					Bentonite Chips (0.5-8.5' bgs.)
	2	5.0-10.0	NA	NM					
10 / -10				NM					Sand Pack (8.5-16.5' bgs)
	3	10.0-15.0	NA	NM					Sch. 40 PVC 10 Slot Well Screen (11.5-16.5' bgs.)
15 / -15				NM					
	4	15.0-19.0	NA	NM					Natural Collapse (16.5-19.0' bgs)
20 / -20							End of Boring 19.0' bgs		

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

ARCADIS Design & Consultancy for natural and built assets

Date Start: 11/01/2021
Date Finish: 11/01/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0'
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-11-14R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0									
	1	0.0-5.0	NA	NM			(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-11-14.		Backfill (0-1.0' bgs)
5 / -5	2	5.0-10.0	NA	NM					Well casing (-2.95-15.0' bgs.)
10 / -10	3	10.0-15.0	NA	NM					Bentonite Chips (1.0-13.0' bgs.)
15 / -15	4	15.0-20.0	NA	NM					Sand Pack (13.0-20.0' bgs)
20 / -20							End of Boring 20.0' bgs		Sch. 40 PVC 10 Slot Well Screen (15.0-20.0' bgs.)

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

Step out approximately 2 feet from original location. Step out a second time due to refusal at 3 feet bgs.

Date Start: 11/01/2021
Date Finish: 11/01/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0'
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA

Descriptions By: A. Robinson

Well/Boring ID: MW-12-01R
Client: RACER Trust
Location: Saginaw, MI

Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0							(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-12-01.		Backfill (0-1.0' bgs)
	1	0.0-5.0	NA	NM					
5 / -5									Well casing (-1.8-13.5' bgs.)
	2	5.0-10.0	NA	NM					Bentonite Chips (1.0-9.75' bgs.)
10 / -10									Sand Pack (9.75-17.0' bgs)
	3	10.0-15.0	NA	NM					Sch. 40 PVC 10 Slot Well Screen (12.0-17.0' bgs.)
15 / -15									
	4	15.0-20.0	NA	NM					Natural Collapse (17.0-20.0' bgs)
20 / -20							End of Boring 20.0' bgs		

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

ARCADIS Design & Consultancy for natural and built assets

Date Start: 11/01/2021
Date Finish: 11/01/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0'
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-12-04R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0							(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-12-04.		Backfill (0-1.0' bgs)
	1	0.0-5.0	NA	NM					
				NM					
				NM					
				NM					
				NM					
5 / -5									Well casing (-1.8-13.5' bgs.)
	2	5.0-10.0	NA	NM					Bentonite Chips (1.0-11.25' bgs.)
				NM					
				NM					
				NM					
				NM					
10 / -10									
	3	10.0-15.0	NA	NM					
				NM					
				NM					
				NM					
				NM					
15 / -15									Sand Pack (11.25-18.5' bgs)
	4	15.0-20.0	NA	NM					Sch. 40 PVC 10 Slot Well Screen (13.5-18.5' bgs.)
				NM					
				NM					
				NM					
				NM					
20 / -20							End of Boring 20.0' bgs		Natural Collapse (18.5-20.0' bgs)

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

Date Start: 11/01/2021
Date Finish: 11/01/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: Continous
Rig Type: NA
Water Level Start (ft. bgs.): 6.0
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-12-05R
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0							(0.0-20.0') Replacement Well - soil descriptions not logged. Refer to MW-12-05.		Backfill (0-1.0' bgs)
	1	0.0-5.0	NA	NM, NM, NM, NM, NM					Well casing (-3.25-12.0' bgs.)
5 / -5	2	5.0-10.0	NA	NM, NM, NM, NM, NM					Bentonite Chips (1.0-9.8' bgs.)
10 / -10	3	10.0-15.0	NA	NM, NM, NM, NM, NM					Sand Pack (9.75-17.0' bgs)
15 / -15	4	15.0-20.0	NA	NM, NM, NM, NM, NM					Sch. 40 PVC 10 Slot Well Screen (12.0-17.0' bgs.)
20 / -20							End of Boring 20.0' bgs		Natural Collapse (17.0-20.0 bgs.)

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

ARCADIS Design & Consultancy for natural and built assets

Date Start: 11/02/2021
Date Finish: 11/02/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: 5' Macrocore
Rig Type: NA
Water Level Start (ft. bgs.): 5.0
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-21-01
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
0 / 0				NM			(0.0-7.0') PEBBLES, small to large, angular to subangular; little medium sand to granules, subangulaer to angular; trace silt; poorly sorted; dry; very dark brown (10YR 2/2). NOTE: Fill.		Backfill (0-1.0' bgs)
				NM					
	1	0.0-5.0	2.33	NM			NOTE: Color change to reddish black (2.5YR 4/6) at 2.5' bgs.		
				NM					
				NM					
5 / -5				NM			NOTE: Wet at 5.0' bgs.	▽	
				NM					Well casing (-2.4-14.5' bgs.)
				NM					Bentonite Chips (1.0-11.8' bgs.)
	2	5.0-10.0	2.29	NM			(7.0-9.5') SAND, very fine, rounded; some silt; well sorted; wet; black (10YR 2/1). NOTE:: Slight odor.		
				NM					
10 / -10				NM			(9.5-16.0') SAND, fine, rounded; trace medium sand, rounded; well sorted; wet; dark gray (10YR 4/1).		
				NM					
				NM					

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

Date Start: 11/02/2021
Date Finish: 11/02/2021
Drilling Company: Fibertec
Driller's Name: N Wiseman/B Smith
Drilling Method: Hand Auger/Geoprobe
Sampling Method: 5' Macrocore
Rig Type: NA
Water Level Start (ft. bgs.): 5.0
Water Level Finish (ft. btoc.): NA

Northing: NA
Easting: NA
Casing Elevation: NA
Borehole Depth (ft. bgs.): 20.0'
Surface Elevation: NA
Descriptions By: A. Robinson

Well/Boring ID: MW-21-01
Client: RACER Trust
Location: Saginaw, MI
Weather Conditions: 45 F, Cloudy

DEPTH (feet bgl.) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Water Level (ft. bgs.)	Well/Boring Construction
	3	10.0-15.0	2.92	NM					
				NM					
				NM					
15 -15									
				NM			(16.0-16.5') SAND, fine to medium, subangular to subrounded; well sorted; wet; dark gray (10YR 4/1). NOTE: Shell fragments.		Sand Pack (11.8-19.5' bgs)
				NM			(16.5-17.3') SILT, low plasticity, rapid dilatancy; little clay; trace fine to medium sand, subrounded; moist to wet; very soft; very dark gray (10YR 3/1).		Sch. 40 PVC 10 Slot Well Screen (11.0-16.0' bgs.)
	4	15.0-20.0	3.25	NM			(17.3-19.0') SILT, low plasticity, rapid dilatancy; trace clay; moist to wet; soft; very dark grayish brown (10YR 3/2). NOTE Wood at 18.0' bgs.; very fine sand layer at 18.25' bgs.		
				NM			(19.0-19.5') SILT, low plasticity, rapid dilatancy; some sand, very fine to medium, subrounded to subangular; trace clay; most to wet; very soft; dark gray (10YR 4/1).		
				NM			(19.5-20.0') CLAY, high plasticity, no dilatancy; trace silt; moist; dark gray (10YR 4/1).		Natural Collapse (19.5-20.0 bgs.)
20 -20							End of Boring 20.0' bgs		
25 -25									

ARCADIS Design & Consultancy for natural and built assets

Remarks:
bgs = below ground surface
NA = not applicable
NM = not measured

ATTACHMENT 9

Permanent Marker Installation Memo

Memo

SUBJECT
Permanent Marker Installation
RACER Saginaw Malleable Industrial Land, Green Point Landfill and Peninsula Properties Saginaw, Michigan

DATE
December 6, 2021

DEPARTMENT
Environment

TO
Dave Favero – RACER Trust

PROJECT NUMBER
30076323

NAME
Scott Clearwater, Certified Project Manager
Scott.clearwater@arcadis.com
810.225.1921

This Memo has been prepared by Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust to summarize the permanent marker installation activities at the Saginaw Malleable Industrial Land (SMI), Green Point Landfill (GPL), and Peninsula Properties, collectively referred to as the Site located at 77 W. Center Street, Saginaw, Michigan (**Figure 1**).

The permanent markers were placed at four locations throughout the Site at the main entrance and possible locations for future entrances in accordance with the Restrictive Covenants filed for the Property and work plan approved by EGLE on May 28, 2020. The Main Entry Marker, Landfill Marker, and West Marker were installed on November 3, 2021 and the South Marker was installed on December 9, 2021. The completed locations for the permanent markers are shown on **Figures 1 and 4 through 7**.

The permanent marker sign details include a Site map detailing the locations of the restricted areas and details regarding the restrictions. A Figure depicting the completed permanent marker details is provided as **Figure 2**.

Arcadis contracted with Cylex Signs to create the permanent marker signs. Each sign measures 36 inches tall by 48 inches wide and 2 inches thick and were installed using 4-inch by 4-inch matching Cylex posts that were cemented into the ground. The posts have a steel tube that is molded into them that were then cemented into the ground. To accommodate the 42-inch frost line in Michigan, an extension to 48 inches was added to the post to extend below the frost line. The Cylex signs and posts are made of a mixture of various aggregates and resins manufactured to resist fading, breaking, cracking and chipping. The signage products are sealed with a U.V. inhibited/graffiti resistant clear-coat to extend exterior durability. A rendering of the permanent marker sign is provided as **Figure 3**.

Photographic records depicting the permanent marker installation activities are included in **Attachment 1**.

Dave Favero
RACER Trust
December 6, 2021

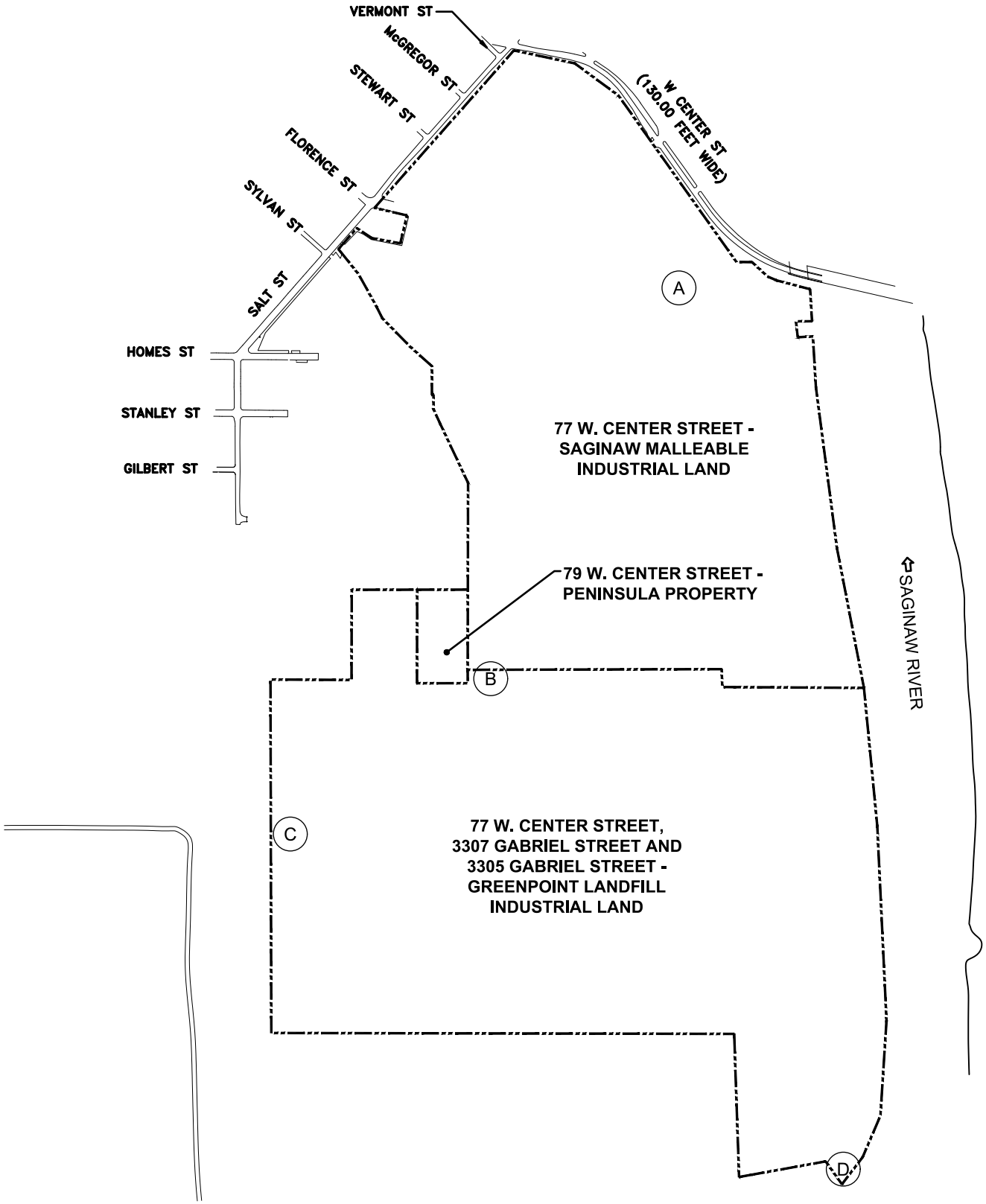
Enclosures:

FIGURES

1 Permanent Marker Locations
2 Permanent Marker Design
3 Cylex Sign Detailed Rendering
4 A Entry Marker Location
5 B Landfill Marker Location
6 C West Marker Location
7 D South Marker Location

ATTACHMENTS

1 Photographic Log



MARKERS WERE PLACED TEXT FACING AND PARALLEL TO THE TRAIL

LEGEND:

PROPERTY LINES

UNPAVED ROAD

A — PERMANENT MARKER LOCATION

0 800' 1600'

GRAPHIC SCALE

PROPERTY LINE REFERENCED FROM ATWELL SURVEY DATED 3/5/2013

ARCADIS

FIGURE 1

DIV/GROUP:IMDV DB:G.STOWELL LYR:ON=*;OFF=REF
C:\Users\gstowell\OneDrive - ARCADIS\BIM 360 Docs\RACER TRUST\2018 Saginaw Malleable\2018\B0064434.2018\01-DWG\SMI-EXHIBIT-7.dwg LAYOUT: 7 SAVED: 10/24/2018 12:04 PM ACADVER: 21.0S (LMS TECH) PAGESETUP: C-PA-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/24/2018 5:23 PM BY: STOWELL, GARY

Restriction Areas

1. Southwest Plant Area:
Protective soil cover installed, no digging allowed.

2. Former Queen Street Dump Area:
Former historical dump advisory, visibly contaminated soil and groundwater approximately 8 to 17 feet below ground surface.

3. Former Manufacturing Plant Building Slab: Protective soil cover installed, no digging allowed. Low occupancy requirements.

4. Former Railyard Area:
Protective soil cover installed, no digging allowed.

5A and 5B. Type III Landfills: Soil cover installed, no digging allowed.

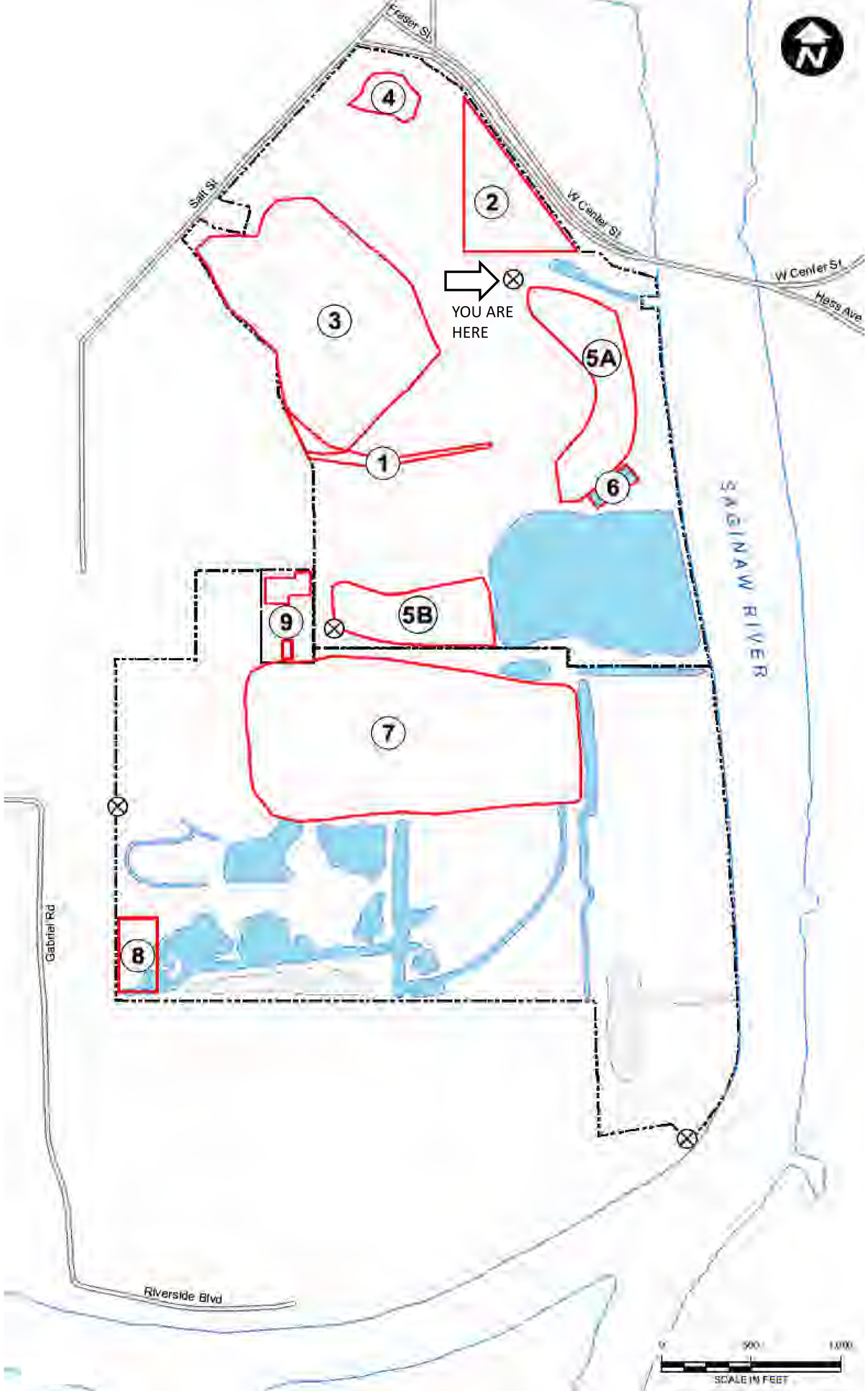
6. Stormwater Pond: Liner in place, no digging allowed.

7. Green Point Landfill: Multi-layer cap installed, no digging allowed.

8. Former Hillock Area:
Contaminated groundwater present at 3 feet below ground surface.

9. Peninsula Property Area:
Soil cover installed, no digging allowed.

Surface Water Bodies:
No fishing, wading, swimming, or boating in these areas.



NOTICE
The Property depicted on this marker is a former industrial area with soil and groundwater impacts. Remedial measures have been employed at the Property to address contamination and the Property is subject to deed restrictions intended to protect public health from remaining impacts. Property restrictions include limiting the Property to passive recreational or nonresidential use, prohibiting unauthorized use of groundwater, soil management requirements and building construction limitations. Specific areas of the Property subject to additional restrictions and the nature of the restrictions are further illustrated and described on this marker.

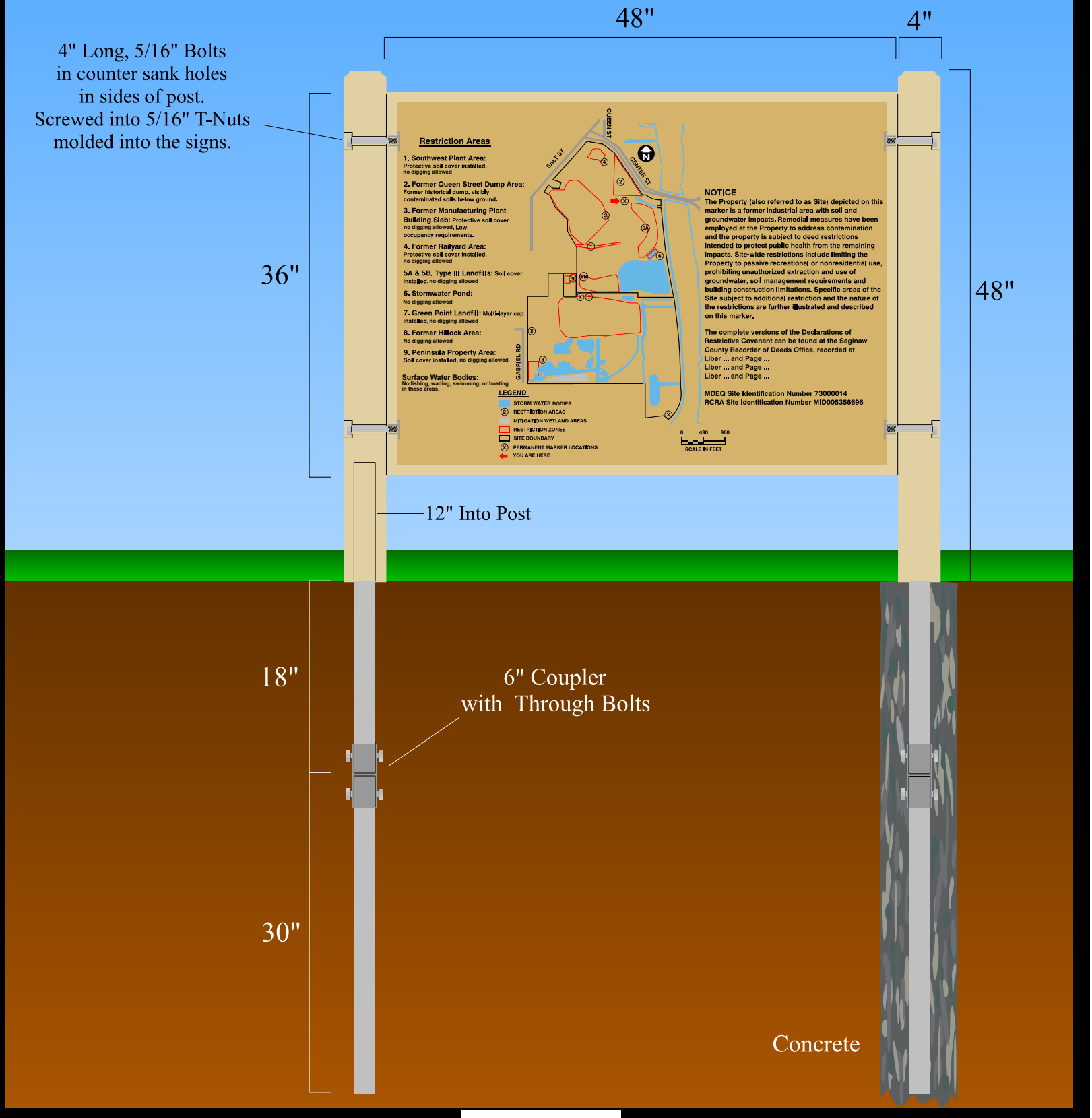
The complete versions of the Declarations of Restrictive Covenant can be found at the Saginaw County Recorder of Deeds Office, recorded at
Liber 2019011041 and Page 1 to 45
Liber 2019011042 and Page 1 to 34
Liber 2019011043 and Page 1 to 19

EGLE Site Identification Number 73000014
RCRA Site Identification Number MID005356696

LEGEND
- PERMANENT MARKER LOCATION
- SURFACE WATER BODIES
- MITIGATION WETLAND AREAS
- SITE BOUNDARY
- RESTRICTION AREA BOUNDARIES
- 2 RESTRICTION AREAS

FIGURE 2

Arcadis - 48" x 36"Info Sign
S-2 Gold Sandstone
Smooth Surface, Etched Border
Recessed, Painted Graphics
4" x 4" x 48" Cylex Post



CYLEX SIGNS

FIGURE 3

A - Entry Marker

SEE SHEET C101

SEE SHEET C201
ALIGNMENT A

SEE SHEET C217
ALIGNMENT H

ALIGNMENT C STA = 45+15
ALIGNMENT H STA = 211+48

Permanent Marker Location A: Directly adjacent to north edge of Entry Plaza interpretive Sign Area. Marker oriented facing you and legible as you are enter the Site.

Entry Plaza Interpretive Sign Area.

FIGURE 4


B - Landfill Marker
FIGURE 5
Google Earth
© 2021 Google
N
100 ft

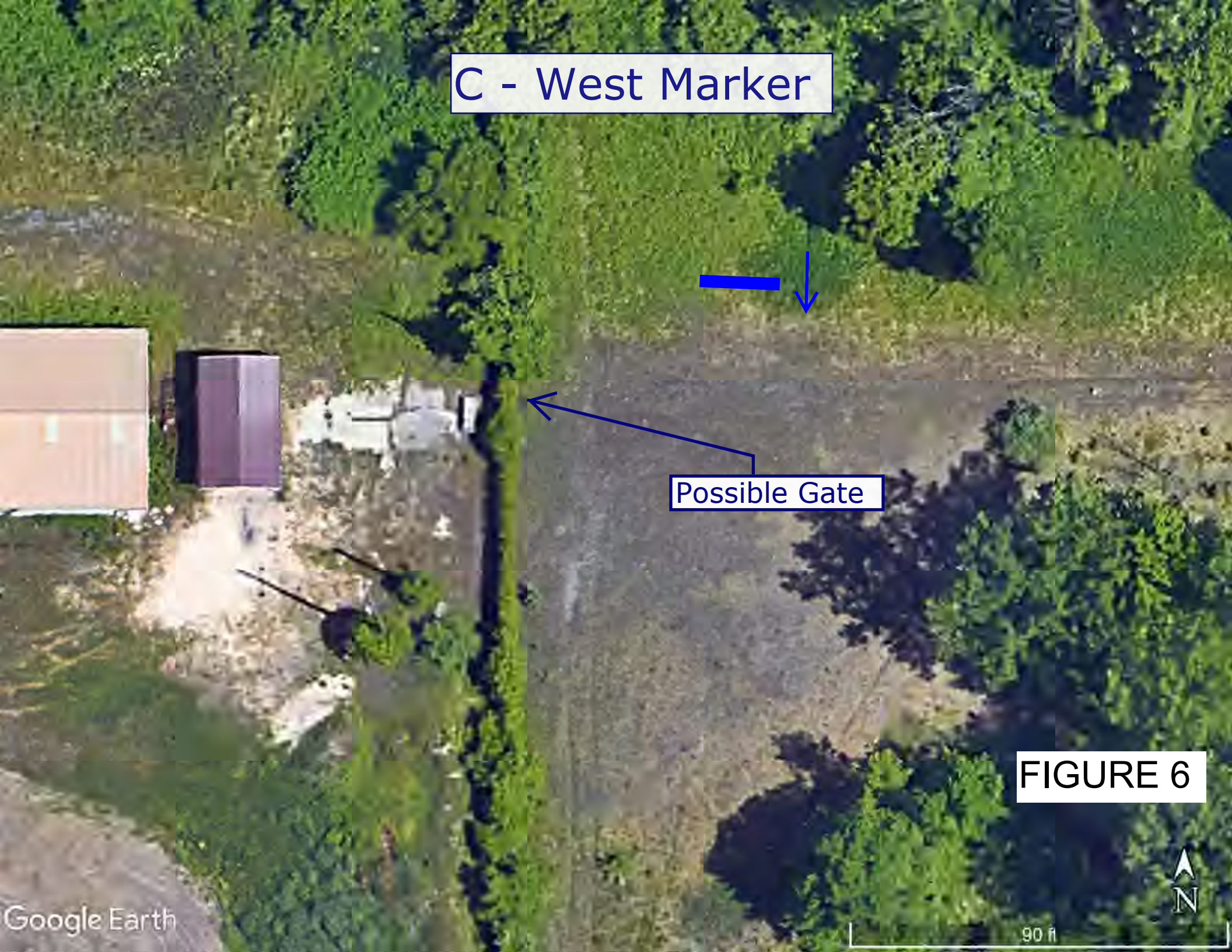


FIGURE 6



FIGURE 7

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 1

Description:
Location A: Main Marker, Before

Location:
SMI

Photograph taken by:
Amanda Robinson

Date: 11/3/2021



Photograph: 2

Description:
Location A: Main Marker, After

Location:
SMI

Photograph taken by:
Amanda Robinson

Date: 11/3/2021

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 3

Description:
Location B: Landfill Marker, facing north, Before

Location:
SMI

Photograph taken by:
Amanda Robinson

Date: 11/3/2021



Photograph: 4

Description:
Location B: Landfill Marker, facing south, After

Location:
SMI

Photograph taken by:
Amanda Robinson

Date: 11/3/2021

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 5

Description:
Location B: Landfill Marker, facing west, After

Location:
SMI

Photograph taken by:
Amanda Robinson

Date: 11/3/2021



Photograph: 6

Description:
Location C: West Marker Before

Location:
GPL

Photograph taken by:
Amanda Robinson

Date: 11/3/2021

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 7

Description:
Location C: West Marker, facing north, After

Location:
GPL

Photograph taken by:
Amanda Robinson

Date: 11/3/2021



Photograph: 8

Description:
Location C: West Marker, facing west to potential gate, After

Location:
GPL

Photograph taken by:
Amanda Robinson

Date: 11/3/2021

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 9

Description:
Location D: South Marker, facing south toward the Gate, Before

Location:
GPL

Photograph taken by:
Jon Lust

Date: 12/9/2021



Photograph: 10

Description:
Location D: South Marker, facing south toward the Gate, After

Location:
GPL

Photograph taken by:
Jon Lust

Date: 12/9/2021

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
Permanent Marker Installation
77 W. Center Street, Saginaw, MI
PN: 30076323



Photograph: 11

Description:
Location D: South Marker, After

Location:
GPL

Photograph taken by:
Jon Lust

Date: 12/9/2021

ATTACHMENT 10

Stormwater Pond Liner Repair Memo

Memo

SUBJECT
Stormwater Pond Liner Maintenance
RACER Saginaw Malleable Industrial Land,
Saginaw, Michigan

TO
Dave Favero – RACER Trust

DATE
December 3, 2021

PROJECT NUMBER
30076323

DEPARTMENT
Environment

NAME
Scott Clearwater, Certified Project Manager
Scott.clearwater@arcadis.com
810.225.1921

Arcadis of Michigan, LLC (Arcadis) is submitting this memorandum summarizing the completion of the Stormwater Pond liner maintenance activities within the Saginaw Malleable Industrial Land (SMI), located at 77 W. Center Street, Saginaw, Michigan.

INTRODUCTION

The purpose was to perform maintenance to a portion of the northeast corner section of the Stormwater Pond to add cover material where the liner was exposed and provide stabilization of the slope (**Figure 1**). It was proposed that adding a cover system would eliminate erosion of the slope and add protection for the liner from potential sun damage. The cover system selected was an engineered honeycomb webbing (GeoWeb® cellular confinement system) that creates a grid of 4-inch-deep pockets (cells) that can hold aggregate. The GeoWeb® was purchased from CIS GeoTurf and was installed per manufacturer's guidance (**Attachment 1**).

SUMMARY

Arcadis sub-contracted with Job Site Services (JSS) for the completion of the Stormwater Pond liner maintenance. The maintenance activities were performed on November 15 and 16, 2021. JSS removed a tree that was close to the Stormwater Pond liner's edge before beginning the maintenance activities. JSS additionally hand dug to locate the edge of the existing liner so that the new cover system would extend over the existing liner. A 16 Mil geotextile separation layer was placed over the existing liner to act as a cushion between the existing liner and the GeoWeb®. The GeoWeb® came in panels that were 8.5 feet wide. Seven panels were used for this job and were connected onsite. Three support tendons were inserted into each panel and connected at every fourth cell vertically by ATRA tendon clips. The panels then connected to one another by a series of connectors (ATRA keys) along the cell edges vertically. Anchors were installed at the top of the slope of each tendon. The anchor system was installed using a drive rod to put the drive point in place to a depth of 48-inches. The drive rod was removed, and tension then applied to the metal cable attached to the drive point by use of an anchor system "Platypus" pneumatic jack for load locking anchors. The Platypus applied tension to cable lock the drive point in place. The tendon was attached to the metal cable at the top of the slope, allowing the GeoWeb® to drape down the slope into the Stormwater Pond. Sandbags were temporarily attached at the base of each tendon to keep the GeoWeb® close to the slope. The GeoWeb® was expanded and draped to approximately 2-feet below the water surface of the Stormwater Pond. 21A aggregate was used to fill the GeoWeb® cells. An excavator was used to place the aggregate within the cells, gently compacted with the excavator bucket, and then raked to evenly distribute the aggregate between the cells as needed. Photos taken during the maintenance activities are provided in **Attachment 2**.

Dave Favero
RACER Trust
December 3, 2021

CONCLUSION

The new cover system was able to follow the changing topography of the slope and fully cover the existing liner. The GeoWeb® will eliminate erosion of the slope and damage of the liner from surface exposures and can support vegetation growth.

Enclosures:

Figure 1 – Pond Liner Maintenance Details

Attachment 1 – GeoWeb® Design Details Slope Protection System Evaluation

Attachment 2 - Photolog



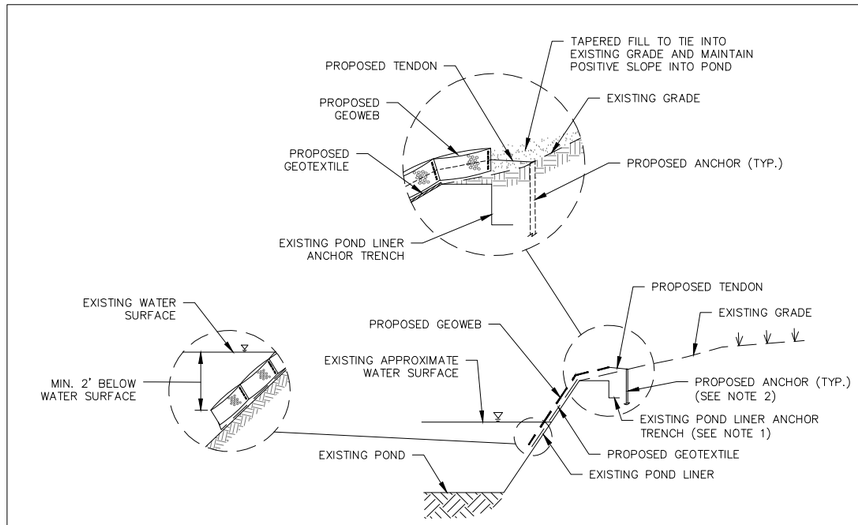
0 20' 40'
SCALE

TABLE 1: QUANTITIES			
TYPE	NUMBER	AREA (SQ FT)	VOLUME (CY)
GEOWEB GW30V4	-	1,025	-
16 OZ. NON-WOVEN GEOTEXTILE	-	1,025	-
EARTH ANCHORS	TBD	-	-
MDOT CLASS 46G OPEN-GRADED NATURAL AGGREGATE	-	-	16
TOPSOIL	-	-	9

ESTIMATED MATERIAL QUANTITIES HAVE BEEN REPORTED IN TABLE.
CONTINGENCIES HAVE NOT BEEN INCLUDED.

NOTES:

1. CONTRACTOR MAY PROPOSE ALTERNATIVE MATERIALS.
2. PRIOR TO ORDERING MATERIALS, COORDINATE WITH ARCADIS TO DETERMINE SUBMITTAL REQUIREMENTS.
3. SUBMITTAL FOR AGGREGATE SHALL INCLUDE NAME AND LOCATION OF BORROW SOURCE AND REPRESENTATIVE PHOTOGRAPHS OF PROPOSED MATERIAL TO INDICATE SIZE, COLOR AND GRADATION.
4. MATERIAL QUANTITIES ARE ESTIMATES BASED ON AERIAL IMAGERY AND SHALL BE VERIFIED BY CONTRACTOR DURING PRE-CONSTRUCTION SITE VISIT.
5. CONTRACTOR SHALL ARRANGE FOR UTILITY LOCATION PRIOR TO DRIVING EARTH ANCHORS.
6. COORDINATE WITH ARCADIS REGARDING INSTALLATION AS NEEDED AND TO DISCUSS CHANGES THAT MAY BE NEEDED TO ACCOMMODATE EXISTING CONDITIONS.



NOTES:

1. CONTRACTOR TO HAND DIG TO LOCATE POND LINER ANCHOR TRENCH AT A MINIMUM OF ONE LOCATION WITHIN WORK AREA.
2. ANCHORS SHALL BE LOCATED SO THEY DO NOT PENETRATE THE EXISTING POND LINER INBOARD OF THE EXISTING ANCHOR TRENCH.
3. CONTRACTOR TO COORDINATE WITH GEOWEB AND ANCHOR MANUFACTURER TO DETERMINE ANCHORING DETAILS AND CONFIRM NUMBER AND PLACEMENT OF ANCHORS.

POND SECTION

NOT TO SCALE

NOTE:

1. AERIAL IMAGERY OBTAINED FROM ARCADIS, MAY 2021.

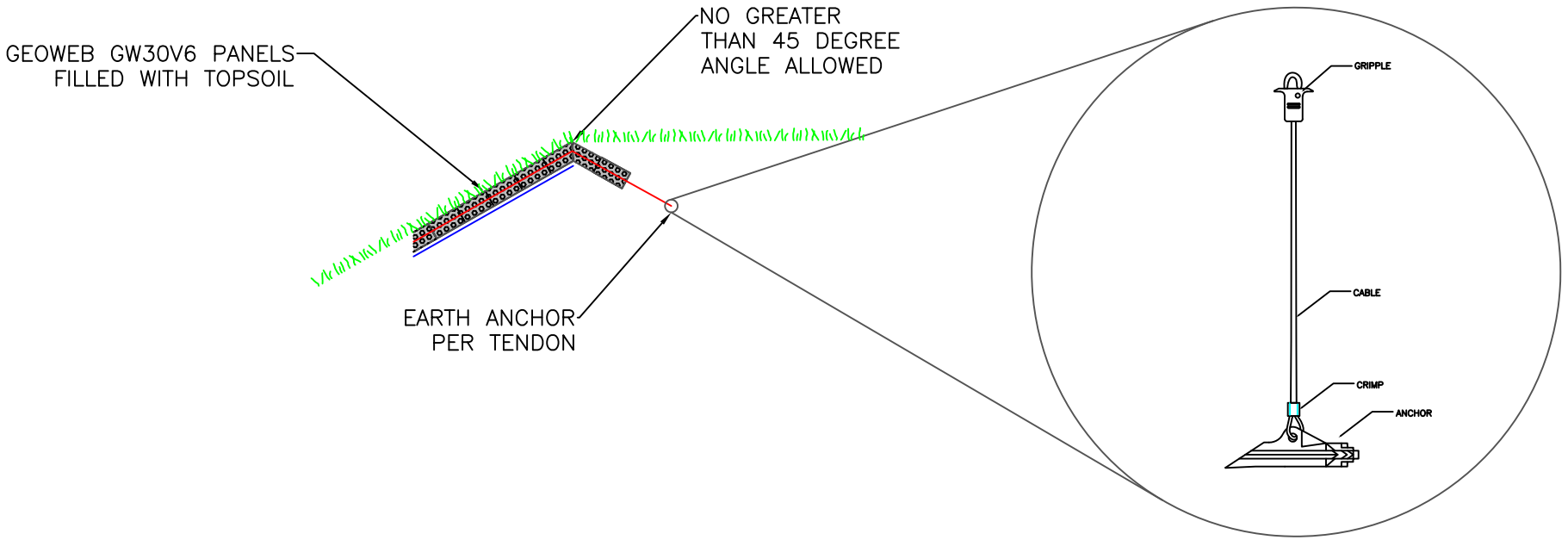
RACER SAGINAW MALLEABLE INDUSTRIAL LAND
SAGINAW, MICHIGAN
STORM WATER POND LINER MAINTENANCE

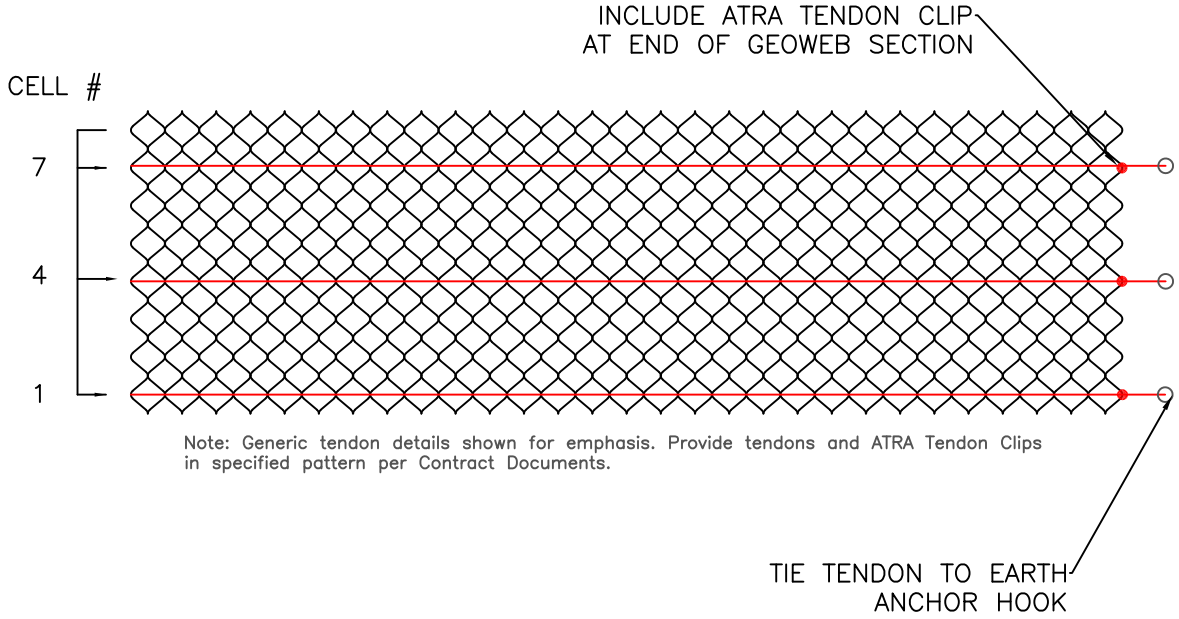
POND LINER DETAILS

ARCADIS Design & Consultancy for natural and built assets

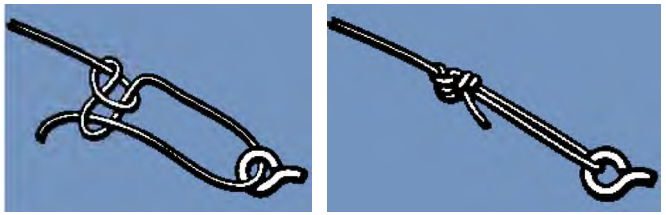
FIGURE
1

G:\TMProj\Racer\Saginaw\CAD\01-DWG\Figure_12-3-21.dwg
IMAGES: Pic1.png
XREFS: pond-x-border - 12-3-21





Note: Generic tendon details shown for emphasis. Provide tendons and ATRA Tendon Clips in specified pattern per Contract Documents.



ANCHORING DETAILS

PRESTO GEOSYSTEMS
STRENGTH. FROM THE GROUND UP.
Since 1979

REYNOLDS® PRESTO PRODUCTS, INC
670 NORTH PERKINS STREET
APPLETON, WI 54914
920-738-1342
WWW.PRESTOGEO.COM

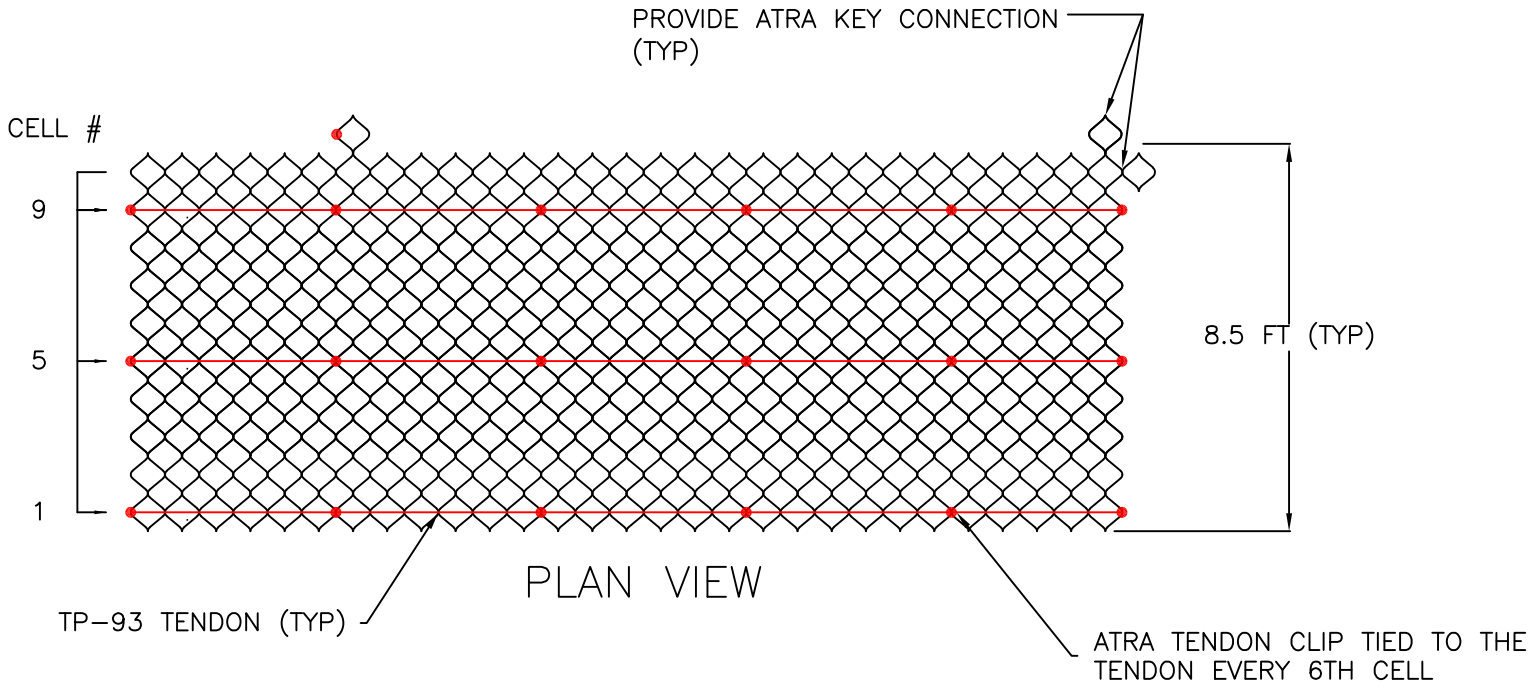
PR21452 – RACERS TRUST
GEOWEB SLOPE PROTECTION

GEOSYSTEMS,® PRESTO,® GEOWEB,® AND ATRA® ARE REGISTERED TRADEMARKS OF REYNOLDS PRESTO PRODUCTS, INC.

DATE AUGUST 10, 2021	FILE NAME SHEET 2
SCALE NTS	SHEET 2 OF 2

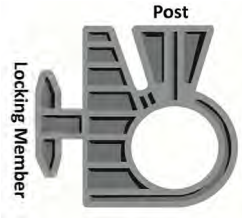
Notes:

1. This evaluation is copyrighted and is based on the use of Geoweb manufactured by Reynolds Presto Products Inc. All rights reserved. Any use of this evaluation for any geocell product other than that manufactured by Presto is strictly prohibited and makes this evaluation invalid.
2. The evaluation assumes that the slope is globally stable. Global stability shall be confirmed prior to the installation of the Geoweb system by the Project Engineer.
3. Provide a non–woven geotextile separation layer over the smooth liner and install per Manufacturer recommendations including overlaps.
4. The Geoweb panels shall be connected with ATRA keys at each interleaf and end to end connection.
5. Provide tendons and ATRA Tendon Clips, including crest anchorage, in the specified pattern for stability.
6. Geoweb infill shall be crushed aggregate.
7. Limit the drop of infill to prevent panel distortion.

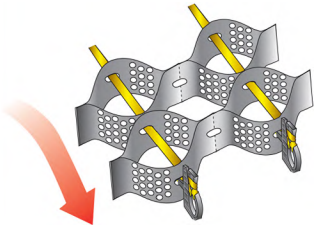




ATRA KEY



ATRA TENDON CLIP



INSTALLATION

PRESTO GEOSYSTEMS
STRENGTH. FROM THE GROUND UP.

REYNOLDS PRESTO PRODUCTS, INC
670 NORTH PERKINS STREET
APPLETON, WI 54914
920–738–1342
WWW.PRESTOGEO.COM

PR21452 – RACERS TRUST
GEOWEB SLOPE PROTECTION

PRESTO,® GEOWEB® AND ATRA® ARE REGISTERED TRADEMARKS OF REYNOLDS PRESTO PRODUCTS, INC.

DATE JULY 19, 2021	FILE NAME SHEET 2
SCALE NTS	SHEET 2 OF 2

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, Michigan
Stormwater Pond Liner Maintenance
Date: November 15-16, 2021



Photograph 1: 16 Mil Geotextile cushion layer



Photograph 2: Placing first GeoWeb section



Photograph 3: GeoWeb section in place covering 2' below water level



Photograph 4: Cushion layer and 1st two GeoWeb sections



Photograph 5: Anchor system showing drive rod metal cable and drive point



Photograph 6: Anchor installation

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, Michigan
Stormwater Pond Liner Maintenance
Date: November 15-16, 2021



Photograph 7: Anchor system "Platypus" pneumatic jack



Photograph 8: Drive rod is pulled out and tension being applied to cable lock the drive point



Photograph 9: Inserting tendon straps into Geoweb



Photograph 10: Expanding GeoWeb section



Photograph 11: Beginning to add gravel



Photograph 12: With gravel over 1st section

Photograph Log

RACER Trust - Saginaw Malleable Industrial Land
77 W. Center Street, Saginaw, Michigan
Stormwater Pond Liner Maintenance
Date: November 15-16, 2021



Photograph 13: Curving the GeoWeb around the corner



Photograph 13: Adding gravel to fill in GeoWeb spaces



Photograph 9: GeoWeb completely filled



Photograph 10: GeoWeb completely filled

ATTACHMENT 11

2021 PCB Cover Inspections and Annual LNAPL Gauging/Inspections

Technical Memorandum

November 23, 2021

To	Dave Favero (RACER)	**Tel**	519-340-4316
Copy to		**Email**	John-eric.pardys@ghd.com
From	John-Eric Pardys	**Ref. No.**	11208013
Subject	2021 Annual Inspections and Gauging RACER Trust Saginaw Malleable Industrial Land, Saginaw Michigan		

1. Introduction

This memorandum presents a summary of the inspection conducted on the cover placed over the former building slab, including the I27.7 Manhole Area, and annual gauging/inspection of the LNAPL areas in accordance with RACER Trust's Operation, Maintenance, and Monitoring Plan (ARCADIS, 2020) completed on August 16, 2021 at RACER Trust's Saginaw Malleable Industrial Land (Site) in Saginaw, Michigan (Figure 1). The purpose of the inspections are to confirm the cover is being maintained in accordance with 40 CFR 761.61 (a)(8) and to identify any changes in LNAPL conditions that would necessitate further evaluation.

2. Visual Cover Observations

GHD staff completed a visual assessment on August 16, 2021 of the cover placed over the former building slab, including the I27.7 Manhole Area, to document its condition and to recommend any maintenance that may be required. The week prior to the inspection, Saginaw area received approximately 1.51-inches of rain (https://w2.weather.gov/climate/index.php?wfo=dtx). See Attachment 1 for a photographic log documenting the cover observations and Attachment 2 for a copy of the inspection form.

The following observations were made during the inspection:

– Standing water was present around the edges of the cap, typical of recent heavy rain levels. No maintenance needed.
– Very minor erosion along the edges of the cover was identified. No maintenance needed.
– There were no signs of any major depressions on the cover.
– Vegetation is primarily composed of grasses, clovers, wildflowers, thistles, and other small plants. No mowing needed at this time.

Based on the results of the August 2021 inspection, no maintenance of the cover was required.

3. Annual LNAPL Gauging / Inspection

A summary of the gauging information is provided in Table 1. Table 1 also includes the historical gauging information for reference. A copy of the annual inspection form is included in Attachment 2. Figure 2 presents the Quench Pit Area monitoring well locations. All water levels/LNAPL thicknesses were below the top of screen during the August 2021 gauging event. The LNAPL thickness in the wells is consistent with historical readings and changes in LNAPL thickness in wells exhibit the expected correlation with fluctuations in hydraulic conditions (i.e., water table elevation).

GHD also inspected manholes in the Southwest Plant LNAPL area, the storm water pond and the secondary pond for the presence of LNAPL. Figure 3 presents the location of the inspection points. A slight sheen was identified in one of the manholes, however, no evidence of LNAPL was identified in the Stormwater Pond or the Secondary Pond. A summary of the manhole inspections is provided in Table 2.

Table 3 summarizes the LNAPL Transmissivity that has been completed to date. No transmissivity testing was completed in 2021 as conditions were similar to when the previous tests were completed. A memorandum was submitted to EGLE on January 28, 2019 summarizing transmissivity testing that has been completed. The memorandum concluded that the remaining concern with LNAPL appears to be limited to the potential for residual LNAPL sheen to enter active sewers that discharge to the on-Site stormwater pond. However, it is noted that no sheen has been observed in the on-Site stormwater pond since before the Plant was closed in 2007. Further, transmissivity testing since 2016 has demonstrated LNAPL is not readily or practically recoverable.

4. Conclusions/Recommendations

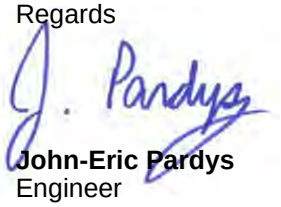
With respect to the cover, in order to keep phragmite growth and woody growth under control, GHD recommends evaluating the need for a mowing event at a minimum annually. LNAPL conditions continue to remain stable and, therefore, no further evaluation is necessary beyond continued monitoring. Consistent with the January 28, 2019 memorandum, GHD recommends that no additional transmissivity testing be performed, and that annual observations/inspections of the cap continue on an annual basis.

List of Enclosures:
Figure 1 Site Plan
Figure 2 Quench Pit Area – LNAPL Monitoring Program
Figure 3 Southwest Plan LNAPL Area – LNAPL Monitoring Program

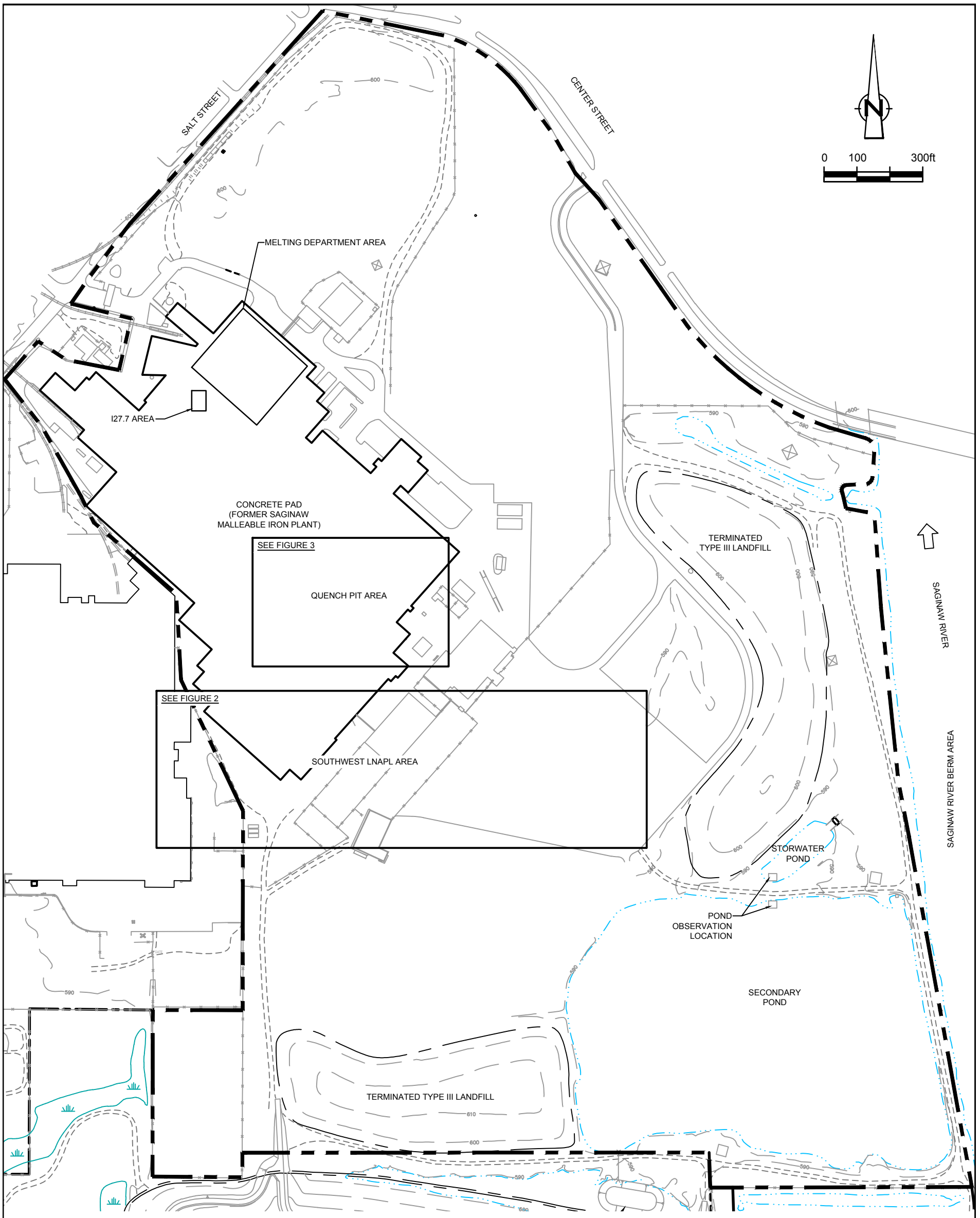
Table 1 Summary of Groundwater Gauging Data – Quench Pit Area
Table 2 Summary of Manhole Inspections – Southwest LNAPL Area
Table 3 Summary of Transmissivity Testing – Quench Pit Area

Attachment 1 Photographic Log – Cover Inspection
Attachment 2 Inspection Forms

Regards



John-Eric Pardys
Engineer



LEGEND

- RACER MALLEABLE IRON INDUSTRIAL LAND PROPERTY LINE (APPROX.)
- UNPAVED ROAD
- GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)
- FENCE LINE

NOTE:
THIS DRAWING HAS BEEN PREPARED
UTILIZING THE BEST AVAILABLE INFORMATION.

figure 1

SITE PLAN
RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND
Saginaw, Michigan

0 20 40 ft

APPROXIMATE GROUNDWATER FLOW DIRECTION

QPTW-02 QPTW-04R QPTW-04 QPTW-06 QPTW-11 QPTW-12 QPTW-05R QPTW-05 QPTW-08 QPTW-03R2 QPTW-03 QPTW-10R QPTW-10 QPTW-01R QPTW-01 QPTW-13 QPTW-13R QPTW-07 QPTW-09

QP-1 QP-1R QP-2R QP-2 QP-3R QP-3

L12.3 M13.0 L11.8 K8.9 BULKHEAD BULKHEAD 12" PERMANENTLY PLUGGED ABANDONED D.S.

L15.7 K14.1 FK13.6 L13.6 L12.8 FL12.7 L12.9 L12.6 L12.5 L12.2 K12.2 J12.1 K11.3 H11.3 I8.9 I8.8 J8.9 I7.6 O13.7 P13.7 Q12.8 Q12.7 Q12.5 Q10.3 L10.8 L9.0 L8.9 L8.8 L8.7 L8.2 M8.3 M8.2 M8.0 N9.1 N8.0 O8.8 O9.1

LEGEND

- QPTW-13R — MONITORING WELL
- 1 — FORMER QUENCH PIT
- QP-1R — RECOVERY POINT (APPROXIMATE LOCATION)
- QPTW-03 — DECOMMISSIONED/ABANDONED WELL
- I8.8 — MANHOLE
- BRANCH SEWER TO SETTLING BASIN OR STORM POND - STORM AND PROCESS
- BRANCH SEWER FORMERLY DIRECTED TO CITY - SANITARY, STORM AND PROCESS (ALL SEWER LINES TO CITY BULKHEADED)
- ABANDONED SEWER LINE
- LNAPL/WATER GAUGING LOCATION

NOTE:
MONITORING WELLS WERE RE-INSTALLED BETWEEN JUNE AND AUGUST 2017 AFTER THE INSTALLATION OF THE CLAY COVER

figure 2

QUENCH PIT AREA - LNAPL MONITORING PROGRAM
RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND
Saginaw, Michigan

GHD

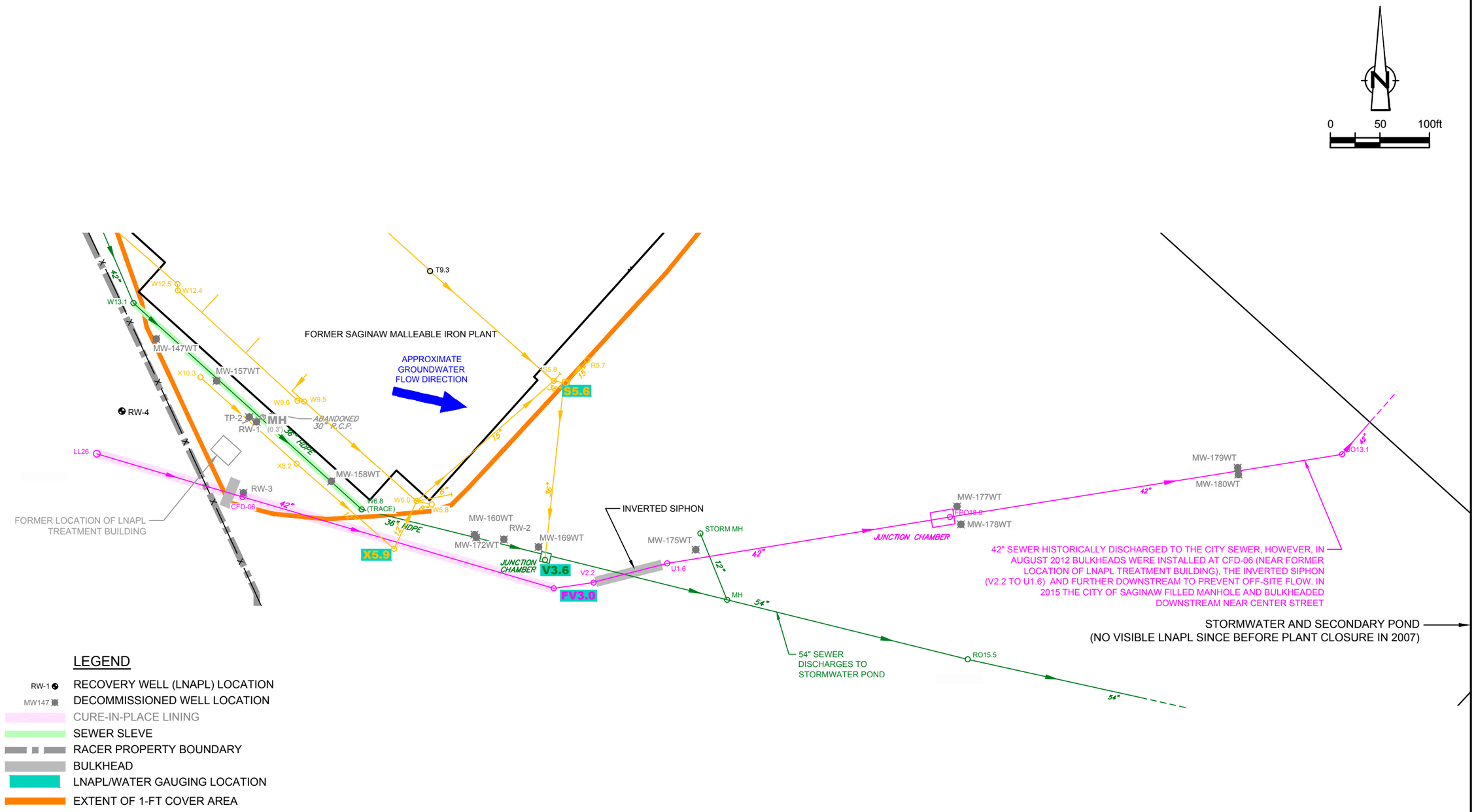


figure 3

SOUTHWEST PLANT LNAPL AREA - LNAPL MONITORING PROGRAM
RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND
Saginaw, Michigan

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-01	03/17/05	592.3	591.95	2.85	12.85	10.48	7.28	3.20	584.29	7.66
	04/12/05	592.3	591.95	2.85	12.85	10.63	7.30	3.33	584.25	7.70
	05/31/05	592.3	591.95	2.85	12.85	10.69	7.36	3.33	584.19	7.76
	06/24/05	592.3	591.95	2.85	12.85	10.45	7.04	3.41	584.50	7.45
	08/12/05	592.3	591.95	2.85	12.85	10.20	6.95	3.25	584.61	7.34
	10/14/05	592.3	591.95	2.85	12.85	10.58	7.29	3.29	584.27	7.68
	11/08/05	592.3	591.95	2.85	12.85	10.82	7.44	3.38	584.10	7.85
	12/19/05	592.3	591.95	2.85	12.85	10.91	7.52	3.39	584.02	7.93
	01/31/06	592.3	591.95	2.85	12.85	10.53	7.29	3.24	584.27	7.68
	02/15/06	592.3	591.95	2.85	12.85	10.46	7.21	3.25	584.35	7.60
	03/13/06	592.3	591.95	2.85	12.85	9.71	6.93	2.78	584.69	7.26
	04/10/06	592.3	591.95	2.85	12.85	10.02	7.04	2.98	584.55	7.40
	05/22/06	592.3	591.95	2.85	12.85	10.23	7.11	3.12	584.47	7.48
	06/21/06	592.3	591.95	2.85	12.85	10.22	7.05	3.17	584.52	7.43
	07/11/06	592.3	591.95	2.85	12.85	9.67	6.82	2.85	584.79	7.16
	08/23/06	592.3	591.95	2.85	12.85	9.99	6.78	3.21	584.78	7.17
	09/26/06	592.3	591.95	2.85	12.85	9.90	6.82	3.08	584.76	7.19
	10/30/06	592.3	591.95	2.85	12.85	9.62	6.83	2.79	584.79	7.16
	11/27/06	592.3	591.95	2.85	12.85	9.79	6.91	2.88	584.69	7.26
	12/27/06	592.3	591.95	2.85	12.85	9.97	6.96	3.01	584.63	7.32
	01/15/07	592.3	591.95	2.85	12.85	9.79	6.94	2.85	584.67	7.28
	02/21/07	592.3	591.95	2.85	12.85	10.35	7.29	3.06	584.29	7.66
	03/23/07	592.3	591.95	2.85	12.85	10.18	7.27	2.91	584.33	7.62
	04/09/07	592.3	591.95	2.85	12.85	10.39	7.25	3.14	584.32	7.63
	05/15/07	592.3	591.95	2.85	12.85	10.09	7.32	2.77	584.30	7.65
	06/11/07	592.3	591.95	2.85	12.85	10.36	7.47	2.89	584.13	7.82
	07/11/07	592.3	591.95	2.85	12.85	10.36	7.43	2.93	584.17	7.78
	08/16/07	592.3	591.95	2.85	12.85	10.41	7.48	2.93	584.12	7.83
	09/17/07	592.3	591.95	2.85	12.85	10.11	7.38	2.73	584.24	7.71
	11/26/07	592.3	591.95	2.85	12.85	10.62	7.64	2.98	583.95	8.00
	12/12/07	592.3	591.95	2.85	12.85	10.79	7.77	3.02	583.82	8.13
	01/11/08	592.3	591.95	2.85	12.85	10.32	7.56	2.76	584.06	7.89
	02/05/08	592.3	591.95	2.85	12.85	9.91	7.42	2.49	584.23	7.72
	04/11/08	592.3	591.95	2.85	12.85	8.41	6.60	1.81	585.13	6.82
	05/16/08	592.3	591.95	2.85	12.85	8.65	6.56	2.09	585.14	6.81
	10/29/08	592.3	591.95	2.85	12.85	8.71	6.39	2.32	585.28	6.67
	01/21/09	592.3	591.95	2.85	12.85	8.22	6.26	1.96	585.45	6.50
	03/18/09	592.3	591.95	2.85	12.85	***8.07***	***6.16***	1.91	585.56	6.39
	10/17/09	592.3	591.95	2.85	12.85	8.46	6.39	2.07	585.31	6.64
	10/23/09	592.3	591.95	2.85	12.85	8.07	6.34	1.73	585.40	6.55
	06/24/10	592.3	591.95	2.85	12.85	8.31	5.06	3.25	586.50	5.45
	07/08/10	592.3	591.95	2.85	12.85	8.88	4.62	4.26	586.82	5.13
	07/22/10	592.3	591.95	2.85	12.85	9.86	4.81	5.05	586.53	5.42
	07/29/10	592.3	591.95	2.85	12.85	8.27	5.11	3.16	586.46	5.49
	08/06/10	592.3	591.95	2.85	12.85	8.13	5.41	2.72	586.21	5.74
	08/13/10	592.3	591.95	2.85	12.85	6.83	4.04	2.79	587.58	4.37
	08/27/10	592.3	591.95	2.85	12.85	7.40	4.42	2.98	587.17	4.78
	09/23/10	592.3	591.95	2.85	12.85	5.54	3.05	2.49	588.60	3.35
	10/15/10	592.3	591.95	2.85	12.85	7.14	4.01	3.13	587.56	4.39
	10/29/10	592.3	591.95	2.85	12.85	6.90	3.99	2.91	587.61	4.34
	12/07/10	592.3	591.95	2.85	12.85	7.61	3.87	3.74	587.63	4.32
	03/18/11	592.3	591.95	2.85	12.85	6.57	3.54	3.03	588.05	3.90
	04/08/11	592.3	591.95	2.85	12.85	6.15	2.77	3.38	588.77	3.18
	05/09/11	592.3	591.95	2.85	12.85	5.98	3.11	2.87	588.50	3.45
	06/09/11	592.3	591.95	2.85	12.85	6.31	3.16	3.15	588.41	3.54
	07/05/11	592.3	591.95	2.85	12.85	5.62	3.31	2.31	588.36	3.59
	08/23/11	592.3	591.95	2.85	12.85	4.21	2.88	1.33	588.91	3.04
	10/14/11	592.3	591.95	2.85	12.85	5.72	3.81	1.91	587.91	4.04
	01/24/12	592.3	591.95	2.85	12.85	6.28	1.66	4.62	589.74	2.21
	03/20/12	592.3	591.95	2.85	12.85	5.41	2.67	2.74	588.95	3.00
	04/23/12	592.3	591.95	2.85	12.85	5.53	2.16	3.37	589.39	2.56
	06/11/12	592.3	591.95	2.85	12.85	6.72	2.87	3.85	588.62	3.33
	07/10/12	592.3	591.95	2.85	12.85	5.41	3.69	1.72	588.05	3.90
	08/29/12	592.3	591.95	2.85	12.85	5.75	3.04	2.71	588.58	3.37
	09/12/12	592.3	591.95	2.85	12.85	4.25	2.90	1.35	588.89	3.06
	11/06/12	592.3	591.95	2.85	12.85	4.06	3.04	1.02	588.79	3.16
	12/05/12	592.3	591.95	2.85	12.85	4.41	3.26	1.15	588.55	3.40
	04/03/13	592.3	591.95	2.85	12.85	4.91	3.37	1.54	588.40	3.55
	07/18/13	592.3	591.95	2.85	12.85	3.48	2.80	0.68	589.07	2.88
	09/23/13	592.3	591.95	2.85	12.85	4.34	3.74	0.60	588.14	3.81
	06/02/14	592.3	591.95	2.85	12.85	3.06	2.36	0.70	589.51	2.44
	07/09/14	592.3	591.95	2.85	12.85	2.92	1.07	1.85	590.66	1.29

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-01	07/31/14	592.3	591.95	2.85	12.85	3.17	1.99	1.18	589.82	2.13
(cont'd)	09/16/14	592.3	591.95	2.85	12.85	3.31	2.27	1.04	589.56	2.39
	03/24/15	592.3	591.95	2.85	12.85	4.51	3.14	1.37	588.65	3.30
	06/17/15	592.3	591.95	2.85	12.85	3.31	1.25	2.06	590.45	1.50
	09/09/15	592.3	591.95	2.85	12.85	3.81	1.11	2.70	590.52	1.43
	12/04/15	592.3	591.95	2.85	12.85	4.70	3.48	1.22	588.32	3.63
	03/15/16	592.3	591.95	2.85	12.85	5.13	1.94	3.19	589.63	2.32
	06/17/16	592.3	591.95	2.85	12.85	2.23	1.17	1.06	590.65	1.30
	09/22/16	592.3	591.95	2.85	12.85	3.82	2.86	0.96	588.97	2.98
	09/27/16	ABANDONED								
QPTW-01R	09/06/17	594.69	594.49	2.00	12.00	4.14	---	---	590.35	4.14
	11/27/17	594.69	594.49	2.00	12.00	4.17	---	---	590.32	4.17
	02/27/18	594.69	594.49	2.00	12.00	3.66	---	---	590.83	3.66
	06/04/18	594.69	594.49	2.00	12.00	3.81	---	---	590.68	3.81
	10/05/18	594.69	594.49	2.00	12.00	4.13	---	---	590.36	4.13
	12/11/18	594.69	594.49	2.00	12.00	frozen	---	---	---	---
	03/12/19	594.69	594.49	2.00	12.00	3.94	---	---	590.55	3.94
	06/18/19	594.69	594.49	2.00	12.00	2.53	2.51	0.02	591.98	2.51
	09/16/19	594.69	594.49	2.00	12.00	4.34	---	---	590.15	4.34
	12/03/19	594.69	594.49	2.00	12.00	2.22	2.19	0.03	592.30	2.19
	03/12/20	594.69	594.49	2.00	12.00	2.87	---	---	591.62	2.87
	06/03/20	594.69	594.49	2.00	12.00	2.54	---	---	591.95	2.54
	09/09/20	594.69	594.49	2.00	12.00	4.62	4.60	0.02	589.89	4.60
	12/03/20	594.69	594.49	2.00	12.00	4.86	---	---	589.63	4.86
	08/16/21	594.69	594.49	2.00	12.00	4.65	4.63	0.02	589.86	4.63
QPTW-02	03/17/05	592.6	592.35	2.80	12.80	7.54	7.51	0.03	584.84	7.51
	04/12/05	592.6	592.35	2.80	12.80	7.64	7.58	0.06	584.76	7.59
	05/31/05	592.6	592.35	2.80	12.80	7.54	7.50	0.04	584.85	7.50
	06/24/05	592.6	592.35	2.80	12.80	7.41	7.38	0.03	584.97	7.38
	08/12/05	592.6	592.35	2.80	12.80	7.30	7.26	0.04	585.09	7.26
	10/14/05	592.6	592.35	2.80	12.80	7.50	7.44	0.06	584.90	7.45
	11/08/05	592.6	592.35	2.80	12.80	7.52	7.49	0.03	584.86	7.49
	12/19/05	592.6	592.35	2.80	12.80	7.67	7.63	0.04	584.72	7.63
	01/31/06	592.6	592.35	2.80	12.80	7.53	7.48	0.05	584.86	7.49
	02/15/06	592.6	592.35	2.80	12.80	7.50	7.47	0.03	584.88	7.47
	03/13/06	592.6	592.35	2.80	12.80	7.30	7.26	0.04	585.09	7.26
	04/10/06	592.6	592.35	2.80	12.80	7.39	7.36	0.03	584.99	7.36
	05/22/06	592.6	592.35	2.80	12.80	7.38	7.35	0.03	585.00	7.35
	06/21/06	592.6	592.35	2.80	12.80	7.33	7.29	0.04	585.06	7.29
	07/11/06	592.6	592.35	2.80	12.80	7.29	7.26	0.03	585.09	7.26
	08/23/06	592.6	592.35	2.80	12.80	7.28	7.26	0.02	585.09	7.26
	09/26/06	592.6	592.35	2.80	12.80	7.39	7.37	0.02	584.98	7.37
	10/30/06	592.6	592.35	2.80	12.80	7.38	7.35	0.03	585.00	7.35
	11/27/06	592.6	592.35	2.80	12.80	7.41	7.38	0.03	584.97	7.38
	12/27/06	592.6	592.35	2.80	12.80	7.44	7.42	0.02	584.93	7.42
	01/15/07	592.6	592.35	2.80	12.80	7.46	7.42	0.04	584.93	7.42
	02/21/07	592.6	592.35	2.80	12.80	7.47	7.46	0.01	584.89	7.46
	03/23/07	592.6	592.35	2.80	12.80	7.42	7.40	0.02	584.95	7.40
	04/09/07	592.6	592.35	2.80	12.80	7.45	7.43	0.02	584.92	7.43
	05/15/07	592.6	592.35	2.80	12.80	7.50	7.48	0.02	584.87	7.48
	08/16/07	592.6	592.35	2.80	12.80	7.65	7.62	0.03	584.73	7.62
	09/17/07	592.6	592.35	2.80	12.80	7.51	7.48	0.03	584.87	7.48
	11/26/07	592.6	592.35	2.80	12.80	7.73	7.71	0.02	584.64	7.71
	12/12/07	592.6	592.35	2.80	12.80	7.76	7.74	0.02	584.61	7.74
	01/11/08	592.6	592.35	2.80	12.80	7.15	7.14	0.01	585.21	7.14
	02/05/08	592.6	592.35	2.80	12.80	7.27	7.26	0.01	585.09	7.26
	04/11/08	592.6	592.35	2.80	12.80	6.79	---	---	585.56	6.79
	05/16/08	592.6	592.35	2.80	12.80	7.30	---	---	585.05	7.30
	10/29/08	592.6	592.35	2.80	12.80	6.99	---	---	585.36	6.99
	01/21/09	592.6	592.35	2.80	12.80	6.53	---	---	585.82	6.53
	03/18/09	592.6	592.35	2.80	12.80	6.28	---	---	586.07	6.28
	10/17/09	592.6	592.35	2.80	12.80	6.93	---	---	585.42	6.93
	10/23/09	592.6	592.35	2.80	12.80	7.08	---	---	585.27	7.08
	10/15/10	592.6	592.35	2.80	12.80	5.23	---	---	587.12	5.23
	10/29/10	592.6	592.35	2.80	12.80	5.30	---	---	587.05	5.30
	03/18/11	592.6	592.35	2.80	12.80	3.96	---	---	588.39	3.96
	04/08/11	592.6	592.35	2.80	12.80	3.19	---	---	589.16	3.19
	05/09/11	592.6	592.35	2.80	12.80	3.47	---	---	588.88	3.47
	06/09/11	592.6	592.35	2.80	12.80	3.58	---	---	588.77	3.58
	07/05/11	592.6	592.35	2.80	12.80	3.79	---	---	588.56	3.79
	08/23/11	592.6	592.35	2.80	12.80	3.11	---	---	589.24	3.11
	10/14/11	592.6	592.35	2.80	12.80	4.04	---	---	588.31	4.04
	11/23/11	592.6	592.35	2.80	12.80	3.81	---	---	588.54	3.81
	03/20/12	592.6	592.35	2.80	12.80	2.77	---	---	589.58	2.77
	04/23/12	592.6	592.35	2.80	12.80	3.02	---	---	589.33	3.02
	06/11/12	592.6	592.35	2.80	12.80	3.22	---	---	589.13	3.22
	07/10/12	592.6	592.35	2.80	12.80	3.88	---	---	588.47	3.88
	08/29/12	592.6	592.35	2.80	12.80	3.22	---	---	589.13	3.22
	09/12/12	592.6	592.35	2.80	12.80	3.01	---	---	589.34	3.01

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-02	10/01/12	592.6	592.35	2.80	12.80	3.79	---	---	588.56	3.79
(cont'd)	11/06/12	592.6	592.35	2.80	12.80	2.98	---	---	589.37	2.98
	12/05/12	592.6	592.35	2.80	12.80	3.61	---	---	588.74	3.61
	04/03/13	592.6	592.35	2.80	12.80	3.25	---	---	589.10	3.25
	07/18/13	592.6	592.35	2.80	12.80	2.59	---	---	589.76	2.59
	09/23/13	592.6	592.35	2.80	12.80	3.94	---	---	588.41	3.94
	04/25/14	592.6	592.35	2.80	12.80	1.81	---	---	590.54	1.81
	06/02/14	592.6	592.35	2.80	12.80	2.62	---	---	589.73	2.62
	07/31/14	592.6	592.35	2.80	12.80	2.31	---	---	590.04	2.31
	09/16/14	592.6	592.35	2.80	12.80	2.36	---	---	589.99	2.36
	03/24/15	592.6	592.35	2.80	12.80	3.20	---	---	589.15	3.20
	06/17/15	592.6	592.35	2.80	12.80	under water	---	---	---	under water
	09/09/15	592.6	592.35	2.80	12.80	1.84	---	---	590.51	1.84
	12/04/15	592.6	592.35	2.80	12.80	3.85	---	---	588.50	3.85
	03/15/16	592.6	592.35	2.80	12.80	1.98	---	---	590.37	1.98
	06/17/16	592.6	592.35	2.80	12.80	1.66	---	---	590.69	1.66
	09/22/16	592.6	592.35	2.80	12.80	2.98	---	---	589.37	2.98
	09/27/16	ABANDONED								
QPTW-03R	04/25/14	592.5	592.13	2.75	12.75	2.19	1.82	0.37	590.27	1.86
	06/02/14	592.5	592.13	2.75	12.75	3.13	2.86	0.27	589.24	2.89
	07/09/14	592.5	592.13	2.75	12.75	2.10	1.98	0.12	590.14	1.99
	07/31/14	592.5	592.13	2.75	12.75	2.74	2.66	0.08	589.46	2.67
	09/16/14	592.5	592.13	2.75	12.75	3.27	---	---	588.86	3.27
	03/24/15	592.5	592.13	2.75	12.75	3.56	3.55	0.01	588.58	3.55
	06/17/15	592.5	592.13	2.75	12.75	3.36	2.72	0.64	589.33	2.80
	09/09/15	592.5	592.13	2.75	12.75	2.74	2.46	0.28	589.64	2.49
	12/04/15	592.5	592.13	2.75	12.75	4.14	---	---	587.99	4.14
	03/15/16	592.5	592.13	2.75	12.75	2.46	2.39	0.07	589.73	2.40
	06/17/16	592.5	592.13	2.75	12.75	2.30	1.77	0.53	590.30	1.83
	09/22/16	592.5	592.13	2.75	12.75	3.78	3.05	0.73	588.99	3.14
	09/27/16	ABANDONED								
QPTW-03R2	09/06/17	594.91	594.61	2.00	12.00	5.24	---	---	589.37	5.24
	11/27/17	594.91	594.61	2.00	12.00	5.07	4.85	0.22	589.73	4.88
	02/27/18	594.91	594.61	2.00	12.00	4.31	3.92	0.39	590.64	3.97
	06/04/18	594.91	594.61	2.00	12.00	4.83	4.65	0.18	589.94	4.67
	10/05/18	594.91	594.61	2.00	12.00	5.75	5.21	0.54	589.34	5.27
	12/11/18	594.91	594.61	2.00	12.00	5.13	4.52	0.61	590.02	4.59
	03/12/19	594.91	594.61	2.00	12.00	5.14	4.17	0.97	590.32	4.29
	06/18/19	594.91	594.61	2.00	12.00	3.26	3.03	0.23	591.55	3.06
	09/16/19	594.91	594.61	2.00	12.00	5.92	5.38	0.54	589.17	5.44
	12/03/19	594.91	594.61	2.00	12.00	2.35	---	---	592.26	2.35
	03/12/20	594.91	594.61	2.00	12.00	3.71	---	---	590.90	3.71
	06/03/20	594.91	594.61	2.00	12.00	3.49	---	---	591.12	3.49
	09/09/20	594.91	594.61	2.00	12.00	5.78	5.59	0.19	589.00	5.61
	12/03/20	594.91	594.61	2.00	12.00	6.16	5.86	0.30	588.71	5.90
	08/16/21	594.91	594.61	2.00	12.00	6.06	5.78	0.28	588.80	5.81
QPTW-04	03/17/05	592.3	591.73	2.50	12.50	8.54	7.51	1.03	584.10	7.63
	04/12/05	592.3	591.73	2.50	12.50	8.53	7.54	0.99	584.07	7.66
	05/31/05	592.3	591.73	2.50	12.50	8.58	7.50	1.08	584.10	7.63
	06/24/05	592.3	591.73	2.50	12.50	8.34	7.29	1.05	584.31	7.42
	08/12/05	592.3	591.73	2.50	12.50	8.28	7.26	1.02	584.35	7.38
	10/14/05	592.3	591.73	2.50	12.50	8.61	7.68	0.93	583.94	7.79
	11/08/05	592.3	591.73	2.50	12.50	8.70	7.72	0.98	583.89	7.84
	12/19/05	592.3	591.73	2.50	12.50	8.87	7.83	1.04	583.78	7.95
	01/31/06	592.3	591.73	2.50	12.50	8.58	7.46	1.12	584.14	7.59
	02/15/06	592.3	591.73	2.50	12.50	8.45	7.33	1.12	584.27	7.46
	03/13/06	592.3	591.73	2.50	12.50	8.14	7.16	0.98	584.45	7.28
	04/10/06	592.3	591.73	2.50	12.50	8.29	7.32	0.97	584.29	7.44
	05/22/06	592.3	591.73	2.50	12.50	8.41	7.39	1.02	584.22	7.51
	06/21/06	592.3	591.73	2.50	12.50	8.34	7.41	0.93	584.21	7.52
	07/11/06	592.3	591.73	2.50	12.50	8.16	7.12	1.04	584.49	7.24
	08/23/06	592.3	591.73	2.50	12.50	8.39	7.10	1.29	584.48	7.25
	09/26/06	592.3	591.73	2.50	12.50	8.09	7.11	0.98	584.50	7.23
	10/30/06	592.3	591.73	2.50	12.50	8.05	7.08	0.97	584.53	7.20
	11/27/06	592.3	591.73	2.50	12.50	8.08	7.19	0.89	584.43	7.30
	12/27/06	592.3	591.73	2.50	12.50	8.58	7.48	1.10	584.12	7.61
	01/15/07	592.3	591.73	2.50	12.50	8.07	7.29	0.78	584.35	7.38
	02/21/07	592.3	591.73	2.50	12.50	8.45	7.57	0.88	584.05	7.68
	03/23/07	592.3	591.73	2.50	12.50	8.32	7.56	0.76	584.08	7.65
	04/09/07	592.3	591.73	2.50	12.50	8.47	7.52	0.95	584.10	7.63
	05/15/07	592.3	591.73	2.50	12.50	8.42	7.51	0.91	584.11	7.62
	06/11/07	592.3	591.73	2.50	12.50	8.61	7.64	0.97	583.97	7.76
	07/11/07	592.3	591.73	2.50	12.50	8.67	7.61	1.06	583.99	7.74
	08/16/07	592.3	591.73	2.50	12.50	8.80	7.69	1.11	583.91	7.82
	09/17/07	592.3	591.73	2.50	12.50	8.62	7.54	1.08	584.06	7.67
	11/26/07	592.3	591.73	2.50	12.50	9.05	7.99	1.06	583.61	8.12
	12/12/07	592.3	591.73	2.50	12.50	9.15	8.09	1.06	583.51	8.22
	01/11/08	592.3	591.73	2.50	12.50	8.81	7.82	0.99	583.79	7.94
	02/05/08	592.3	591.73	2.50	12.50	8.69	7.64	1.05	583.96	7.77

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-04	04/11/08	592.3	591.73	2.50	12.50	7.75	6.68	1.07	584.92	6.81
(cont'd)	05/16/08	592.3	591.73	2.50	12.50	7.82	6.81	1.01	584.80	6.93
	10/29/08	592.3	591.73	2.50	12.50	7.70	6.69	1.01	584.92	6.81
	01/21/09	592.3	591.73	2.50	12.50	7.35	6.61	0.74	585.03	6.70
	03/18/09	592.3	591.73	2.50	12.50	6.86	6.12	0.74	585.52	6.21
	10/17/09	592.3	591.73	2.50	12.50	7.76	6.85	0.91	584.77	6.96
	10/23/09	592.3	591.73	2.50	12.50	7.76	6.83	0.93	584.79	6.94
	06/09/10	592.3	591.73	2.50	12.50	6.23	5.65	0.58	586.01	5.72
	08/27/10	592.3	591.73	2.50	12.50	7.06	6.17	0.89	585.45	6.28
	09/17/10	592.3	591.73	2.50	12.50	5.61	5.02	0.59	586.64	5.09
	09/23/10	592.3	591.73	2.50	12.50	5.47	4.87	0.60	586.79	4.94
	10/15/10	592.3	591.73	2.50	12.50	6.03	5.20	0.83	586.43	5.30
	10/29/10	592.3	591.73	2.50	12.50	6.39	5.86	0.53	585.81	5.92
	03/18/11	592.3	591.73	2.50	12.50	5.16	4.20	0.96	587.41	4.32
	04/08/11	592.3	591.73	2.50	12.50	4.27	3.54	0.73	588.10	3.63
	05/09/11	592.3	591.73	2.50	12.50	4.60	3.64	0.96	587.97	3.76
	06/09/11	592.3	591.73	2.50	12.50	4.35	3.63	0.72	588.01	3.72
	07/05/11	592.3	591.73	2.50	12.50	4.84	3.87	0.97	587.74	3.99
	08/23/11	592.3	591.73	2.50	12.50	4.16	3.34	0.82	588.29	3.44
	03/20/12	592.3	591.73	2.50	12.50	5.21	2.78	2.43	588.66	3.07
	04/23/12	592.3	591.73	2.50	12.50	5.59	3.06	2.53	588.37	3.36
	06/11/12	592.3	591.73	2.50	12.50	5.85	3.16	2.69	588.25	3.48
	07/10/12	592.3	591.73	2.50	12.50	5.97	3.40	2.57	588.02	3.71
	08/29/12	592.3	591.73	2.50	12.50	5.32	2.99	2.33	588.46	3.27
	09/12/12	592.3	591.73	2.50	12.50	5.03	2.68	2.35	588.77	2.96
	10/01/12	592.3	591.73	2.50	12.50	5.80	3.31	2.49	588.12	3.61
	11/06/12	592.3	591.73	2.50	12.50	4.85	2.88	1.97	588.61	3.12
	12/05/12	592.3	591.73	2.50	12.50	5.49	3.50	1.99	587.99	3.74
	04/03/13	592.3	591.73	2.50	12.50	5.36	3.16	2.20	588.31	3.42
	07/18/13	592.3	591.73	2.50	12.50	4.74	2.48	2.26	588.98	2.75
	09/23/13	592.3	591.73	2.50	12.50	4.73	3.61	1.12	587.99	3.74
	04/25/14	592.3	591.73	2.50	12.50	3.16	1.73	1.43	589.83	1.90
	06/02/14	592.3	591.73	2.50	12.50	3.98	2.39	1.59	589.15	2.58
	07/09/14	593.3	592.73	2.50	12.50	2.74	1.61	1.13	590.98	1.75
	07/31/14	592.3	591.73	2.50	12.50	3.53	2.33	1.20	589.26	2.47
	09/16/14	591.3	590.73	2.50	12.50	4.00	2.10	1.90	588.40	2.33
	03/24/15	590.3	589.73	2.50	12.50	4.66	3.02	1.64	586.51	3.22
	06/17/15	589.3	588.73	2.50	12.50	3.51	2.05	1.46	586.50	2.23
	09/09/15	588.3	587.73	2.50	12.50	4.09	2.64	1.45	584.92	2.81
	12/04/15	587.3	586.73	2.50	12.50	5.56	3.51	2.05	582.97	3.76
	03/15/16	586.3	585.73	2.50	12.50	3.68	1.76	1.92	583.74	1.99
	06/17/16	585.3	584.73	2.50	12.50	2.27	2.16	0.11	582.56	2.17
	09/22/16	584.3	583.73	2.50	12.50	4.61	2.80	1.81	580.71	3.02
	09/27/16	ABANDONED								
QPTW-04R	09/06/17	594.96	594.46	2.00	12.00	5.61	4.75	0.86	589.61	4.85
	11/27/17	594.96	594.46	2.00	12.00	5.10	4.51	0.59	589.88	4.58
	02/27/18	594.96	594.46	2.00	12.00	3.62	3.58	0.04	590.88	3.58
	06/04/18	594.96	594.46	2.00	12.00	4.51	4.32	0.19	590.12	4.34
	10/05/18	594.96	594.46	2.00	12.00	5.01	4.85	0.16	589.59	4.87
	12/11/18	594.96	594.46	2.00	12.00	4.58	4.27	0.31	590.15	4.31
	03/12/19	594.96	594.46	2.00	12.00	4.20	3.86	0.34	590.56	3.90
	06/18/19	594.96	594.46	2.00	12.00	2.86	2.68	0.18	591.76	2.70
	09/16/19	594.96	594.46	2.00	12.00	6.40	5.00	1.40	589.29	5.17
	12/03/19	594.96	594.46	2.00	12.00	2.03	1.35	0.68	593.03	1.43
	03/12/20	594.96	594.46	2.00	12.00	3.37	3.30	0.07	591.15	3.31
	06/03/20	594.96	594.46	2.00	12.00	3.24	3.18	0.06	591.27	3.19
	09/09/20	594.96	594.46	2.00	12.00	6.31	5.16	1.15	589.16	5.30
	12/03/20	594.96	594.46	2.00	12.00	6.15	5.28	0.87	589.08	5.38
	08/16/21	594.96	594.46	2.00	12.00	5.56	5.51	0.05	588.94	5.52
QPTW-05	03/17/05	592.4	592.13	2.70	12.70	8.94	7.67	1.27	584.31	7.82
	04/12/05	592.4	592.13	2.70	12.70	8.98	7.69	1.29	584.29	7.84
	05/31/05	592.4	592.13	2.70	12.70	9.10	7.73	1.37	584.24	7.89
	06/24/05	592.4	592.13	2.70	12.70	8.65	7.50	1.15	584.49	7.64
	08/12/05	592.4	592.13	2.70	12.70	8.76	7.68	1.08	584.32	7.81
	10/14/05	592.4	592.13	2.70	12.70	9.38	7.91	1.47	584.04	8.09
	11/08/05	592.4	592.13	2.70	12.70	9.55	7.99	1.56	583.95	8.18
	12/19/05	592.4	592.13	2.70	12.70	9.74	8.05	1.69	583.88	8.25
	01/31/06	592.4	592.13	2.70	12.70	8.84	7.68	1.16	584.31	7.82
	02/15/06	592.4	592.13	2.70	12.70	8.63	7.54	1.09	584.46	7.67
	03/13/06	592.4	592.13	2.70	12.70	8.20	7.33	0.87	584.70	7.43
	04/10/06	592.4	592.13	2.70	12.70	8.44	7.47	0.97	584.54	7.59
	05/22/06	592.4	592.13	2.70	12.70	8.65	7.58	1.07	584.42	7.71
	06/21/06	592.4	592.13	2.70	12.70	8.70	6.71	1.99	585.18	6.95
	07/11/06	592.4	592.13	2.70	12.70	8.35	7.38	0.97	584.63	7.50
	08/23/06	592.4	592.13	2.70	12.70	8.52	7.46	1.06	584.54	7.59
	09/26/06	592.4	592.13	2.70	12.70	8.46	7.45	1.01	584.56	7.57
	10/30/06	592.4	592.13	2.70	12.70	8.32	7.33	0.99	584.68	7.45
	11/27/06	592.4	592.13	2.70	12.70	8.50	7.44	1.06	584.56	7.57
	12/27/06	592.4	592.13	2.70	12.70	8.18	7.23	0.95	584.79	7.34

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-05	01/15/07	592.4	592.13	2.70	12.70	8.55	7.49	1.06	584.51	7.62
(cont'd)	02/21/07	592.4	592.13	2.70	12.70	9.27	7.84	1.43	584.12	8.01
	03/23/07	592.4	592.13	2.70	12.70	9.19	7.81	1.38	584.15	7.98
	04/09/07	592.4	592.13	2.70	12.70	9.27	7.77	1.50	584.18	7.95
	05/15/07	592.4	592.13	2.70	12.70	9.11	7.74	1.37	584.23	7.90
	06/11/07	592.4	592.13	2.70	12.70	9.41	7.92	1.49	584.03	8.10
	07/11/07	592.4	592.13	2.70	12.70	9.52	7.96	1.56	583.98	8.15
	08/16/07	592.4	592.13	2.70	12.70	9.71	8.04	1.67	583.89	8.24
	09/17/07	592.4	592.13	2.70	12.70	9.25	7.82	1.43	584.14	7.99
	11/26/07	592.4	592.13	2.70	12.70	10.10	8.21	1.89	583.69	8.44
	12/12/07	592.4	592.13	2.70	12.70	10.31	8.30	2.01	583.59	8.54
	01/11/08	592.4	592.13	2.70	12.70	9.62	8.07	1.55	583.87	8.26
	02/05/08	592.4	592.13	2.70	12.70	9.05	7.90	1.15	584.09	8.04
	04/11/08	592.4	592.13	2.70	12.70	7.50	7.00	0.50	585.07	7.06
	05/16/08	592.4	592.13	2.70	12.70	7.67	7.12	0.55	584.94	7.19
	10/29/08	592.4	592.13	2.70	12.70	7.71	7.23	0.48	584.84	7.29
	01/21/09	592.4	592.13	2.70	12.70	7.43	6.87	0.56	585.19	6.94
	03/18/09	592.4	592.13	2.70	12.70	7.11	6.57	0.54	585.50	6.63
	10/17/09	592.4	592.13	2.70	12.70	7.98	7.18	0.80	584.85	7.28
	10/23/09	592.4	592.13	2.70	12.70	7.68	7.09	0.59	584.97	7.16
	06/09/10	592.4	592.13	2.70	12.70	7.07	6.23	0.84	585.80	6.33
	06/24/10	592.4	592.13	2.70	12.70	7.40	6.59	0.81	585.44	6.69
	07/29/10	592.4	592.13	2.70	12.70	7.34	6.14	1.20	585.85	6.28
	08/06/10	592.4	592.13	2.70	12.70	7.31	6.28	1.03	585.73	6.40
	08/13/10	592.4	592.13	2.70	12.70	6.08	5.57	0.51	586.50	5.63
	08/27/10	592.4	592.13	2.70	12.70	6.51	5.70	0.81	586.33	5.80
	09/17/10	592.4	592.13	2.70	12.70	6.36	5.83	0.53	586.24	5.89
	09/23/10	592.4	592.13	2.70	12.70	6.12	5.59	0.53	586.48	5.65
	10/15/10	592.4	592.13	2.70	12.70	6.31	6.01	0.30	586.08	6.05
	10/29/10	592.4	592.13	2.70	12.70	5.48	5.14	0.34	586.95	5.18
	12/07/10	592.4	592.13	2.70	12.70	6.46	5.72	0.74	586.32	5.81
	01/03/11	592.4	592.13	2.70	12.70	5.99	5.71	0.28	586.39	5.74
	03/18/11	592.4	592.13	2.70	12.70	5.43	5.11	0.32	586.98	5.15
	04/08/11	592.4	592.13	2.70	12.70	4.63	4.32	0.31	587.77	4.36
	05/09/11	592.4	592.13	2.70	12.70	4.55	4.31	0.24	587.79	4.34
	06/09/11	592.4	592.13	2.70	12.70	4.83	4.56	0.27	587.54	4.59
	07/05/11	592.4	592.13	2.70	12.70	5.11	4.64	0.47	587.43	4.70
	08/23/11	592.4	592.13	2.70	12.70	4.26	4.03	0.23	588.07	4.06
	10/14/11	592.4	592.13	2.70	12.70	5.28	4.94	0.34	587.15	4.98
	11/23/11	592.4	592.13	2.70	12.70	4.75	4.42	0.33	587.67	4.46
	01/24/12	592.4	592.13	2.70	12.70	3.73	3.58	0.15	588.53	3.60
	03/20/12	592.4	592.13	2.70	12.70	4.05	3.72	0.33	588.37	3.76
	04/23/12	592.4	592.13	2.70	12.70	4.10	3.74	0.36	588.35	3.78
	06/11/12	592.4	592.13	2.70	12.70	4.44	4.00	0.44	588.08	4.05
	07/10/12	592.4	592.13	2.70	12.70	5.17	4.52	0.65	587.53	4.60
	08/29/12	592.4	592.13	2.70	12.70	4.44	3.80	0.64	588.25	3.88
	09/12/12	592.4	592.13	2.70	12.70	4.39	3.63	0.76	588.41	3.72
	11/06/12	592.4	592.13	2.70	12.70	4.49	3.69	0.80	588.34	3.79
	12/05/12	592.4	592.13	2.70	12.70	5.28	4.31	0.97	587.70	4.43
	04/03/13	592.4	592.13	2.70	12.70	5.07	4.01	1.06	587.99	4.14
	07/18/13	592.4	592.13	2.70	12.70	4.80	3.10	1.70	588.83	3.30
	09/23/13	592.4	592.13	2.70	12.70	6.20	4.26	1.94	587.64	4.49
	04/25/14	592.4	592.13	2.70	12.70	4.87	2.36	2.51	589.47	2.66
	06/02/14	592.4	592.13	2.70	12.70	4.45	3.16	1.29	588.82	3.31
	07/09/14	592.4	592.13	2.70	12.70	3.66	2.19	1.47	589.76	2.37
	07/31/14	592.4	592.13	2.70	12.70	4.25	2.93	1.32	589.04	3.09
	09/16/14	592.4	592.13	2.70	12.70	4.77	2.99	1.78	588.93	3.20
	03/24/15	592.4	592.13	2.70	12.70	5.11	3.70	1.41	588.26	3.87
	06/17/15	592.4	592.13	2.70	12.70	4.77	2.59	2.18	589.28	2.85
	09/09/15	592.4	592.13	2.70	12.70	5.30	2.49	2.81	589.30	2.83
	12/04/15	592.4	592.13	2.70	12.70	6.38	4.10	2.28	587.76	4.37
	03/15/16	592.4	592.13	2.70	12.70	4.86	2.49	2.37	589.36	2.77
	06/17/16	592.4	592.13	2.70	12.70	4.14	1.99	2.15	589.88	2.25
	09/22/16	592.4	592.13	2.70	12.70	5.67	3.15	2.52	588.68	3.45
	09/27/16	ABANDONED								
QPTW-05R	09/06/17	595	594.28	2.00	12.00	5.64	4.98	0.66	589.22	5.06
	11/27/17	595	594.28	2.00	12.00	5.41	4.75	0.66	589.45	4.83
	02/27/18	595	594.28	2.00	12.00	4.21	4.07	0.14	590.19	4.09
	06/04/18	595	594.28	2.00	12.00	5.36	4.52	0.84	589.66	4.62
	10/05/18	595	594.28	2.00	12.00	5.38	5.05	0.33	589.19	5.09
	12/11/18	595	594.28	2.00	12.00	4.97	4.66	0.31	589.58	4.70
	03/12/19	595	594.28	2.00	12.00	4.67	4.08	0.59	590.13	4.15
	06/18/19	595	594.28	2.00	12.00	3.90	2.97	0.93	591.20	3.08
	09/16/19	595	594.28	2.00	12.00	5.58	5.12	0.46	589.10	5.18
	12/03/19	595	594.28	2.00	12.00	4.35	2.73	1.62	591.36	2.92
	03/12/20	595	594.28	2.00	12.00	5.28	3.57	1.71	590.50	3.78
	06/03/20	595	594.28	2.00	12.00	4.47	3.38	1.09	590.77	3.51
	09/09/20	595	594.28	2.00	12.00	6.91	5.25	1.66	588.83	5.45
	12/03/20	595	594.28	2.00	12.00	5.84	5.32	0.52	588.90	5.38
	08/16/21	595	594.28	2.00	12.00	6.29	5.43	0.86	588.75	5.53

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-10	03/17/05	592.4	592.15	2.60	12.60	9.83	7.58	2.25	584.30	7.85
	04/12/05	592.4	592.15	2.60	12.60	9.96	7.63	2.33	584.24	7.91
	05/31/05	592.4	592.15	2.60	12.60	10.29	7.83	2.46	584.02	8.13
	06/24/05	592.4	592.15	2.60	12.60	9.72	7.43	2.29	584.45	7.70
	08/12/05	592.4	592.15	2.60	12.60	9.79	7.58	2.21	584.30	7.85
	10/14/05	592.4	592.15	2.60	12.60	10.56	7.80	2.76	584.02	8.13
	11/08/05	592.4	592.15	2.60	12.60	10.82	7.88	2.94	583.92	8.23
	12/19/05	592.4	592.15	2.60	12.60	11.01	7.95	3.06	583.83	8.32
	01/31/06	592.4	592.15	2.60	12.60	9.79	7.54	2.25	584.34	7.81
	02/15/06	592.4	592.15	2.60	12.60	9.73	7.44	2.29	584.44	7.71
	03/13/06	592.4	592.15	2.60	12.60	9.22	7.23	1.99	584.68	7.47
	04/10/06	592.4	592.15	2.60	12.60	9.59	7.34	2.25	584.54	7.61
	05/22/06	592.4	592.15	2.60	12.60	9.95	7.43	2.52	584.42	7.73
	06/21/06	592.4	592.15	2.60	12.60	10.00	7.49	2.51	584.36	7.79
	07/11/06	592.4	592.15	2.60	12.60	9.69	7.30	2.39	584.56	7.59
	08/23/06	592.4	592.15	2.60	12.60	9.58	7.30	2.28	584.58	7.57
	09/26/06	592.4	592.15	2.60	12.60	9.85	7.33	2.52	584.52	7.63
	10/30/06	592.4	592.15	2.60	12.60	9.68	7.19	2.49	584.66	7.49
	11/27/06	592.4	592.15	2.60	12.60	9.91	7.33	2.58	584.51	7.64
	12/27/06	592.4	592.15	2.60	12.60	9.99	7.34	2.65	584.49	7.66
	01/15/07	592.4	592.15	2.60	12.60	9.90	7.37	2.53	584.48	7.67
	02/21/07	592.4	592.15	2.60	12.60	10.81	7.78	3.03	584.01	8.14
	03/23/07	592.4	592.15	2.60	12.60	10.71	7.72	2.99	584.07	8.08
	04/09/07	592.4	592.15	2.60	12.60	10.63	7.64	2.99	584.15	8.00
	05/15/07	592.4	592.15	2.60	12.60	10.38	7.46	2.92	584.34	7.81
	06/11/07	592.4	592.15	2.60	12.60	10.81	7.81	3.00	583.98	8.17
	07/11/07	592.4	592.15	2.60	12.60	11.05	7.86	3.19	583.91	8.24
	08/16/07	592.4	592.15	2.60	12.60	11.27	7.95	3.32	583.80	8.35
	09/17/07	592.4	592.15	2.60	12.60	10.54	7.73	2.81	584.08	8.07
	11/26/07	592.4	592.15	2.60	12.60	11.57	8.11	3.46	583.62	8.53
	12/12/07	592.4	592.15	2.60	12.60	11.80	8.18	3.62	583.54	8.61
	01/11/08	592.4	592.15	2.60	12.60	10.96	7.95	3.01	583.84	8.31
	02/05/08	592.4	592.15	2.60	12.60	10.21	7.78	2.43	584.08	8.07
	04/11/08	592.4	592.15	2.60	12.60	8.71	6.83	1.88	585.09	7.06
	05/16/08	592.4	592.15	2.60	12.60	8.91	6.95	1.96	584.96	7.19
	10/29/08	592.4	592.15	2.60	12.60	9.12	6.94	2.18	584.95	7.20
	01/21/09	592.4	592.15	2.60	12.60	7.96	6.68	1.28	585.32	6.83
	03/18/09	592.4	592.15	2.60	12.60	8.69	6.36	2.33	585.51	6.64
	10/17/09	592.4	592.15	2.60	12.60	9.10	7.04	2.06	584.86	7.29
	10/23/09	592.4	592.15	2.60	12.60	8.67	6.97	1.70	584.98	7.17
	06/09/10	592.4	592.15	2.60	12.60	8.42	6.23	2.19	585.66	6.49
	06/24/10	592.4	592.15	2.60	12.60	8.91	6.48	2.43	585.38	6.77
	07/29/10	592.4	592.15	2.60	12.60	9.37	6.51	2.86	585.30	6.85
	08/06/10	592.4	592.15	2.60	12.60	9.22	6.71	2.51	585.14	7.01
	08/13/10	592.4	592.15	2.60	12.60	8.06	5.73	2.33	586.14	6.01
	08/27/10	592.4	592.15	2.60	12.60	8.83	6.03	2.80	585.78	6.37
	09/17/10	592.4	592.15	2.60	12.60	8.68	5.72	2.96	586.07	6.08
	09/23/10	592.4	592.15	2.60	12.60	8.54	5.64	2.90	586.16	5.99
	10/15/10	592.4	592.15	2.60	12.60	8.92	5.82	3.10	585.96	6.19
	10/29/10	592.4	592.15	2.60	12.60	8.87	5.68	3.19	586.09	6.06
	03/18/11	592.4	592.15	2.60	12.60	8.03	4.92	3.11	586.86	5.29
	04/08/11	592.4	592.15	2.60	12.60	7.75	4.06	3.69	587.65	4.50
	05/09/11	592.4	592.15	2.60	12.60	8.24	3.95	4.29	587.69	4.46
	06/09/11	592.4	592.15	2.60	12.60	8.28	4.24	4.04	587.43	4.72
	07/05/11	592.4	592.15	2.60	12.60	8.75	4.38	4.37	587.25	4.90
	08/23/11	592.4	592.15	2.60	12.60	8.50	3.67	4.83	587.90	4.25
	10/14/11	592.4	592.15	2.60	12.60	8.64	4.58	4.06	587.08	5.07
	11/23/11	592.4	592.15	2.60	12.60	8.38	3.98	4.40	587.64	4.51
	04/23/12	592.4	592.15	2.60	12.60	4.13	3.78	0.35	588.33	3.82
	07/10/12	592.4	592.15	2.60	12.60	5.65	4.51	1.14	587.50	4.65
	11/12/14	592.4	592.15	2.60	12.60	4.83	3.91	0.92	588.13	4.02
	09/09/15	592.4	592.15	2.60	12.60	2.99	2.85	0.14	589.28	2.87
	03/15/16	592.4	592.15	2.60	12.60	3.37	2.77	0.60	589.31	2.84
	06/17/16	592.4	592.15	2.60	12.60	2.84	2.41	0.43	589.69	2.46
	09/22/16	592.4	592.15	2.60	12.60	5.60	3.27	2.33	588.60	3.55
	09/27/16	ABANDONED								
QPTW-10R	09/06/17	594.82	594.20	2.00	12.00	4.99	---	---	589.21	4.99
	11/27/17	594.82	594.20	2.00	12.00	4.77	---	---	589.43	4.77
	02/27/18	594.82	594.20	2.00	12.00	4.00	---	---	590.20	4.00
	06/04/18	594.82	594.20	2.00	12.00	4.56	---	---	589.64	4.56
	10/05/18	594.82	594.20	2.00	12.00	5.05	---	---	589.15	5.05
	12/11/18	594.82	594.20	2.00	12.00	4.61	---	---	589.59	4.61
	03/12/19	594.82	594.20	2.00	12.00	4.14	---	---	590.06	4.14
	06/18/19	594.82	594.20	2.00	12.00	3.05	---	---	591.15	3.05
	09/16/19	594.82	594.20	2.00	12.00	5.14	---	---	589.06	5.14
	12/03/19	594.82	594.20	2.00	12.00	2.66	---	---	591.54	2.66
	03/12/20	594.82	594.20	2.00	12.00	3.62	---	---	590.58	3.62

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-10R (cont'd)	06/03/20	594.82	594.20	2.00	12.00	3.45	---	---	590.75	3.45
	09/09/20	594.82	594.20	2.00	12.00	5.29	---	---	588.91	5.29
	12/03/20	594.82	594.20	2.00	12.00	5.35	---	---	588.85	5.35
	08/16/21	594.82	594.20	2.00	12.00	5.49	---	---	588.71	5.49
QPTW-13	10/15/10	592.7	592.36	2.76	12.76	7.17	6.65	0.52	585.65	6.71
	10/29/10	592.7	592.36	2.76	12.76	6.77	6.49	0.28	585.84	6.52
	03/18/11	592.7	592.36	2.76	12.76	4.56	4.47	0.09	587.88	4.48
	05/09/11	592.7	592.36	2.76	12.76	4.59	4.56	0.03	587.80	4.56
	06/09/11	592.7	592.36	2.76	12.76	4.88	4.85	0.03	587.51	4.85
	07/05/11	592.7	592.36	2.76	12.76	5.08	5.02	0.06	587.33	5.03
	08/23/11	592.7	592.36	2.76	12.76	4.43	4.38	0.05	587.97	4.39
	10/14/11	592.7	592.36	2.76	12.76	5.12	5.03	0.09	587.32	5.04
	03/20/12	592.7	592.36	2.76	12.76	4.12	---	---	588.24	4.12
	04/23/12	592.7	592.36	2.76	12.76	4.16	4.15	0.01	588.21	4.15
	06/11/12	592.7	592.36	2.76	12.76	4.38	---	---	587.98	4.38
	07/10/12	592.7	592.36	2.76	12.76	5.06	4.84	0.22	587.49	4.87
	08/29/12	592.7	592.36	2.76	12.76	4.30	4.24	0.06	588.11	4.25
	09/12/12	592.7	592.36	2.76	12.76	4.13	4.09	0.04	588.27	4.09
	04/15/13	592.7	592.36	2.76	12.76	2.85	---	---	589.51	2.85
	07/18/13	592.7	592.36	2.76	12.76	3.54	---	---	588.82	3.54
	09/23/13	592.7	592.36	2.76	12.76	4.74	4.71	0.03	587.65	4.71
	04/25/14	592.7	592.36	2.76	12.76	2.98	---	---	589.38	2.98
	06/02/14	592.7	592.36	2.76	12.76	3.65	---	---	588.71	3.65
	07/09/14	592.7	592.36	2.76	12.76	2.73	---	---	589.63	2.73
	07/31/14	592.7	592.36	2.76	12.76	3.41	---	---	588.95	3.41
	09/16/14	592.7	592.36	2.76	12.76	3.48	---	---	588.88	3.48
	03/24/15	592.7	592.36	2.76	12.76	4.12	---	---	588.24	4.12
	06/17/15	592.7	592.36	2.76	12.76	3.17	---	---	589.19	3.17
	09/09/15	592.7	592.36	2.76	12.76	3.17	---	---	589.19	3.17
	03/15/16	592.7	592.36	2.76	12.76	3.11	---	---	589.25	3.11
	06/17/16	592.7	592.36	2.76	12.76	2.53	---	---	589.83	2.53
	09/22/16	592.7	592.36	2.76	12.76	3.72	---	---	588.64	3.72
	09/27/16	ABANDONED								
QPTW-13R	09/06/17	594.8	594.04	4	14	4.83	---	---	589.21	4.83
	11/27/17	594.8	594.04	4	14	4.61	---	---	589.43	4.61
	02/27/18	594.8	594.04	4	14	3.93	---	---	590.11	3.93
	06/04/18	594.8	594.04	4	14	4.40	---	---	589.64	4.40
	10/05/18	594.8	594.04	4	14	4.88	---	---	589.16	4.88
	12/11/18	594.8	594.04	4	14	4.54	---	---	589.50	4.54
	03/12/19	594.8	594.04	4	14	4.02	---	---	590.02	4.02
	06/18/19	594.8	594.04	4	14	3.00	---	---	591.04	3.00
	09/16/19	594.8	594.04	4	14	4.98	---	---	589.06	4.98
	12/03/19	594.8	594.04	4	14	1.68	---	---	592.36	1.68
	03/12/20	594.8	594.04	4	14	3.47	---	---	590.57	3.47
	06/03/20	594.8	594.04	4	14	3.36	---	---	590.68	3.36
	09/09/20	594.8	594.04	4	14	3.11	---	---	590.93	3.11
	12/03/20	594.8	594.04	4	14	5.20	---	---	588.84	5.20
	08/16/21	594.8	594.04	4	14	5.32	---	---	588.72	5.32
QP-1	06/24/10	---	---	5	15	9.65	9.51	0.14	---	9.53
	07/22/10	---	---	5	15	12.22	12.14	0.08	---	12.15
	08/06/10	---	---	5	15	4.40	4.21	0.19	---	4.23
	08/13/10	---	---	5	15	1.63	1.56	0.07	---	1.57
	08/27/10	---	---	5	15	9.79	---	---	---	9.79
	09/17/10	---	---	5	15	8.64	---	---	---	8.64
	09/23/10	---	---	5	15	8.45	---	---	---	8.45
	10/15/10	---	---	5	15	8.91	---	---	---	8.91
	10/29/10	---	---	5	15	8.85	---	---	---	8.85
	12/07/10	---	---	5	15	9.22	---	---	---	9.22
	01/03/11	---	---	5	15	8.73	---	---	---	8.73
	03/18/11	---	---	5	15	8.83	---	---	---	8.83
	04/08/11	---	---	5	15	8.26	---	---	---	8.26
	05/09/11	---	---	5	15	8.19	---	---	---	8.19
	06/09/11	---	---	5	15	7.72	---	---	---	7.72
	07/05/11	---	---	5	15	8.54	---	---	---	8.54
	08/23/11	---	---	5	15	7.47	---	---	---	7.47
	10/14/11	---	---	5	15	8.82	---	---	---	8.82
	11/23/11	---	---	5	15	8.21	---	---	---	8.21
	01/24/12	---	---	5	15	6.58	---	---	---	6.58
	03/20/12	---	---	5	15	7.63	---	---	---	7.63
	04/23/12	---	---	5	15	7.15	---	---	---	7.15
	06/11/12	---	---	5	15	7.91	---	---	---	7.91
	07/10/12	---	---	5	15	8.54	---	---	---	8.54
	08/29/12	---	---	5	15	7.91	---	---	---	7.91
	09/12/12	---	---	5	15	7.66	---	---	---	7.66
	10/01/12	---	---	5	15	8.47	---	---	---	8.47
	11/06/12	---	---	5	15	7.66	---	---	---	7.66
	12/05/12	---	---	5	15	7.68	---	---	---	7.68
	04/03/13	---	---	5	15	7.93	---	---	---	7.93
	07/18/13	---	---	5	15	7.37	---	---	---	7.37
	09/23/13	---	---	5	15	8.55	---	---	---	8.55

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-1	04/25/14	---	---	5	15	6.49	---	---	---	6.49
(cont'd)	06/02/14	---	---	5	15	7.17	---	---	---	7.17
	07/09/14	---	---	5	15	6.16	---	---	---	6.16
	07/31/14	---	---	5	15	6.48	---	---	---	6.48
	09/16/14	---	---	5	15	6.94	---	---	---	6.94
	03/24/15	---	---	5	15	7.55	---	---	---	7.55
	06/17/15	---	---	5	15	6.51	---	---	---	6.51
	09/09/15	---	---	5	15	6.12	---	---	---	6.12
	12/04/15	---	---	5	15	8.25	---	---	---	8.25
	03/15/16	---	---	5	15	6.88	---	---	---	6.88
	06/17/16	---	---	5	15	6.12	---	---	---	6.12
	09/22/16	---	---	5	15	7.45	---	---	---	7.45
	09/27/16	ABANDONED								
QP-1R	09/06/17	594.87	594.59	1.5	12	5.20	---	---	589.39	5.20
	11/27/17	594.87	594.59	1.5	12	5.11	---	---	589.48	5.11
	02/27/18	594.87	594.59	1.5	12	4.65	---	---	589.94	4.65
	06/04/18	594.87	594.59	1.5	12	4.68	---	---	589.91	4.68
	10/05/18	594.87	594.59	1.5	12	5.29	---	---	589.30	5.29
	12/11/18	594.87	594.59	1.5	12	4.63	---	---	589.96	4.63
	03/12/19	594.87	594.59	1.5	12	4.57	---	---	590.02	4.57
	06/18/19	594.87	594.59	1.5	12	2.96	---	---	591.63	2.96
	09/16/19	594.87	594.59	1.5	12	5.19	---	---	589.40	5.19
	12/03/19	594.87	594.59	1.5	12	2.61	---	---	591.98	2.61
	03/12/20	594.87	594.59	1.5	12	3.66	---	---	590.93	3.66
	06/03/20	594.87	594.59	1.5	12	3.48	---	---	591.11	3.48
	09/09/20	594.87	594.59	1.5	12	5.39	---	---	589.20	5.39
	12/03/20	594.87	594.59	1.5	12	5.64	---	---	588.95	5.64
	08/16/21	594.87	594.59	1.5	12	5.61	---	---	588.98	5.61
QP-2	06/24/10	---	---	5	15	10.27	10.25	0.02	---	10.25
	06/28/10	---	---	5	15	9.49	9.45	0.04	---	9.45
	07/08/10	---	---	5	15	8.57	8.48	0.09	---	8.49
	07/22/10	---	---	5	15	8.31	8.22	0.09	---	8.23
	07/29/10	---	---	5	15	8.55	8.46	0.09	---	8.47
	08/06/10	---	---	5	15	8.88	8.74	0.14	---	8.76
	08/13/10	---	---	5	15	6.70	6.61	0.09	---	6.62
	08/27/10	---	---	5	15	7.76	7.66	0.10	---	7.67
	09/17/10	---	---	5	15	7.44	7.28	0.16	---	7.30
	09/23/10	---	---	5	15	7.14	6.98	0.16	---	7.00
	10/15/10	---	---	5	15	7.96	7.73	0.23	---	7.76
	10/29/10	---	---	5	15	7.74	7.48	0.26	---	7.51
	12/07/10	---	---	5	15	7.71	7.40	0.31	---	7.44
	01/03/11	---	---	5	15	7.62	7.31	0.31	---	7.35
	03/18/11	---	---	5	15	7.51	7.25	0.26	---	7.28
	04/08/11	---	---	5	15	7.03	6.73	0.30	---	6.77
	05/09/11	---	---	5	15	6.97	6.61	0.36	---	6.65
	06/09/11	---	---	5	15	7.36	6.93	0.43	---	6.98
	07/05/11	---	---	5	15	7.45	6.92	0.53	---	6.98
	08/23/11	---	---	5	15	7.13	6.42	0.71	---	6.51
	10/14/11	---	---	5	15	8.31	7.34	0.97	---	7.46
	11/23/11	---	---	5	15	7.99	7.07	0.92	---	7.18
	01/24/12	---	---	5	15	6.79	5.81	0.98	---	5.93
	03/20/12	---	---	5	15	7.25	6.29	0.96	---	6.41
	04/23/12	---	---	5	15	7.21	6.18	1.03	---	6.30
	06/11/12	---	---	5	15	7.20	6.48	0.72	---	6.57
	07/10/12	---	---	5	15	8.43	7.04	1.39	---	7.21
	08/29/12	---	---	5	15	8.00	6.44	1.56	---	6.63
	09/12/12	---	---	5	15	7.75	6.17	1.58	---	6.36
	10/01/12	---	---	5	15	8.66	6.81	1.85	---	7.03
	11/06/12	---	---	5	15	7.02	6.29	0.73	---	6.38
	12/05/12	---	---	5	15	7.59	6.86	0.73	---	6.95
	04/03/13	---	---	5	15	7.12	6.40	0.72	---	6.49
	07/18/13	---	---	5	15	6.91	5.86	1.05	---	5.99
	09/23/13	---	---	5	15	7.73	6.95	0.78	---	7.04
	04/25/14	---	---	5	15	5.86	5.40	0.46	---	5.46
	06/02/14	---	---	5	15	6.24	5.74	0.50	---	5.80
	07/09/14	---	---	5	15	5.86	5.29	0.57	---	5.36
	07/31/14	---	---	5	15	6.16	5.55	0.61	---	5.62
	09/16/14	---	---	5	15	5.93	5.76	0.17	---	5.78
	03/24/15	---	---	5	15	6.51	6.30	0.21	---	6.33
	06/17/15	---	---	5	15	5.79	5.53	0.26	---	5.56
	09/09/15	---	---	5	15	5.71	5.36	0.35	---	5.40
	12/04/15	---	---	5	15	7.35	6.88	0.47	---	6.94
	03/15/16	---	---	5	15	5.77	5.51	0.26	---	5.54
	06/17/16	---	---	5	15	5.53	5.22	0.31	---	5.26
	09/22/16	---	---	5	15	6.38	5.99	0.39	---	6.04
	09/27/16	ABANDONED								

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-2R	09/06/17	594.81	594.22	2	12	4.29	4.27	0.02	589.95	4.27
	11/27/17	594.81	594.22	2	12	4.36	4.35	0.01	589.87	4.35
	02/27/18	594.81	594.22	2	12	3.80	3.79	0.01	590.43	3.79
	06/04/18	594.81	594.22	2	12	3.86	3.85	0.01	590.37	3.85
	10/05/18	594.81	594.22	2	12	4.33	---	---	589.89	4.33
	12/11/18	594.81	594.22	2	12	3.69	---	---	590.53	3.69
	03/12/19	594.81	594.22	2	12	3.87	3.83	0.04	590.39	3.83
	06/18/19	594.81	594.22	2	12	2.54	2.47	0.07	591.74	2.48
	09/16/19	594.81	594.22	2	12	4.42	---	---	589.80	4.42
	12/03/19	594.81	594.22	2	12	2.06	---	---	592.16	2.06
	03/12/20	594.81	594.22	2	12	2.92	---	---	591.30	2.92
	06/03/20	594.81	594.22	2	12	2.56	---	---	591.66	2.56
	09/09/20	594.81	594.22	2	12	4.67	---	---	589.55	4.67
	12/03/20	594.81	594.22	2	12	4.92	---	---	589.30	4.92
	08/16/21	594.81	594.22	2	12	4.86	4.84	0.02	589.38	4.84
QP-3	06/24/10	---	---	5	15	17.53	16.80	0.73	---	16.89
	06/28/10	---	---	5	15	12.56	12.53	0.03	---	12.53
	07/08/10	---	---	5	15	12.37	12.32	0.05	---	12.33
	07/29/10	---	---	5	15	12.47	12.35	0.12	---	12.36
	08/06/10	---	---	5	15	12.89	12.81	0.08	---	12.82
	08/13/10	---	---	5	15	11.69	11.62	0.07	---	11.63
	08/27/10	---	---	5	15	11.78	11.71	0.07	---	11.72
	09/17/10	---	---	5	15	11.78	11.69	0.09	---	11.70
	09/23/10	---	---	5	15	11.55	11.41	0.14	---	11.43
	10/15/10	---	---	5	15	8.19	8.03	0.16	---	8.05
	10/29/10	---	---	5	15	8.27	8.09	0.18	---	8.11
	12/07/10	---	---	5	15	7.92	7.82	0.10	---	7.83
	01/03/11	---	---	5	15	7.70	7.57	0.13	---	7.59
	03/18/11	---	---	5	15	7.69	7.59	0.10	---	7.60
	04/08/11	---	---	5	15	6.78	6.72	0.06	---	6.73
	05/09/11	---	---	5	15	7.08	7.02	0.06	---	7.03
	06/09/11	---	---	5	15	7.33	7.25	0.08	---	7.26
	07/05/11	---	---	5	15	7.26	7.18	0.08	---	7.19
	08/23/11	---	---	5	15	6.41	6.37	0.04	---	6.37
	10/14/11	---	---	5	15	7.44	7.35	0.09	---	7.36
	11/23/11	---	---	5	15	7.06	7.00	0.06	---	7.01
	01/24/12	---	---	5	15	5.63	5.60	0.03	---	5.60
	03/20/12	---	---	5	15	6.25	6.22	0.03	---	6.22
	04/23/12	---	---	5	15	6.02	6.00	0.02	---	6.00
	06/11/12	---	---	5	15	6.55	6.51	0.04	---	6.51
	07/10/12	---	---	5	15	7.21	7.11	0.10	---	7.12
	08/29/12	---	---	5	15	6.58	6.49	0.09	---	6.50
	09/12/12	---	---	5	15	6.16	6.10	0.06	---	6.11
	10/01/12	---	---	5	15	7.11	7.01	0.10	---	7.02
	11/06/12	---	---	5	15	7.07	7.01	0.06	---	7.02
	12/05/12	---	---	5	15	6.58	6.55	0.03	---	6.55
	04/03/13	---	---	5	15	6.57	6.54	0.03	---	6.54
	07/18/13	---	---	5	15	5.98	5.92	0.06	---	5.93
	09/23/13	---	---	5	15	7.01	6.91	0.10	---	6.92
	04/25/14	---	---	5	15	5.41	5.39	0.02	---	5.39
	06/02/14	---	---	5	15	5.74	5.71	0.03	---	5.71
	07/09/14	---	---	5	15	5.17	5.13	0.04	---	5.13
	07/31/14	---	---	5	15	5.25	5.24	0.01	---	5.24
	09/16/14	---	---	5	15	5.47	5.41	0.06	---	5.42
	03/24/15	---	---	5	15	6.36	6.34	0.02	---	6.34
	06/17/15	---	---	5	15	5.20	5.18	0.02	---	5.18
	09/09/15	---	---	5	15	5.12	5.09	0.03	---	5.09
	12/04/15	---	---	5	15	6.40	6.39	0.01	---	6.39
	03/15/16	---	---	5	15	5.40	5.39	0.01	---	5.39
	06/17/16	---	---	5	15	5.13	5.11	0.02	---	5.11
	09/22/16	---	---	5	15	5.72	5.68	0.04	---	5.68
	09/27/16	ABANDONED								

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-3R	09/06/17	594.8	594.41	2	12	4.17	4.08	0.09	590.32	4.09
	11/27/17	594.8	594.41	2	12	4.15	4.04	0.11	590.36	4.05
	02/27/18	594.8	594.41	2	12	3.79	3.71	0.08	590.69	3.72
	06/04/18	594.8	594.41	2	12	3.87	3.76	0.11	590.64	3.77
	10/05/18	594.8	594.41	2	12	4.24	4.08	0.16	590.31	4.10
	12/11/18	594.8	594.41	2	12	3.71	3.59	0.12	590.81	3.60
	03/12/19	594.8	594.41	2	12	4.02	3.88	0.14	590.51	3.90
	06/18/19	594.8	594.41	2	12	2.62	2.39	0.23	591.99	2.42
	09/16/19	594.8	594.41	2	12	4.40	4.26	0.14	590.13	4.28
	12/03/19	594.8	594.41	2	12	2.57	2.26	0.31	592.11	2.30
	03/12/20	594.8	594.41	2	12	2.90	2.85	0.05	591.55	2.86
	06/03/20	594.8	594.41	2	12	2.65	2.52	0.13	591.87	2.54
	09/09/20	594.8	594.41	2	12	4.56	4.46	0.10	589.94	4.47
	12/03/20	594.8	594.41	2	12	4.91	4.81	0.10	589.59	4.82
	08/16/21	594.8	594.41	2	12	4.73	4.61	0.12	589.79	4.62

Notes

LNAPL	Light Non-Aqueous Phase Liquid
ft	Feet
ft amsl	Feet Above Mean Sea Level
ft btoc	Feet Below Top of Casing
---	No LNAPL measured
[1]	A specific gravity of 0.88 (quench/hydraulic oil) was used to calculate corrected groundwater levels

Table 2

Summary of Manhole Inspections - Southwest LNAPL Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Manhole Inspection Location	Inspection Date [1]	Depth to Water (ft btor)	Depth to Product (ft btor)	LNAPL Thickness (ft)	Observations
V3.6	03/24/15	4.99	---		none
	06/17/15	4.69	---		slight sheen
	09/09/15	5.13	---		none
	12/04/15	5.34	---		slight sheen
	03/15/16	4.27	---		very slight sheen
	06/17/16	3.77	---		slight sheen
	09/22/16	4.56	---		none
	02/27/18	4.07	---		slight sheen/scum
	06/04/18	4.19	---		very little debris
	07/26/18	5.03	---		very minor amount of sheen
	12/11/18	4.79	---		slight sheen
	03/12/19	4.05	---		very slight sheen
	06/18/19	2.93	---		very slight sheen
	09/16/19	4.71	---		none
	12/03/19	3.04	---		none
	03/12/20	3.09	---		little scum
	06/03/20	3.14	---		none
	09/09/20	4.84	---		none
	12/03/20	5.14	---		none
	08/16/21	5.43	---		none
X5.9	03/24/15	4.47	---		none
	06/17/15	4.19	---		none
	09/09/15	4.62	---		none
	12/04/15	4.88	---		very slight sheen
	03/15/16	3.73	---		none
	06/17/16	3.24	---		none
	09/22/16	4.08	---		none
	02/27/18	N/a	---		none
	06/04/18	N/a	---		none
	07/26/18	4.52	---		none
	12/11/18	4.32	---		none
	03/12/19	N/a	---		covered in ice
	06/18/19	N/a	---		flooded-water on concrete
	09/16/19	4.22	---		a little scum
	12/03/19	N/a	---		flooded-water on concrete
	03/12/20	2.61	---		little scum
	06/03/20	2.65	---		none
	09/09/20	N/a	---		underwater
	12/03/20	4.51	---		little scum, little water
	08/16/21	4.73	---		none

Table 2

Summary of Manhole Inspections - Southwest LNAPL Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Manhole Inspection Location	Inspection Date (1)	Depth to Water (ft btor)	Depth to Product (ft btor)	LNAPL Thickness (ft)	Observations
S5.6	03/24/15	4.63	---		none
	06/17/15	N/a	---		none
	09/09/15	6.30	---		none
	12/04/15	6.57	---		none
	03/15/16	5.44	---		none
	06/17/16	4.92	---		none
	09/22/16	5.78	---		none
	02/27/18	5.27	---		none
	06/04/18	5.36	---		none
	07/26/18	6.22	---		none
	12/11/18	5.99	---		none
	03/12/19	5.19	---		ice
	06/18/19	4.11	---		none
	09/16/19	5.91	---		none
	12/03/19	4.21	---		none
	03/12/20	4.31	---		none
	06/03/20	4.35	---		none
	09/09/20	6.05	---		none
	12/03/20	6.32	---		none
	08/16/21	6.62	---		none
FV3.0	03/24/15	4.09	---		none
	06/17/15	3.15	---		slight sheen and a little scum
	09/09/15	3.55	---		floating scum (less than 1/16 ")
	12/04/15	4.49	---		oily scum - boom installed
	03/15/16	2.89	---		boom installed - very little scum
	06/17/16	2.66	---		very little scum - leave boom in
	09/22/16	3.58	---		a little scum; boom in
	02/27/18	2.83	---		very sllight sheen
	06/04/18	3.36	---		very little debris
	07/26/18	4.14	---		a little oily scum
	12/11/18	3.70	---		slight sheen
	03/12/19	3.55	---		little sheen
	06/18/19	1.91	---		little sheen
	09/16/19	4.01	---		slight scum
	12/03/19	1.95	---		none
	03/12/20	2.37	---		slight sheen
	06/03/20	2.31	---		very slight sheen
	09/09/20	3.89	---		slight sheen, trace scum
	12/03/20	4.09	---		very slight sheen
	08/16/21	4.25	---		sheen

Notes

(1) Inspections did not occur between September 22, 2019 and February 27, 2018 as a result of work being conducted on the concrete floor slab of the former plant including the removal PCB impacted flooring and installation of cover over the entire floor slab.

LNAPL	Light Non-Aqueous Phase Liquid
ft	Feet
ft btor	Feet Below Top of Reference
---	No LNAPL measured

Table 3

Summary of Transmissivity Testing - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Quench Pit Well Location	Date of Last Transmissivity Test	LNAPL Transmissivity - T_n (ft^3/day)	LNAPL Thickness at Time of Transmissivity Testing (ft)	Range of LNAPL Thickness Since Well Re-Installation (ft)		
QPTW-01R*				0.02	-	0.03
QPTW-01	5/10/2016	0.05	1.3			
QPTW-03R2*	4/27/2018	0.30	0.54	0.18	-	0.97
QPTW-03R	4/28/2016	0.11	1.3			
QPTW-04R*	9/9/2017	0.21	0.82	0.04	-	1.40
QPTW-04	5/10/2016	0.08	0.97			
QPTW-05R*	9/9/2017	de minimis	0.6	0.14	-	1.71
QPTW-05	4/29/2016	0.31	2.18			
QPTW-05	10/30/2014	0.31	1.7			
QPTW-10R*				No Measurable Product		
QPTW-10	4/28/2016	0.00	0.23			
QPTW-10	9/30/2015	1.17	0.58			
QPTW-10	10/30/2014	1.58	2.56			

Notes

* Monitoring well re-installed between June and August 2017

Attachment 1

Photographic Log

Site Photographs



Photo 1 2021-08-18



Photo 2 2021-08-18

Attachment 2

Inspection Forms

RACER Saginaw Malleable, Green Point Landfill, Peninsula Properties
77 and 79 West Center Street, and 3300 Salt Road, Saginaw Michigan
Annual Observation and Maintenance Inspection Checklist

Inspector Name: Steve Hoevemeyer (GHD)
Inspection Date and Time: August 16, 2021
Weather Conditions: partly Sunny, 73 degrees F
Inspector Signature:

Green Point Landfill

Locations	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Site Access Road			
Erosion/Washout/Settlement			
Sufficient Gravel			
Landfill Cover			
Bare spots			
Stressed Vegetation			
Cracks or intrusions			
Burrowing Animals			
Erosion			
Washout			
Settlement			
Water Ponding			
Protruding Objects			
Undesirable (woody) Growth			
Slope Movement			
Leachate Breakouts			
Area Locations			
Seepage or groundwater discharge			
Surface Water Drainage System			
Drainage Swales			
Culverts			
Downchutes			
Primary Sedimentation Basin			
Bank Erosion			
Silt Levels			
Gas Management System			
Vent Riser Condition			
Vent Screen Condition			
Detectable Odor			
Surface Seal			
Overall Site Appearance			
Mitigation Wetlands			

SMI terminated Type III Landfills

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots			
Stressed Vegetation			
Cracks or intrusions			
Burrowing Animals			
Erosion			
Washout			
Settlement			
Water Ponding			
Protruding Objects			
Undesirable (woody) Growth			
Slope Movement			
Leachate Breakouts			
Area Locations			
Seepage or groundwater discharge			

SMI Former Plant Slab Soil Cover Area

Includes the following subareas - I27.7 manhole area, former Melting Department Area, former Quench Pit Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	none		August 16, 2021
Stressed Vegetation	none		
Cracks or intrusions	minor		
Burrowing Animals	none		
Erosion	minor	along the edges of the cap - no maintenance necessary	
Washout	none		
Settlement	none		
Water Ponding	minor	standing water along edges of cover from recent storms	
Protruding Objects	none		
Undesirable (woody) Growth	minimal		
Slope Movement	none		

RACER Saginaw Malleable, Green Point Landfill, Peninsula Properties
77 and 79 West Center Street, and 3300 Salt Road, Saginaw Michigan
Annual Observation and Maintenance Inspection Checklist

SMI Former Southwest LNAPL Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Area Access Road			
Erosion/Washout/Settlement			
Sufficient Gravel			
Soil Cover			
Bare spots	none		August 16, 2021
Stressed Vegetation	none		
Cracks or intrusions	minor		
Burrowing Animals	none		
Erosion	minor	along the edges of the cap - no maintenance necessary	
Washout	none		
Settlement	none		
Water Ponding	minor	standing water along edges of cover from recent storms	
Protruding Objects	none		
Undesirable (woody) Growth	minimal		
Slope Movement	none		

Former Railyard Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots			
Stressed Vegetation			
Cracks or intrusions			
Burrowing Animals			
Erosion			
Washout			
Settlement			
Water Ponding			
Protruding Objects			
Undesirable (woody) Growth			
Slope Movement			

RACER Saginaw Malleable, Green Point Landfill, Peninsula Properties
77 and 79 West Center Street, and 3300 Salt Road, Saginaw Michigan
Annual Observation and Maintenance Inspection Checklist

Peninsula Property

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots			
Stressed Vegetation			
Cracks or intrusions			
Burrowing Animals			
Erosion			
Washout			
Settlement			
Water Ponding			
Protruding Objects			
Undesirable (woody) Growth			
Slope Movement			

SMI Stormwater Pond

Locations	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Intrusive Restriction			
Disturbance to pond lining	none		August 16, 2021
Erosion	none		
Evidence of Sheen	none		
Signs of intrusive activity	none		

Overall Site Condition

Locations	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Monitoring Wells / LNAPL Systems:			
Have any monitoring wells or LNAPL systems been damaged or destroyed?			
Well Cap Integrity			
Well lock integrity			
Water Wells:			
Have any water wells been installed at the Property?			
Building Construction/Additions:			
Have any new buildings been constructed, added onto or any other redevelopment occurred at the Site?			
Permanent Markers:			
Are the markers visible and is the map and wording in legible condition with no vegetation blocking it?			
Evidence of Disturbance			
Land Use - Non-Residential/Passive Recreational:			
In accordance with the RC the land use needs to remain non-residential/passive recreational, is the property still non-residential/passive recreational use?			

SAGINAW MALLEABLE INDUSTRIAL LAND - SITE INSPECTION

On-Site Personnel: Steve Hoevemeyer

Completed Date: 16-Aug-21

Completed By: SH

1. INSPECTIONS COMPLETED

x	Southwest Plant LNAPL Area	Weather	partly cloudy
x	Quench Pit LNAPL Area	Temperature	73 degrees F

2. SOUTHWEST PLANT LNAPL AREA

N Is there LNAPL present at the ground surface in the Southwest Plant LNAPL area?

N Is there LNAPL present at the stormwater pond?

N Is there LNAPL present at the secondary pond?

	LNAPL Gauging Manhole	LNAPL Reading (ft bgs)	Water Reading (ft bgs)	Amount of Product (feet)	Comments (amount bailed, date absorbent sock installed, % sock saturated)
	V3.6		**5.43**		
	X5.9		**4.73**		
	S5.6		**6.62**		
	FV3.0		**4.25**		sheen

3. QUENCH PIT AREA

N Is there LNAPL present at the ground surface in the Quench Pit area?

N Is the LNAPL building secure?

	LNAPL Gauging Monitoring Well	LNAPL Reading (ft bgs)	Water Reading (ft bgs)	Amount of Product (feet)	Comments (amount bailed, absorbent sock installed)
Y	QP2R	4.84	**4.86**	**0.02**	
	QP3R	4.61	**4.73**	**0.12**	
	QPTW3R2	5.78	**6.06**	**0.28**	
	QPTW4R	5.51	**5.56**	**0.05**	
	QPTW5R	5.43	**6.29**	**0.86**	
	QP1R		**5.61**		
	QPTW1R	4.63	**4.65**	**0.02**	
	QPTW10R		**5.49**		
	QPTW13R		**5.32**		

Notes