Revitalizing Auto Communities Environmental Response (RACER) Trust

2025 ANNUAL MONITORING REPORT

RACER Trust Lansing Industrial Land

Lansing, Michigan

July 1, 2026

2025 Annual Monitoring Report

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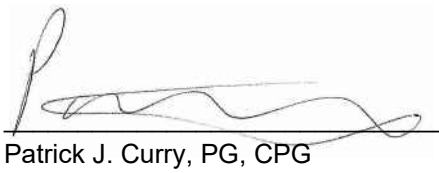

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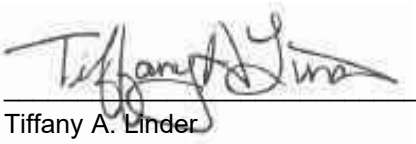

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Acronyms and Abbreviations

ALS	ALS Environmental Testing Laboratory located in Holland, MI
Annual Report	2025 Annual Groundwater Monitoring Report
APC Site	Former Adam's Plating Company Superfund Site
Arcadis	Arcadis of Michigan, LLC
COC	constituent of concern
DW criteria	Part 201 Residential Drinking Water Criteria
EGLE	Michigan Department of Environment, Great Lakes, and Energy
Eurofins	Eurofins Environment Testing North Central, LLC located in Barberton, Ohio
ft	feet
ft/ft	foot per foot
GSI criteria	Groundwater-Surface Water Interface Criteria
IGMP	Interim Groundwater Monitoring Work Plan
IMP	Interim Monitoring Work Plan
LNAPL	light nonaqueous phase liquid
µg/L	microgram per liter
Merit	Merit Laboratories located in Lansing, Michigan
mg/L	milligram per liter
MW	Monitoring well
msl	mean sea level
MS/MSD	Matrix spike and matrix spike duplicate
ng/L	nanogram per liter
PFAS	per- and polyfluoroalkyl substances
PFBS	perfluorobutanesulfonic acid
PFHxA	perfluorohexanoic acid
PFHxS	perfluorohexanesulfonic acid
PFNA	perfluorononanoic acid
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonic acid
PVC	Polyvinyl chloride

QC	quality control
RACER	Revitalizing Auto Communities Environmental Response
RCRA	Resource Conservation and Recovery Act
RL	reporting limit
RRD	Remediation and Redevelopment Division
SIM	selected ion monitoring
Site	RACER Trust Plants 2, 3, and 6 located in Lansing, Michigan
SOP	Standard Operating Procedure
SSVIAC	Site-specific volatilization to indoor air criteria
SVMP	Soil vapor monitoring point
TCL	Target compound list
TGI	Technical guidance instruction
TO	Toxic organics
USEPA	United States Environmental Protection Agency
VAP	vertical aquifer profiling
VOC	volatile organic compound

1 Introduction

On behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, Arcadis of Michigan, LLC (Arcadis) prepared this 2025 Annual Groundwater Monitoring Report (Annual Report) to support the Resource Conservation and Recovery Act (RCRA) Corrective Action process for RACER Trust Lansing Industrial Land, located in Lansing, Michigan (Site). The Site consists of former Plants 2, 3, and 6. This Annual Report summarizes groundwater monitoring, soil vapor monitoring, and storm sewer monitoring completed between January and December 2025, consistent with the updated requirements of the *2025 Revised Interim Monitoring Work Plan* (IMP; Arcadis 2025a), which was approved conditionally by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on March 21, 2025 and submitted as final on April 18, 2025. The 2025 IMP is a revision of the approved *Revised – 2023 Interim Groundwater Monitoring Work Plan* (IGMP; Arcadis 2023a). It includes an overall reduction in sampling frequency but retains overall coverage consistent with the 2023 IGMP. The 2025 IMP incorporated storm sewer monitoring, newly installed monitoring wells, and adjusted the number of wells, constituents, and frequency of sampling consistent with the evolving risk and regulatory requirements, as approved by EGLE.

The following sampling events were completed in accordance with the 2025 IMP:

- Second quarter 2025 – Site-wide semi-annual groundwater gauging event, not including light nonaqueous phase liquid (LNAPL) wells, and the semi-annual sampling event completed from May 5 through 9, 2025. Gauging was performed at a total of 161 monitoring wells and groundwater samples were collected from a total of 45 wells. Soil vapor point SVMP-20-01 was checked for sampling but was saturated and unable to be sampled during this event.
- Fourth quarter 2025 – Site-wide semi-annual and annual groundwater gauging events, including LNAPL well gauging, and the semi-annual and annual groundwater sampling events were completed between October 27 through November 6, 2025. Annual sampling of Lansing Township municipal wells was also completed during the fourth quarter. Gauging was performed at a total of 207 monitoring wells (seven of which were LNAPL monitoring wells), and groundwater samples were collected from a total of 134 wells. Soil vapor point SVMP-20-01 was sampled on October 29, 2025.
- Additionally, semi-annually storm sewer sampling for PFAS was completed on May 9 and October 16, 2025.

As outlined in the 2025 IMP, this Annual Report includes semi-annual and annual data (e.g., tabulated data, figures, analytical narrative) and the following information:

- Objective and scope of the sampling events
- Summary of groundwater elevations and LNAPL gauging data, including contour maps and trend plots
- Figures, tables, and a brief narrative summarizing the groundwater sampling results
- Groundwater elevation contour maps for various water bearing zones
- Updated groundwater plume stability evaluation
- Summary of Lansing Township water supply well sampling
- Conclusions and recommendations for revisions to the IMP, as appropriate.

All groundwater monitoring activities were completed in accordance with the 2025 IMP. The sampling frequencies and analytes for each well in the 2025 IMP are included in **Table 1**. The locations of all Site monitoring wells are provided on **Figures 1A**, **1B**, and **1C**.

The following deviations from the 2025 IMP occurred during 2025 monitoring activities:

- **MW-14-69** was dry during the second and fourth quarters 2025 and has been dry since installation in 2014. This monitoring well was installed in an area of Plant 6 with limited perched groundwater with the intent of verifying whether saturated conditions existed and if the well would produce enough water for sampling, and is checked annually.
- **MW-19-110** was installed in August 2019 at the request of the EGLE in an area of Plant 3 with limited perched groundwater with the intent of verifying whether saturated conditions existed and if the well would produce enough water for sampling. Since installation in 2019, the well has had either low water levels or been dry, resulting in no groundwater samples being collected. Again, no samples were able to be collected at this location during fourth quarter 2025.
- **MW-19-113** was installed in August 2019 at the request of the EGLE in an area of Plant 3 with limited perched groundwater with the intent of verifying whether saturated conditions exist and if the well would produce enough water for sampling. Since installation in 2019, the well has had either very limited water or been dry, resulting in no groundwater samples being collected. Similarly, again, no samples were able to be collected at this location during fourth quarter 2025.
- **MW-21-135** was installed in March 2021 near the eastern Plant 6 property boundary. This well has previously been sampled for PFAS and was last sampled in May 2024. During the fourth quarter 2024 event it was observed to be damaged, and the PVC casing was broken at the ground surface. The well was not sampled due to the potential for sand pack to enter the well at the broken connection. MW-21-135 was repaired on December 6, 2024, but still needed redevelopment before sampling in 2025. In August 2025, an attempt was made to redevelop the well, but it quickly went dry. A further attempt was made to sample the well during the fourth quarter annual event, but the well went dry. In 2026, the monitoring well will be jetted to clear out any filled materials for future use in sampling. This monitoring well was gauged in second and fourth quarter 2025 but groundwater elevations are not used in contour figures as the top of casing still needs to be re-surveyed after its 2024 repair.
- **MW-22-159** was installed off-site to the east of Plant 6 and contained water during development, however, the well has been dry since December 2022. No samples were able to be collected at this location in 2025.
- **MW-22-146** did not have enough water to collect a sample and went dry during fourth quarter 2025 annual sampling event. No sample was collected at this location in 2025.
- **MW-18-100** was observed as damaged and unable to gauge in second quarter 2025 (May 2025). It was repaired in June 2025 and was gauged during the fourth quarter gauging event.
- **MW-12-08** was under some standing water and unable to be gauged during the fourth quarter gauging event.
- **MW-02-03(3)** was unable to be located and could not be gauged during the fourth quarter gauging event. It is believed the well is under a concrete barrier.
- **MW-13-44** the groundwater measurement recorded in the field data pad is believed to be a typo resulting in an approximate 10 ft elevation error during the fourth quarter 2025 gauging event. As a result, this well was not used as part of the 2025 groundwater elevation contour maps.

2 Sampling Methods

This section discusses the groundwater, soil vapor, and storm sewer sampling methodology used at the Site.

2.1 Groundwater Sampling Methods

All groundwater samples were collected in a manner consistent with the low-flow sampling techniques in the Arcadis Standard Operating Procedure (SOP) for low-flow sample collection, and generally consistent with EGLE's Remediation and Redevelopment Division (RRD) Op Memo 2, Attachment 5 (EGLE 2004). Samples collected for 1,4-dioxane, VOCs, and general chemistry were submitted under chain of custody protocol to Merit Laboratories (Merit) located in East Lansing, Michigan. Samples collected for low-concentration 1,4-dioxane analysis were submitted under chain of custody protocol to Eurofins Laboratory in Barberton, Ohio. Samples collected for PFAS analyses were submitted under chain of custody protocol to ALS Environmental Testing Laboratory located in Holland, MI. Laboratory analytical reports and data validation reports for Lansing Township municipal wells and Site monitoring wells are included as **Appendix A** and **B-1**, respectively. Groundwater low-flow sampling logs are included as **Appendix C-1**.

During the second and fourth quarters of 2025 semi-annual sampling events, and before sample collection, site-wide gauging was completed using electronic water level meters, and former LNAPL wells were gauged in fourth quarter using an oil/water interface probe. All gauging was completed within 24 hours.

The sampling matrix provided as part of the 2025 IMP is included as **Table 1**. Groundwater samples were submitted for analysis for one or more of the following parameters:

- Target compound list (TCL) VOCs using USEPA Method SW8260B, Revision 2 or SW8260C, Revision 3.
- Low-concentration 1,4-dioxane using USEPA Drinking Water Method 522, which provides a reporting limit (RL) of 0.20 microgram per liter (µg/L) – used for the Lansing Township municipal wells and select bedrock monitoring wells.
- 1,4-Dioxane using USEPA Method SW8260B-SIM – used for monitoring wells other than municipal and bedrock wells.
- PFAS using USEPA Method 537 modified with isotope dilution (DoD QSM 5.1).

2.1.1 Quality Control/Quality Assurance

Quality control (QA/QC) samples were collected during the sampling events and included the following:

- One duplicate sample per every ten samples.
- One matrix spike and matrix spike duplicate (MS/MSD) sample per every 20 samples.
- One field blank was collected during the fourth quarter 2025 sampling event.
- Equipment blanks were collected from the water level meters used for PFAS sampling during the fourth quarter 2025 sampling event.

Additionally, trip blanks were included with each cooler containing samples for VOC analysis. One sample delivery group per plant from each quarter which sampling occurred underwent complete Stage 2A validation. Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October

1999), as appropriate. Groundwater sample validation reports are included in **Appendix A** and **B-1** along with laboratory analytical reports.

2.1.2 Light Nonaqueous Phase Liquid Monitoring

Former LNAPL monitoring wells were gauged during the fourth quarter event with an oil/water interface probe. LNAPL wells that were retained are generally LNAPL-free and used as part of the groundwater elevation gauging network and indicate whether LNAPL is migrating. Gauging methods were consistent with the 2025 IMP.

2.2 Soil Vapor Monitoring

Soil vapor monitoring point SVMP-20-01 is located near the Plant 6 entrance for the purpose of monitoring VOCs in soil vapor potentially associated with the low concentration vinyl chloride plume located in this area. Details regarding the vapor intrusion assessment for this area were included in the Plant 6 Vapor Intrusion Investigation Summary report (Arcadis 2022).

Soil vapor monitoring point SVMP-20-01 was sampled on October 29, 2025, for USEPA Method TO-15 analysis. No samples were collected during the second quarter due to saturation within the sample point. Soil gas laboratory analytical reports are provided in **Appendix B-2** and sampling logs are provided in **Appendix C-2**. The location of SVMP-20-01 is included in **Figure 1B**. A helium leak test was performed prior to the sampling event, and the soil gas samples were collected in a laboratory-provided Bottle Vac and submitted to Metiri Group (formerly Fibertec Analytical Laboratory) in Holt, Michigan for analysis.

2.3 Groundwater Elevation Monitoring

Monitoring wells were gauged during sampling using an electronic water level meter generally within a 24-hour period. Site-wide gauging was completed during second and fourth quarter semi-annual sampling events. Gauging methods were consistent with the 2025 IMP.

2.4 Storm Sewer Sampling Methods

Storm sewer sampling was completed semi-annually to confirm the effectiveness of storm sewer modifications and abandonments completed in Fall 2018, Winter 2019/2020, Fall 2020, Spring 2021 (Arcadis 2021a), Fall 2023, and Fall 2024. Fall 2023 and Fall 2024 storm sewer modifications were performed to promote Site drainage, including abandoning manhole structures and installing a new catch basin structure on Plants 2 and 3. Storm sewer sampling was completed prior to storm sewer modifications and abandonments in 2017 at Plant 2, and on Plants 2 and 6 in 2019. Storm sewer sampling frequency was reduced to semi-annually in 2025 in accordance with the 2025 IMP. Storm sewer samples required for monitoring are collected from the sump of the manhole structure. Past samples collected for investigation purposes were collected from sumps and individual inverts as needed. Samples are collected according to the Arcadis Technical Guidance Instruction (TGI) for PFAS sample collection and analyzed using USEPA Method 537 modified with isotope dilution (DoD QSM 5.1). Samples were submitted under chain of custody protocol to ALS Environmental Testing Laboratory located in Holland, Michigan.

3 Results

This section summarizes results from sampling activities completed between January and December 2025. **Table 2** presents groundwater analytical data collected during the reporting period. Figures showing exceedances of EGLE Part 201 residential drinking water criteria (DW criteria) and Part 201 groundwater surface water interface criteria (GSI criteria), are provided as **Figures 2** through **8**. Laboratory analytical reports and data validation reports for Lansing Township municipal wells and all other monitoring wells are included as **Appendix A** and **B-1**, respectively, soil gas laboratory analytical reports are provided in **Appendix B-2**, and storm sewer laboratory analytical reports are provided in **Appendix B-3**. Groundwater low-flow sampling logs and soil vapor sampling logs are included as **Appendix C-1** and **Appendix C-2**, respectively.

3.1 Groundwater Monitoring Results

A summary table of the groundwater analytical data collected during 2025 is presented in **Table 2** with exceedances of DW criteria and GSI criteria, if applicable, highlighted in gray and summarized on **Figures 2** through **8**. Results of the 2025 groundwater monitoring events are summarized below.

3.1.1 Perched 1,4-Dioxane Results

In accordance with the approved 2025 IMP Table (**Table 1**), sampling of perched groundwater for 1,4-dioxane was completed as part of the annual groundwater sampling event during fourth quarter 2025, as well as semi-annually at the western property boundary of Plant 2. Perched 1,4-dioxane results (**Figure 2**) are generally consistent with the results summarized in the 2024 Annual Groundwater Monitoring Report (Arcadis 2025b), some exceptions include:

- Monitoring well MW-14-58R is a perched monitoring well located near the western property boundary of Plant 2 and was installed in October 2021 as a replacement for MW-14-58 which was damaged and subsequently abandoned. MW-14-58 was last sampled in June 2020 and had a 1,4-dioxane concentration of 38 µg/L. MW-14-58R was installed 5 to 6 feet north of MW-14-58 within similar geology and screened interval, and first sampled in December 2021, showing a 1,4-dioxane concentration of 430 µg/L. Continued sampling of MW-14-58R in the fourth quarter of 2025 has shown 1,4-dioxane concentrations of 260 µg/L. Mann-Kendall results, summarized below, indicate the 1,4-dioxane concentration in samples from this well shows no significant trend for 1,4-dioxane.
- Monitoring well MW-22-157 is a perched monitoring well located off-site, west of MW-14-58R, in the west right-of-way of Rosemary Avenue. Using available data since September 2022, Mann-Kendall results show a statistically significant increasing trend at this location. However, it is noted that the 1,4-dioxane concentration was 74 µg/L and 65 µg/L in May and October 2025 (respectively) and these concentrations are lower than historic concentrations of 1,4-dioxane, which were as high as 120 µg/L in 2023. The lower 2025 concentrations may be the start of a decreasing trend.
- Additional evaluation of 1,4-dioxane in the MW-14-58R were provided in the *MW-14-58R Area September 2023 Investigation Summary* submitted on January 19, 2024 (Arcadis 2024). In November 2024, RACER Trust collaborated with USEPA and EGLE to collect synoptic groundwater elevation and groundwater analytical data for the western portion of RACER Plant 2 and the APC site (Former Adam's Plating Company Superfund Site). A summary of additional off-site 1,4-dioxane data was provided by USEPA and is included as an attachment to the *Data Review and Summary Related to Potential Off-Site Vapor Intrusion from the RACER Area 4/MW-14-58R RACER Trust, Plant 2* memo submittal on March 14, 2025 (Arcadis 2025c).

3.1.2 Lower 1,4-Dioxane Results

A biosparge remedy has been implemented per the *Interim Measures Work Plan: Lower 1,4-Dioxane Biosparge* work plan (Arcadis 2018). The lower 1,4-dioxane (i.e., weathered bedrock) biosparge system has been operating at Plant 3 since May 2019 and Plant 2 since August 2020. Performance monitoring of the biosparge system is summarized in the *Lower 1,4-Dioxane Biosparge Update Report* (Arcadis 2025d) most recently submitted to EGLE in April 2025, and in the *Lower 1,4-Dioxane Biosparge Progress Report and Shutdown Evaluation* (Arcadis 2023b), submitted to EGLE on March 27, 2023. Lower 1,4-dioxane concentrations (**Figure 3**) have been generally decreasing throughout the footprint of the plume since the biosparge treatment system began operation. The results at the perimeter of the lower 1,4-dioxane plume were reviewed for potential changes:

- *Southern Extent (the toe)*: The lower 1,4-dioxane plume is defined to the south by MW-16-74, MW-16-75, MW-16-77, MW-16-78, MW-19-121, MW-21-140, and MW-21-141. These results suggest that no significant expansion has occurred at the southern toe of the lower 1,4-dioxane plume since 2018. Future migration to the southeast is not expected due to the operation of the biosparge system and geologic conditions described as part of the *Lower 1,4-Dioxane Conceptual Site Model* (Arcadis 2021b).
- *Northeast Lobe (on Plant 2)*: Increasing concentrations were observed within the northeast lobe of the lower 1,4-dioxane plume on Plant 2 from 2018-2021. Since then, stable to decreasing concentrations have been observed (e.g., at wells MW-16-84, MW-16-85, and MW-17-86), likely attributable to the operation of the biosparge system (Arcadis 2021a, 2023b). See Section 4.2.1 for more information.
- *MW-20-130*: Monitoring well MW-20-130 is a weathered bedrock monitoring well that was installed as a deep sentinel for PFAS southeast of the Plant 2 PFAS source area. MW-20-130 had a 1,4-dioxane concentration of 170 µg/L during the fourth quarter 2024 but decreased to 9 µg/L during the fourth quarter 2025. Two weathered bedrock monitoring wells were installed downgradient of MW-20-130, one to the south (MW-21-140) and one to the east (MW-21-141), and 1,4-dioxane has not been detected at either well since they were installed in 2021.
- Monitoring wells MW-16-80 and MW-14-56 located near the western Plant 2 property boundary in weathered bedrock, showed a 1,4-dioxane concentration exceeding the DW criterion of 7.2 µg/L in 2025. During the fourth quarter 2025 event, MW-16-80 was 19 µg/L and MW-14-56 was 20 µg/L. The detected concentrations were generally consistent with previous results observed at these locations. As previously reported, detections of 1,4-dioxane in the weathered bedrock at the western property boundary could be associated with other off-site source areas.

3.1.2.1 Biosparge Shutdown Test

EGLE approved the shutdown test of Transects A and G on July 21, 2025, and the test started in the third quarter of 2025. Baseline sampling was completed in third quarter prior to the shutdown, and the first round of post-shutdown test sampling was conducted in the fourth quarter of 2025. Initial results show sustained reduction in plume average concentration after the shutdown of Transect A and G, as well as stable upgradient concentrations. Any changes in the lower 1,4-dioxane concentrations due to the shutdown test are isolated to the Transects A and G areas. More information regarding the Biosparge System and the effects of the shutdown test on the lower 1,4-dioxane concentrations are presented in the *2026 Biosparge Update Report* (Arcadis 2026).

3.1.3 Municipal Well and Bedrock Monitoring Well Sampling Results

The results of the Lansing Township well sampling indicate 1,4-dioxane concentrations of <0.20 µg/L in Lansing Township well TWP-90-03, 0.38 µg/L in TWP-90-04 and 0.36 µg/L in TWP-90-05 (**Appendix A**). These concentrations are consistent with those detected in November 2024 (0.12 µg/L in TWP-90-03, 0.35 µg/L in TWP-90-04, and 0.43 µg/L at TWP-90-05) and in previous years. The locations of the municipal wells are shown and the bedrock 1,4-dioxane results are summarized on **Figure 4.** Sampling of Lansing Township wells will continue annually in 2026 as part of the 2025 IMP.

Analytical results for the municipal wells are included in **Table 2**. Widespread 1,4-dioxane detections in bedrock are potentially related to a 1,4-dioxane "background condition" in and around Lansing, as demonstrated by the low-level 1,4-dioxane sampling completed at the Site in 2017. Sporadic detections of 1,4-dioxane in the bedrock monitoring wells installed along the core of the plume ranged from <0.20 µg/L to 6.7 µg/L and did not exceed DW Criteria (7.2 ug/l) in 2025. Other VOC Results

Of the eleven (11) wells that were sampled for VOCs during 2025, one (1) well had concentrations exceeding the DW and/or GSI criteria (**Figure 5**).

- *Plant 6 entrance at the intersection of Stanley and Osborn Streets*: A vapor intrusion investigation was completed in this area, and a summary of the VI evaluation was provided to EGLE in June 2022 (Arcadis 2022). An additional monitoring well was installed in September 2022 (MW-22-154) to the northeast of MW-20-132 to define the extent of SSVIAC exceedances in groundwater. Analytical results from MW-22-154 in 2025 showed cis-1,2-dichloroethene concentrations of 1 µg/L during second quarter 2025 and 2 µg/L in fourth quarter 2025. There were no detections of vinyl chloride (<1 µg/L) during the second and fourth quarters 2025. Soil vapor sampling at SVMP-20-01, located between the Plant 6 entrance and the residential properties, has not detected vinyl chloride. The soil vapor results are included as **Table 3** and the location of SVMP-20-01 is included in **Figure 1B**. Soil vapor results are discussed further in Section 3.3. Based on the 2025 IMP, monitoring for VOCs in soil vapor at SVMP-20-1 and groundwater at MW-22-154 will continue semi-annually, with MW-20-131 and MW-20-132 sampled annually.
- *Weathered bedrock wells MW-14-61 and MW-19-120*: Located in the northeast lobe of the lower 1,4-dioxane plume on Plant 2. Previously, low detections were observed of chlorinated VOCs (e.g., 1,2-DCE; chloroethane) related to leakage from the perched zone. VOCs were not detected in MW-14-61 or MW-19-120 (Figure 5) in 2025. VOCs will continue to be monitored annually at these locations in accordance with the 2025 IMP. MW-17-86 (Figure 1A) will be monitored biennially and sampled next in 2026 per the 2025 IMP.
- *Plant 2 perched monitoring wells in the MW-14-58R Area*: MW-22-156, MW-22-157 and MW-22-153 located on the western property boundary of Plant 2 (Figure 5), were sampled for VOCs in second and fourth quarters in accordance with the 2025 IMP as part of an ongoing investigation of VOC impacts at the property boundary. A past summary of the investigation was provided in the *MW-14-58R Area September 2023 Investigation Summary* (Arcadis 2024) and *Data Review and Summary Related to Potential Off-site Vapor Intrusion from the RACER Area 4/MW-14-58R* (Arcadis 2025c). The VOC results for MW-22-156 exceed DW criteria for 1,1-dichloroethene (1,1-DCE) and include detections of 1,1-dichloroethane (1,1-DCA), chloroethane and vinyl chloride. MW-22-153 included detections of 1,1-DCA and 1,1-DCE. Monitoring well MW-22-157, located off-site and downgradient of MW-22-156 and MW-22-153, has not had any detections of VOCs (other than 1,4-dioxane). At MW-22-156, 1,1-DCA exceeds the residential SSVIAC but is delineated offsite by MW-22-157. These wells will continue to be monitored for VOCs semi-annually according to the 2025 IMP.

3.1.4 PFAS Results

The following sections discuss the PFAS groundwater results in the perched groundwater zone at the Site. PFAS in groundwater will continue to be monitored annually according to the 2025 IMP.

3.1.4.1 PFOS Results

Perfluorooctane sulfonic acid (PFOS) concentrations exceeded the GSI criteria (12 nanograms per liter [ng/L]) and DW Criteria (16 ng/l) at 18 perched monitoring wells in 2025 (**Figure 6**).

- *MW-18-98*: Located on the northern portion of Plant 3, this perched well contained a concentration of PFOS of 130 ng/L in 2025, exceeding the DW and GSI criteria. Further north, the perched well MW-19-113 is screened in a similar depth interval and was dry and unable to be sampled in 2025.
- *MW-18-99*: Located on the northwestern portion of Plant 3, this perched well contained a concentration of PFOS of 61.8 ng/L in 2025, exceeding the DW and GSI criteria. Further north, the perched well MW-19-112 is screened in a similar depth interval and was non-detect in fourth quarter 2025 suggesting no migration.
- *Eastern Plant 3 and off-site wells*: Perched monitoring wells at the Plant 3 perimeter indicated PFOS concentrations of 337 ng/L at MW-18-88, and 38.6 ng/L at MW-18-95. PFOS did not exceed the DW or GSI criteria at any of the five perched monitoring wells installed in the City of Lansing's Dunnebacke and Westside Parks, located east of Plant 3.
- *MW-12-12, MW-13-36R, and MW-20-132*: Located along the northern and eastern boundary of Plant 6, these wells contained concentrations of PFOS that exceed the DW and GSI criteria. However, PFOS detections did not exceed DW criteria at the vertical aquifer profiling (VAP) or off-site monitoring wells completed east of Plant 6 to delineate PFAS impacts.
- *MW-22-145*: Located southeast of Plant 6, MW-22-145 exceeded DW criteria in 2024 but did not exceed DW or GSI criteria for PFOS in 2025. Concentrations of PFOS were 1.05 ng/L in fourth quarter 2025. No off-site wells exceeded DW or GSI criteria for PFOS in 2025.

3.1.4.2 PFOA Results

Perfluorooctanoic acid (PFOA) concentrations exceeded the DW Criterion of 8 ng/L at 26 perched monitoring wells in 2025 (**Figure 7**).

- *Eastern Plant 3 and off-site wells*: MW-18-88 located along the eastern boundary of Plant 3 contained a PFOA concentration of 9.27 ng/L in 2025. PFOA did not exceed the DW criteria for PFOA at any of the five perched sentinel monitoring wells installed in the City of Lansing's Dunnebacke and Westside Parks.
- *Plant 6 Perimeter Wells*: Perched monitoring wells located along the northeastern, eastern and southeastern boundaries of Plant 6 and off-site, contained concentrations of PFOA that exceeded the DW criteria. Additional off-site work completed in 2022 included the installation of off-site monitoring wells to define the extent of PFOA in groundwater. MW-22-151, located northeast of Plant 6, had a concentration of 9.21 ng/L of PFOA during the fourth quarter 2025, which exceeds the DW criteria (8 ng/L), but not the GSI criteria (17 ng/L). MW-22-144 and MW-22-145 also exceeded DW criteria at concentrations of 12 ng/L and 11 ng/L. Monitoring wells MW-22-160 and MW-22-143, located northeast and south of MW-22-144 and MW-22-145 did not exceed DW criteria, and MW-22-159, screened at a similar interval was dry. Off-site PFAS concentrations will continue to be monitored to further evaluate concentration trends and stability.

- *MW-12-09 and MW-14-58R*: Monitoring wells located near the western boundary of Plant 2 contained PFOA ranging from 17.8 to 20.7 ng/L, exceeding the PFOA DW Criteria. MW-14-56 was non-detect in fourth quarter 2025. There is the potential that PFAS concentrations near the Plant 2 boundary and within the Rosemary right-of-way could be combined with impacts associated with other potential off-site sources.

3.1.4.3 PFNA Results

Perfluorononanoic acid (PFNA) concentrations exceeded the DW criterion value of 6 ng/L at six perched monitoring wells in 2025 (**Figure 8**). The highest concentration of PFNA was 133 ng/L observed in Plant 6 source area well P6-SB-07. Other exceedances ranged from 6.7 ng/L to 14.8 ng/L. Exceedances near the eastern property boundary of Plant 6 are delineated by downgradient wells.

3.1.4.4 Other PFAS

Other PFAS compounds that exceed DW and/or GSI criteria included the following:

- *Perfluorohexanesulfonic acid (PFHxS):* The only exceedances of PFHxS DW criteria (51 ng/L) in 2025 were at the perched well MW-21-139 (272 ng/L) in the Plant 2 PFAS source area, CH-14-RO (922 ng/L) in Plant 3 source area, and well MW-18-103 (181 ng/L) located along the northern boundary of Dunneback Park east of Plant 3. The PFHxS detected at MW-18-103 appears to be isolated and may be related to an off-site source to the north where large quantities of roofing shingles are shredded and piled on the ground surface.
- *Perfluorobutanesulfonic acid (PFBS) and perfluorohexanoic acid (PFHxA):* Sporadic low detections of PFBS and PFHxA were observed in monitoring wells during 2025 but are below the DW criteria values of 420 ng/L and 400,000 ng/L, respectively.
- In addition to PFOS, PFOA, PFNA, PFHxS, PFBS, and PFHxA, other PFAS compounds have been detected at the Site, however there are no established criteria for comparison. In general, these concentrations appear to correlate to PFOS and PFOA concentrations and decrease with distance from PFOS and PFOA source areas.

3.1.4.5 Storm Sewer Analytical Results

Storm sewer PFAS analytical results from 2025 are summarized on **Tables 4** through **6** with exceedances of Rule 57 criteria highlighted in gray. Data collected in 2025 is summarized on **Figures 9** through **11**. Results of the 2025 sampling events are summarized below.

- P2-MH-2 exceeded the Rule 57 criteria for PFOS of 12.0 ng/L during second quarter 2025 and fourth quarter 2025 with detections of 12.5 ng/L and 21.6 ng/L, respectively. No other outfall exceedances were noted on Plant 2 in 2025.
- No outfall exceedances occurred on Plant 3 in 2025.
- Flow was not observed at outfall P3-MH-NE at the northeast corner of Plant 3 downgradient of the bulkheads.
- Verlinden-MH-5 at Plant 6 exceeded Rule 57 criteria for PFOS during fourth quarter 2025 with a concentration of 13.3 ng/L. Osborn-MH-1 at Plant 6 exceeded Rule 57 criteria for PFOS during second and fourth quarters of 2025 with concentrations of 18.4 ng/L and12.2 ng/L, respectively.
- Relative flow measurements are noted at each storm sewer monitoring location. These measurements, noted as “trickle”, “little” or “moderate” flow, are highlighted on **Figures 9** through **11** for fourth quarter 2025.

3.2 Light Nonaqueous Phase Liquid Monitoring

In accordance with the 2025 IMP, the seven remaining LNAPL wells were gauged in fourth quarter as part of the groundwater elevation monitoring scope. LNAPL thickness was measured if present. A small amount of LNAPL is present in the central portion of Plant 2 with two small, isolated locations present in the north-central portion of Plant 3. LNAPL monitoring well locations and approximate extent of LNAPL are presented on **Figures 1A** and **1C**. In the monitoring wells gauged, LNAPL was only present in LMW-12-03S on Plant 2 and LMW-12-10 on Plant 3. LNAPL thicknesses are provided in **Table 7**.

3.3 Soil Vapor Monitoring

Soil vapor sampling at SVMP-20-01 near the Plant 6 entrance does not exceed the EGLE Residential site-specific vapor intrusion criteria (SSVIAC) for a residence with a basement. The results of the soil gas samples were non-detect for all results in the fourth quarter 2025 samples. A sample was unable to be collected in second quarter 2025 due to being saturated. SVMP analytical results are summarized in **Table 3** and compared to the EGLE Residential SSVIAC for a residence with a basement.

3.4 Groundwater Elevation Monitoring

Site-wide groundwater elevation surveys were completed during both the semi-annual and annual 2025 events. **Table 8** summarizes groundwater elevation measurements collected at the Site. Groundwater elevation contour maps (**Figures 12** through **15**), and groundwater elevation hydrographs (**Appendix D**) are provided for review. Trends within each water-bearing zone are discussed below.

3.4.1 Perched Zone

The groundwater elevation hydrographs included in **Appendix D** indicate that potentiometric surface elevations in the perched zone have been stable to increasing during the period of monitoring beginning in 2012. Storm sewer modifications were completed at Plant 3 during November 2018 and at Plant 2 in 2019 and 2020. The storm sewers at Plant 6 were abandoned as part of the site demolition that began in 2006. Comparison of groundwater elevations observed on Plant 3 prior to storm sewer modifications and post-modification generally show increased variability of water levels with fluctuations (both increasing and decreasing) that are within the range of seasonal variation. Perched groundwater elevations at Plant 2 generally show a gradual increasing trend since 2012, an increase in the slope of the trend following the 2019 storm sewer modifications and a stabilized trend since 2022. It is unclear whether the small changes in groundwater elevation on Plant 2 are influenced by storm sewer modifications, or part of longer-term trends related to decommissioning of the plants. Groundwater elevations at Plant 6 perched monitoring wells have been generally stable since 2012.

Due to the predominance of clay-rich sediment, the perched zone is interbedded and has an overall low permeability and is characterized by isolated sand zones within layers of silt and clay. The potentiometric surface measured within the perched zone is presented on **Figure 12** (Plants 2 and 6) and **Figure 13** (Plant 3). Both figures include potentiometric surface contours for all wells less than 27 feet deep. The lower conductivity clay and silt that dominate this zone result in high horizontal and vertical gradients. Sand zones are discontinuous and often do not correlate from well to well, and minor variations in well screen elevation have a significant impact on the potentiometric surface. Therefore, although the contour maps represent the overall shallow potentiometric surface, they are of limited use to determine perched zone groundwater flow direction.

3.4.2 Deep Overburden

Saturated deep overburden is present only at Plant 3 within a southwest-northeast trending bedrock valley. Groundwater present within the deep overburden is hydraulically connected to the weathered bedrock and bedrock zones. The groundwater elevation hydrographs included in **Appendix D** show that deep overburden water levels appear to be decreasing since 2020 following a period of steady increases 2016 to 2020. The variations observed in deep overburden water levels are likely the result of changes in precipitation, as well as long-term changes in municipal pumping.

Figure 14 presents potentiometric surface elevation contours for deep overburden wells located on Plant 3. In the northern portion of Plant 3, the apparent groundwater gradient is northwesterly consistent with historical measurements. In the southwestern portion of Plant 3, deep overburden groundwater elevation appears to be flat near the former “coliseum” (former stamping area basement) with groundwater elevation varying between 795.95 and 798.10 ft msl (feet above mean sea level). Historically, the deep overburden gradient was consistently to the to the southeast until 2021 but has been relatively flat and variable since then. These changes may be related to the operation of the biosparge system installed in July of 2019.

3.4.3 Weathered Bedrock and Bedrock

Potentiometric surface trend graphs for select bedrock and weathered bedrock wells are included in the deep hydrographs included as part of **Appendix D**. Following a period of increasing elevations from 2016 to 2020, the bedrock and weathered bedrock elevations have been decreasing since 2021. The variable potentiometric surface is likely attributed to changes in municipal pumping patterns, both long-term and seasonally.

Like the perched zone, the depth of a monitoring well within the weathered bedrock or bedrock zones plays a large role in the potentiometric surface observed at that location. Large vertical gradients occur in formations with vertical anisotropy and indicate a lack of vertical groundwater communication. Traditional groundwater elevation contour maps were not prepared for the weathered bedrock wells because they would be of limited use for interpreting groundwater flow direction and transport. For the bedrock (and by extension, the weathered bedrock), the effective head or “corrected” potentiometric surface elevation was calculated based on the observed vertical gradient. Where vertical gradient was observed, the data was normalized to the deepest well. Although not common, this approach is not unique. Normalization of head based on vertical gradient has been applied at other sites with steep vertical gradients (e.g., Ackland & Schymiczek 2004). Hydraulic gradient is a 3D flow vector (X,Y,Z). Normalizing the observed groundwater elevations based on the vertical gradient simply adjusts the vertical (Z) component to a uniform depth to present the groundwater flow vector in a consistent two-dimensional (X and Y) frame of reference.

As indicated in **Table 9**, the vertical gradient tends to be limited in the Grand River Formation near the coliseum and increases to the south to 0.52 ft/ft downward at wells MW-15-72/MW-12-05R (located in central Plant 2) before stabilizing to 0.66 ft/ft downward at wells MW-13-52/MW-13-50 (located on western Plant 6). This variation in vertical gradient appears to coincide with the transition between bedrock formations. Near the former coliseum in the western portion of Plant 3, where the bedrock encountered consists of the more uniform and permeable Grand River Formation, the vertical gradient is negligible. To the south, within the interbedded sandstone and shale of the Saginaw Formation, there is a significant vertical gradient due to the vertical anisotropy created by the interbedded shale and sandstone of the Saginaw Formation. Review of the bedrock wells and other deep boring logs suggests an approximate geologic contact between the Grand River and Saginaw Formations oriented roughly southwest to northeast. **Figure 15** includes the interpreted location of the geologic contact.

To calculate the effective head for the bedrock, an average downward gradient 0.34 ft/ft was applied to bedrock monitoring wells installed within the Saginaw Formation (**Table 9**) as follows:

$GW_{eff} = GW – (dh/dl* \Delta Elev)$

Where:

GW_{eff} = effective groundwater elevation

GW = measured groundwater elevation

dh/dl = vertical gradient

ΔElev = change in elevation between deepest well and measured well

As shown in **Figure 15**, the corrected bedrock groundwater elevation contours are a good match for the distribution of the lower 1,4-dioxane plume located within the weathered bedrock zone. Groundwater flow is generally to the south-southeast but is variable from year to year with flow in the central part of Plant 2 more easterly when water levels are generally higher, and more southerly when bedrock water levels are lower. This trend may be related to the operation of the Lansing Township water supply wells. MW-13-43/MW-13-44 were not used in vertical gradient calculations or contouring due to a suspected error in the recorded gauging measurement for MW-13-44.

4 Groundwater Plume Stability

A preliminary groundwater plume stability assessment was completed at the Site in April 2014 (Arcadis 2014). The primary objective of that assessment was to provide an initial evaluation of plume stability and determine the suitability of monitored plume stability as a remedial alternative. The preliminary plume stability assessment used data collected between October 2011 and first quarter 2014 as well as geochemical data collected during the August and September 2013 events.

The plume stability assessment has been updated annually and incorporated into the annual reports. Operation of the biosparge system in weathered bedrock has decreased concentrations in the lower 1,4-dioxane plume significantly since 2020. The plume stability assessment presented in this section represents an updated analysis of time-series concentration trends using data collected through fourth quarter 2025.

The updated statistical analysis of dissolved-phase constituent of concern (COC) concentrations with time was completed using the Mann-Kendall slope trend test. A revised list of wells and parameters consistent with the 2025 IMP was prepared for this report. Criteria for Mann-Kendall analysis included the following:

- At least seven sampling events have been completed.
- At least 50 percent of the sample results were greater than detection limits.
- At least 25 percent of the sampling results exceeded the lowest relevant criteria within the last six sampling events.

Guidance for conducting the Mann-Kendall test has been provided in Section 17.3.2 of the USEPA guidance document (USEPA 2009). The Mann-Kendall trend test is a non-parametric test to evaluate if a statistically significant unidirectional (consistently increasing or decreasing) trend was observed during the monitoring period. Correlations were accepted as significant for p-values less than or equal to the alpha value, 0.05 (with a confidence level of 95 percent). Additional information regarding the Mann-Kendall analysis and methods is provided in the 2014 *Preliminary Groundwater Geochemical and Plume Stability Assessment* (Arcadis 2014) and in **Appendix E**. **Table 10** presents a comprehensive summary of Mann-Kendall trend analysis results. The overall trend results are shown in **Figures 16** and **17** for perched and weathered bedrock zones, respectively. **Appendix E** presents plot of concentration through time for all well/COC pairs that met criteria for statistical trend analysis.

4.1 Perched Zone

4.1.1 1,4-Dioxane

The 1,4-dioxane concentrations in individual wells exhibit mostly decreasing or no significant trends within the perched zone and the overall plume appears to be stable. One monitoring well, MW-22-157 on the western property boundary of Plant 2, has an increasing 1,4-dioxane trend. This increasing trend could be associated with other off-site source areas.

4.1.2 Volatile Organic Compounds

Concentrations of VOCs in the perched zone are sporadic, and a large plume footprint has not been observed; rather, VOC concentrations in groundwater greater than DW criteria are limited to discrete source areas (e.g., central portion of Plant 2) and areas immediately surrounding observed LNAPL at Plants 2 and 3. VOC data showed decreasing or no significant trends across the Site.

4.1.3 PFOS, PFOA, PFNA, and PFHxS

Twenty-nine (29) monitoring wells met the criteria for Mann-Kendall analysis for PFOA, PFOS, PFNA, and/or PFHxS during 2025. Statistical trend analysis indicates that seven wells (MW-12-09, MW-12-13, MW-14-59, MW-14-60, MW-14-67, MW-18-88, and MW-18-103) have statistically increasing trends and all other wells with PFAS concentrations exceeding criteria demonstrate stable to decreasing trends. An increasing trend was observed at MW-14-67 and MW-12-13 for PFOA near the eastern boundary of Plant 6. PFOA is currently defined east of Plant 6 in this area by monitoring well MW-22-150 and MW-22-149. These monitoring wells will continue to be sampled for PFAS on an annual basis.

Increasing trends are also observed for PFOA and PFOS at Plant 3 at monitoring well MW-18-88 with concentrations of PFOS up to 337 ng/L in fourth quarter 2025. PFAS does not exceed criteria at the five perched sentinel monitoring wells installed further east within the City of Lansing's Dunnebacke and Westside Parks. PFHxS at MW-18-103 is an exception, which has concentrations up to 181 ng/L in fourth quarter 2025. The increasing trend of PFHxS at MW-18-103 appears to be isolated and may be related to an off-site source area such as the shingle recycling center located north of this location.

Increasing trends are also observed in central Plant 2 for PFOA at MW-14-59, and for PFOA and PFOS at MW-14-60. MW-12-09 on the western boundary of Plant 2 was observed to have an increasing trend of PFOA, but since installation has only varied a total of 9 ng/L. These monitoring wells will continue to be monitored for PFAS on an annual basis.

4.2 Deep Overburden and Weathered Bedrock

4.2.1 1,4-Dioxane

Prior to the operation of the biosparge system, concentrations within the lower 1,4-dioxane plume had decreasing to stable trends in the northern portion of the plume on Plant 3, and stable to increasing trends towards the toe of the plume and the Plant 2 LNAPL area. Since the biosparge startup (2019 at Plant 3 and 2020 at Plant 2), concentrations throughout the lower 1,4-dioxane plume are mostly stable to decreasing, except for MW-13-34, MW-19-116, and MW-14-56, which show increasing trends.

Monitoring well MW-13-34 is a weathered bedrock well at Plant 3 located downgradient of biosparge Transect A near Saginaw St. Monitoring well MW-13-34 has exhibited an overall increasing trend for 1,4-dioxane since 2013 ranging from approximately 17 µg/L up to 127 µg/L. At this location the permeable pathway is primarily the deep overburden, and the hypothesis is that the MW-13-34 concentration is more representative of mass storage and back diffusion. Monitoring well MW-13-48 is a deep overburden well co-located with MW-13-34 and shows a statistically significant decreasing trend. Monitoring well MW-13-34 will continue to be monitored annually according to the 2025 IMP.

Monitoring well MW-19-116 is a weathered bedrock well at Plant 2 located downgradient of biosparge Transect B. Monitoring well MW-19-116 has exhibited an overall increasing trend for 1,4-dioxane between 2020 and 2025, ranging from approximately 54 µg/L up to 148 µg/L. Monitoring wells surrounding MW-19-116 show stable to decreasing trends. Monitoring well MW-19-116 is installed within the weathered Saginaw Formation and may be isolated hydraulically from surrounding wells. Monitoring well MW-19-116 will continue to be sampled for 1,4-dioxane on an annual basis according to the 2025 IMP.

Monitoring well MW-14-56 is a weathered bedrock well on the western border of Plant 2 that shows an increasing trend for 1,4-dioxane. Monitoring well MW-14-56 has been consistently increasing since 2014 (from 6 µg/L to 20 µg/L). This well is located west of the RACER lower 1,4-dioxane plume and concentrations of 1,4-dioxane at these locations may be attributed to an off-site source area.

5 Conclusions

This Annual Report summarizes the groundwater, storm sewer, and VI monitoring activities completed between January and December 2025, consistent with the 2025 IMP. Based on the results of the sampling and review of the plume stability evaluation, the following conclusions are offered:

- *Lower 1,4-Dioxane:* The Plant 3 biosparge system began operating in May of 2019, and the Plant 2 biosparge system began operating in August of 2020. Since the biosparge startup, concentrations across the lower 1,4-dioxane plume are mostly stable to decreasing. Three weathered bedrock wells exhibit increasing trends for 1,4-dioxane (MW-13-34, MW-19-116, and MW-14-56). Increasing trends at these locations can be attributed to hydrogeologic conditions, transient increases in concentration, or offsite source areas (respectively). These wells will continue to be monitored according to the 2025 *Revised Interim Monitoring Work Plan – 2025 (IMP)* (Arcadis 2025a).
- *Perched 1,4-Dioxane:* Elevated detections of 1,4-dioxane at MW-14-58R and associated wells on western Plant 2 will continue to be monitored semi-annually to annually.

- *1,4-Dioxane in Bedrock:* Detections of 1,4-dioxane in deeper bedrock monitoring wells installed along the core of the plume ranged from non-detect (<0.20 µg/L) to 6.7 µg/L and did not exceed drinking water criteria in 2025.
- Lansing Township wells TWP-90-03, TWP-90-04, and TWP-90-05 were sampled in October 2025 and analyzed for 1,4-dioxane using USEPA Method 522 for drinking water. Concentrations of <0.20 (TWP-90-03), 0.38 (TWP-90-04), and 0.36 µg/L (TWP-90-05), were reported and are consistent with previous sampling results. The low-level detections of 1,4-dioxane in the region may result from several regional and/or numerous nonpoint sources. Annual sampling of Lansing Township wells will continue according to the 2025 IMP.
- *VOCs:* Groundwater sample results indicate that concentrations of 1,1-DCE exceed residential drinking water or GSI criteria at the Site during 2025. Elevated concentrations of 1,1-DCE were observed in perched monitoring well MW-22-156, on the western property boundary of Plant 2. Concentrations of elevated 1,1-DCE at MW-22-156 appear to be localized, as on-site and off-site wells in the vicinity remain low or below detection. This area will continue to be monitored semi-annually according to the 2025 IMP.
- *Plant 6 Entrance VI:* Analytical results from monitoring well MW-22-154 in 2025 showed no detections of vinyl chloride (<1 µg/L). Soil vapor sampling at SVMP-20-01, located between the Plant 6 entrance and the residential properties, has not detected vinyl chloride. Monitoring VOCs in excess of SSVIAC at the Plant 6 entrance will continue semi-annually according to the 2025 IMP.
- *PFAS Compounds:* PFOS, PFOA, PFNA, and PFHxS concentrations exceeded DW and GSI Criteria in perched monitoring wells during 2025 groundwater monitoring events. Concentrations of PFAS in perched groundwater at Plants 2, 3, and 6 property boundaries show stable to decreasing trends, except for one well on Plant 2 western boundary, two wells on the Plant 6 eastern boundary, and two wells on or near the Plant 3 eastern boundary (including one off-site). These locations are delineated off-site. There were no exceedances noted in monitoring wells with the public park east of Plant 3 except for MW-18-103, which is likely related to the shingle recycling center located to the north. Sampling will continue according to the 2025 IMP semi-annually.
- *PFAS Compounds:* Monitoring well MW-22-151, located northeast of Plant 6, decreased in PFOA concentration from a concentration of 15 ng/L detected in 2024 to 9.21 ng/L detected during the fourth quarter in 2025. Two wells (MW-22-144 and MW-22-145) located offsite, east of Plant 6, exceeded drinking water or GSI criteria, but are delineated to the east and south. There is no risk associated with DW criteria exceedance at these locations but sampling will continue according to the 2025 IMP on an annual basis.
- *Stormwater PFAS:* The semi-annual storm sewer sampling indicates the storm sewer modifications at Plant 3 have successfully reduced PFAS discharge to concentrations at or below the Rule 57 criteria. Plant 2 and 6 modifications have reduced PFAS concentrations to near Rule 57 Criteria and will continue to be monitored for changes semi-annually.

Based on the site monitoring data collected in 2025, there are no known complete exposure pathways regarding nearby residents or on-site workers and continued operation of the biosparge system is appropriate to address 1,4-dioxane-impacted groundwater in the weathered bedrock. No action beyond monitoring as presented in the 2025 IMP is recommended at this time. The DRC proposed as part of the 2021 Corrective Measure Plan is still appropriate for the Site. Results of the monitoring program do not suggest changes are required for the previously submitted *Plant 2 LNAPL Conceptual Site Model* (Arcadis 2020), or the *Lower 1,4-Dioxane Conceptual Site Model* (Arcadis 2021b). Groundwater and storm sewer PFAS monitoring will continue in accordance with the 2025 IMP (Arcadis, 2025a).

6 Proposed IMP Modifications

No changes to the IMP are currently proposed.

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Tables

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte				Primary Function
			VOCs	1,4-Dioxane	SVOCs	PFAS	
Plant 2							
Perched							
LMW-12-01	7-12	SA					LNAPL Monitoring
LMW-12-03S	4-9	SA					LNAPL Monitoring
LMW-12-07	4-9	SA					LNAPL Monitoring
LMW-14-13D	17.5-22.5	SA					LNAPL Monitoring
MW-01(2)	10-20	SA	B				VOC sentinel
MW-12-07	10-15	SA					Groundwater elevation monitoring
MW-12-08	19-24	SA					Groundwater elevation monitoring
MW-12-09	14-19	SA	B	B		A	VOC Sentinel, perched 1,4-dioxane sentinel / PFAS sentinel
MW-12-18	28-33	SA	B			A	VOC sentinel / PFAS sentinel
MW-14-54	14-19	SA	B				VOC monitoring
MW-14-55	13-18	SA	Qd				VOC monitoring
MW-14-57	15-20	SA		A			Perched 1,4-dioxane monitoring
MW-14-58R	22-27	SA	B	A		A	Perched 1,4-dioxane monitoring / PFAS Sentinal
MW-14-59	12-17	SA	B	A	Qd	A	Perched 1,4-dioxane monitoring, SVOC evaluation / PFAS Sentinal
MW-14-60	15-20	SA	B	A	Qd	A	Perched 1,4-dioxane monitoring, SVOC evaluation / PFAS Sentinal
MW-14-62	12-17	SA	B	A	Qd	A	Perched 1,4-dioxane monitoring / PFAS Sentinal
MW-21-139	7-12	SA		A		A	Perched 1,4-dioxane monitoring / PFAS Sentinal
MW-22-153	25-30	SA	SA	SA			Perched 1,4-dioxane monitoring / Perimeter VOC monitoring
MW-22-155	25.5-30.5	SA		SA			Perched 1,4-dioxane monitoring
MW-22-156	23-28	SA	SA	SA			Perched 1,4-dioxane monitoring
MW-22-157	24-29	SA	SA	SA			Perched 1,4-dioxane monitoring
MW-23-161	20-25	SA		SA			Perched 1,4-dioxane monitoring / Perimeter VOC monitoring
MW-23-162	29-34	SA		SA			Perched 1,4-dioxane monitoring / Perimeter VOC monitoring
MW-23-163	20-25	SA		SA			Perched 1,4-dioxane monitoring / Perimeter VOC monitoring
P2-MW-02	31-41	SA				A	Groundwater elevation monitoring
P2-MW-03	27-32	SA					Groundwater elevation monitoring
P2-MW-04	26-36	SA		A	Qd	A	Perched 1,4-dioxane monitoring, SVOC evaluation
P2-SB-03	14-19	SA					Groundwater elevation monitoring
P2-SB-06	24-29	SA					Groundwater elevation monitoring
P2-SB-20	8-13	SA					Groundwater elevation monitoring
PMW-02	2.59-7.59	SA					LNAPL Monitoring
Deep Overburden and Weathered Bedrock							
MW-13-43	72-77	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW / Vertical Gradient Pair
MW-13-45	72-77	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-13-51	77-87	A					GW Elevation Monitoring
MW-14-56	71-76	A		A		A	Lower 1,4-dioxane sentinel / PFAS Sentinal
MW-14-61	70-75	SA	A	SA	Qd	A	Lower 1,4-dioxane sentinel, SVOC Monitoring / Biosparge PMW / PFAS Sentinal / Vertical Gradient Pair
MW-14-63	68-73	SA		A			Lower 1,4-dioxane sentinel / Vertical Gradient Pair
MW-15-72	63-68	SA	B	A	Qd	A	Lower 1,4-dioxane monitoring / Biosparge PMW / PFAS Sentinal / Vertical Gradient Pair
MW-15-73	78-83	SA		B			Lower 1,4-dioxane sentinel / Vertical Gradient Pair
MW-16-74	66-71	A		A			Lower 1,4-dioxane sentinel / Biosparge PMW
MW-16-75	66-71	A		A			Lower 1,4-dioxane sentinel / Biosparge PMW
MW-16-76	70-75	SA		A			Lower 1,4-dioxane sentinel / Vertical Gradient Pair
MW-16-77	66-71	A		A			Lower 1,4-dioxane sentinel / Biosparge PMW
MW-16-78	68-73	A		A			Lower 1,4-dioxane sentinel / Biosparge PMW
MW-16-80	68-73	A		A			Lower 1,4-dioxane monitoring
MW-16-81	70-75	SA	B	SA		A	Lower 1,4-dioxane monitoring / Biosparge PMW / PFAS Sentinal
MW-16-82	70-75	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-16-83	71-76	SA		B			Lower 1,4-dioxane sentinel / Vertical Gradient Pair
MW-16-84	72-77	SA	A	SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-16-85	74-79	SA	B	SA			Lower 1,4-dioxane monitoring
MW-17-86	73-78	SA	B	SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-115	72.5-77.5	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-116	65-70	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-117	54-59	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-120	66-71	SA	A	SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-121	66-71	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-122	59-64	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-123	66-71	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-19-124	65-70	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-20-126	69-74	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-20-127	72-77	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW / Vertical Gradient Pair

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte				Primary Function
			VOCs	1,4-Dioxane	SVOCs	PFAS	
Plant 2							
MW-20-128	65-70	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-20-129	64-69	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
MW-20-130	63-68	A		A		A	Lower 1,4-dioxane monitoring / PFAS Sentinal
MW-21-140	67-72	A		A			Lower 1,4-dioxane monitoring
MW-21-142	71.5-76.5	A		A			Lower 1,4-dioxane monitoring / Biosparge PMW
PW-14-01	71.6-76.8	A		A			Lower 1,4-dioxane monitoring
PW-14-02	75-80	SA	Qd	SA			Lower 1,4-dioxane monitoring / Biosparge PMW
TW-14-02	67-72	SA	Qd	SA			Lower 1,4-dioxane monitoring / Biosparge PMW
TW-15-12	73-78	SA		SA			Lower 1,4-dioxane monitoring / Biosparge PMW
Bedrock							
MW-12-01	87-110	SA		B(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-12-02	87-110	SA		B(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-12-05R	100-112	SA		A(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-12-06	80.6-99.5	SA		A(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-13-44	96-115	SA		A(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-17-87	100-112	SA		A(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-19-118D	175-190	A		A(1)			Bedrock sentinel
MW-19-118S	145-160	A		A(1)			Bedrock sentinel / Vertical Gradient Pair
MW-19-125	100-115	SA		A(1)			Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
Lansing Township Wells							
TWP-03	-	-		A(1)			Municipal Well
TWP-04	-	-		A(1)			Municipal Well
TWP-05	-	-		A(1)			Municipal Well
Storm Sewer							
P2-MH-2	-	-				SA	PFAS sewer monitoring
P2-MH-9	-	-				SA	PFAS sewer monitoring, typically dry, no sample
P2-MH-W	-	-				SA	PFAS sewer monitoring

Notes:
* Site wide gauging to alternate between semi-annual events to account for seasonal variability. Semi-annual gauging includes all wells sampled semi-annually.
** Select metals includes arsenic, nickel, lead, vanadium, chromium, and copper.
(1) = Analyzed for 1,4-dioxane via low-level USEPA Method 522
New wells will be added to the figures and incorporated into the annual monitoring once 4 samples are collected and a COC list is determined.
ft bgs = feet below ground surface
M = Monthly
Q = Quarterly
SA = Semi-annual
A = Annual (2Q or 4Q of each year, each year rotates which quarter) - Annual always in 4Q no more rotating as of 4Q2025
B = biennial (starting 2nd quarter of 2026; keep it with the Annual event)
Qd = Quadrennial (every 4 years, starting 2028)

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte						Primary Function
			VOCs	1,4-Dioxane	Select Metals**	Hexavalent Chromium	SVOCs	PFAS	
Plant 3									
Perched									
CH-14-RO	7-12	SA			Qd	Qd		A	Metals monitoring
LMW-12-09	3-8	SA							LNAPL Monitoring
LMW-12-10	14-19	SA							LNAPL Monitoring
MW-13-32	5-10	SA			Qd		Qd		Groundwater elevation monitoring / perimeter SVOC & Metals monitoring
MW-18-88	6-11	SA	B		Qd	Qd		A	PFAS monitoring / sentinel VOC & Metals
MW-18-89	7-12	SA						A	PFAS monitoring
MW-18-90	15-20	SA						A	PFAS monitoring
MW-18-91	7-12	SA						A	PFAS monitoring
MW-18-92	23-28	SA						A	PFAS sentinel
MW-18-95	4.5-9.5	SA						A	PFAS monitoring
MW-18-96	7-12	SA						A	PFAS sentinel
MW-18-98	7-12	SA						A	PFAS sentinel
MW-18-99	9-14	SA						A	PFAS sentinel
MW-18-100	8-13	SA						A	PFAS sentinel
MW-18-102	10-15	SA						A	PFAS sentinel
MW-18-103	5-10	SA						A	PFAS monitoring
MW-18-104	5-10	SA						A	PFAS sentinel
MW-18-105	6-11	SA						A	PFAS monitoring
MW-18-106	5-10	SA							PFAS sentinel
MW-19-107	23-28	SA						A	PFAS sentinel
MW-19-108	23-28	SA						A	PFAS sentinel
MW-19-110	8-13	SA						A	PFAS sentinel
MW-19-111	20-25	SA						A	PFAS sentinel
MW-19-112	9-14	SA						A	PFAS sentinel
MW-19-113	16-21	SA						A	PFAS sentinel
MW-19-114	6-11	SA						A	PFAS sentinel
P3-SB-28	8-13	SA					Qd		Groundwater elevation monitoring
UNK-11	6.5-11.5	SA					Qd		VOC monitoring/SVOCs monitoring, VOCs sentinel well
UNK-15	11-16	SA						A	PFAS monitoring
Deep Overburden and Weathered Bedrock									
MW-02-01(3)	59-69	A							Groundwater elevation monitoring
MW-02-02(3)	74-84	A		B					Lower 1,4-dioxane sentinel
MW-02-03(3)	79-89	A							Groundwater elevation monitoring
MW-02-04(3)	76-86	A		B	Qd			A	Lower 1,4-dioxane/PFAS/metals sentinel
MW-04-03(3)	80-90	SA							Groundwater elevation monitoring / Vertical Gradient Pair
MW-04-04(3)	72-82	SA							Groundwater elevation monitoring / Vertical Gradient Pair
MW-12-20	75-80	A		B					Lower 1,4-dioxane sentinel
MW-12-21	70-75	SA	B	SA					Lower 1,4-dioxane monitoring / Biosparge PMW
MW-13-22	89-94	SA	B	SA					Lower 1,4-dioxane monitoring / Biosparge PMW / Vertical Gradient Pair
MW-13-23	69-74	A		B					Lower 1,4-dioxane sentinel
MW-13-24	69-74	A		B					Lower 1,4-dioxane sentinel
MW-13-25	67-72	A		A					Lower 1,4-dioxane monitoring
MW-13-26	72-77	A							Groundwater elevation monitoring
MW-13-27	67-72	A							Groundwater elevation monitoring
MW-13-29	68-73	A		A					Lower 1,4-dioxane monitoring / Biosparge PMW
MW-13-30	72-77	A							Groundwater elevation monitoring
MW-13-34	74-79	A	B	A					Lower 1,4-dioxane monitoring / Biosparge PMW
MW-13-40	72-77	A							Groundwater elevation monitoring
MW-13-41	77-82	SA	B						Lower VOC sentinel / Vertical Gradient Pair
MW-13-46	68-73	SA		A					Lower 1,4-dioxane monitoring / Vertical Gradient Pair
MW-13-48	65-70	A	B	A					Lower 1,4-dioxane monitoring / Biosparge PMW
MW-13-49	73-78	A		B					Lower 1,4-dioxane monitoring
MW-14-64	98.6-103.6	A		B					Lower 1,4-dioxane sentinel
MW-15-71	110-115	A		B					Lower 1,4-dioxane sentinel
MW-18-93	77.5-82.5	A						A	Lower PFAS Sentinel
MW-18-94	72-77	A						A	Lower PFAS, 1,4-Dioxane Sentinel
MW-18-97	85-90	A						A	Lower PFAS Sentinel
MW-18-101	80-85	A		B				A	Lower PFAS Sentinel
MW-22	52.5-62.5	A							Groundwater elevation monitoring
MW-23	52-62	A						A	PFAS sentinel
MW-91-2R	75-80	A		B	Qd	Qd		A	Lower 1,4-dioxane, PFAS and metals sentinel
MW-93-1	65-75	A							Groundwater elevation monitoring
PW-14-03R	85-90	SA		SA					Lower 1,4-dioxane monitoring / Biosparge PMW
TW-15-11	85-90	SA		SA					Lower 1,4-dioxane monitoring / Biosparge PMW

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte						Primary Function
			VOCs	1,4-Dioxane	Select Metals**	Hexavalent Chromium	SVOCs	PFAS	
Plant 3									
Bedrock									
MW-04-01(3)	95-105	-							No longer part of sampling or gauging
MW-04-02(3)	126-136	SA							GW Elevation Monitoring / Vertical Gradient Pair
MW-12-04	77-100	A							GW Elevation Monitoring
MW-13-28	99-115.5	SA		A(1)					Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-13-37	97-112	SA		B(1)					Bedrock sentinel / GW Elevation Monitoring
MW-13-38	107-124	SA		B(1)					Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
MW-13-39B	97-112	A							GW Elevation Monitoring
MW-13-47	99-119	SA		B(1)					Bedrock sentinel / GW Elevation Monitoring
MW-19-119D	180-195	A		A(1)					Bedrock sentinel
MW-19-119S	145-160	A		A(1)					Bedrock sentinel
MW-88-1	103.5-140	A							Bedrock sentinel
MW-91-3	105-117	A							Bedrock sentinel
MW-91-4	116-132.5	SA							GW Elevation Monitoring / Vertical Gradient Pair
MW-91-5	112.5-128	SA		B(1)					Bedrock sentinel / GW Elevation Monitoring
MW-91-6	82-98	SA		B(1)					Bedrock sentinel / GW Elevation Monitoring / Vertical Gradient Pair
Storm Sewer									
P3-MH-284	-	-						SA	PFAS sewer monitoring
P3-MH-NE	-	-						SA	PFAS sewer monitoring, typically dry, no sample

Notes:
* Site wide gauging to alternate between semi-annual events to account for seasonal variability. Semi-annual gauging includes all wells sampled semi-annually.
** Select metals includes arsenic, nickel, lead, vanadium, chromium, and copper.
(1) - Analyzed for 1,4-dioxane via low-level USEPA Method 522
ft bgs = feet below ground surface
Q = quarterly
SA = semi-annual
A = annual
B = biennial (starting 2nd quarter of 2026)
Qd = Quadrennial (every 4 years, starting 2028)

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte					Primary Function
			VOCs	1,4-Dioxane	Select Metals**	SVOCs	PFAS	
Plant 6								
Perched								
MW-02-02(6)	35-45	SA	B	A		Qd		Perched 1,4-dioxane monitoring, SVOC evaluation
MW-03-02	30-40	SA						Groundwater elevation monitoring
MW-03-05	35-45	SA	B	A				Perched 1,4-dioxane sentinel
MW-03-06	30-40	SA	B	A				Perched 1,4-dioxane sentinel
MW-04-05(6)	20-30	SA	A				A	Perched PFAS sentinel
MW-12-10R	10-15	SA					A	Groundwater elevation monitoring, PFAS
MW-12-11	13-18	SA					A	PFAS Sentinel
MW-12-12	13-18	SA					A	PFAS monitoring
MW-12-13	18.5-23.5	SA			Qd		A	PFAS monitoring
MW-12-14	25-30	SA						Groundwater elevation monitoring
MW-12-16	28-33	SA						Boundary monitoring
MW-13-35	25-30	-						Potential PFAS Monitoring if needed/ No gauging necessary
MW-13-36R	5.5-10.5	SA			Qd		A	PFAS monitoring
MW-14-66	14-19	SA			Qd			Metals sentinel
MW-14-67	13-18	SA			Qd		A	Metals/PFAS sentinel
MW-14-69	41-46	SA						Groundwater elevation monitoring
MW-14-70	16-21	SA					A	PFAS Sentinel
MW-20-131	5-10	SA	A				A	PFAS monitoring
MW-20-132	6-11	SA	A				A	PFAS monitoring
MW-21-133	10-15	SA					A	PFAS monitoring
MW-21-134	11-16	SA					A	PFAS monitoring
MW-21-135	22-27	SA					A	PFAS monitoring
MW-21-136	9-14	SA					A	PFAS monitoring
MW-21-137	7-12	SA					A	PFAS monitoring
MW-21-138	24-29	SA					A	PFAS monitoring
MW-22-143	26-31	SA					A	PFAS monitoring
MW-22-144	19.5-24.5	SA					A	PFAS monitoring
MW-22-145	10.5-15.5	SA					A	PFAS monitoring
MW-22-146	5.5-10.5	SA					A	PFAS monitoring
MW-22-147	7.5-12.5	SA					A	PFAS monitoring
MW-22-148	24.5-29.5	SA					A	PFAS monitoring
MW-22-149	5.5-10.5	SA					A	PFAS monitoring
MW-22-150	13-18	SA					A	PFAS monitoring
MW-22-151	13-18	SA					A	PFAS monitoring
MW-22-152	10-15	SA	A				A	PFAS monitoring
MW-22-154	16-11	SA	SA					VOCs monitoring
MW-22-158	16-21	SA					A	PFAS monitoring
MW-22-159	26-31	SA					A	PFAS monitoring
MW-22-160	14-19	SA					A	PFAS monitoring
MWBP-10-UST5-6	28-38	SA			Qd			VOCs/metal monitoring
MWBP-11-UST1-4	9-19	SA			Qd			VOCs/metal monitoring
MWBP-12-UST1-4	15-25	SA	B		Qd	Qd		VOCs/metal monitoring, SVOC evaluation
P6-MW-01	23-28	SA						Groundwater elevation monitoring
P6-SB-07	15-20	SA				Qd	A	PFAS monitoring
P6-SB-18	3-8	SA						Groundwater elevation monitoring
P6-SB-21	3-8	SA						Groundwater elevation monitoring
Deep Overburden and Weathered Bedrock								
MW-13-52	70-80	SA		B				Lower 1,4-dioxane sentinel / Vertical Gradient Pair
MW-13-53	73-83	A						Lower 1,4-dioxane sentinel
MW-21-141	72-77	A		A				Lower 1,4-dioxane sentinel
Bedrock								
MW-04-01(6)	78-88	SA		B				Bedrock sentinel
MW-04-04R	82-110	A		B			A	Bedrock sentinel / GW Elevation Monitoring
MW-04-06R	74-99.5	A		B			A	Bedrock sentinel / GW Elevation Monitoring
MW-12-03	57-80	A						GW Elevation Monitoring
MW-13-50	85-107	SA		B				Bedrock sentinel / Vertical Gradient Pair

Table 1
Revised Interim Monitoring Work Plan Summary
Revised March 2025
RACER Trust Plants 2, 3, and 6 - Lansing, Michigan

Well	Screen Interval (ft bgs)	Gauging*	Analyte					Primary Function
			VOCs	1,4-Dioxane	Select Metals**	SVOCs	PFAS	
Plant 6								
Storm Sewer								
Osborn-MH-1	-	-					SA	PFAS sewer monitoring
Verlinden-MH-1	-	-						PFAS sewer monitoring
Verlinden-MH-2	-	-						PFAS sewer monitoring
Verlinden-MH-3	-	-						PFAS sewer monitoring
Verlinden-MH-4	-	-						PFAS sewer monitoring
Verlinden-MH-5	-	-					SA	PFAS sewer monitoring
MichAve-MH-3	-	-					SA	PFAS sewer monitoring
MichAve-MH-4	-	-						PFAS sewer monitoring

Notes:

* Site wide gauging to alternate between semi-annual events to account for seasonal variability. Semi-annual gauging includes all wells sampled semi-annually.

** Select metals includes arsenic, nickel, lead, vanadium, chromium, and copper.

***TAL metals defined in Table 3 of the Quality Assurance Project Plan (ARCADIS 2011b).

ft bgs = feet below ground surface

Q = quarterly

SA = semi-annual

A = annual

B = biennial (starting 2nd quarter of 2026)

Qd = Quadrennial (every 4 years, starting 2028)

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-12-05R	MW-12-06	MW-12-09	MW-12-18	MW-13-43	MW-13-43	MW-13-44	MW-13-45	MW-13-45	MW-14-56	MW-14-57	MW-14-58R
Date Collected:				10/30/25	10/30/25	10/29/25	10/29/25	05/07/25	10/28/25	10/30/25	05/07/25	10/28/25	10/29/25	10/28/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-12-05R_103025	MW-12-06_103025	MW-12-09_102925	MW-12-18_102925	MW-13-43_050725	MW-13-43_102825	MW-13-44_103025	MW-13-45_050725	MW-13-45_102825	MW-14-56_102925	MW-14-57_102825	MW-14-58R_102925
Sample Depth (ft. bgs):				100-112	80.6-99.5	14-19	28-33	72-77	72-77	96-115	72-77	72-77	71-76	15-20	22-27
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	**9.63**	7.11	7.01	6.82	6.81	6.63	**10.36**	6.57	6.6	6.52	7.48	6.75
Conductivity	- -	- -	µS/cm	0.312	0.859	1.497	2.41	2.45	2.66	1.523	1.32	1.386	3.658	0.871	2.419
Turbidity	- -	- -	NTU	66.0	84.0	29.99	5.4	258	45.0	31.0	9.99	4.49	7.05	1.49	19.09
Dissolved oxygen (DO)	- -	- -	mg/L	0.42	0.60	0.01	0.19	2.69	4.94	0.69	0.40	1.61	1.82	0.60	0.08
Temperature	- -	- -	Deg C	14.0	14.9	15.8	12.9	18.0	11.5	14.7	17.8	13.5	13.7	18.0	16.4
Oxidation reduction potential (ORP)	- -	- -	millivolts	108.4	-24.6	-129.9	-83.9	192.9	198.9	31.8	0.10	112.2	159.6	19.5	-123.7
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	< 0.20* U	< 0.20* U	NA	NA	**5**	**1**	**6.7***	**17**	**23**	**20 [20]**	**1**	**260 Y**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-12-05R	MW-12-06	MW-12-09	MW-12-18	MW-13-43	MW-13-43	MW-13-44	MW-13-45	MW-13-45	MW-14-56	MW-14-57	MW-14-58R
Date Collected:				10/30/25	10/30/25	10/29/25	10/29/25	05/07/25	10/28/25	10/30/25	05/07/25	10/28/25	10/29/25	10/28/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-12-05R_103025	MW-12-06_103025	MW-12-09_102925	MW-12-18_102925	MW-13-43_050725	MW-13-43_102825	MW-13-44_103025	MW-13-45_050725	MW-13-45_102825	MW-14-56_102925	MW-14-57_102825	MW-14-58R_102925
Sample Depth (ft. bgs):				100-112	80.6-99.5	14-19	28-33	72-77	72-77	96-115	72-77	72-77	71-76	15-20	22-27
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	< 4.56 U	< 4.89 U	NA	NA	NA	NA	NA	< 9.41 U [< 9.41 U]	NA	< 9.42 U
4:2 FTS	--	--	ng/L	NA	NA	< 4.53 U	< 4.85 U	NA	NA	NA	NA	NA	< 9.33 U [< 9.33 U]	NA	< 9.34 U
6:2 FTS	--	--	ng/L	NA	NA	< 4.50 U	< 4.67 U	NA	NA	NA	NA	NA	< 9.27 U [< 9.27 U]	NA	< 9.28 U
8:2 FTS	--	--	ng/L	NA	NA	< 4.64 U	< 4.98 U	NA	NA	NA	NA	NA	< 9.57 U [< 9.57 U]	NA	< 9.58 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	< 4.52 U	< 4.84 U	NA	NA	NA	NA	NA	< 9.31 U [< 9.31 U]	NA	< 9.32 U
ADONA	--	--	ng/L	NA	NA	< 4.56 U	< 4.89 U	NA	NA	NA	NA	NA	< 9.41 U [< 9.41 U]	NA	< 9.42 U
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	< 4.85 U	**2.07 J**	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	**2.02 J**	**0.811 J**	NA	NA	NA	NA	NA	< 8.83 U [< 8.84 U]	NA	< 8.84 U
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	**10.3**	**8.82**	NA	NA	NA	NA	NA	**6.26 J [6.86 J]**	NA	**12.4**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	< 4.67 U	< 5.01 U	NA	NA	NA	NA	NA	< 9.63 U [< 9.63 U]	NA	< 9.64 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	< 4.61 U	< 4.94 U	NA	NA	NA	NA	NA	< 9.51 U [< 9.51 U]	NA	< 9.52 U
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	**8.97**	**3.71 J**	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	**6.54 J**
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	**5.01**	**1.41 J**	NA	NA	NA	NA	NA	< 9.09 U [< 9.09 U]	NA	**2.88 J**
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	**10.7**	**5.06 J**	NA	NA	NA	NA	NA	**2.49 J [< 9.99 U]**	NA	**10.5**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	< 4.65 U	< 4.99 U	NA	NA	NA	NA	NA	< 9.59 U [< 9.59 U]	NA	< 9.60 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	**1.17 J**	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	**1.80 J**
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	**7.20**	< 1.93 U	NA	NA	NA	NA	NA	< 3.71 U [< 3.71 U]	NA	**10.4**
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	**20.7**	**3.89**	NA	NA	NA	NA	NA	< 4.00 U [< 4.00 U]	NA	**17.8**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	**0.713 J**	< 4.87 U	NA	NA	NA	NA	NA	< 9.37 U [< 9.37 U]	NA	< 9.38 U
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	**10.3**	**6.92**	NA	NA	NA	NA	NA	**8.84 J [9.22 J]**	NA	**9.64 J**
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
PFBSA	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U
PFECHS	--	--	ng/L	NA	NA	**4.19 J**	**3.00 J**	NA	NA	NA	NA	NA	< 9.21 U [< 9.21 U]	NA	**3.13 J**
PFHxSA	--	--	ng/L	NA	NA	< 4.85 U	< 5.19 U	NA	NA	NA	NA	NA	< 9.99 U [< 9.99 U]	NA	< 10.00 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-14-59	MW-14-60	MW-14-61	MW-14-61	MW-14-62	MW-14-63	MW-15-72	MW-15-72	MW-16-74	MW-16-74	MW-16-75	MW-16-75
Date Collected:				10/29/25	10/29/25	05/07/25	10/29/25	10/29/25	10/30/25	05/07/25	10/29/25	05/07/25	10/28/25	05/08/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-14-59_102925	MW-14-60_102925	MW-14-61_050725	MW-14-61_102925	MW-14-62_102925	MW-14-63_103025	MW-15-72_050725	MW-15-72_102925	MW-16-74_050725	MW-16-74_102825	MW-16-75_050825	MW-16-75_102825
Sample Depth (ft. bgs):				12-17	15-20	70-75	70-75	12-17	68-73	63-68	63-68	66-71	66-71	66-71	66-71
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.63	7.26	6.85	7.0	**11.5**	7.04	6.75	6.74	6.62	6.52	6.94	6.79
Conductivity	- -	- -	µS/cm	0.621	0.99	3.18	3.291	0.693	1.301	1.09	1.212	2.4	2.812	1.41	1.764
Turbidity	- -	- -	NTU	9.4	9.8	28.5	5.13	3.3	104.65	24.6	10.76	30.6	9.85	24.7	34.0
Dissolved oxygen (DO)	- -	- -	mg/L	6.2	0.03	0.34	2.03	0.01	0.30	0.40	2.09	0.46	0.41	0.55	0.42
Temperature	- -	- -	Deg C	17.7	18.9	21.0	11.7	17.1	14.2	18.7	14.0	19.3	14.9	13.0	14.1
Oxidation reduction potential (ORP)	- -	- -	millivolts	27.4	-154.1	101.6	207.7	-291.2	-69.0	-34.6	128.1	3.0	115.2	-29.6	61.6
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**6**	**5**	**6 [8]**	**3**	**99**	**5**	**14**	**74**	**2**	**3**	**1**	**1**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	< 90 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-14-59	MW-14-60	MW-14-61	MW-14-61	MW-14-62	MW-14-63	MW-15-72	MW-15-72	MW-16-74	MW-16-74	MW-16-75	MW-16-75
Date Collected:				10/29/25	10/29/25	05/07/25	10/29/25	10/29/25	10/30/25	05/07/25	10/29/25	05/07/25	10/28/25	05/08/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-14-59_102925	MW-14-60_102925	MW-14-61_050725	MW-14-61_102925	MW-14-62_102925	MW-14-63_103025	MW-15-72_050725	MW-15-72_102925	MW-16-74_050725	MW-16-74_102825	MW-16-75_050825	MW-16-75_102825
Sample Depth (ft. bgs):				12-17	15-20	70-75	70-75	12-17	68-73	63-68	63-68	66-71	66-71	66-71	66-71
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	< 47.1 U	< 4.75 U	NA	< 4.53 U	< 4.92 U	NA	NA	< 9.41 U	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	< 46.7 U	< 4.71 U	NA	< 4.49 U	< 4.88 U	NA	NA	< 9.33 U	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	< 46.4 U	< 4.59 U	NA	< 4.46 U	**12.9**	NA	NA	< 9.27 U	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	< 47.9 U	< 4.83 U	NA	< 4.61 U	**2.92 J**	NA	NA	< 9.57 U	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	< 46.6 U	< 4.70 U	NA	< 4.48 U	< 4.87 U	NA	NA	< 9.31 U	NA	NA	NA	NA
ADONA	--	--	ng/L	< 47.1 U	< 4.75 U	NA	< 4.53 U	< 4.92 U	NA	NA	< 9.41 U	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	**1.40 J**	NA	NA	< 9.99 U	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	< 50.0 U	**1.96 J**	NA	< 4.81 U	< 5.23 U	NA	NA	**2.88 J**	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	**0.967 J**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	< 44.2 U	**2.30 J**	NA	< 4.25 U	**2.02 J**	NA	NA	**1.55 J**	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	< 50.0 U	**29.2**	NA	**5.71**	**19.5**	NA	NA	**7.89 J**	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	< 48.2 U	< 4.87 U	NA	< 4.63 U	< 5.04 U	NA	NA	< 9.63 U	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	< 50.0 U	**2.89 J**	NA	< 4.81 U	**1.96 J**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	< 47.6 U	**1.00 J**	NA	< 4.58 U	< 4.98 U	NA	NA	< 9.51 U	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**19.5 J**	**10.2**	NA	< 4.81 U	**18.8**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	**14.1 J**	**8.41**	NA	< 4.38 U	**6.72**	NA	NA	< 9.09 U	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	**27.8 J**	**14.0**	NA	< 4.81 U	**22.7**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	< 48.0 U	< 4.84 U	NA	< 4.62 U	< 5.02 U	NA	NA	< 9.59 U	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	< 50.0 U	**5.55**	NA	< 4.81 U	**6.68**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	**5.73**	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	**26.3**	**52.0**	NA	< 1.78 U	**42.8**	NA	NA	< 3.71 U	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	**42.5**	**31.2**	NA	**0.877 J**	**51.8**	NA	NA	< 4.00 U	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	< 46.9 U	**1.39 J**	NA	< 4.51 U	< 4.90 U	NA	NA	< 9.37 U	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**23.4 J**	**13.4**	NA	**2.98 J**	**21.7**	NA	NA	**5.64 J**	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
PFBSA	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	< 5.23 U	NA	NA	< 9.99 U	NA	NA	NA	NA
PFECHS	--	--	ng/L	< 46.1 U	**2.40 J**	NA	< 4.43 U	< 4.82 U	NA	NA	< 9.21 U	NA	NA	NA	NA
PFHxSA	--	--	ng/L	< 50.0 U	< 5.05 U	NA	< 4.81 U	**1.36 J**	NA	NA	< 9.99 U	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-16-76	MW-16-77	MW-16-77	MW-16-78	MW-16-78	MW-16-80	MW-16-81	MW-16-81	MW-16-82	MW-16-82	MW-16-84	MW-16-84
Date Collected:				10/30/25	05/08/25	10/31/25	05/08/25	10/31/25	10/30/25	05/08/25	10/29/25	05/08/25	10/31/25	05/08/25	10/31/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-16-76_103025	MW-16-77_050825	MW-16-77_103125	MW-16-78_050825	MW-16-78_103125	MW-16-80_103025	MW-16-81_050825	MW-16-81_102925	MW-16-82_050825	MW-16-82_103125	MW-16-84_050825	MW-16-84_103125
Sample Depth (ft. bgs):				70-75	66-71	66-71	68-73	68-73	68-73	70-75	70-75	70-75	70-75	72-77	72-77
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.02	6.98	8.41	6.99	6.99	**6.41**	6.87	6.78	6.86	6.84	6.89	6.88
Conductivity	- -	- -	µS/cm	3.072	2.4	1.5	1.36	1.73	4.323	2.49	3.012	1.55	1.845	2.13	2.79
Turbidity	- -	- -	NTU	6.43	7.12	24.0	3.22	9.23	15.78	10.0	12.5	0.02	5.17	33.1	4.0
Dissolved oxygen (DO)	- -	- -	mg/L	1.08	2.8	10.95	0.19	0.59	0.41	0.85	1.27	0.26	1.57	3.95	0.89
Temperature	- -	- -	Deg C	12.6	13.3	9.9	14.6	12.5	11.9	16.7	14.9	17.3	14.1	13.6	14.0
Oxidation reduction potential (ORP)	- -	- -	millivolts	-43.2	56.5	169.0	-29.2	163	-29.4	96.2	139.4	-40.7	149.7	139.9	67.9
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,4-Dioxane	**7.2**	**280**	ug/L	**2**	< 1 U	**1**	< 1 U	< 1 U	**19**	**37**	**32**	**11**	**11**	**14**	**27**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 25 U
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2 U
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10 U
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2 U
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 90 U
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-16-76	MW-16-77	MW-16-77	MW-16-78	MW-16-78	MW-16-80	MW-16-81	MW-16-81	MW-16-82	MW-16-82	MW-16-84	MW-16-84
Date Collected:				10/30/25	05/08/25	10/31/25	05/08/25	10/31/25	10/30/25	05/08/25	10/29/25	05/08/25	10/31/25	05/08/25	10/31/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-16-76_103025	MW-16-77_050825	MW-16-77_103125	MW-16-78_050825	MW-16-78_103125	MW-16-80_103025	MW-16-81_050825	MW-16-81_102925	MW-16-82_050825	MW-16-82_103125	MW-16-84_050825	MW-16-84_103125
Sample Depth (ft. bgs):				70-75	66-71	66-71	68-73	68-73	68-73	70-75	70-75	70-75	70-75	72-77	72-77
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.64 U	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.60 U	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.57 U	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.72 U	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.59 U	NA	NA	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.64 U	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	**1.59 J**	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	**0.589 J**	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	**8.97**	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.75 U	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.69 U	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	**3.45 J**	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.48 U	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	**7.20**	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.73 U	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	< 1.83 U	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	**2.50**	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.62 U	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	**12.4**	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.54 U	NA	NA	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	< 4.92 U	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-16-85	MW-16-85	MW-17-86	MW-17-86	MW-17-87	MW-19-115	MW-19-115	MW-19-116	MW-19-116	MW-19-117	MW-19-117	MW-19-118D
Date Collected:				05/08/25	10/30/25	05/08/25	10/31/25	10/30/25	05/08/25	10/31/25	05/08/25	10/31/25	05/08/25	11/06/25	10/30/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-16-85_050825	MW-16-85_103025	MW-17-86_050825	MW-17-86_103125	MW-17-87_103025	MW-19-115_050825	MW-19-115_103125	MW-19-116_050825	MW-19-116_103125	MW-19-117_050825	MW-19-117_110625	MW-19-118D_103025
Sample Depth (ft. bgs):				74-79	74-79	73-78	73-78	100-112	72.5-77.5	72.5-77.5	65-70	65-70	54-59	54-59	175-190
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.33	7.38	7.2	6.95	**9.14**	6.89	6.83	6.92	6.79	6.9	7.0	7.15
Conductivity	- -	- -	µS/cm	1.17	1.24	2.33	2.949	2.495	0.66	2.816	1.6	1.803	1.17	1.226	1.893
Turbidity	- -	- -	NTU	8.31	167.71	72.9	9.43	8.55	18.6	25.95	9.17	70.1	19.1	68.13	6.57
Dissolved oxygen (DO)	- -	- -	mg/L	2.48	2.95	8.31	0.66	2.74	4.11	0.23	3.33	0.13	0.66	0.39	0.66
Temperature	- -	- -	Deg C	13.4	14.5	13.9	13.4	13.3	13.9	13.9	11.5	14.7	15.8	14.7	12.3
Oxidation reduction potential (ORP)	- -	- -	millivolts	-104.5	-52.0	-38.4	-81.4	105.5	-9.3	-33.6	-77.6	-93.2	-79.9	-81.5	-97.2
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**4**	**20**	**10**	**10**	**2.8***	**6**	**6**	**76 [72]**	**93**	< 1 U	< 1 U	< 0.20* U
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-16-85	MW-16-85	MW-17-86	MW-17-86	MW-17-87	MW-19-115	MW-19-115	MW-19-116	MW-19-116	MW-19-117	MW-19-117	MW-19-118D
Date Collected:				05/08/25	10/30/25	05/08/25	10/31/25	10/30/25	05/08/25	10/31/25	05/08/25	10/31/25	05/08/25	11/06/25	10/30/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-16-85_050825	MW-16-85_103025	MW-17-86_050825	MW-17-86_103125	MW-17-87_103025	MW-19-115_050825	MW-19-115_103125	MW-19-116_050825	MW-19-116_103125	MW-19-117_050825	MW-19-117_110625	MW-19-118D_103025
Sample Depth (ft. bgs):				74-79	74-79	73-78	73-78	100-112	72.5-77.5	72.5-77.5	65-70	65-70	54-59	54-59	175-190
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-19-118S	MW-19-120	MW-19-120	MW-19-121	MW-19-121	MW-19-122	MW-19-122	MW-19-122	MW-19-123	MW-19-123	MW-19-123	MW-19-124
Date Collected:				10/30/25	05/08/25	10/28/25	05/06/25	10/31/25	05/08/25	08/26/25	10/31/25	05/06/25	08/26/25	11/03/25	05/07/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-118S_103025	MW-19-120_050825	MW-19-120_102825	MW-19-121_050625	MW-19-121_103125	MW-19-122_050825	MW-19-122_082625	MW-19-122_103125	MW-19-123_050625	MW-19-123_082625	MW-19-123_110325	MW-19-124_050725
Sample Depth (ft. bgs):				145-160	66-71	66-71	66-71	66-71	59-64	59-64	59-64	66-71	66-71	66-71	65-70
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.76	7.16	7.3	6.64	7.2	6.82	7.05	6.59	6.73	6.65	**6.41**	6.65
Conductivity	- -	- -	µS/cm	3.457	1.87	1.031	2.62	2.75	4.75	3.34	4.8	1.71	2.17	1.901	3.31
Turbidity	- -	- -	NTU	24.09	69.7	67.0	4.93	4.9	37.3	61.3	5.31	3.99	15.3	6.42	7.28
Dissolved oxygen (DO)	- -	- -	mg/L	0.27	0.33	2.9	0.35	2.26	0.11	6.27	2.8	4.14	5.51	1.92	0.40
Temperature	- -	- -	Deg C	13.3	17.9	15.0	16.6	14.2	14.2	16.2	13.2	13.7	17.1	12.6	18.0
Oxidation reduction potential (ORP)	- -	- -	millivolts	-47.1	74.2	23.4	199.7	126.0	142.8	102.1	142.0	163.8	84.4	211.6	-69.9
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**5.7***	**7**	**4**	**5**	< 1 U	< 1 U	**4**	**4**	**30**	**32**	**42**	**184**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	< 90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-19-118S	MW-19-120	MW-19-120	MW-19-121	MW-19-121	MW-19-122	MW-19-122	MW-19-122	MW-19-123	MW-19-123	MW-19-123	MW-19-124
Date Collected:				10/30/25	05/08/25	10/28/25	05/06/25	10/31/25	05/08/25	08/26/25	10/31/25	05/06/25	08/26/25	11/03/25	05/07/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-118S_103025	MW-19-120_050825	MW-19-120_102825	MW-19-121_050625	MW-19-121_103125	MW-19-122_050825	MW-19-122_082625	MW-19-122_103125	MW-19-123_050625	MW-19-123_082625	MW-19-123_110325	MW-19-124_050725
Sample Depth (ft. bgs):				145-160	66-71	66-71	66-71	66-71	59-64	59-64	59-64	66-71	66-71	66-71	65-70
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-19-124	MW-19-125	MW-20-126	MW-20-126	MW-20-127	MW-20-127	MW-20-128	MW-20-128	MW-20-129	MW-20-129	MW-20-129	MW-20-130
Date Collected:				11/03/25	10/30/25	05/08/25	11/03/25	05/06/25	11/03/25	05/07/25	11/04/25	05/07/25	08/26/25	11/03/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-124_110325	MW-19-125_103025	MW-20-126_050825	MW-20-126_110325	MW-20-127_050625	MW-20-127_110325	MW-20-128_050725	MW-20-128_110425	MW-20-129_050725	MW-20-129_082625	MW-20-129_110325	MW-20-130_102925
Sample Depth (ft. bgs):				65-70	100-115	69-74	69-74	72-77	72-77	65-70	65-70	64-69	64-69	64-69	63-68
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.53	**10.53**	7.06	6.84	6.6	**6.44**	6.99	NA	6.98	6.84	6.98	6.83
Conductivity	- -	- -	µS/cm	3.297	0.822	1.66	2.992	3.18	3.177	3.11	NA	1.5	1.56	1.425	0.013
Turbidity	- -	- -	NTU	16.0	25.14	17.9	25.0	6.29	4.37	10.3	NA	6.98	24.1	468.25	476
Dissolved oxygen (DO)	- -	- -	mg/L	0.88	0.29	2.53	1.48	0.55	1.22	0.96	NA	0.32	0.71	1.31	9.39
Temperature	- -	- -	Deg C	13.5	14.6	10.3	14.9	14.7	15.3	17.2	NA	18.8	19.1	15.9	14.3
Oxidation reduction potential (ORP)	- -	- -	millivolts	167.3	-159.4	196.3	151.3	-32.8	172.2	134.2	NA	-79.8	-42.8	-44.2	139.4
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**142**	< 0.20* U	**8**	**4**	**113**	**123**	**1**	**7**	**61**	**70**	**75**	**9**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-19-124	MW-19-125	MW-20-126	MW-20-126	MW-20-127	MW-20-127	MW-20-128	MW-20-128	MW-20-129	MW-20-129	MW-20-129	MW-20-130
Date Collected:				11/03/25	10/30/25	05/08/25	11/03/25	05/06/25	11/03/25	05/07/25	11/04/25	05/07/25	08/26/25	11/03/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-124_110325	MW-19-125_103025	MW-20-126_050825	MW-20-126_110325	MW-20-127_050625	MW-20-127_110325	MW-20-128_050725	MW-20-128_110425	MW-20-129_050725	MW-20-129_082625	MW-20-129_110325	MW-20-130_102925
Sample Depth (ft. bgs):				65-70	100-115	69-74	69-74	72-77	72-77	65-70	65-70	64-69	64-69	64-69	63-68
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.78 U
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.74 U
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.71 U
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.86 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.73 U
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.78 U
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**15.9**
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**13.1**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.89 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.83 U
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8.51**
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.35 J**
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**35.6**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.87 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.88 U
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.13**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.32 J**
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**23.6**
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.68 U
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.07 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-21-139	MW-21-140	MW-21-142	MW-21-142	MW-22-153	MW-22-153	MW-22-155	MW-22-155	MW-22-156	MW-22-156	MW-22-157	MW-22-157
Date Collected:				10/29/25	10/30/25	05/07/25	11/03/25	05/07/25	10/28/25	05/07/25	10/28/25	05/06/25	10/28/25	05/07/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-21-139_102925	MW-21-140_103025	MW-21-142_050725	MW-21-142_110325	MW-22-153_050725	MW-22-153_102825	MW-22-155_050725	MW-22-155_102825	MW-22-156_050625	MW-22-156_102825	MW-22-157_050725	MW-22-157_102825
Sample Depth (ft. bgs):				7-12	67-72	71.5-76.5	71.5-76.5	25-30	25-30	25.5-30.5	25.5-30.5	23-28	23-28	24-29	24-29
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.78	7.06	6.79	6.74	6.98	7.23	6.85	6.99	7.05	7.29	6.88	6.56
Conductivity	- -	- -	µS/cm	0.822	0.985	2.86	2.621	1.53	1.172	1.85	2.064	1.21	1.193	0.62	1.697
Turbidity	- -	- -	NTU	1.47	635.83	381	1,516	8.87	14.94	208	50.04	20.9	254.8	7.88	16.28
Dissolved oxygen (DO)	- -	- -	mg/L	0.39	0.62	3.41	0.96	0.21	0.09	0.22	0.06	0.27	0.0	0.22	0.02
Temperature	- -	- -	Deg C	15.9	13.5	14.1	13.2	13.8	16.4	13.7	15.3	13.1	16.1	14.7	16.0
Oxidation reduction potential (ORP)	- -	- -	millivolts	-102.3	-21.0	-71.2	-13.4	-71.2	-141.6	-37.7	-118.6	-91.3	-174.3	-53.7	-90.2
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	**141**	< 1 U [< 1 U]	NA	NA	**200 Yr [200 Yr]**	**180 Yr**	< 1 U	< 1 U
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	**5**	< 1 U [< 1 U]	NA	NA	**15 r [14 r]**	**10 r**	< 1 U	< 1 U
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
1,4-Dioxane	**7.2**	**280**	ug/L	< 1 U	< 1 U	**55**	**78**	**38**	**16 [19]**	**153**	**79**	**42 [42]**	**126**	**74**	**65**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	< 25 U	< 25 U [< 25 U]	NA	NA	< 25 Ur [< 25 Ur]	< 25 Ur	< 25 U	< 25 U
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	< 50 U	< 50 U [< 50 U]	NA	NA	< 50 Ur [< 50 Ur]	< 50 Ur	< 50 U	< 50 U
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	< 50 U	< 50 U [< 50 U]	NA	NA	< 50 Ur [< 50 Ur]	< 50 Ur	< 50 U	< 50 U
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	< 50 U	< 50 U [< 50 U]	NA	NA	< 50 Ur [< 50 Ur]	< 50 Ur	< 50 U	< 50 U
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	< 2 U	< 2 U [< 2 U]	NA	NA	< 2 Ur [< 2 Ur]	< 2 Ur	< 2 U	< 2 U
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	**9 r [7 r]**	< 5 Ur	< 5 U	< 5 U
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	< 10 U	< 10 U [< 10 U]	NA	NA	< 10 Ur [< 10 Ur]	< 10 Ur	< 10 U	< 10 U
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	< 2 U	< 2 U [< 2 U]	NA	NA	< 2 Ur [< 2 Ur]	< 2 Ur	< 2 U	< 2 U
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	< 5 U	< 5 U [< 5 U]	NA	NA	< 5 Ur [< 5 Ur]	< 5 Ur	< 5 U	< 5 U
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	< 90 U	< 90 U [< 90 U]	NA	NA	< 90 Ur [< 90 Ur]	< 90 Ur	< 90 U	< 90 U
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	< 1 Ur [< 1 Ur]	< 1 Ur	< 1 U	< 1 U
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	< 1 U	< 1 U [< 1 U]	NA	NA	**2 r [2 r]**	< 1 Ur	< 1 U	< 1 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-21-139	MW-21-140	MW-21-142	MW-21-142	MW-22-153	MW-22-153	MW-22-155	MW-22-155	MW-22-156	MW-22-156	MW-22-157	MW-22-157
Date Collected:				10/29/25	10/30/25	05/07/25	11/03/25	05/07/25	10/28/25	05/07/25	10/28/25	05/06/25	10/28/25	05/07/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-21-139_102925	MW-21-140_103025	MW-21-142_050725	MW-21-142_110325	MW-22-153_050725	MW-22-153_102825	MW-22-155_050725	MW-22-155_102825	MW-22-156_050625	MW-22-156_102825	MW-22-157_050725	MW-22-157_102825
Sample Depth (ft. bgs):				7-12	67-72	71.5-76.5	71.5-76.5	25-30	25-30	25.5-30.5	25.5-30.5	23-28	23-28	24-29	24-29
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	< 4.79 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	< 4.75 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	**46.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	**49.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	< 4.74 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ADONA	--	--	ng/L	< 4.79 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	**2.48 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	**14.0**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**35.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	< 4.90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	**5.89**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	**38.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**53.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	**272**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	**61.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	**5.98**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	**14.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	**2.18 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	**1,760**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	**88.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	**19.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**68.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	< 4.95 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	< 4.95 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	< 5.08 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFBSA	--	--	ng/L	**16.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFECHS	--	--	ng/L	**5.37**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFHxSA	--	--	ng/L	**56.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-23-161	MW-23-161	MW-23-162	MW-23-162	MW-23-163	MW-23-163	P2-MW-02	P2-MW-04	PW-14-01	PW-14-01	PW-14-02	PW-14-02
Date Collected:				05/07/25	10/28/25	05/08/25	10/28/25	05/07/25	10/28/25	10/29/25	10/29/25	05/07/25	10/28/25	05/07/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-23-161_050725	MW-23-161_102825	MW-23-162_050825	MW-23-162_102825	MW-23-163_050725	MW-23-163_102825	P2-MW-02_102925	P2-MW-04_102925	PW-14-01_050725	PW-14-01_102825	PW-14-02_050725	PW-14-02_102825
Sample Depth (ft. bgs):				20-25	20-25	29-34	29-34	20-25	20-25	31-41	26-36	71.6-76.8	71.6-76.8	75-80	75-80
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.99	6.77	6.84	**6.43**	6.95	6.86	7.18	7.3	6.67	6.55	6.97	6.79
Conductivity	- -	- -	µS/cm	1.26	1.245	2.38	3.147	0.06	1.013	1.07	1.253	3.8	3.37	2.07	1.898
Turbidity	- -	- -	NTU	48.2	8.97	20.2	26.42	27.5	17.05	14.95	13.88	15.0	74.92	16.9	13.02
Dissolved oxygen (DO)	- -	- -	mg/L	0.18	0.08	0.70	0.08	0.20	1.013	0.46	0.05	1.21	0.39	0.71	1.21
Temperature	- -	- -	Deg C	12.7	14.7	11.9	14.0	12.3	14.7	13.9	15.0	20.5	14.4	18.2	14.8
Oxidation reduction potential (ORP)	- -	- -	millivolts	-57.9	-89.3	-38.6	-58.8	-70.0	-87.6	-33.7	-103.6	107.8	53.7	152	27.8
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**42**	**14**	**24**	**27**	**8**	**9**	NA	**23**	**4**	**18**	**26**	**34**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2	P2
Location ID:				MW-23-161	MW-23-161	MW-23-162	MW-23-162	MW-23-163	MW-23-163	P2-MW-02	P2-MW-04	PW-14-01	PW-14-01	PW-14-02	PW-14-02
Date Collected:				05/07/25	10/28/25	05/08/25	10/28/25	05/07/25	10/28/25	10/29/25	10/29/25	05/07/25	10/28/25	05/07/25	10/28/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-23-161_050725	MW-23-161_102825	MW-23-162_050825	MW-23-162_102825	MW-23-163_050725	MW-23-163_102825	P2-MW-02_102925	P2-MW-04_102925	PW-14-01_050725	PW-14-01_102825	PW-14-02_050725	PW-14-02_102825
Sample Depth (ft. bgs):				20-25	20-25	29-34	29-34	20-25	20-25	31-41	26-36	71.6-76.8	71.6-76.8	75-80	75-80
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.70 U [< 4.65 U]	< 4.96 U	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.66 U [< 4.61 U]	< 4.92 U	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.30 U [< 4.65 U]	< 4.85 U	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.78 U [< 4.73 U]	< 5.05 U	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.65 U [< 4.61 U]	< 4.91 U	NA	NA	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.70 U [< 4.65 U]	< 4.96 U	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**2.68 J**	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	**< 4.41 U [0.395 J]**	**2.32 J**	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**15.8**	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.76 U]	< 5.08 U	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**1.61 J**	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.75 U [< 4.70 U]	**1.65 J**	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**11.6**	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	< 4.54 U [< 4.50 U]	**3.97 J**	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**14.3**	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.79 U [< 4.74 U]	< 5.06 U	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**2.98 J**	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	**1.55 J [1.83 J]**	**27.8**	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	**< 2.00 U [0.911 J]**	**22.8**	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.68 U [< 4.63 U]	**1.01 J**	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	**19.7**	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.64 U [< 4.94 U]	< 5.23 U	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.64 U [< 4.94 U]	< 5.23 U	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.60 U [< 4.56 U]	**1.73 J**	NA	NA	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	< 4.99 U [< 4.94 U]	< 5.27 U	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P3	P3	P3	P3
Location ID:				TW-14-02	TW-14-02	TW-14-02	TW-15-12	TW-15-12	TWP-90-03	TWP-90-04	TWP-90-05	CH-14-RO	MW-02-04(3)	MW-12-21	MW-12-21
Date Collected:				05/06/25	08/26/25	10/28/25	05/06/25	10/28/25	10/29/25	10/29/25	10/29/25	11/06/25	11/05/25	05/09/25	08/25/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	TW-14-02_050625	TW-14-02_082625	TW-14-02_102825	TW-15-12_050625	TW-15-12_102825	TWP-90-03_102925	TWP-90-04_102925	TWP-90-05_102925	CH-14-RO_110625	MW-02-04(3)_110525	MW-12-21_050925	MW-12-21_082525
Sample Depth (ft. bgs):				67-72	67-72	67-72	73-78	73-78				7-12	76-86	70-75	70-75
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.25	7.02	6.57	6.98	7.19	NA	NA	NA	7.09	6.89	6.89	6.69
Conductivity	- -	- -	µS/cm	4.25	4.91	4.273	2.93	2.224	NA	NA	NA	1.138	3.985	1.8	1.88
Turbidity	- -	- -	NTU	5.54	9.69	44.62	9.14	16.69	NA	NA	NA	3.57	380	17.9	9.12
Dissolved oxygen (DO)	- -	- -	mg/L	0.62	6.26	0.19	0.74	9.25	NA	NA	NA	0.61	0.43	0.56	0.55
Temperature	- -	- -	Deg C	16.5	20.0	14.7	13.9	14.5	NA	NA	NA	16.6	13.4	14.6	17.1
Oxidation reduction potential (ORP)	- -	- -	millivolts	183.7	75.2	-49.8	146.3	121.7	NA	NA	NA	223	92.0	-85.5	-69.9
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**2 [< 1 U]**	**2**	**194**	< 1 U	< 1 U	< 0.20* U	**0.38* [0.37*]**	**0.36***	NA	NA	**120 Y**	**150 [140]**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P2	P2	P2	P2	P2	P2	P2	P2	P3	P3	P3	P3
Location ID:				TW-14-02	TW-14-02	TW-14-02	TW-15-12	TW-15-12	TWP-90-03	TWP-90-04	TWP-90-05	CH-14-RO	MW-02-04(3)	MW-12-21	MW-12-21
Date Collected:				05/06/25	08/26/25	10/28/25	05/06/25	10/28/25	10/29/25	10/29/25	10/29/25	11/06/25	11/05/25	05/09/25	08/25/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	TW-14-02_050625	TW-14-02_082625	TW-14-02_102825	TW-15-12_050625	TW-15-12_102825	TWP-90-03_102925	TWP-90-04_102925	TWP-90-05_102925	CH-14-RO_110625	MW-02-04(3)_110525	MW-12-21_050925	MW-12-21_082525
Sample Depth (ft. bgs):				67-72	67-72	67-72	73-78	73-78				7-12	76-86	70-75	70-75
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.53 U [< 4.52 U]	< 4.60 U	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.50 U [< 4.48 U]	< 4.56 U	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.47 U [< 4.46 U]	< 4.53 U	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.61 U [< 4.60 U]	< 4.68 U	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.49 U [< 4.47 U]	< 4.55 U	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.53 U [< 4.52 U]	< 4.60 U	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**58.2 [56.5]**	**2.01 J**	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**16.3 [16.5]**	**7.00**	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.64 U [< 4.63 U]	< 4.71 U	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**76.5 [77.3]**	< 4.65 U	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**12.5 [12.0]**	< 4.89 U	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**922 [893]**	< 4.45 U	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**27.0 [25.6]**	**5.20**	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**1.62 J [1.23 J]**	< 4.69 U	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**9,560 [9,320]**	< 1.81 U	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**81.9 [79.0]**	< 1.95 U	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**228 [229]**	< 4.58 U	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**16.8 [16.2]**	**7.40**	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	**58,500 [60,900]**	**28.4**	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	< 4.81 U [< 4.80 U]	< 4.89 U	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-12-21	MW-13-22	MW-13-22	MW-13-22	MW-13-25	MW-13-28	MW-13-29	MW-13-29	MW-13-34	MW-13-34	MW-13-46	MW-13-48
Date Collected:				11/04/25	05/09/25	08/25/25	11/04/25	11/04/25	11/04/25	05/06/25	11/04/25	05/09/25	11/04/25	11/04/25	05/09/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-12-21_110425	MW-13-22_050925	MW-13-22_082525	MW-13-22_110425	MW-13-25_110425	MW-13-28_110425	MW-13-29_050625	MW-13-29_110425	MW-13-34_050925	MW-13-34_110425	MW-13-46_110425	MW-13-48_050925
Sample Depth (ft. bgs):				70-75	89-94	89-94	89-94	67-72	99-115.5	68-73	68-73	74-79	74-79	68-73	65-70
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.86	6.92	6.7	6.82	**6.38**	9.56	**6.37**	6.5	7.03	6.94	6.52	6.51
Conductivity	- -	- -	µS/cm	1.737	1.94	1.99	1.874	1.459	0.206	3.14	2.601	2.59	2.699	2.174	2.84
Turbidity	- -	- -	NTU	491.76	16.7	8.69	301.26	3.3	27.0	7.98	3.07	8.12	553.12	18.0	6.13
Dissolved oxygen (DO)	- -	- -	mg/L	1.51	3.01	1.23	0.33	0.77	1.01	0.89	0.39	0.86	0.27	0.58	0.23
Temperature	- -	- -	Deg C	14.7	12.9	18.5	14.1	13.6	15.4	13.0	14.4	17.1	13.6	14.3	16.2
Oxidation reduction potential (ORP)	- -	- -	millivolts	-59.4	131.2	60.8	-73.4	193.8	111.1	41.6	14.2	-92.7	-78.0	140.8	-2.3
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**145**	**94**	**131**	**83**	< 1 U	**0.35***	**2**	**1**	**80**	**92**	< 1 U	**62**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-12-21	MW-13-22	MW-13-22	MW-13-22	MW-13-25	MW-13-28	MW-13-29	MW-13-29	MW-13-34	MW-13-34	MW-13-46	MW-13-48
Date Collected:				11/04/25	05/09/25	08/25/25	11/04/25	11/04/25	11/04/25	05/06/25	11/04/25	05/09/25	11/04/25	11/04/25	05/09/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-12-21_110425	MW-13-22_050925	MW-13-22_082525	MW-13-22_110425	MW-13-25_110425	MW-13-28_110425	MW-13-29_050625	MW-13-29_110425	MW-13-34_050925	MW-13-34_110425	MW-13-46_110425	MW-13-48_050925
Sample Depth (ft. bgs):				70-75	89-94	89-94	89-94	67-72	99-115.5	68-73	68-73	74-79	74-79	68-73	65-70
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8:2 FTS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ADONA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFBSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFECHS	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PFHxSA	--	--	ng/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-13-48	MW-18-88	MW-18-89	MW-18-90	MW-18-91	MW-18-92	MW-18-93	MW-18-94	MW-18-95	MW-18-97	MW-18-98	MW-18-99
Date Collected:				11/04/25	11/06/25	11/05/25	11/06/25	11/06/25	11/05/25	11/05/25	11/05/25	11/06/25	11/05/25	11/04/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-13-48_110425	MW-18-88_110625	MW-18-89_110525	MW-18-90_110625	MW-18-91_110625	MW-18-92_110525	MW-18-93_110525	MW-18-94_110525	MW-18-95_110625	MW-18-97_110525	MW-18-98_110425	MW-18-99_110425
Sample Depth (ft. bgs):				65-70	6-11	7-12	15-20	7-12	23-28	77.5-82.5	72-77	4.5-9.5	85-90	7-12	9-14
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	**6.45**	6.93	7.66	**13.05**	8.18	6.84	7.64	6.71	7.33	6.96	7.36	7.73
Conductivity	- -	- -	µS/cm	3.055	0.806	0.898	1.908	0.615	1.123	0.67	6.943	0.555	1.525	0.672	1.83
Turbidity	- -	- -	NTU	8.16	8.82	10.16	1.84	2.85	46.26	16.9	4.58	24.56	21.06	3.23	0.27
Dissolved oxygen (DO)	- -	- -	mg/L	0.38	0.54	0.56	0.06	0.12	0.69	3.97	0.43	1.51	0.32	0.39	0.05
Temperature	- -	- -	Deg C	13.7	16.8	17.0	16.2	15.2	13.8	12.8	13.6	15.4	14.0	16.1	16.5
Oxidation reduction potential (ORP)	- -	- -	millivolts	-66.4	163.1	-103.3	-246.9	36.3	8.8	108.9	36.3	28.7	-78.1	-26.0	-179
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	**74 [73]**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-13-48	MW-18-88	MW-18-89	MW-18-90	MW-18-91	MW-18-92	MW-18-93	MW-18-94	MW-18-95	MW-18-97	MW-18-98	MW-18-99
Date Collected:				11/04/25	11/06/25	11/05/25	11/06/25	11/06/25	11/05/25	11/05/25	11/05/25	11/06/25	11/05/25	11/04/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-13-48_110425	MW-18-88_110625	MW-18-89_110525	MW-18-90_110625	MW-18-91_110625	MW-18-92_110525	MW-18-93_110525	MW-18-94_110525	MW-18-95_110625	MW-18-97_110525	MW-18-98_110425	MW-18-99_110425
Sample Depth (ft. bgs):				65-70	6-11	7-12	15-20	7-12	23-28	77.5-82.5	72-77	4.5-9.5	85-90	7-12	9-14
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	< 4.92 U	< 4.65 U	< 4.81 U	< 4.79 U	< 4.58 U	< 4.65 U [< 4.72 U]	< 4.77 U	< 4.97 U	< 4.71 U	< 4.83 U	< 4.96 U
4:2 FTS	--	--	ng/L	NA	< 4.88 U	< 4.61 U	< 4.77 U	< 4.75 U	< 4.54 U	< 4.61 U [< 4.68 U]	< 4.73 U	< 4.93 U	< 4.67 U	< 4.79 U	< 4.92 U
6:2 FTS	--	--	ng/L	NA	< 4.85 U	< 4.58 U	< 4.74 U	< 4.72 U	< 4.51 U	< 4.58 U [< 4.65 U]	< 4.70 U	< 4.90 U	< 4.64 U	< 4.76 U	< 4.89 U
8:2 FTS	--	--	ng/L	NA	< 5.01 U	< 4.73 U	< 4.89 U	< 4.88 U	< 4.65 U	< 4.73 U [< 4.80 U]	< 4.85 U	< 5.06 U	< 4.79 U	< 4.92 U	< 5.05 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	< 4.87 U	< 4.60 U	< 4.76 U	< 4.74 U	< 4.53 U	< 4.60 U [< 4.67 U]	< 4.72 U	< 4.92 U	< 4.66 U	< 4.78 U	< 4.91 U
ADONA	--	--	ng/L	NA	< 4.92 U	< 4.65 U	< 4.81 U	< 4.79 U	< 4.58 U	< 4.65 U [< 4.72 U]	< 4.77 U	< 4.97 U	< 4.71 U	< 4.83 U	< 4.96 U
FHpPA (7:3 FTCA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
FPePA (5:3 FTCA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
FPrPA (3:3 FTCA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
HFPO-DA (GenX)	**370**	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	**2.02 J**	**0.813 J**	**3.05 J**	**0.886 J**	**0.541 J**	< 4.37 U [< 4.43 U]	< 4.48 U	**1.80 J**	< 4.42 U	**0.706 J**	**0.799 J**
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	**8.17**	**8.82**	**9.25**	**7.34**	< 4.86 U	< 4.94 U [< 5.01 U]	**7.16**	**10.5**	< 5.00 U	**7.42**	**11.7**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	< 5.04 U	< 4.76 U	< 4.92 U	< 4.91 U	< 4.68 U	< 4.76 U [< 4.83 U]	< 4.88 U	< 5.09 U	< 4.82 U	< 4.95 U	< 5.08 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	**2.05 J**	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	**3.35 J**	**2.80 J**	**16.5**	**0.762 J**	< 4.63 U	< 4.70 U [< 4.77 U]	< 4.82 U	**0.818 J**	< 4.76 U	**0.614 J**	**1.04 J**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	< 5.23 U	**2.87 J**	**2.46 J**	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	**5.97**	**4.96**	**14.2**	**1.73 J**	< 4.42 U	< 4.49 U [< 4.56 U]	< 4.61 U	**1.64 J**	< 4.55 U	< 4.67 U	**2.05 J**
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	< 5.23 U	**4.44 J**	**4.19 J**	**1.67 J**	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	**3.19 J**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	< 5.02 U	< 4.74 U	**2.07 J**	< 4.89 U	< 4.66 U	< 4.74 U [< 4.81 U]	< 4.86 U	< 5.07 U	< 4.80 U	< 4.93 U	< 5.06 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	< 5.23 U	**1.17 J**	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	**1.35 J**	< 5.00 U	**1.03 J**	< 5.27 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	**1.37 J**	**1.34 J**	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	**337**	**133**	**966**	**41.4**	< 1.80 U	< 1.83 U [< 1.86 U]	< 1.88 U	**38.6**	< 1.86 U	**130**	**61.8**
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	**9.27**	**13.3**	**13.9**	**5.14**	< 1.94 U	< 1.98 U [< 2.00 U]	< 2.03 U	**3.60**	< 2.00 U	**2.83**	**4.34**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	**0.639 J**	**0.781 J**	**1.70 J**	< 4.77 U	< 4.56 U	< 4.63 U [< 4.70 U]	< 4.75 U	< 4.95 U	< 4.69 U	< 4.81 U	< 4.94 U
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	< 5.23 U	**4.70 J**	**2.20 J**	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	**1.31 J**	< 5.28 U	< 5.00 U	< 5.13 U	**3.67 J**
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
PFBSA	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U
PFECHS	--	--	ng/L	NA	**312**	**209**	**764**	**28.4**	**5.29**	< 4.55 U [< 4.62 U]	< 4.67 U	**37.1**	**2.87 J**	**18.6**	**77.2**
PFHxSA	--	--	ng/L	NA	< 5.23 U	< 4.94 U	< 5.11 U	< 5.09 U	< 4.86 U	< 4.94 U [< 5.01 U]	< 5.07 U	< 5.28 U	< 5.00 U	< 5.13 U	< 5.27 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-18-100	MW-18-101	MW-18-102	MW-18-103	MW-18-104	MW-18-105	MW-19-107	MW-19-108	MW-19-111	MW-19-112	MW-19-114	MW-19-119D
Date Collected:				11/04/25	11/05/25	11/05/25	11/05/25	11/05/25	11/05/25	11/06/25	11/05/25	11/05/25	11/04/25	11/05/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-18-100_110425	MW-18-101_110525	MW-18-102_110525	MW-18-103_110525	MW-18-104_110525	MW-18-105_110525	MW-19-107_110625	MW-19-108_110525	MW-19-111_110525	MW-19-112_110425	MW-19-114_110525	MW-19-119D_110425
Sample Depth (ft. bgs):				8-13	80-85	10-15	5-10	5-10	6-11	23-28	23-28	20-25	9-14	6-11	180-195
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.27	6.84	7.28	7.02	7.27	7.34	6.73	6.8	6.73	**6.15**	7.32	7.1
Conductivity	- -	- -	µS/cm	1.844	4.905	0.665	0.897	0.627	0.571	0.984	1.322	1.285	8.697	0.475	1.266
Turbidity	- -	- -	NTU	6.67	43.77	3.98	4.12	4.65	2.45	9.02	121.43	29.64	67.99	1.59	2.97
Dissolved oxygen (DO)	- -	- -	mg/L	5.98	0.26	0.35	0.30	4.29	2.35	0.48	0.47	0.47	0.33	0.41	1.99
Temperature	- -	- -	Deg C	16.5	13.1	14.3	14.1	14.5	13.5	13.3	14.2	13.7	18.8	14.4	13.5
Oxidation reduction potential (ORP)	- -	- -	millivolts	47.0	-84.2	110.5	157.6	162.2	160	-51.7	-5.8	62.3	-105.9	160.7	198.5
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**< 0.20* U [0.28*]**
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Location ID:				MW-18-100	MW-18-101	MW-18-102	MW-18-103	MW-18-104	MW-18-105	MW-19-107	MW-19-108	MW-19-111	MW-19-112	MW-19-114	MW-19-119D
Date Collected:				11/04/25	11/05/25	11/05/25	11/05/25	11/05/25	11/05/25	11/06/25	11/05/25	11/05/25	11/04/25	11/05/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-18-100_110425	MW-18-101_110525	MW-18-102_110525	MW-18-103_110525	MW-18-104_110525	MW-18-105_110525	MW-19-107_110625	MW-19-108_110525	MW-19-111_110525	MW-19-112_110425	MW-19-114_110525	MW-19-119D_110425
Sample Depth (ft. bgs):				8-13	80-85	10-15	5-10	5-10	6-11	23-28	23-28	20-25	9-14	6-11	180-195
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	< 4.81 U	< 5.00 U	**0.753 J**	< 4.92 U	< 4.97 U	< 4.86 U	< 4.52 U	< 4.61 U	< 4.62 U	< 23.6 U	< 5.14 U [< 4.74 U]	NA
4:2 FTS	--	--	ng/L	< 4.77 U	< 4.96 U	< 4.86 U	< 4.88 U	< 4.92 U	< 4.82 U	< 4.48 U	< 4.57 U	< 4.58 U	< 23.4 U	< 5.09 U [< 4.70 U]	NA
6:2 FTS	--	--	ng/L	< 4.74 U	< 4.93 U	< 4.83 U	< 4.85 U	< 4.89 U	< 4.79 U	< 4.45 U	< 4.54 U	< 4.55 U	< 23.2 U	< 5.06 U [< 4.67 U]	NA
8:2 FTS	--	--	ng/L	< 4.89 U	< 5.09 U	< 4.99 U	< 5.01 U	< 5.05 U	< 4.95 U	< 4.60 U	< 4.69 U	< 4.70 U	< 24.0 U	< 5.22 U [< 4.82 U]	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	< 4.76 U	< 4.95 U	< 4.85 U	< 4.87 U	< 4.91 U	< 4.81 U	< 4.47 U	< 4.56 U	< 4.57 U	< 23.3 U	< 5.08 U [< 4.69 U]	NA
ADONA	--	--	ng/L	< 4.81 U	< 5.00 U	< 4.90 U	< 4.92 U	< 4.97 U	< 4.86 U	< 4.52 U	< 4.61 U	< 4.62 U	< 23.6 U	< 5.14 U [< 4.74 U]	NA
FHpPA (7:3 FTCA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
FPePA (5:3 FTCA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
FPrPA (3:3 FTCA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
HFPO-DA (GenX)	**370**	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	**1.38 J**	< 4.69 U	< 4.60 U	**12.5**	**0.466 J**	**4.44 J**	**2.35 J**	**3.03 J**	**1.26 J**	< 22.1 U	**0.998 J [0.837 J]**	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**12.1**	**4.01 J**	< 5.21 U	**8.70**	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	**4.14 J [4.24 J]**	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	< 4.92 U	< 5.12 U	< 5.02 U	< 5.04 U	< 5.08 U	< 4.98 U	< 4.63 U	< 4.72 U	< 4.73 U	< 24.1 U	< 5.26 U [< 4.85 U]	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	< 5.11 U	< 5.31 U	**0.916 J**	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	< 4.86 U	< 5.05 U	< 4.96 U	< 4.97 U	< 5.02 U	< 4.92 U	< 4.57 U	< 4.66 U	< 4.67 U	< 23.8 U	< 5.19 U [< 4.79 U]	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**2.68 J**	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	**3.57 J**	< 4.83 U	< 4.74 U	**181**	< 4.80 U	**1.47 J**	**4.72**	**1.01 J**	**1.01 J**	< 22.8 U	< 4.96 U [< 4.58 U]	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	**8.03**	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	< 4.90 U	< 5.10 U	< 5.00 U	< 5.02 U	< 5.06 U	< 4.96 U	< 4.61 U	< 4.70 U	< 4.71 U	< 24.0 U	< 5.24 U [< 4.83 U]	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	**1.31 J**	< 1.97 U	< 1.93 U	**8.25**	**3.32**	**3.91**	**2.00**	**2.03**	**1.01 J**	< 9.29 U	**4.72 [5.23]**	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	**4.71**	< 2.12 U	< 2.08 U	**0.699 J**	< 2.11 U	< 2.07 U	**0.715 J**	**1.93 J**	**4.89**	< 10.0 U	< 2.18 U [< 2.01 U]	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	< 4.79 U	< 4.98 U	< 4.88 U	**11.9**	< 4.94 U	< 4.84 U	< 4.50 U	**0.545 J**	< 4.60 U	< 23.5 U	< 5.12 U [< 4.72 U]	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**3.55 J**	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	**10.7 J**	< 5.45 U [< 5.03 U]	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
PFBSA	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA
PFECHS	--	--	ng/L	**29.1**	< 4.89 U	**1.05 J**	**35.4**	**34.5**	**45.5**	**12.7**	**30.7**	**54.2**	< 23.1 U	**10.4 [9.10]**	NA
PFHxSA	--	--	ng/L	< 5.11 U	< 5.31 U	< 5.21 U	< 5.22 U	< 5.27 U	< 5.16 U	< 4.80 U	< 4.89 U	< 4.90 U	< 25.0 U	< 5.45 U [< 5.03 U]	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P6	P6
Location ID:				MW-19-119S	MW-23	MW-91-2R	PW-14-03R	PW-14-03R	PW-14-03R	TW-15-11	TW-15-11	TW-15-11	UNK-15	MW-02-02(6)	MW-03-05
Date Collected:				11/04/25	11/05/25	11/05/25	05/09/25	08/25/25	11/04/25	05/09/25	08/25/25	11/05/25	11/04/25	11/03/25	11/03/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-119S_110425	MW-23_110525	MW-91-2R_110525	PW-14-03R_050925	PW-14-03R_082525	PW-14-03R_110425	TW-15-11_050925	TW-15-11_082525	TW-15-11_110525	UNK-15_110425	MW-02-02(6)_110325	MW-03-05_110325
Sample Depth (ft. bgs):				145-160	52-62	68-78	85-90	85-90	85-90	85-90	85-90	85-90	11-16	35-45	35-45
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.97	7.03	7.07	**2.45**	**2.3**	**2.25**	6.99	7.35	6.65	7.95	6.76	7.85
Conductivity	- -	- -	µS/cm	1.323	1.838	1.681	4.61	7.34	5.368	2.99	3.91	3.247	0.605	5.995	1.625
Turbidity	- -	- -	NTU	8.82	33.86	16.07	1.71	128	7.32	12.4	30.8	13.0	1.13	8.74	92.44
Dissolved oxygen (DO)	- -	- -	mg/L	2.46	1.37	0.19	0.41	8.4	0.46	3.74	11.67	1.06	0.613	0.3	0.63
Temperature	- -	- -	Deg C	12.4	13.8	14.0	17.3	17	14.7	14.6	16.8	14.5	16.3	14.2	14.6
Oxidation reduction potential (ORP)	- -	- -	millivolts	221	-65.6	-93.1	509.1	603.5	467.6	81.1	73.7	200.3	-4.9	-111.5	-117.5
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	< 0.20* U	NA	NA	**14 [14]**	**27**	**20**	**32**	**94**	**199**	NA	**25**	< 1 U [< 1 U]
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P3	P3	P3	P3	P3	P3	P3	P3	P3	P3	P6	P6
Location ID:				MW-19-119S	MW-23	MW-91-2R	PW-14-03R	PW-14-03R	PW-14-03R	TW-15-11	TW-15-11	TW-15-11	UNK-15	MW-02-02(6)	MW-03-05
Date Collected:				11/04/25	11/05/25	11/05/25	05/09/25	08/25/25	11/04/25	05/09/25	08/25/25	11/05/25	11/04/25	11/03/25	11/03/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-19-119S_110425	MW-23_110525	MW-91-2R_110525	PW-14-03R_050925	PW-14-03R_082525	PW-14-03R_110425	TW-15-11_050925	TW-15-11_082525	TW-15-11_110525	UNK-15_110425	MW-02-02(6)_110325	MW-03-05_110325
Sample Depth (ft. bgs):				145-160	52-62	68-78	85-90	85-90	85-90	85-90	85-90	85-90	11-16	35-45	35-45
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	< 4.69 U	< 4.77 U	NA	NA	NA	NA	NA	NA	< 4.89 U	NA	NA
4:2 FTS	--	--	ng/L	NA	< 4.65 U	< 4.73 U	NA	NA	NA	NA	NA	NA	< 4.85 U	NA	NA
6:2 FTS	--	--	ng/L	NA	< 4.62 U	< 4.70 U	NA	NA	NA	NA	NA	NA	< 4.82 U	NA	NA
8:2 FTS	--	--	ng/L	NA	< 4.76 U	< 4.85 U	NA	NA	NA	NA	NA	NA	< 4.97 U	NA	NA
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	< 4.64 U	< 4.72 U	NA	NA	NA	NA	NA	NA	< 4.84 U	NA	NA
ADONA	--	--	ng/L	NA	< 4.69 U	< 4.77 U	NA	NA	NA	NA	NA	NA	< 4.89 U	NA	NA
FHpPA (7:3 FTCA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
FPePA (5:3 FTCA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
FPrPA (3:3 FTCA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
HFPO-DA (GenX)	**370**	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	< 4.40 U	**0.428 J**	NA	NA	NA	NA	NA	NA	**1.35 J**	NA	NA
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	< 4.97 U	**5.79**	NA	NA	NA	NA	NA	NA	**16.6**	NA	NA
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	< 4.79 U	< 4.88 U	NA	NA	NA	NA	NA	NA	< 5.01 U	NA	NA
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	**4.74 J**	NA	NA
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	< 4.73 U	< 4.82 U	NA	NA	NA	NA	NA	NA	**10.3**	NA	NA
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	**2.93 J**	NA	NA
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	< 4.53 U	< 4.61 U	NA	NA	NA	NA	NA	NA	**14.6**	NA	NA
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	**4.85 J**	NA	NA
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	< 4.77 U	< 4.86 U	NA	NA	NA	NA	NA	NA	**3.80 J**	NA	NA
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	**3.78 J**	NA	NA
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	**0.784 J**	NA	NA
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	**2.36**	< 1.88 U	NA	NA	NA	NA	NA	NA	**1,210**	NA	NA
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	< 1.99 U	< 2.03 U	NA	NA	NA	NA	NA	NA	**21.0**	NA	NA
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	< 4.67 U	< 4.75 U	NA	NA	NA	NA	NA	NA	**1.53 J**	NA	NA
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	< 4.97 U	**1.79 J**	NA	NA	NA	NA	NA	NA	**2.41 J**	NA	NA
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
PFBSA	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA
PFECHS	--	--	ng/L	NA	**5.81**	< 4.67 U	NA	NA	NA	NA	NA	NA	**757**	NA	NA
PFHxSA	--	--	ng/L	NA	< 4.97 U	< 5.06 U	NA	NA	NA	NA	NA	NA	< 5.19 U	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-03-06	MW-04-04(R)	MW-04-05(6)	MW-04-06R	MW-12-10R	MW-12-11	MW-12-12	MW-12-13	MW-13-36R	MW-14-67	MW-14-70	MW-20-131
Date Collected:				11/03/25	11/04/25	11/04/25	11/04/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-03-06_110325	MW-04-04R_110425	MW-04-05(6)_110425	MW-04-06R_110425	MW-12-10R_103125	MW-12-11_103125	MW-12-12_103125	MW-12-13_103125	MW-13-36R_103125	MW-14-67_103125	MW-14-70_103125	MW-20-131_102925
Sample Depth (ft. bgs):				30-40	98-108	20-30	74-99.5	10-15	13-18	13-18	18.5-23.5	5.5-10.5	13-18	16-21	5-10
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	6.76	6.94	7.56	7.42	**6.47**	6.51	7.04	7.64	**12.76**	7.49	7.03	6.97
Conductivity	- -	- -	µS/cm	8.384	1.146	2.207	6.103	8.228	4.498	1.244	0.65	2.304	1.245	1.114	5.333
Turbidity	- -	- -	NTU	8.85	5.52	1.79	13.92	1.53	1.54	4.25	7.02	2.31	11.28	40.94	6.78
Dissolved oxygen (DO)	- -	- -	mg/L	0.15	0.38	0.27	0.16	0.05	0.16	0.36	0.0	0.09	0.22	0.10	0.20
Temperature	- -	- -	Deg C	14.0	13.5	15.7	13.5	15.4	14.0	17.3	13.7	14.9	14.8	13.9	18.1
Oxidation reduction potential (ORP)	- -	- -	millivolts	-61.9	-58.6	-115.4	-177.5	78.2	-84.6	47.8	-70.6	-141.5	217.3	39.9	-41.0
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
1,4-Dioxane	**7.2**	**280**	ug/L	**5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA	< 25 U
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
Acetone	**730**	**1,700**	ug/L	NA	NA	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	< 50 U
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	< 2 U
Benzene	**5**	**200**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromobenzene	**18**	**--**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromoform	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Carbon disulfide	**800**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chlorobenzene	**100**	**25**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chloroethane	**430**	**1,100**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	**3**
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	< 5 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dibromomethane	**80**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Ethyl ether	**10**	**--**	ug/L	NA	NA	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA	< 10 U
Ethylbenzene	**74**	**18**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Iodomethane	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
m&p-Xylene	**--**	**--**	ug/L	NA	NA	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	< 2 U
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
Naphthalene	**520**	**11**	ug/L	NA	NA	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	< 5 U
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
o-Xylene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Styrene	**100**	**80**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	< 1 UJ	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	< 90 U	NA	NA	NA	NA	NA	NA	NA	NA	< 90 U
Toluene	**790**	**270**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Trichloroethene	**5**	**200**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	< 1 U
Vinyl chloride	**2**	**13**	ug/L	NA	NA	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	**2**

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-03-06	MW-04-04(R)	MW-04-05(6)	MW-04-06R	MW-12-10R	MW-12-11	MW-12-12	MW-12-13	MW-13-36R	MW-14-67	MW-14-70	MW-20-131
Date Collected:				11/03/25	11/04/25	11/04/25	11/04/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/31/25	10/29/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-03-06_110325	MW-04-04R_110425	MW-04-05(6)_110425	MW-04-06R_110425	MW-12-10R_103125	MW-12-11_103125	MW-12-12_103125	MW-12-13_103125	MW-13-36R_103125	MW-14-67_103125	MW-14-70_103125	MW-20-131_102925
Sample Depth (ft. bgs):				30-40	98-108	20-30	74-99.5	10-15	13-18	13-18	18.5-23.5	5.5-10.5	13-18	16-21	5-10
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	NA	< 4.14 U [< 4.80 U]	< 4.09 U	< 23.7 U	< 4.68 U	< 4.71 U	< 4.51 U	< 5.04 U	< 4.89 U	< 5.04 U [< 4.93 U]	< 4.49 U	< 4.69 U
4:2 FTS	--	--	ng/L	NA	< 4.10 U [< 4.76 U]	< 4.05 U	< 23.5 U	< 4.64 U	< 4.67 U	< 4.48 U	< 5.00 U	< 4.85 U	< 5.00 U [< 4.89 U]	< 4.45 U	< 4.65 U
6:2 FTS	--	--	ng/L	NA	< 4.07 U [< 4.73 U]	< 4.03 U	< 23.3 U	< 4.61 U	< 4.64 U	< 4.45 U	< 4.96 U	< 4.82 U	< 4.97 U [< 4.86 U]	< 4.42 U	< 4.10 U
8:2 FTS	--	--	ng/L	NA	< 4.21 U [< 4.88 U]	< 4.16 U	< 24.1 U	< 4.76 U	< 4.79 U	< 4.59 U	< 5.12 U	< 4.97 U	< 5.13 U [< 5.02 U]	< 4.56 U	< 4.77 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	NA	< 4.09 U [< 4.75 U]	< 4.05 U	< 23.5 U	< 4.63 U	< 4.66 U	< 4.47 U	< 4.98 U	< 4.84 U	< 4.99 U [< 4.88 U]	< 4.44 U	< 4.64 U
ADONA	--	--	ng/L	NA	< 4.14 U [< 4.80 U]	< 4.09 U	< 23.7 U	< 4.68 U	< 4.71 U	< 4.51 U	< 5.04 U	< 4.89 U	< 5.04 U [< 4.93 U]	< 4.49 U	< 4.69 U
FHpPA (7:3 FTCA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	**4.32 J**	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
FPePA (5:3 FTCA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	**15.1**	< 25.2 U	**1.61 J**	< 5.00 U	**6.32**	**34.4**	**9.16**	**52.0 [61.3]**	**46.4**	**5.91**
FPrPA (3:3 FTCA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
HFPO-DA (GenX)	**370**	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	**5.96**	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	**3.63 J**	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	NA	< 3.88 U [< 4.50 U]	**1.57 J**	< 22.2 U	**3.24 J**	< 4.42 U	**1.56 J**	**2.58 J**	**2.74 J**	**2.26 J [2.26 J]**	**5.02**	**2.11 J**
Perfluorobutanoic acid (PFBA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	**14.9**	< 25.2 U	**5.90**	**5.42**	**32.6**	**25.3**	**34.3**	**42.4 [50.2]**	**72.3**	**20.0**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	NA	< 4.23 U [< 4.91 U]	< 4.19 U	< 24.3 U	< 4.79 U	< 4.82 U	< 4.62 U	< 5.16 U	< 5.01 U	< 5.16 U [< 5.05 U]	< 4.59 U	< 4.80 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	**9.27**	< 5.35 U	**21.0**	**< 5.35 U [1.32 J]**	< 4.76 U	< 4.97 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	NA	< 4.18 U [< 4.85 U]	< 4.13 U	< 24.0 U	< 4.73 U	< 4.76 U	< 4.56 U	< 5.09 U	**0.734 J**	< 5.10 U [< 4.99 U]	< 4.53 U	< 4.74 U
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	**18.1**	< 25.2 U	**2.74 J**	< 5.00 U	**26.1**	**27.6**	**31.7**	**30.7 [32.9]**	**120**	**22.8**
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	NA	< 4.00 U [< 4.64 U]	**2.04 J**	< 22.9 U	**1.73 J**	< 4.55 U	**1.70 J**	**1.93 J**	**1.92 J**	**1.46 J [1.65 J]**	**1.35 J**	**2.61 J**
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	NA	< 4.39 U [< 5.09 U]	**25.0**	< 25.2 U	**2.61 J**	< 5.00 U	**46.9**	**51.0**	**39.3**	**66.6 [75.5]**	**238**	**23.3**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	NA	< 4.21 U [< 4.89 U]	< 4.17 U	< 24.2 U	< 4.77 U	< 4.80 U	< 4.60 U	< 5.13 U	< 4.98 U	< 5.14 U [< 5.03 U]	< 4.57 U	< 4.78 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	NA	< 4.39 U [< 5.09 U]	**1.03 J**	< 25.2 U	< 4.97 U	< 5.00 U	**7.33**	< 5.35 U	**12.3**	< 5.35 U [< 5.24 U]	< 4.76 U	**3.88 J**
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	**5.27**	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	NA	< 1.63 U [< 1.89 U]	**1.67**	< 9.34 U	**7.29**	< 1.86 U	**35.7**	< 1.99 U	**45.3**	**1.67 J [1.87 J]**	< 1.77 U	**7.55**
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	NA	< 1.76 U [< 2.04 U]	**33.5**	< 10.1 U	**4.60**	**0.810 J**	**69.7**	**20.5**	**61.8**	**27.7 [30.1]**	**30.0**	**32.3**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	NA	< 4.12 U [< 4.78 U]	**0.770 J**	< 23.6 U	< 4.66 U	< 4.69 U	< 4.50 U	**0.808 J**	< 4.87 U	**0.898 J [1.48 J]**	**0.878 J**	< 4.67 U
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	**24.5**	< 25.2 U	**4.43 J**	**2.03 J**	**47.2**	**33.4**	**32.7**	**52.3 [53.5]**	**223**	**32.7**
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
PFBSA	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U
PFECHS	--	--	ng/L	NA	< 4.05 U [< 4.70 U]	**4.86**	< 23.2 U	**1.41 J**	< 4.61 U	**2.78 J**	< 4.93 U	**7.67**	**< 4.94 U [0.979 J]**	< 4.39 U	**8.21**
PFHxSA	--	--	ng/L	NA	< 4.39 U [< 5.09 U]	< 4.34 U	< 25.2 U	< 4.97 U	< 5.00 U	< 4.79 U	< 5.35 U	< 5.19 U	< 5.35 U [< 5.24 U]	< 4.76 U	< 4.97 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-20-132	MW-21-133	MW-21-134	MW-21-136	MW-21-137	MW-21-138	MW-21-141	MW-22-143	MW-22-144	MW-22-145	MW-22-147	MW-22-148
Date Collected:				10/29/25	10/30/25	10/30/25	10/30/25	10/30/25	10/30/25	11/03/25	11/03/25	11/03/25	11/03/25	11/04/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-20-132_102925	MW-21-133_103025	MW-21-134_103025	MW-21-136_103025	MW-21-137_103025	MW-21-138_103025	MW-21-141_110325	MW-22-143_110325	MW-22-144_110325	MW-22-145_110325	MW-22-147_110425	MW-22-148_110425
Sample Depth (ft. bgs):				6-11	10-15	11-16	9-14	7-12	24-29	72-77	26-31	19.5-24.5	10.5-15.5	7.5-12.5	24.5-29.5
Field Parameters															
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.19	6.72	6.78	6.91	6.6	6.76	6.67	7.02	7.15	7.13	7.1	7.01
Conductivity	- -	- -	µS/cm	3.738	0.943	0.862	1.037	0.969	1.447	1.372	3.06	1.231	1.269	1.249	0.914
Turbidity	- -	- -	NTU	2.88	5.21	7.02	1.02	2.21	44.94	32.0	3.41	1.81	5.18	5.12	6.74
Dissolved oxygen (DO)	- -	- -	mg/L	0.29	1.38	4.06	0.36	0.37	0.48	0.90	0.06	0.26	2.01	3.54	0.72
Temperature	- -	- -	Deg C	16.3	14.4	14.8	14.7	15.7	11.1	12.4	14.3	15.2	15.4	16.0	13.2
Oxidation reduction potential (ORP)	- -	- -	millivolts	-88.6	76.6	81.8	-83.2	81.2	-70.2	140.9	-57.1	78.2	75.7	71.3	148.6
VOCs															
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	NA	NA	NA	NA	NA	NA	< 1 U [< 1 U]	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	< 50 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	**5**	**200**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	**8**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	< 2 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	< 5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	**100**	**80**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	< 90 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	**790**	**270**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	< 1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	**2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-20-132	MW-21-133	MW-21-134	MW-21-136	MW-21-137	MW-21-138	MW-21-141	MW-22-143	MW-22-144	MW-22-145	MW-22-147	MW-22-148
Date Collected:				10/29/25	10/30/25	10/30/25	10/30/25	10/30/25	10/30/25	11/03/25	11/03/25	11/03/25	11/03/25	11/04/25	11/04/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-20-132_102925	MW-21-133_103025	MW-21-134_103025	MW-21-136_103025	MW-21-137_103025	MW-21-138_103025	MW-21-141_110325	MW-22-143_110325	MW-22-144_110325	MW-22-145_110325	MW-22-147_110425	MW-22-148_110425
Sample Depth (ft. bgs):				6-11	10-15	11-16	9-14	7-12	24-29	72-77	26-31	19.5-24.5	10.5-15.5	7.5-12.5	24.5-29.5
PFAS															
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	< 4.69 U	< 4.55 U	< 4.59 U	< 4.67 U	< 4.52 U	< 4.78 U	NA	< 4.90 U	< 4.86 U	< 4.98 U	< 4.95 U [< 4.95 U]	< 5.07 U
4:2 FTS	--	--	ng/L	< 4.65 U	< 4.51 U	< 4.56 U	< 4.63 U	< 4.49 U	< 4.74 U	NA	< 4.86 U	< 4.82 U	< 4.94 U	< 4.91 U [< 4.91 U]	< 5.03 U
6:2 FTS	--	--	ng/L	< 4.06 U	< 4.59 U	< 4.50 U	< 4.41 U	< 4.56 U	< 4.71 U	NA	< 4.83 U	< 4.79 U	< 4.91 U	< 4.87 U [< 4.88 U]	< 4.99 U
8:2 FTS	--	--	ng/L	< 4.77 U	< 4.63 U	< 4.67 U	< 4.74 U	< 4.60 U	< 4.86 U	NA	< 4.98 U	< 4.94 U	< 5.07 U	< 5.03 U [< 5.03 U]	< 5.16 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	< 4.64 U	< 4.50 U	< 4.55 U	< 4.62 U	< 4.48 U	< 4.73 U	NA	< 4.85 U	< 4.81 U	< 4.93 U	< 4.90 U [< 4.90 U]	< 5.02 U
ADONA	--	--	ng/L	< 4.69 U	< 4.55 U	< 4.59 U	< 4.67 U	< 4.52 U	< 4.78 U	NA	< 4.90 U	< 4.86 U	< 4.98 U	< 4.95 U [< 4.95 U]	< 5.07 U
FHpPA (7:3 FTCA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
FPePA (5:3 FTCA)	--	--	ng/L	**4.21 J**	**2.64 J**	**1.68 J**	< 4.95 U	< 4.80 U	< 5.08 U	NA	**2.12 J**	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
FPrPA (3:3 FTCA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
HFPO-DA (GenX)	**370**	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	**2.02 J**	**2.25 J**	**2.53 J**	**0.979 J**	< 4.25 U	< 4.49 U	NA	**1.26 J**	**2.72 J**	**2.70 J**	**3.33 J [2.95 J]**	**4.70 J**
Perfluorobutanoic acid (PFBA)	--	--	ng/L	**19.5**	**20.2**	**22.1**	**2.63 J**	< 4.80 U	< 5.08 U	NA	**9.76**	**7.71**	**8.70**	**6.58 [7.03]**	**2.97 J**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	< 4.80 U	< 4.66 U	< 4.70 U	< 4.77 U	< 4.63 U	< 4.89 U	NA	< 5.01 U	< 4.97 U	< 5.10 U	< 5.06 U [< 5.07 U]	< 5.19 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	**4.44 J**	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	< 4.74 U	< 4.60 U	**0.843 J**	< 4.71 U	< 4.57 U	< 4.83 U	NA	< 4.95 U	< 4.91 U	< 5.04 U	< 5.00 U [< 5.00 U]	< 5.12 U
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	**18.7**	**18.0**	**24.7**	< 4.95 U	< 4.80 U	< 5.08 U	NA	**5.39**	**4.80 J**	**5.95**	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	**2.60 J**	**3.11 J**	**3.21 J**	< 4.51 U	< 4.37 U	< 4.62 U	NA	< 4.73 U	**8.80**	**5.85**	**1.95 J [1.87 J]**	< 4.90 U
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	**22.6**	**18.8**	**25.3**	< 4.95 U	< 4.80 U	< 5.08 U	NA	**12.3**	**9.87**	**11.8**	**2.37 J [2.26 J]**	< 5.38 U
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	< 4.78 U	< 4.64 U	< 4.68 U	< 4.75 U	< 4.61 U	< 4.87 U	NA	< 4.99 U	< 4.95 U	< 5.08 U	< 5.04 U [< 5.04 U]	< 5.17 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	**7.20**	**3.26 J**	**3.25 J**	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	**0.887 J**	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	**20.9**	**7.25**	**6.90**	< 1.84 U	< 1.78 U	< 1.88 U	NA	< 1.93 U	**1.66 J**	**1.05 J**	**3.78 [3.61]**	< 2.00 U
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	**35.7**	**50.0**	**54.2**	**0.834 J**	< 1.92 U	< 2.03 U	NA	**6.50**	**12.0**	**11.8**	**5.02 [5.36]**	< 2.15 U
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	**0.755 J**	**0.990 J**	**0.961 J**	< 4.65 U	< 4.51 U	< 4.76 U	NA	< 4.88 U	**0.835 J**	< 4.96 U	< 4.93 U [< 4.93 U]	< 5.05 U
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	**27.0**	**11.9**	**25.2**	< 4.95 U	< 4.80 U	< 5.08 U	NA	**10.3**	**11.0**	**12.1**	**2.19 J [1.83 J]**	< 5.38 U
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
PFBSA	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 U	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U
PFECHS	--	--	ng/L	**11.8**	**2.03 J**	**1.82 J**	< 4.57 U	< 4.43 U	< 4.68 U	NA	< 4.79 U	< 4.76 U	< 4.88 U	< 4.84 U [< 4.84 U]	< 4.96 U
PFHxSA	--	--	ng/L	< 4.98 U	< 4.83 U	< 4.88 U	< 4.95 U	< 4.80 U	< 5.08 SU	NA	< 5.20 U	< 5.16 U	< 5.29 U	< 5.25 U [< 5.25 U]	< 5.38 U

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-22-149	MW-22-150	MW-22-151	MW-22-152	MW-22-154	MW-22-154	MW-22-158	MW-22-160	P6-SB-07
Date Collected:				11/04/25	11/04/25	11/04/25	11/04/25	05/08/25	10/29/25	11/03/25	11/03/25	10/31/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-22-149_110425	MW-22-150_110425	MW-22-151_110425	MW-22-152_110425	MW-22-154_050825	MW-22-154_102925	MW-22-158_110325	MW-22-160_110325	P6-SB-07_103125
Sample Depth (ft. bgs):				5.5-10.5	13-18	13-18	10-15	6-11	6-11	16-21	14-19	15-20
Field Parameters												
pH	6.5 to 8.5	6.5 to 9.0	s.u.	7.2	7.39	6.79	7.11	7.1	6.97	7.07	6.95	7.68
Conductivity	- -	- -	µS/cm	0.608	3.872	3.161	0.963	2.99	13.714	3.517	1.146	0.677
Turbidity	- -	- -	NTU	2.07	17.36	21.7	18.26	15.3	3.6	3.17	3.45	10.59
Dissolved oxygen (DO)	- -	- -	mg/L	5.9	0.55	0.03	0.13	0.31	1.61	0.04	0.08	0.06
Temperature	- -	- -	Deg C	16.6	15.8	17.3	16.3	10.2	16.4	15.0	15.7	14.7
Oxidation reduction potential (ORP)	- -	- -	millivolts	144.2	70.0	-41.8	154.3	60.3	22.0	-35.7	-39.6	-129.5
VOCs												
1,1,1,2-Tetrachloroethane	**77**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,1,1-Trichloroethane	**200**	**89**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,1,2,2-Tetrachloroethane	**8.5**	**78**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,1,2-Trichloroethane	**5**	**330**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,1-Dichloroethane	**880**	**740**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,1-Dichloroethene	**7**	**130**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2,3-Trichlorobenzene	**--**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
1,2,3-Trichloropropane	**42**	**--**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2,3-Trimethylbenzene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2,4-Trichlorobenzene	**70**	**99**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
1,2,4-Trimethylbenzene	**63**	**17**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	**0.2**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	**0.05**	**5.7**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2-Dichlorobenzene	**600**	**13**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2-Dichloroethane	**5**	**360**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,2-Dichloropropane	**5**	**230**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,3,5-Trimethylbenzene	**72**	**45**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,3-Dichlorobenzene	**6.6**	**28**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,4-Dichlorobenzene	**75**	**17**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
1,4-Dioxane	**7.2**	**280**	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (Methyl ethyl ketone) (MEK)	**13,000**	**2,200**	ug/L	NA	NA	NA	< 25 U	< 25 U	< 25 U [< 25 U]	NA	NA	NA
2-Hexanone	**1,000**	**--**	ug/L	NA	NA	NA	< 50 U	< 50 U	< 50 U [< 50 U]	NA	NA	NA
2-Methylnaphthalene	**260**	**19**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
2-Phenylbutane (sec-Butylbenzene)	**80**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	**1,800**	**--**	ug/L	NA	NA	NA	< 50 U	< 50 U	< 50 U [< 50 U]	NA	NA	NA
Acetone	**730**	**1,700**	ug/L	NA	NA	NA	< 50 U	< 50 U	< 50 U [< 50 U]	NA	NA	NA
Acrylonitrile	**2.6**	**2**	ug/L	NA	NA	NA	< 2 U	< 2 U	< 2 U [< 2 U]	NA	NA	NA
Benzene	**5**	**200**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Bromobenzene	**18**	**--**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Bromodichloromethane	**80**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Bromoform	**80**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Bromomethane (Methyl bromide)	**10**	**5**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Carbon disulfide	**800**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Carbon tetrachloride	**5**	**38**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Chlorobenzene	**100**	**25**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Chlorobromomethane	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Chloroethane	**430**	**1,100**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Chloroform (Trichloromethane)	**80**	**350**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Chloromethane (Methyl chloride)	**260**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
cis-1,2-Dichloroethene	**70**	**620**	ug/L	NA	NA	NA	< 1 U	**1**	**2 [2]**	NA	NA	NA
cis-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Cymene (p-Isopropyltoluene)	**--**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Dibromochloromethane	**80**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Dibromomethane	**80**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Dichlorodifluoromethane (CFC-12)	**1,700**	**--**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Ethyl ether	**10**	**--**	ug/L	NA	NA	NA	< 10 U	< 10 U	< 10 U [< 10 U]	NA	NA	NA
Ethylbenzene	**74**	**18**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Hexachloroethane	**7.3**	**6.7**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Iodomethane	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Isopropyl benzene	**800**	**28**	ug/L	NA	NA	NA	< 5 UJ	< 5 U	< 5 U [< 5 U]	NA	NA	NA
m&p-Xylene	**--**	**--**	ug/L	NA	NA	NA	< 2 U	< 2 U	< 2 U [< 2 U]	NA	NA	NA
Methyl tert butyl ether (MTBE)	**40**	**7,100**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Methylene chloride	**5**	**1,500**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
Naphthalene	**520**	**11**	ug/L	NA	NA	NA	< 5 U	< 5 U	< 5 U [< 5 U]	NA	NA	NA
N-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
N-Propylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
o-Xylene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Styrene	**100**	**80**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
tert-Butylbenzene	**80**	**--**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Tetrachloroethene	**5**	**60**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Tetrahydrofuran	**95**	**11,000**	ug/L	NA	NA	NA	< 90 U	< 90 U	< 90 U [< 90 U]	NA	NA	NA
Toluene	**790**	**270**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
trans-1,2-Dichloroethene	**100**	**1,500**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
trans-1,3-Dichloropropene	**--**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
trans-1,4-Dichloro-2-butene	**--**	**--**	ug/L	NA	NA	NA	< 1 UJ	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Trichloroethene	**5**	**200**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Trichlorofluoromethane (CFC-11)	**2,600**	**--**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA
Vinyl chloride	**2**	**13**	ug/L	NA	NA	NA	< 1 U	< 1 U	< 1 U [< 1 U]	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Plant Number:				P6	P6	P6	P6	P6	P6	P6	P6	P6
Location ID:				MW-22-149	MW-22-150	MW-22-151	MW-22-152	MW-22-154	MW-22-154	MW-22-158	MW-22-160	P6-SB-07
Date Collected:				11/04/25	11/04/25	11/04/25	11/04/25	05/08/25	10/29/25	11/03/25	11/03/25	10/31/25
Sample Name:	Part 201 Residential Drinking Water	Part 201 Groundwater Surface Water Interface	Units	MW-22-149_110425	MW-22-150_110425	MW-22-151_110425	MW-22-152_110425	MW-22-154_050825	MW-22-154_102925	MW-22-158_110325	MW-22-160_110325	P6-SB-07_103125
Sample Depth (ft. bgs):				5.5-10.5	13-18	13-18	10-15	6-11	6-11	16-21	14-19	15-20
PFAS												
11Cl-PF3OUdS (F-53B Minor)	--	--	ng/L	< 4.94 U	< 5.05 U	< 5.01 U	< 4.95 U	NA	NA	< 4.91 U	< 4.95 U	< 4.75 U
4:2 FTS	--	--	ng/L	< 4.90 U	< 5.01 U	< 4.97 U	< 4.91 U	NA	NA	< 4.87 U	< 4.91 U	< 4.71 U
6:2 FTS	--	--	ng/L	< 4.87 U	< 4.97 U	< 4.93 U	< 4.88 U	NA	NA	< 4.84 U	< 4.88 U	< 4.68 U
8:2 FTS	--	--	ng/L	< 5.03 U	< 5.14 U	< 5.09 U	< 5.04 U	NA	NA	< 4.99 U	< 5.04 U	< 4.83 U
9Cl-PF3ONS (F-53B Major)	--	--	ng/L	< 4.89 U	< 5.00 U	< 4.96 U	< 4.90 U	NA	NA	< 4.86 U	< 4.90 U	< 4.70 U
ADONA	--	--	ng/L	< 4.94 U	< 5.05 U	< 5.01 U	< 4.95 U	NA	NA	< 4.91 U	< 4.95 U	< 4.75 U
FHpPA (7:3 FTCA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**34.9**
FPePA (5:3 FTCA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**208**
FPrPA (3:3 FTCA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**7.16**
HFPO-DA (GenX)	**370**	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
Perfluorobutanesulfonic acid (PFBS)	**420**	**670,000**	ng/L	**1.33 J**	< 4.74 U	**9.70**	**18.0**	NA	NA	**1.71 J**	< 4.65 U	**5.23**
Perfluorobutanoic acid (PFBA)	--	--	ng/L	< 5.25 U	< 5.36 U	**13.7**	**5.21 J**	NA	NA	**4.46 J**	< 5.26 U	**257**
Perfluorodecanesulfonic acid (PFDS)	--	--	ng/L	< 5.06 U	< 5.17 U	< 5.13 U	< 5.07 U	NA	NA	< 5.02 U	< 5.07 U	< 4.86 U
Perfluorodecanoic acid (PFDA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**29.2**
Perfluorododecanoic acid (PFDoA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
Perfluoroheptanesulfonic Acid (PFHpS)	--	--	ng/L	**3.74 J**	< 5.10 U	< 5.06 U	< 5.01 U	NA	NA	< 4.96 U	< 5.01 U	**0.667 J**
Perfluoroheptanoic acid (PFHpA)	--	--	ng/L	< 5.25 U	< 5.36 U	**2.81 J**	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**645**
Perfluorohexanesulfonic acid (PFHxS)	**51**	**210**	ng/L	< 4.77 U	< 4.88 U	**1.64 J**	**2.86 J**	NA	NA	< 4.74 U	< 4.78 U	**5.10**
Perfluorohexanoic acid (PFHxA)	**400,000**	--	ng/L	< 5.25 U	< 5.36 U	**6.73**	**2.65 J**	NA	NA	**1.96 J**	< 5.26 U	**776**
Perfluorononanesulfonic acid (PFNS)	--	--	ng/L	< 5.04 U	< 5.15 U	< 5.10 U	< 5.05 U	NA	NA	< 5.00 U	< 5.05 U	< 4.84 U
Perfluorononanoic acid (PFNA)	**6**	**30**	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**133**
Perfluorooctane Sulfonamide (FOSA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	**1.35 J**
Perfluorooctane sulfonic acid (PFOS)	**16**	**12**	ng/L	**1.73 J**	< 1.99 U	**5.26**	**2.70**	NA	NA	< 1.93 U	< 1.95 U	**53.8**
Perfluorooctanoic acid (PFOA)	**8**	**170**	ng/L	**1.40 J**	< 2.14 U	**9.21**	**4.96**	NA	NA	**0.941 J**	< 2.10 U	**924**
Perfluoropentanesulfonic acid (PFPeS)	--	--	ng/L	< 4.92 U	< 5.03 U	< 4.99 U	< 4.93 U	NA	NA	< 4.89 U	< 4.93 U	**1.52 J**
Perfluoropentanoic acid (PFPeA)	--	--	ng/L	< 5.25 U	< 5.36 U	**14.4**	**3.50 J**	NA	NA	**2.63 J**	< 5.26 U	**737**
Perfluorotetradecanoic acid (PFTeA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
Perfluorotridecanoic Acid (PFTriA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
Perfluoroundecanoic acid (PFUnA)	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
PFBSA	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U
PFECHS	--	--	ng/L	< 4.84 U	< 4.94 U	< 4.90 U	< 4.85 U	NA	NA	< 4.81 U	< 4.85 U	**3.34 J**
PFHxSA	--	--	ng/L	< 5.25 U	< 5.36 U	< 5.32 U	< 5.26 U	NA	NA	< 5.21 U	< 5.26 U	< 5.04 U

Data Flagging:

Bold font represents data where detections were noted above the laboratory method detection limit.

Gray shading represents result exceeding either or both the EGLE Part 201 Residential Drinking Water Criteria or Groundwater Surface Water Interface Crtieria (Updated October 12, 2023)

1. EGLE Part 201 Residential Drinking Water Criteria and Groundwater Surface Water Interface Criteria from the Generic Cleanup Criteria and Screening Levels (dated January 10, 2018) are used for comparison with all VOC and Inorganic data and revised criteria values (dated October 12, 2023) are used for comparison with all PFAS data.
2. 1,4-Dioxane is compared to a drinking water criteria of 7.2 µg/L per the EGLE (formerly MDEQ) Establishment of Cleanup Criteria for 1,4 -Dioxane: Emergency Rules dated October 27, 2016.
3. Duplicate analyses are presented in brackets next to the parent sample.
4. Groundwater samples were analyzed for VOCs via Method 8260B, PFAS via Method 537 modified with isotope dilution per QSM 5.1, and low-level 1,4-Dioxane via EPA Method 522.

Abbreviations:

- - = Not listed in the EGLE Criteria Tables
* = Analyzed for low-level 1,4-Dioxane via EPA Method 522
Deg. C. = degrees Celsius
EGLE = Michigan Department of Environment, Great Lakes, and Energy
EPA = Environmental Protection Agency
ft. bgs = feet below ground surface
GSI = groundwater surface water interface
mg/L = milligrams per liter
ng/L = nanograms per liter
NA = Not Analyzed
NTU = Nephelometric Turbidity Unit
PFAS = per- and polyfluoroalkyl substances
s.u. = standard unit
ug/L = micrograms per liter
µS/cm = microSiemens per centimeter
VOCs = volatile organic carbons

Lab and Validation Data Qualifiers:

< = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
E = Concentration exceeds calibration range
J = The compound was positively identified, but the associated numerical value is an estimated concentration only.
r = Analyte is being reported as the best result from multiple runs
S = Surrogate recovery outside of control limits
U = Analyzed but not detected above the method detection limit
Y = Elevated reporting limit due to high target concentration.

Table 3
Summary of Soil Vapor Analytical Results - 2025
RACER Lansing
Lansing, Michigan

	Location ID	SVMP-20-01	SVMP-20-01
	Date	10/29/2025	10/29/2025
	Sample ID	SVMP-20-01_102925	DUP-01_102925
Analyte	**Residential SSVIAC ($\mu g/m^3$)**		
VOC via USEPA Method TO-15 ($\mu g/m^3$)			
1,1,1-Trichloroethane	170,000 (SE) st	< 33	< 33
1,1,2,2-Tetrachloroethane	--	< 3.3	< 3.3
1,1,2-Trichloroethane	7 nc	< 6.5	< 6.5
1,1-Dichloroethane	530 ca	< 24	< 24
1,1-Dichloroethene	7,000 nc	< 24	< 24
1,2,4-Trichlorobenzene	--	< 22	< 22
1,2,4-Trimethylbenzene	2,100 nc	< 29	< 29
1,2-Dibromoethane (Ethylene dibromide)	1.4 ca	< 0.92	< 0.92
1,2-Dichlorobenzene	--	< 36	< 36
1,2-Dichloroethane	33 ca	< 4.9	< 4.9
1,2-Dichloropropane	--	< 28	< 28
1,3,5-Trimethylbenzene	2,100 nc	< 29	< 29
1,3-Butadiene	--	< 2.7	< 2.7
1,3-Dichlorobenzene	--	< 36	< 36
1,4-Dichlorobenzene	--	< 36	< 36
1,4-Dioxane	170 ca	< 22	< 22
2,2,4-Trimethylpentane	120,000 nc	< 56	< 56
2-Butanone (Methyl ethyl ketone) (MEK)	170,000 (SE) dev	< 35	< 35
2-Hexanone	--	< 49	< 49
2-Phenylbutane (sec-Butylbenzene)	--	< 6.6	< 6.6
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	--	< 49	< 49
Acetone	1,000,000 st	< 57 *L-JS	< 57 *L-JS
Benzene	110 ca	< 19	< 19
Benzyl chloride	--	< 6.2	< 6.2
Bromodichloromethane	--	< 8.0	< 8.0
Bromoform	--	< 62	< 62
Bromomethane (Methyl bromide)	--	< 23	< 23
Carbon disulfide	24,000 nc	< 37	< 37
Carbon tetrachloride	--	< 7.5	< 7.5
Chlorobenzene	--	< 28	< 28
Chloroethane	--	< 16	< 16
Chloroform (Trichloromethane)	37 ca	< 5.9	< 5.9
Chloromethane (Methyl chloride)	--	< 12	< 12
cis-1,2-Dichloroethene	280 nc	< 24	< 24
cis-1,3-Dichloropropene	--	< 27	< 27
Cyclohexane	210,000 nc	< 41	< 41
Dibromochloromethane	--	< 4.1	< 4.1
Dichlorodifluoromethane (CFC-12)	--	< 30	< 30
Ethanol	630,000 (SE) st	< 23	< 23
Ethyl acetate	--	< 43	< 43
Ethylbenzene	340 ca	< 52	< 52
Hexachlorobutadiene	--	< 5.1	< 5.1
Hexane	24,000 nc	< 42	< 42
Isopropyl alcohol	--	< 29	< 29
Methyl tert butyl ether (MTBE)	3,300 ca	< 22	< 22
Methylene chloride	--	< 42	< 42
Naphthalene	25 ca	< 19	< 19

Table 3
Summary of Soil Vapor Analytical Results - 2025
RACER Lansing
Lansing, Michigan

Analyte	Residential SSVIAC (µg/m^3)	Location ID Date Sample ID	SVMP-20-01 10/29/2025 SVMP-20-01_102925	SVMP-20-01 10/29/2025 DUP-01_102925
VOC via USEPA Method TO-15 (µg/m^3)				
N-Heptane	--		< 49	< 49
N-Propylbenzene	33,000 (SE) dev		< 29	< 29
o-Xylene	--		< 52	< 52
p&o-Xylene	--		< 52	< 52
Pentane	--		< 18	< 18
Styrene	--		< 51	< 51
tert-Butylbenzene	--		< 6.6	< 6.6
Tetrachloroethene	1,400 (SE) st		< 41	< 41
Tetrahydrofuran	--		< 3.5	< 3.5
Toluene	170,000 (SE) st		< 23	< 23
trans-1,2-Dichloroethene	2,800 nc		< 24	< 24
trans-1,3-Dichloropropene	--		< 27	< 27
Trichloroethene	67 (SE) dev		< 1.6	< 1.6
Trichlorofluoromethane (CFC-11)	--		< 34	< 34
Trifluorotrichloroethane (Freon 113)	--		< 46	< 46
Vinyl acetate	--		< 42	< 42
Vinyl chloride	54 mut		< 15	< 15
Xylene (total)	7,600 nc		< 100	< 100

NOTES:

All results compared to Michigan Department of Environment, Great Lakes and Energy (EGLE) site-specific volatilization to indoor air criteria (SSVIAC), August 15, 2018.

Residential SSVIAC - Applies to a residential house with a basement, the depth to groundwater of 10 feet at the Site and soil type of sand.
Dup - represents duplicate sample analytical results
All analytical results are presented in micrograms per cubic meter (µg/m^3)
-- = No criteria requested for SSVIAC
< = Not Detected above laboratory detection limit
* = Duplicate analysis not within control limits
JS = Analyte is an estimated value and should be used for screening purposes only.
L- = Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.
SVMP = Soil vapor monitoring point
SSVIAC = Site-specific volatilization to indoor air criteria (provided by EGLE)

EGLE Footnotes:

(SE) = Site-specific criteria based on single event exposure; therefore, sampling methods should reflect shorter exposure scenarios.
ca = the criterion is based on carcinogenic health effects
dev = the criterion is based on developmental health effects
mut = the criterion is based on mutagenic cancer health effects
nc = the criterion is based on non-carcinogenic health effects
st = the criterion is based on short-term toxicity

Table 4
Summary of Plant 2 Storm Sewer Sampling Results
RACER Trust - Plant 2 Industrial Land, Lansing, Michigan

Location ID: Date Collected:	Units	MI Rule 57 SW (EGLE 2017)	P2-MH-2 5/9/2025	P2-MH-2 10/16/2025	P2-MH-W 5/9/2025	P2-MH-W 10/16/2025
Results						
Perfluorooctanesulfonic acid (PFOS)	ng/L	12	12.5	21.6	1.2 J	1.7 J
Perfluorooctanoic acid (PFOA)	ng/L	170	15.2	17.2	1.9 J	2.8
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	1.6 J	5.6	1.2 J	1.3 J
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	3.4 J	4.5	1.7 J	1.3 J
Perfluorononanoic acid (PFNA)	ng/L	30	1.8 J	2.5 J	< 0.8	< 0.8
Other PFAS	ng/L	NC	23.9	37.9	3.6	8.2

Notes:

Shaded	Exceeds Rule 57 Human Non-Cancer Screening Value for Surface Water from a Non-Drinking Water Source for PFOS or PFOA

NC = No criteria
ng/L = Nanograms per liter
PFAS = Per- and polyfluoroalkyl substances
J = Indicates an estimated value below laboratory reporting limit
< = The compound was analyzed for but not detected.
All samples analyzed using USEPA Method 537M, Michigan List of 28

Table 5
Summary of Plant 3 Storm Sewer Sampling Results
RACER Trust - Plant 3 Industrial Land, Lansing, Michigan

Location ID: Date Collected:	Units	MI Rule 57 SW (EGLE 2017)	P3-MH-284 5/9/2025	P3-MH-284 10/16/2025
Results				
Perfluorooctanesulfonic acid (PFOS)	ng/L	12	3.5	3.8
Perfluorooctanoic acid (PFOA)	ng/L	170	< 0.6	< 0.6
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	1.2 J	0.8 J
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	< 0.9	< 0.9
Perfluorononanoic acid (PFNA)	ng/L	30	< 0.8	< 0.9
Other PFAS	ng/L	NC	1.3	0.0

Notes:

Shaded — Exceeds Rule 57 Human Non-Cancer Screening Value for Surface Water from a Non-Drinking Water Source for PFOS or PFOA

NC = No criteria

ng/L = Nanograms per liter

PFAS = Per- and polyfluoroalkyl substances

J = Indicates an estimated value below laboratory reporting limit

< = The compound was analyzed for but not detected.

All samples analyzed using USEPA Method 537M, Michigan List of 28

Table 6
Summary of Plant 6 Storm Sewer Sampling Results
RACER Trust - Plant 6 Industrial Land, Lansing, Michigan

Location ID: Date Collected:	Units	MI Rule 57 SW (EGLE 2017)	MichAve-MH-3 5/9/2025	MichAve-MH-3 10/16/2025	Verlinden-MH-5 5/9/2025	Verlinden-MH-5 10/16/2025	Osborn-MH-1 5/9/2025	Osborn-MH-1 10/16/2025
Results								
Perfluorooctanesulfonic acid (PFOS)	ng/L	12	4.6	5.9	8.5	13.3	18.4 [19.2]	12.2 [11.2]
Perfluorooctanoic acid (PFOA)	ng/L	170	6.3	6.7	14.8	38.0	16.0 [18.2]	18.5 [20.3]
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	3.5 J	3.4 J	2.3 J	3.2 J	1.0 J [0.9 J]	1.6 J [1.5 J]
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	2.8 J	4.3	1.1 J	2.0 J	1.5 J [1.5 J]	1.9 J [2.0 J]
Perfluorononanoic acid (PFNA)	ng/L	30	< 0.8	< 0.8	1.7 J	3.2 J	3.4 J [3.6 J]	2.4 J [2.2 J]
Other PFAS	ng/L	NC	148.4	21.5	46.7	76.6	38.5 [39.3]	47.5 [43.1]

Notes:

Shaded — Exceeds Rule 57 Human Non-Cancer Screening Value for Surface Water from a Non-Drinking Water Source for PFOS or PFOA

NC = No criteria
ng/L = Nanograms per liter
PFAS = Per- and polyfluoroalkyl substances
[ ] Indicates duplicate sample
J = Indicates an estimated value below laboratory reporting limit
< = The compound was analyzed for but not detected.
All samples analyzed using USEPA Method 537M, Michigan List of 28

Table 7
Summary of LNAPL Thickness - 2025
RACER Trust Plants 2 and 3
Lansing, Michigan

Well ID	Date Collected	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Depth to Water (feet below TOC)	Depth to LNAPL (feet below TOC)	Calculated Thickness NAPL (feet)	Groundwater Elevation (feet amsl)	Corrected Groundwater Elevation (feet amsl)
Plant 2									
LMW-12-01	10/27/2025	864.91	862.14	14.81	4.51	NP	NP	860.40	860.40
LMW-12-03S	10/27/2025	864.93	862.06	11.80	3.82	3.76	0.06	861.11	861.16
LMW-12-07	10/27/2025	864.13	861.50	12.00	2.60	NP	NP	861.53	861.53
LMW-14-13D	10/27/2025	865.03	862.06	24.32	4.63	NP	NP	860.40	860.40
PMW-02	10/27/2025	860.94	861.33	NM	NM	NM	NM	NM	NM
Plant 3									
LMW-12-09	10/28/2025	863.22	860.40	10.82	3.55	NP	NP	859.67	859.67
LMW-12-10	10/28/2025	866.82	863.60	22.22	19.64	11.34	8.30	847.18	854.65

Notes:
1. Where LNAPL was observed, groundwater elevations have been corrected using a measured LNAPL density of 0.8995 grams per milliliter.
2. PMW-02 could not be gauged on 10/27/2025 as planned due to the flushmount being under standing water.

Abbreviations:
amsl = above mean sea level
LNAPL = light nonaqueous phase liquid
NAPL = nonaqueous phase liquid
NM = not measured
NP = no product
RACER = Revitalizing Auto Communities Environmental Response
TOC = top of casing

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
Plant 2								
MW-01(2)	5/5/2025	10.0	20.0	875.79	876.10	19.69	8.56	867.23
MW-01(2)	10/27/2025	10.0	20.0	875.79	876.10	15.98	10.88	864.91
MW-12-01	5/5/2025	87.0	110.0	867.94	865.46	112.48	79.65	788.29
MW-12-01	10/28/2025	87.0	110.0	867.94	865.46	116.50	80.22	787.72
MW-12-02	5/5/2025	87.0	110.0	853.91	851.88	112.03	68.56	785.35
MW-12-02	10/28/2025	87.0	110.0	853.91	851.88	108.90	69.31	784.60
MW-12-05R	5/5/2025	100.0	112.0	861.80	862.30	111.50	74.55	787.25
MW-12-05R	10/28/2025	100.0	112.0	861.80	862.30	112.00	75.38	786.42
MW-12-06	5/5/2025	80.6	99.5	864.64	861.69	102.45	74.17	790.47
MW-12-06	10/28/2025	80.6	99.5	864.64	861.69	90.00	75.10	789.54
MW-12-07	5/5/2025	10.0	15.0	872.11	869.21	17.90	6.23	865.88
MW-12-07	10/27/2025	10.0	15.0	872.11	869.21	17.78	10.84	861.27
MW-12-08	5/5/2025	19.0	24.0	864.68	861.50	27.14	3.32	861.36
MW-12-08	10/27/2025	19.0	24.0	864.68	861.50	NM	NM	NM
MW-12-09	5/5/2025	14.0	19.0	863.54	860.63	21.91	12.02	851.52
MW-12-09	10/27/2025	14.0	19.0	863.54	860.63	21.81	13.06	850.48
MW-12-18	5/5/2025	28.0	33.0	866.43	864.19	35.24	22.39	844.04
MW-12-18	10/27/2025	28.0	33.0	866.43	864.19	35.33	23.56	842.87
MW-13-43	5/5/2025	72.0	77.0	863.82	860.97	79.85	68.21	795.61
MW-13-43	10/27/2025	72.0	77.0	863.82	860.97	76.49	68.59	795.23
MW-13-44	5/5/2025	96.0	115.0	864.24	861.03	118.21	78.72	785.52
MW-13-44	10/28/2025	96.0	115.0	864.24	861.03	115.00	68.31	795.93
MW-13-45	5/5/2025	72.0	77.0	863.80	861.54	79.26	66.59	797.21
MW-13-45	10/27/2025	72.0	77.0	863.80	861.54	78.30	67.52	796.28
MW-13-51	10/28/2025	77.0	87.0	875.34	872.51	89.85	72.98	802.36
MW-14-54	5/5/2025	14.0	19.0	865.21	862.21	22.00	8.18	857.03
MW-14-54	10/27/2025	14.0	19.0	865.21	862.21	19.14	9.40	855.81
MW-14-55	5/5/2025	13.0	18.0	864.17	861.73	20.44	14.98	849.19
MW-14-55	10/27/2025	13.0	18.0	864.17	861.73	20.37	17.38	846.79
MW-14-56	10/28/2025	71.0	76.0	860.21	860.62	77.10	66.26	793.95
MW-14-57	5/5/2025	15.0	20.0	863.97	861.10	22.87	9.87	854.10
MW-14-57	10/27/2025	15.0	20.0	863.97	861.10	21.80	11.14	852.83
MW-14-58R	5/5/2025	22.0	27.0	862.93	860.09	29.84	12.43	850.50
MW-14-58R	10/27/2025	22.0	27.0	862.93	860.09	27.00	13.33	849.60
MW-14-59	5/5/2025	12.0	17.0	865.13	861.63	20.49	4.20	860.93
MW-14-59	10/27/2025	12.0	17.0	865.13	861.63	17.00	5.50	859.63
MW-14-60	5/5/2025	15.0	20.0	864.65	861.70	22.95	8.77	855.88
MW-14-60	10/27/2025	15.0	20.0	864.65	861.70	20.00	9.86	854.79
MW-14-61	5/5/2025	70.0	75.0	865.51	862.30	NM	67.60	797.91
MW-14-61	10/27/2025	70.0	75.0	865.51	862.30	77.30	68.17	797.34
MW-14-62	5/5/2025	12.0	17.0	865.17	862.25	19.92	3.15	862.02
MW-14-62	10/27/2025	12.0	17.0	865.17	862.25	17.00	3.68	861.49
MW-14-63	5/5/2025	68.0	73.0	854.64	851.68	75.96	68.17	786.47
MW-14-63	10/28/2025	68.0	73.0	854.64	851.68	76.72	68.84	785.80
MW-15-72	5/5/2025	63.0	68.0	865.09	862.35	70.74	57.04	808.05
MW-15-72	10/27/2025	63.0	68.0	865.09	862.35	70.26	57.68	807.41
MW-15-73	5/5/2025	78.0	83.0	861.56	859.12	85.44	74.40	787.16
MW-15-73	10/28/2025	78.0	83.0	861.56	859.12	83.00	75.31	786.25
MW-16-74	5/5/2025	66.0	71.0	864.81	862.10	73.71	66.39	798.42
MW-16-74	10/27/2025	66.0	71.0	864.81	862.10	73.66	66.64	798.17

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MW-16-75	5/5/2025	66.0	71.0	864.87	862.13	73.74	62.13	802.74
MW-16-75	10/27/2025	66.0	71.0	864.87	862.13	74.08	62.88	801.99
MW-16-76	5/5/2025	70.0	75.0	867.76	865.12	77.64	65.80	801.96
MW-16-76	10/28/2025	70.0	75.0	867.76	865.12	83.80	66.21	801.55
MW-16-77	5/5/2025	66.0	71.0	866.17	863.42	73.75	61.35	804.82
MW-16-77	10/27/2025	66.0	71.0	866.17	863.42	73.96	61.94	804.23
MW-16-78	5/5/2025	68.0	73.0	864.98	862.09	75.89	65.09	799.89
MW-16-78	10/27/2025	68.0	73.0	864.98	862.09	76.17	65.52	799.46
MW-16-80	10/28/2025	68.0	73.0	853.03	853.41	73.30	66.94	786.09
MW-16-81	5/5/2025	70.0	75.0	864.68	862.04	77.64	63.03	801.65
MW-16-81	10/27/2025	70.0	75.0	864.68	862.04	77.20	64.02	800.66
MW-16-82	5/5/2025	70.0	75.0	864.79	862.10	77.69	67.83	796.96
MW-16-82	10/27/2025	70.0	75.0	864.79	862.10	77.12	68.39	796.40
MW-16-83	5/5/2025	71.0	76.0	862.97	860.17	78.80	74.61	788.36
MW-16-83	10/28/2025	71.0	76.0	862.97	860.17	76.00	75.34	787.63
MW-16-84	5/5/2025	72.0	77.0	864.09	861.81	79.29	70.13	793.96
MW-16-84	10/27/2025	72.0	77.0	864.09	861.81	81.14	70.89	793.20
MW-16-85	5/5/2025	74.0	79.0	864.77	861.87	81.90	71.41	793.36
MW-16-85	10/28/2025	74.0	79.0	864.77	861.87	79.00	72.22	792.55
MW-17-86	5/5/2025	73.0	78.0	864.55	861.92	80.63	66.74	797.81
MW-17-86	10/27/2025	73.0	78.0	864.55	861.92	81.43	67.32	797.23
MW-17-87	5/5/2025	100.0	112.0	862.82	860.44	114.38	76.67	786.15
MW-17-87	10/28/2025	100.0	112.0	862.82	860.44	112.00	77.43	785.39
MW-19-115	5/5/2025	72.5	77.5	865.04	862.19	80.35	58.87	806.17
MW-19-115	10/27/2025	72.5	77.5	865.04	862.19	80.29	59.53	805.51
MW-19-116	5/5/2025	65.0	70.0	865.12	862.17	72.95	56.48	808.64
MW-19-116	10/27/2025	65.0	70.0	865.12	862.17	73.18	57.12	808.00
MW-19-117	5/5/2025	54.0	59.0	865.10	862.15	61.95	59.33	805.77
MW-19-117	10/27/2025	54.0	59.0	865.10	862.15	62.83	59.98	805.12
MW-19-118D	10/28/2025	175.0	190.0	862.78	859.80	190.00	78.63	784.15
MW-19-118S	10/28/2025	145.0	160.0	862.81	859.80	160.00	78.70	784.11
MW-19-120	5/5/2025	66.0	71.0	864.73	862.13	73.60	66.81	797.92
MW-19-120	10/27/2025	66.0	71.0	864.73	862.13	74.10	67.39	797.34
MW-19-121	5/5/2025	66.0	71.0	864.55	862.19	73.36	66.36	798.19
MW-19-121	10/27/2025	66.0	71.0	864.55	862.19	73.58	66.57	797.98
MW-19-122	5/5/2025	59.0	64.0	865.02	862.15	66.87	64.24	800.78
MW-19-122	10/27/2025	59.0	64.0	865.02	862.15	66.81	64.23	800.79
MW-19-123	5/5/2025	66.0	71.0	864.45	862.04	73.41	66.02	798.43
MW-19-123	10/27/2025	66.0	71.0	864.45	862.04	73.79	64.47	799.98
MW-19-124	5/5/2025	65.0	70.0	864.53	862.22	72.31	66.26	798.27
MW-19-124	10/28/2025	65.0	70.0	864.53	862.22	72.19	66.57	797.96
MW-19-125	5/5/2025	100.0	115.0	865.11	862.11	117.99	78.68	786.43
MW-19-125	10/28/2025	100.0	115.0	865.11	862.11	115.00	79.32	785.79
MW-20-126	5/5/2025	69.0	74.0	861.89	859.50	76.39	72.09	789.80
MW-20-126	10/27/2025	69.0	74.0	861.89	859.50	75.42	73.52	788.37
MW-20-127	5/5/2025	72.0	77.0	862.58	861.30	78.28	67.95	794.63
MW-20-127	10/27/2025	72.0	77.0	862.58	861.30	78.67	68.40	794.18
MW-20-128	5/5/2025	65.0	70.0	863.73	861.40	72.33	66.05	797.68
MW-20-128	10/27/2025	65.0	70.0	863.73	861.40	69.37	67.04	796.69
MW-20-129	5/5/2025	64.0	69.0	864.91	862.20	71.71	61.47	803.44
MW-20-129	10/27/2025	64.0	69.0	864.91	862.20	71.00	62.05	802.86

Table 8
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RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MW-20-130	10/28/2025	63.0	68.0	863.98	862.20	69.78	67.96	796.02
MW-21-139	5/5/2025	7.0	12.0	865.00	862.17	14.83	2.93	862.07
MW-21-139	10/27/2025	7.0	12.0	865.00	862.17	12.00	3.11	861.89
MW-21-140	10/28/2025	67.0	72.0	866.06	862.76	75.95	69.30	796.76
MW-21-142	5/5/2025	71.5	76.5	853.70	850.79	79.41	67.10	786.60
MW-21-142	10/27/2025	71.5	76.5	853.70	850.79	76.50	55.68	798.02
MW-22-153	5/5/2025	25.0	30.0	860.43	859.44	30.99	9.89	850.54
MW-22-153	10/27/2025	25.0	30.0	860.43	859.44	31.50	10.59	849.84
MW-22-155	5/5/2025	25.5	30.5	861.58	858.99	33.09	11.14	850.44
MW-22-155	10/27/2025	25.5	30.5	861.58	858.99	31.91	12.31	849.27
MW-22-156	5/5/2025	23.0	28.0	863.07	860.13	30.94	12.41	850.66
MW-22-156	10/27/2025	23.0	28.0	863.07	860.13	31.51	13.32	849.75
MW-22-157	5/5/2025	24.0	29.0	852.38	853.06	28.32	1.95	850.43
MW-22-157	10/27/2025	24.0	29.0	852.38	853.06	27.61	2.81	849.57
MW-23-161	5/5/2025	20.0	25.0	858.48	856.00	27.48	9.97	848.51
MW-23-161	10/27/2025	20.0	25.0	858.48	856.00	27.81	11.25	847.23
MW-23-162	5/5/2025	29.0	34.0	861.95	859.41	15.20	13.58	848.37
MW-23-162	10/27/2025	29.0	34.0	861.95	859.41	36.60	14.92	847.03
MW-23-163	5/5/2025	20.0	25.0	862.61	860.31	27.30	12.81	849.80
MW-23-163	10/27/2025	20.0	25.0	862.61	860.31	17.54	14.28	848.33
P2-MW-02	5/5/2025	31.0	41.0	872.24	872.70	40.54	36.11	836.13
P2-MW-02	10/27/2025	31.0	41.0	872.24	872.70	41.00	36.14	836.10
P2-MW-03	5/5/2025	27.0	32.0	854.18	854.66	31.52	8.33	845.85
P2-MW-03	10/27/2025	27.0	32.0	854.18	854.66	27.65	9.30	844.88
P2-MW-04	5/5/2025	26.0	36.0	866.12	862.75	39.37	11.31	854.81
P2-MW-04	10/27/2025	26.0	36.0	866.12	862.75	36.00	11.33	854.79
P2-SB-03	5/5/2025	14.0	19.0	863.89	861.03	21.87	14.20	849.69
P2-SB-03	10/27/2025	14.0	19.0	863.89	861.03	22.55	14.47	849.42
P2-SB-06	5/5/2025	24.0	29.0	866.06	862.09	32.97	16.15	849.91
P2-SB-06	10/27/2025	24.0	29.0	866.06	862.09	34.00	14.92	851.14
P2-SB-20	5/5/2025	8.0	13.0	864.46	861.12	16.34	7.65	856.81
P2-SB-20	10/27/2025	8.0	13.0	864.46	861.12	16.20	8.68	855.78
PW-14-01	5/5/2025	71.6	76.8	864.97	862.38	70.14	70.14	794.83
PW-14-01	10/27/2025	71.6	76.8	864.97	862.38	76.80	64.68	800.29
PW-14-02	5/5/2025	75.0	80.0	863.87	860.93	82.94	67.31	796.56
PW-14-02	10/27/2025	75.0	80.0	863.87	860.93	80.00	68.00	795.87
TW-14-02	5/5/2025	67.0	72.0	865.01	862.13	74.88	63.40	801.61
TW-14-02	10/27/2025	67.0	72.0	865.01	862.13	72.00	60.80	804.21
TW-15-12	5/5/2025	73.0	78.0	860.88	861.23	77.65	65.63	795.25
TW-15-12	10/27/2025	73.0	78.0	860.88	861.23	72.00	66.82	794.06
Plant 3								
CH-14-RO	5/5/2025	7.0	12.0	866.47	863.71	14.82	5.01	861.46
CH-14-RO	10/27/2025	7.0	12.0	866.47	863.71	14.80	6.95	859.52
MW-02-01(3)	10/27/2025	59.0	69.0	865.54	863.35	72.10	50.89	814.65
MW-02-02(3)	10/27/2025	74.0	84.0	862.70	863.11	83.69	62.94	799.76
MW-02-03(3)	10/27/2025	79.0	89.0	859.63	859.90	NM	NM	NM
MW-02-04(3)	10/27/2025	76.0	86.0	859.41	859.96	83.09	62.19	797.22
MW-04-02(3)	5/5/2025	126.0	136.0	861.09	861.26	132.30	63.47	797.62
MW-04-02(3)	10/27/2025	126.0	136.0	861.09	861.26	132.28	65.35	795.74
MW-04-03(3)	5/5/2025	80.0	90.0	860.72	861.00	87.35	63.40	797.32
MW-04-03(3)	10/27/2025	80.0	90.0	860.72	861.00	87.32	64.21	796.51

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Lansing, Michigan

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MW-04-04(3)	5/5/2025	72.0	82.0	855.72	856.11	81.50	57.85	797.87
MW-04-04(3)	10/27/2025	72.0	82.0	855.72	856.11	81.53	58.72	797.00
MW-12-04	10/27/2025	77.0	100.0	844.08	844.26	100.00	50.43	793.65
MW-12-20	10/27/2025	75.0	80.0	864.20	861.45	79.50	67.76	796.44
MW-12-21	5/5/2025	70.0	75.0	864.50	861.45	78.10	66.55	797.95
MW-12-21	10/27/2025	70.0	75.0	864.50	861.45	78.00	66.95	797.55
MW-13-22	5/5/2025	89.0	94.0	864.37	861.50	96.15	70.33	794.04
MW-13-22	10/27/2025	89.0	94.0	864.37	861.50	96.00	70.35	794.02
MW-13-23	10/27/2025	69.0	74.0	864.31	861.45	77.10	68.36	795.95
MW-13-24	10/27/2025	69.0	74.0	864.35	861.48	77.35	66.60	797.75
MW-13-25	10/27/2025	67.0	72.0	863.77	860.49	77.60	66.06	797.71
MW-13-26	10/27/2025	72.0	77.0	863.95	861.67	79.15	66.41	797.54
MW-13-27	5/5/2025	67.0	72.0	864.50	861.54	75.70	66.11	798.39
MW-13-27	10/27/2025	67.0	72.0	864.50	861.54	76.10	66.40	798.10
MW-13-28	5/5/2025	99.0	115.5	864.42	861.61	114.75	71.49	792.93
MW-13-28	10/27/2025	99.0	115.5	864.42	861.61	116.20	71.02	793.40
MW-13-29	5/5/2025	68.0	73.0	862.81	859.81	76.30	64.90	797.91
MW-13-29	10/27/2025	68.0	73.0	862.81	859.81	77.05	65.86	796.95
MW-13-30	10/27/2025	72.0	77.0	864.53	861.66	79.75	68.39	796.14
MW-13-32	5/5/2025	5.0	10.0	860.11	857.32	12.65	5.67	854.44
MW-13-32	10/27/2025	5.0	10.0	860.11	857.32	12.60	8.38	851.73
MW-13-34	5/5/2025	74.0	79.0	853.92	851.82	79.80	66.38	787.54
MW-13-34	10/27/2025	74.0	79.0	853.92	851.82	79.90	66.83	787.09
MW-13-37	5/5/2025	97.0	112.0	866.02	863.75	119.80	70.32	795.70
MW-13-37	10/27/2025	97.0	112.0	866.02	863.75	114.31	71.20	794.82
MW-13-38	5/5/2025	107.0	124.0	866.47	863.71	132.00	70.89	795.58
MW-13-38	10/27/2025	107.0	124.0	866.47	863.71	126.30	71.99	794.48
MW-13-39B	10/27/2025	97.0	112.0	860.20	857.33	105.28	65.16	795.04
MW-13-40	10/27/2025	72.0	77.0	862.95	859.74	78.88	57.19	805.76
MW-13-41	5/5/2025	77.0	82.0	863.41	863.68	82.22	55.95	807.46
MW-13-41	10/27/2025	77.0	82.0	863.41	863.68	81.50	56.42	806.99
MW-13-46	5/5/2025	68.0	73.0	854.54	852.12	74.65	63.78	790.76
MW-13-46	10/27/2025	68.0	73.0	854.54	852.12	74.63	63.74	790.80
MW-13-47	5/5/2025	99.0	119.0	853.74	851.89	113.65	65.86	787.88
MW-13-47	10/27/2025	99.0	119.0	853.74	851.89	113.63	66.21	787.53
MW-13-48	5/5/2025	65.0	70.0	854.83	852.17	73.05	56.72	798.11
MW-13-48	10/27/2025	65.0	70.0	854.83	852.17	73.05	57.04	797.79
MW-13-49	10/27/2025	73.0	78.0	853.01	850.55	81.64	66.58	786.43
MW-14-64	10/27/2025	98.6	103.6	864.56	861.77	106.25	70.90	793.66
MW-15-71	10/27/2025	110.0	115.0	864.07	861.71	117.70	67.71	796.36
MW-18-100	5/5/2025	8.0	13.0	863.94	861.49	NM	NM	NM
MW-18-100	10/27/2025	8.0	13.0	863.94	861.49	15.70	10.41	853.53
MW-18-101	5/5/2025	80.0	85.0	863.87	861.24	87.40	64.19	799.68
MW-18-101	10/27/2025	80.0	85.0	863.87	861.24	86.72	64.91	798.96
MW-18-102	5/5/2025	10.0	15.0	863.13	863.44	14.70	8.42	854.71
MW-18-102	10/27/2025	10.0	15.0	863.13	863.44	15.00	12.76	850.37
MW-18-103	5/5/2025	5.0	10.0	859.13	859.74	10.65	0.72	858.41
MW-18-103	10/27/2025	5.0	10.0	859.13	859.74	10.00	4.11	855.02
MW-18-104	5/5/2025	5.0	10.0	859.12	859.82	9.50	1.99	857.13
MW-18-104	10/27/2025	5.0	10.0	859.12	859.82	10.00	4.22	854.90

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MW-18-105	5/5/2025	6.0	11.0	858.59	859.01	11.20	0.69	857.90
MW-18-105	10/27/2025	6.0	11.0	858.59	859.01	11.00	1.70	856.89
MW-18-106	5/5/2025	5.0	10.0	866.15	866.51	9.60	1.54	864.61
MW-18-106	10/27/2025	5.0	10.0	866.15	866.51	10.00	9.40	856.75
MW-18-88	5/5/2025	6.0	11.0	863.70	860.93	15.00	3.39	860.31
MW-18-88	10/27/2025	6.0	11.0	863.70	860.93	15.00	5.30	858.40
MW-18-89	5/5/2025	7.0	12.0	866.53	863.51	15.65	4.98	861.55
MW-18-89	10/27/2025	7.0	12.0	866.53	863.51	15.65	7.29	859.24
MW-18-90	5/5/2025	15.0	20.0	866.32	863.25	23.15	8.42	857.90
MW-18-90	10/27/2025	15.0	20.0	866.32	863.25	23.20	10.55	855.77
MW-18-91	5/5/2025	7.0	12.0	865.94	863.43	15.05	4.46	861.48
MW-18-91	10/27/2025	7.0	12.0	865.94	863.43	15.00	5.69	860.25
MW-18-92	5/5/2025	23.0	28.0	870.43	869.08	30.15	14.87	855.56
MW-18-92	10/27/2025	23.0	28.0	870.43	869.08	30.12	21.31	849.12
MW-18-93	10/27/2025	77.5	82.5	863.77	860.99	84.60	48.65	815.12
MW-18-94	10/27/2025	72.0	77.0	866.34	863.86	79.70	53.84	812.50
MW-18-95	5/5/2025	4.5	9.5	864.66	861.76	12.50	6.09	858.57
MW-18-95	10/27/2025	4.5	9.5	864.66	861.76	12.50	6.70	857.96
MW-18-96	5/5/2025	7.0	12.0	864.60	861.64	14.90	14.24	850.36
MW-18-96	10/27/2025	7.0	12.0	864.60	861.64	14.88	DRY	DRY
MW-18-97	10/27/2025	85.0	90.0	860.91	859.13	91.70	64.50	796.41
MW-18-98	5/5/2025	7.0	12.0	862.16	859.10	14.95	3.73	858.43
MW-18-98	10/27/2025	7.0	12.0	862.16	859.10	14.92	4.44	857.72
MW-18-99	5/5/2025	9.0	14.0	862.47	859.95	16.90	2.59	859.88
MW-18-99	10/27/2025	9.0	14.0	862.47	859.95	16.95	2.55	859.92
MW-19-107	5/5/2025	23.0	28.0	870.65	869.20	29.86	16.32	854.33
MW-19-107	10/27/2025	23.0	28.0	870.65	869.20	29.88	24.15	846.50
MW-19-108	5/5/2025	23.0	28.0	872.60	870.22	30.00	16.79	855.81
MW-19-108	10/27/2025	23.0	28.0	872.60	870.22	30.00	21.62	850.98
MW-19-110	5/5/2025	8.0	13.0	863.67	860.72	16.25	16.22	847.45
MW-19-110	10/27/2025	8.0	13.0	863.67	860.72	16.25	16.22	847.45
MW-19-111	5/5/2025	20.0	25.0	874.51	871.70	27.45	23.58	850.93
MW-19-111	10/27/2025	20.0	25.0	874.51	871.70	27.45	25.45	849.06
MW-19-112	5/5/2025	9.0	14.0	861.63	858.53	17.60	6.81	854.82
MW-19-112	10/27/2025	9.0	14.0	861.63	858.53	17.95	6.95	854.68
MW-19-113	5/5/2025	16.0	21.0	860.67	857.73	24.60	24.33	836.34
MW-19-113	10/27/2025	16.0	21.0	860.67	857.73	24.55	DRY	DRY
MW-19-114	5/5/2025	6.0	11.0	861.25	861.79	10.80	0.39	860.86
MW-19-114	10/27/2025	6.0	11.0	861.25	861.79	11.00	2.97	858.28
MW-19-119D	10/27/2025	180.0	195.0	864.42	861.66	197.50	85.75	778.67
MW-19-119S	10/27/2025	145.0	160.0	864.32	861.66	163.25	72.00	792.32
MW-22	10/27/2025	52.5	62.5	859.69	860.08	NM	46.23	813.46
MW-23	10/27/2025	52.0	62.0	863.71	859.82	65.61	49.56	814.15
MW-88-1	10/27/2025	103.5	140.0	858.75	859.06	137.47	66.63	792.12
MW-91-2R	10/27/2025	75.0	80.0	866.84	863.63	83.75	58.64	808.20
MW-91-3	10/27/2025	105.0	117.0	860.81	859.35	119.10	67.66	793.15
MW-91-4	5/5/2025	116.0	132.5	855.59	855.93	130.60	59.12	796.47
MW-91-4	10/27/2025	116.0	132.5	855.59	855.93	130.62	60.10	795.49
MW-91-5	5/5/2025	112.5	128.0	860.61	861.20	126.35	63.98	796.63
MW-91-5	10/27/2025	112.5	128.0	860.61	861.20	126.35	64.54	796.07

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MW-91-6	5/5/2025	82.0	98.0	851.84	852.22	95.50	63.04	788.80
MW-91-6	10/27/2025	82.0	98.0	851.84	852.22	95.50	63.16	788.68
MW-93-1	10/27/2025	65.0	75.0	866.05	863.56	70.21	65.29	800.76
P3-SB-28	5/5/2025	8.0	13.0	866.43	863.63	10.35	3.95	862.48
P3-SB-28	10/27/2025	8.0	13.0	866.43	863.63	10.40	5.61	860.82
PW-14-03R	5/5/2025	85.0	90.0	864.31	861.55	95.50	74.57	789.74
PW-14-03R	10/27/2025	85.0	90.0	864.31	861.55	94.50	73.41	790.90
TW-15-11	5/5/2025	85.0	90.0	864.51	861.60	87.05	75.06	789.45
TW-15-11	10/27/2025	85.0	90.0	864.51	861.60	87.10	73.00	791.51
UNK-11	5/5/2025	6.5	11.5	859.91	860.17	11.24	0.04	859.87
UNK-11	10/27/2025	6.5	11.5	859.91	860.17	11.80	0.15	859.76
UNK-15	5/5/2025	11.0	16.0	859.56	859.94	15.62	0.38	859.18
UNK-15	10/27/2025	11.0	16.0	859.56	859.94	15.70	0.00	859.56
Plant 6								
MW-02-02(6)	5/5/2025	35.0	45.0	868.04	868.41	43.47	29.02	839.02
MW-02-02(6)	10/27/2025	35.0	45.0	868.04	868.41	44.20	28.79	839.25
MW-03-02	5/5/2025	30.0	40.0	864.52	864.76	37.20	20.65	843.87
MW-03-02	10/27/2025	30.0	40.0	864.52	864.76	37.00	21.30	843.22
MW-03-05	5/5/2025	35.0	45.0	868.90	869.14	48.00	21.92	846.98
MW-03-05	10/27/2025	35.0	45.0	868.90	869.14	48.59	22.10	846.80
MW-03-06	5/5/2025	30.0	40.0	870.45	870.80	40.58	35.84	834.61
MW-03-06	10/27/2025	30.0	40.0	870.45	870.80	40.72	35.87	834.58
MW-04-01(6)	5/5/2025	78.0	88.0	866.85	867.15	89.05	70.56	796.29
MW-04-01(6)	10/27/2025	78.0	88.0	866.85	867.15	89.50	71.52	795.33
MW-04-04R	10/27/2025	82.0	110.0	873.31	870.64	116.10	77.40	795.91
MW-04-05(6)	5/5/2025	20.0	30.0	858.33	858.87	29.60	10.92	847.41
MW-04-05(6)	10/27/2025	20.0	30.0	858.33	858.87	30.00	9.42	848.91
MW-04-06R	10/27/2025	74.0	99.5	861.56	858.59	99.50	66.55	795.01
MW-12-03	10/27/2025	57.0	80.0	859.10	856.71	86.50	62.78	796.32
MW-12-10R	5/5/2025	10.0	15.0	862.29	858.92	17.97	9.88	852.41
MW-12-10R	10/27/2025	10.0	15.0	862.29	858.92	15.00	12.38	849.91
MW-12-11	5/5/2025	13.0	18.0	857.26	857.68	17.58	3.58	853.68
MW-12-11	10/27/2025	13.0	18.0	857.26	857.68	16.80	7.85	849.41
MW-12-12	5/5/2025	13.0	18.0	874.34	874.61	17.20	6.51	867.83
MW-12-12	10/27/2025	13.0	18.0	874.34	874.61	18.00	6.98	867.36
MW-12-13	5/5/2025	18.5	23.5	882.60	880.51	25.06	9.88	872.72
MW-12-13	10/27/2025	18.5	23.5	882.60	880.51	25.27	11.12	871.48
MW-12-14	5/5/2025	25.0	30.0	872.56	869.28	32.05	25.40	847.16
MW-12-14	10/27/2025	25.0	30.0	872.56	869.28	32.07	26.35	846.21
MW-12-16	5/5/2025	28.0	33.0	864.24	864.73	32.51	22.84	841.40
MW-12-16	10/27/2025	28.0	33.0	864.24	864.73	32.18	23.11	841.13
MW-13-36R	5/5/2025	5.5	10.5	878.04	875.28	12.60	5.18	872.86
MW-13-36R	10/27/2025	5.5	10.5	878.04	875.28	12.59	5.56	872.48
MW-13-50	5/5/2025	85.0	107.0	872.85	869.93	116.80	83.51	789.34
MW-13-50	10/27/2025	85.0	107.0	872.85	869.93	109.90	84.30	788.55
MW-13-52	5/5/2025	70.0	80.0	872.50	869.84	82.75	69.32	803.18
MW-13-52	10/27/2025	70.0	80.0	872.50	869.84	81.40	70.00	802.50
MW-13-53	10/27/2025	73.0	83.0	875.56	873.10	85.45	75.22	800.34
MW-14-66	5/5/2025	14.0	19.0	877.85	874.73	22.22	4.74	873.11
MW-14-66	10/27/2025	14.0	19.0	877.85	874.73	19.00	5.02	872.83
MW-14-67	5/5/2025	13.0	18.0	877.76	875.07	20.84	5.60	872.16
MW-14-67	10/27/2025	13.0	18.0	877.76	875.07	20.85	5.04	872.72

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MW-14-69	5/5/2025	41.0	46.0	883.62	880.72	49.00	DRY	DRY
MW-14-69	10/27/2025	41.0	46.0	883.62	880.72	49.64	DRY	DRY
MW-14-70	5/5/2025	16.0	21.0	882.79	880.08	23.07	10.56	872.23
MW-14-70	10/27/2025	16.0	21.0	882.79	880.08	21.00	12.80	869.99
MW-20-131	5/5/2025	5.0	10.0	858.21	858.66	8.65	4.75	853.46
MW-20-131	10/27/2025	5.0	10.0	858.21	858.66	10.00	6.55	851.66
MW-20-132	5/5/2025	6.0	11.0	858.01	858.38	10.63	4.64	853.37
MW-20-132	10/27/2025	6.0	11.0	858.01	858.38	10.80	5.77	852.24
MW-21-133	5/5/2025	10.0	15.0	876.67	872.91	18.75	7.98	868.69
MW-21-133	10/27/2025	10.0	15.0	876.67	872.91	15.00	13.93	862.74
MW-21-134	5/5/2025	11.0	16.0	872.97	869.38	20.08	6.92	866.05
MW-21-134	10/27/2025	11.0	16.0	872.97	869.38	16.00	16.27	856.70
MW-21-135	5/5/2025	22.0	27.0	NM	868.60	26.95	24.68	847.42
MW-21-135	10/27/2025	22.0	27.0	NM	868.60	27.00	25.77	846.33
MW-21-136	5/5/2025	9.0	14.0	865.91	866.31	13.60	6.71	859.20
MW-21-136	10/27/2025	9.0	14.0	865.91	866.31	14.00	8.40	857.51
MW-21-137	5/5/2025	7.0	12.0	866.99	867.50	11.49	8.81	858.18
MW-21-137	10/27/2025	7.0	12.0	866.99	867.50	12.00	9.54	857.45
MW-21-138	5/5/2025	24.0	29.0	867.05	867.54	28.51	21.21	845.84
MW-21-138	10/27/2025	24.0	29.0	867.05	867.54	29.00	21.73	845.32
MW-21-141	10/27/2025	72.0	77.0	874.03	871.05	79.77	78.44	795.59
MW-22-143	5/5/2025	26.0	31.0	864.23	864.52	30.71	16.94	847.29
MW-22-143	10/27/2025	26.0	31.0	864.23	864.52	31.00	18.00	846.23
MW-22-144	5/5/2025	19.5	24.5	863.27	863.91	23.86	12.75	850.52
MW-22-144	10/27/2025	19.5	24.5	863.27	863.91	24.50	13.69	849.58
MW-22-145	5/5/2025	10.5	15.5	863.25	863.87	14.88	12.22	851.03
MW-22-145	10/27/2025	10.5	15.5	863.25	863.87	15.50	14.03	849.22
MW-22-146	5/5/2025	5.5	10.5	861.74	862.17	10.07	3.95	857.79
MW-22-146	10/27/2025	5.5	10.5	861.74	862.17	10.50	9.55	852.19
MW-22-147	5/5/2025	7.5	12.5	865.46	865.83	12.13	8.97	856.49
MW-22-147	10/27/2025	7.5	12.5	865.46	865.83	12.50	9.58	855.88
MW-22-148	5/5/2025	24.5	29.5	865.93	866.12	29.31	25.20	840.73
MW-22-148	10/27/2025	24.5	29.5	865.93	866.12	29.50	25.11	840.82
MW-22-149	5/5/2025	5.5	10.5	866.24	866.68	10.06	4.38	861.86
MW-22-149	10/27/2025	5.5	10.5	866.24	866.68	10.50	6.35	859.89
MW-22-150	5/5/2025	13.0	18.0	859.62	859.84	17.78	5.58	854.04
MW-22-150	10/27/2025	13.0	18.0	859.62	859.84	18.00	6.29	853.33
MW-22-151	5/5/2025	13.0	18.0	856.66	857.04	17.62	5.71	850.95
MW-22-151	10/27/2025	13.0	18.0	856.66	857.04	18.00	6.82	849.84
MW-22-152	5/5/2025	10.0	15.0	857.23	857.50	14.73	7.12	850.11
MW-22-152	10/27/2025	10.0	15.0	857.23	857.50	15.00	8.50	848.73
MW-22-154	5/5/2025	6.0	11.0	855.81	856.29	10.52	4.60	851.21
MW-22-154	10/27/2025	6.0	11.0	855.81	856.29	10.58	5.91	849.90
MW-22-158	5/5/2025	16.0	21.0	863.45	863.87	20.58	14.10	849.35
MW-22-158	10/27/2025	16.0	21.0	863.45	863.87	21.00	16.15	847.30
MW-22-159	5/5/2025	26.0	31.0	864.41	864.78	29.80	DRY	DRY
MW-22-159	10/27/2025	26.0	31.0	864.41	864.78	29.80	DRY	DRY
MW-22-160	5/5/2025	14.0	19.0	860.77	861.40	18.37	13.76	847.01
MW-22-160	10/27/2025	14.0	19.0	860.77	861.40	19.00	14.96	845.81

Table 8
Summary of Groundwater Elevations - 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

Well ID	Date Collected	Screened Interval Top (feet bgs)	Screened Interval Bottom (feet bgs)	Reference Elevation - TOC (feet amsl)	Ground Surface Elevation (feet amsl)	Total Well Depth (feet below TOC)	Corrected Depth to Water (feet below TOC)	Corrected Groundwater Elevation (feet amsl)
MWBP-10-UST5-6	5/5/2025	28.0	38.0	867.70	867.99	36.80	28.55	839.15
MWBP-10-UST5-6	10/27/2025	28.0	38.0	867.70	867.99	36.82	29.51	838.19
MWBP-11-UST1-4	5/5/2025	9.0	19.0	868.66	869.07	11.23	1.75	866.91
MWBP-11-UST1-4	10/27/2025	9.0	19.0	868.66	869.07	11.21	0.43	868.23
MWBP-12-UST1-4	5/5/2025	15.0	25.0	870.02	870.58	11.08	1.71	868.31
MWBP-12-UST1-4	10/27/2025	15.0	25.0	870.02	870.58	10.90	0.26	869.76
P6-MW-01	5/5/2025	23.0	28.0	870.10	866.87	31.20	28.84	841.26
P6-MW-01	10/27/2025	23.0	28.0	870.10	866.87	30.72	29.04	841.06
P6-SB-07	5/5/2025	15.0	20.0	877.36	874.36	23.61	5.97	871.39
P6-SB-07	10/27/2025	15.0	20.0	877.36	874.36	20.00	7.05	870.31
P6-SB-18	5/5/2025	3.0	8.0	878.72	874.65	12.10	4.25	874.47
P6-SB-18	10/27/2025	3.0	8.0	878.72	874.65	8.00	5.13	873.59
P6-SB-21	5/5/2025	3.0	8.0	874.20	870.92	11.12	2.16	872.04
P6-SB-21	10/27/2025	3.0	8.0	874.20	870.92	11.11	2.36	871.84

Notes:
1. MW-18-100 was observed to be damaged and unable to be gauged on 5/5/2025. The monitoring well was repaired in June 2025 and was able to be gauged during the 4Q 2025 gauging event (10/27/2025).
2. MW-12-08 was below standing water and could not be gauged during the 4Q 2025 gauging event (10/27/2025).
3. MW-02-03(3) could not be located for gauging during the 4Q 2025 gauging event (10/27/2025).
4. TOC elevation for MW-21-135 has not been re-surveyed since its repair in December 2024. The 2025 groundwater elevations for MW-21-135 are recorded but not used in contour figures.
5. Suspected field logging error at MW-13-44. Depth to water measurement in 4Q25; 10 ft difference/error typo; 68.31/795.93 likely should be 78.31/785.93.

Abbreviations:
amsl = above mean sea level
bgs = below ground surface
DRY = well was dry and depth to water could not be gauged
NM = not measured
RACER = Revitalizing Auto Communities Environmental Response
TOC = top of casing

Table 9
Summary of Bedrock Vertical Gradients - Fourth Quarter 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

		Screen (feet below grade)			Reference Elevation (feet amsl)	Groundwater Elevation 10/27/2025-10/28/2025 (feet amsl)	Vertical Gradient (ft/ft)	Formation
		Top	Bottom	Mid-point				
Plant 2								
MW-14-63	W. Bedrock	68	73	70.5	854.64	785.80	0.04	Grand River Formation
MW-12-02	Bedrock	87	110	98.5	853.91	784.60		
MW-13-43	W. Bedrock	72	77	74.5	863.82	795.23	-0.02	Saginaw Formation
MW-13-44**	Bedrock	96	115	105.5	864.24	795.93**		
MW-14-61	W. Bedrock	70	75	72.5	865.51	797.34	0.44	Saginaw Formation
MW-12-06	Bedrock	80.6	99.5	90.1	864.64	789.54		
MW-15-72	W. Bedrock	63	68	65.5	865.09	807.41	0.52	Saginaw Formation
MW-12-05R	Bedrock	100	112	106.0	861.80	786.42		
MW-16-76	W. Bedrock	70	75	72.5	867.76	801.55	0.53	Saginaw Formation
MW-12-01	Bedrock	87	110	98.5	867.94	787.72		
MW-16-83	W. Bedrock	71	76	73.5	862.97	787.63	0.07	Saginaw Formation
MW-17-87	Bedrock	100	112	106.0	862.82	785.39		
MW-15-73*	W. Bedrock	78	83	80.5	861.56	786.25	NA	Saginaw Formation
MW-19-118S*	Bedrock	145	160	152.5	862.81	784.11		
MW-19-118D*	W. Bedrock	175	190	182.5	862.78	784.15	NA	Saginaw Formation
MW-19-118S*	Bedrock	145	160	152.5	862.81	784.11		
MW-20-127	W. Bedrock	72	77	74.5	862.58	794.18	0.25	Saginaw Formation
MW-19-125	Bedrock	100	115	107.5	865.11	785.79		

Table 9
Summary of Bedrock Vertical Gradients - Fourth Quarter 2025
RACER Trust Plants 2, 3, and 6
Lansing, Michigan

		Screen (feet below grade)			Reference Elevation (feet amsl)	Groundwater Elevation 10/27/2025-10/28/2025 (feet amsl)	Vertical Gradient (ft/ft)	Formation
		Top	Bottom	Mid-point				
Plant 3								
MW-13-22	W. Bedrock	89	94	91.5	864.37	794.02	0.04	Grand River Formation
MW-13-28	Bedrock	99	115.5	107.3	864.42	793.40		
MW-13-46	W. Bedrock	68	73	70.5	854.54	790.80	0.11	Grand River Formation
MW-91-6	Bedrock	82	98	90	851.84	788.68		
MW-04-03(3)	Deep Overburden	80	90	85	860.72	796.51	0.02	Grand River Formation
MW-04-02(3)	Bedrock	126	136	131	861.09	795.74		
MW-04-04(3)	Deep Overburden	72	82	77	855.72	797.00	0.03	Grand River Formation
MW-91-4	Bedrock	116	132.5	124.3	855.59	795.49		
MW-13-41	Deep Overburden	77	82	79.5	863.41	806.99	0.35	Saginaw Formation
MW-13-38	Bedrock	107	124	115.5	866.47	794.48		
Plant 6								
MW-13-52	W. Bedrock	70	80	75	872.50	802.50	0.66	Saginaw Formation
MW-13-50	Bedrock	85	107	96	872.85	788.55		

Vertical Gradient Geometric Mean Sag Fm	0.34
Vertical Gradient Geometric Mean GR Fm	0.04

Notes:
ft/ft = foot per foot
GR Fm = Grand River Formation
amsl = above mean sea level
NA = not applicable
NM = not measured
RACER = Revitalizing Auto Communities Environmental Response
Sag Fm = Saginaw Formation
W. Bedrock = weathered bedrock
** Not used for geometric mean calculation because not consistent with depth of other wells onsite*
***Not used for geometric mean calculation due to suspected error in the recorded gauging measurement.*

Table 10
Mann-Kendall Trend Test Results – 2025
RACER Lansing
Lansing, MI

Plant ID	Well ID	Analyte	Date Range	FOD	Detected Results Summary [1]				Mann-Kendall Test [2]			
					Range	Mean	Median	SD	Result[4]	MK Result Note	P-Value	S Value
Perched												
Plant 2	MW-12-09	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	11 / 11	11.9 - 20.7	15.3	15	2.6	UP	--	0.002	38
Plant 2	MW-14-58R	1,4-Dioxane	12/21 - 10/25	13 / 13	173 - 520	276	250	113	NST	--	0.111	-21
Plant 2	MW-14-59	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	10 / 11	6.7 - 42.5	13.2	8.9	10.7	UP	--	0.007	32
Plant 2	MW-14-59	1,4-Dioxane	09/14 - 10/25	15 / 15	6 - 280	106	60	99.7	DWN	--	<0.001	-96
Plant 2	MW-14-60	Perfluorooctane sulfonic acid (PFOS)	05/18 - 10/25	11 / 12	5.6 - 52	29.2	32	15.9	UP	--	0.008	36
Plant 2	MW-14-60	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	12 / 12	14.7 - 41	29.5	30.1	9.4	UP	--	0.0495	25
Plant 2	MW-14-60	1,4-Dioxane	09/14 - 10/25	15 / 15	5 - 200	98.5	115	70.1	DWN	--	<0.001	-96
Plant 2	MW-14-62	Perfluorononanoic acid (PFNA)	05/18 - 10/25	12 / 12	5.1 - 11.9	8	7.7	1.7	NST	--	0.339	-7
Plant 2	MW-14-62	Perfluorooctane sulfonic acid (PFOS)	05/18 - 10/25	12 / 12	42.8 - 86.8	60.2	54	14.1	DWN	--	0.007	-37
Plant 2	MW-14-62	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	12 / 12	36.5 - 94.3	56.8	52.5	14.9	NST	--	0.527	0
Plant 2	MW-14-62	1,4-Dioxane	09/14 - 10/25	15 / 15	27 - 230	88.9	67	59	NST	--	0.500	-1
Plant 2	MW-21-139	Perfluorohexanesulfonic acid (PFHxS)	12/21 - 10/25	10 / 10	180 - 410	270	266	59.4	NST	--	0.168	12
Plant 2	MW-21-139	Perfluorononanoic acid (PFNA)	12/21 - 10/25	10 / 10	6.5 - 27	18.1	18	5.8	NST	--	0.398	4
Plant 2	MW-21-139	Perfluorooctane sulfonic acid (PFOS)	12/21 - 10/25	10 / 10	680 - 2100	1580	1700	438	NST	--	0.146	13
Plant 2	MW-21-139	Perfluorooctanoic acid (PFOA)	12/21 - 10/25	10 / 10	49 - 130	89.3	86.15	21.4	NST	--	0.216	10
Plant 2	MW-22-153	1,4-Dioxane	04/22 - 10/25	13 / 13	16 - 101	55.8	52	28.2	DWN	--	0.044	-29
Plant 2	MW-22-155	1,4-Dioxane	09/22 - 10/25	11 / 11	36 - 410	195	159	119	DWN	--	0.012	-30
Plant 2	MW-22-156	1,1-Dichloroethene	02/23 - 10/25	9 / 9	10 - 38	20.3	20	7.9	DWN	--	0.002	-27
Plant 2	MW-22-156	1,4-Dioxane	09/22 - 10/25	10 / 10	42 - 144	93.6	91	37.3	NST	--	0.431	3
Plant 2	MW-22-157	1,4-Dioxane	09/22 - 10/25	10 / 10	3 - 123	53.4	52.5	43.4	UP	--	0.045	20
Plant 2	P2-MW-04	1,4-Dioxane	08/11 - 10/25	16 / 17	11 - 62	38.6	35.5	15.7	DWN	--	0.005	-63
Deep Overburden and Weathered Bedrock												
Plant 2	MW-13-45	1,4-Dioxane	12/13 - 10/25	30 / 31	17 - 58	39.1	39	12.1	DWN	--	0.044	-101
Plant 2	MW-14-56	1,4-Dioxane	09/14 - 10/25	18 / 20	6 - 20	10.4	9	4.5	UP	--	<0.001	142
Plant 2	MW-14-61	1,4-Dioxane	09/14 - 10/25	23 / 26	3 - 152	38.8	13	53.9	NST	--	0.254	-31
Plant 2	MW-15-72	1,4-Dioxane	03/16 - 10/25	29 / 29	11 - 310	171	165	95.1	DWN	--	0.003	-150
Plant 2	MW-16-80	1,4-Dioxane	06/16 - 10/25	17 / 18	7 - 46	24	23	7.6	NST	--	0.085	-37
Plant 2	MW-16-81	1,4-Dioxane	06/16 - 10/25	30 / 30	32 - 3200	853	495	976	DWN	--	0.005	-146
Plant 2	MW-16-84	1,4-Dioxane	09/16 - 10/25	29 / 29	14 - 81	47	47	17.4	NST	--	0.062	-83
Plant 2	MW-16-85	1,4-Dioxane	12/16 - 10/25	19 / 19	1 - 28	9.7	8	6.9	NST	--	0.052	47
Plant 2	MW-17-86	1,4-Dioxane	04/17 - 10/25	22 / 22	10 - 106	49.3	43.5	33.9	DWN	--	0.002	-106
Plant 2	MW-19-115	1,4-Dioxane	03/20 - 10/25	16 / 16	2 - 13	7.3	7	2.8	DWN	--	0.036	-40
Plant 2	MW-19-116	1,4-Dioxane	03/20 - 10/25	16 / 16	54 - 148	76.5	69	24.1	UP	--	0.019	47
Plant 2	MW-19-120	1,4-Dioxane	12/19 - 10/25	17 / 17	4 - 198	54.9	15	69.6	DWN	--	<0.001	-104
Plant 2	MW-19-123	1,4-Dioxane	12/19 - 11/25	22 / 22	19 - 76	42.7	42.5	17.4	DWN	--	0.017	-76
Plant 2	MW-19-124	1,4-Dioxane	12/19 - 11/25	16 / 16	90 - 420	197	183	74	DWN	--	0.026	-44
Plant 2	MW-20-126	1,4-Dioxane	07/20 - 11/25	19 / 19	4 - 370	131	88	114	DWN	--	<0.001	-157
Plant 2	MW-20-127	1,4-Dioxane	07/20 - 11/25	19 / 19	85 - 180	140	140	23.7	NST	--	0.086	40
Plant 2	MW-20-129	1,4-Dioxane	07/20 - 11/25	20 / 20	60 - 140	86.1	76	23.8	DWN	--	<0.001	-112
Plant 2	MW-20-130	1,4-Dioxane	12/20 - 10/25	9 / 9	6 - 170	55.2	38	56.9	NST	--	0.238	-8
Plant 2	MW-21-142	1,4-Dioxane	12/21 - 11/25	10 / 10	55 - 112	79.3	79.5	16.9	NST	--	0.431	-3
Plant 2	PW-14-02	1,4-Dioxane	09/14 - 10/25	33 / 33	5 - 580	137	84	149	DWN	--	<0.001	-330
Plant 2	TW-14-02	1,4-Dioxane	06/15 - 10/25	34 / 41	2 - 3500	883	226	1170	DWN	--	<0.001	-427
Perched												
Plant 3	CH-14-RO	Perfluorohexanesulfonic acid (PFHxS)	12/16 - 11/25	14 / 14	922 - 2520	1710	1640	481	DWN	--	0.004	-50
Plant 3	CH-14-RO	Perfluorooctane sulfonic acid (PFOS)	12/16 - 11/25	14 / 14	7100 - 13000	10900	11100	1660	DWN	--	0.011	-43
Plant 3	CH-14-RO	Perfluorooctanoic acid (PFOA)	12/16 - 11/25	14 / 14	69.2 - 190	110	115	30.8	NST	--	0.330	-9
Plant 3	MW-18-88	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	22 / 22	46.1 - 860	213	180.5	168	UP	--	<0.001	118
Plant 3	MW-18-88	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	22 / 22	3.1 - 17	7.1	6.9	3	UP	--	<0.001	113
Plant 3	MW-18-89	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	20 / 20	74 - 289	147	141.5	43.2	NST	--	0.113	-38
Plant 3	MW-18-89	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	20 / 20	10 - 21.4	13.5	13	2.8	NST	--	0.121	-37
Plant 3	MW-18-90	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	20 / 20	230 - 1200	949	965.5	186	NST	--	0.313	-16
Plant 3	MW-18-90	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	20 / 20	8.1 - 21.3	16.1	16	3	DWN	--	0.020	-64
Plant 3	MW-18-91	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	20 / 20	34 - 89	54.4	51.8	13.4	DWN	--	<0.001	-99
Plant 3	MW-18-95	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	22 / 22	27 - 115	48.1	41.5	22	NST	--	0.054	-58
Plant 3	MW-18-98	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	23 / 23	33 - 440	143	114	104	NST	--	0.178	36
Plant 3	MW-18-99	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	23 / 23	46.7 - 170	85.7	75	33.1	NST	--	0.128	-44
Plant 3	MW-18-103	Perfluorohexanesulfonic acid (PFHxS)	03/19 - 11/25	20 / 20	16.8 - 190	61.5	49.85	48.7	UP	--	<0.001	124
Plant 3	UNK-15	Perfluorooctane sulfonic acid (PFOS)	06/19 - 11/25	20 / 20	810 - 1530	1170	1185	176	NST	--	0.290	-18
Plant 3	UNK-15	Perfluorooctanoic acid (PFOA)	06/19 - 11/25	20 / 20	21 - 49.1	32.6	32	7.9	DWN	--	<0.001	-128
Deep Overburden and Weathered Bedrock												
Plant 3	MW-12-21	1,4-Dioxane	02/13 - 11/25	32 / 33	118 - 510	255	200	121	DWN	--	<0.001	-327
Plant 3	MW-13-22	1,4-Dioxane	03/13 - 11/25	40 / 40	45 - 270	147	153	53.2	DWN	--	0.003	-241
Plant 3	MW-13-29	1,4-Dioxane	04/13 - 11/25	25 / 25	1 - 130	22.2	18	24.6	DWN	--	<0.001	-212
Plant 3	MW-13-34	1,4-Dioxane	08/13 - 11/25	37 / 37	17 - 127	79.5	81	22.5	UP	--	<0.001	350
Plant 3	MW-13-48	1,4-Dioxane	12/13 - 11/25	30 / 30	24 - 380	136	122.5	86.3	DWN	--	0.017	-120
Plant 3	TW-15-11	1,4-Dioxane	06/15 - 11/25	26 / 26	5 - 250	101	72.5	86.6	DWN	--	0.025	-90
Perched												
Plant 6	MW-02-02(6)	1,4-Dioxane	10/11 - 11/25	11 / 11	11 - 30	21.1	21	4.7	NST	--	0.089	18

Table 10
Mann-Kendall Trend Test Results – 2025
RACER Lansing
Lansing, MI

Plant ID	Well ID	Analyte	Date Range	FOD	Detected Results Summary [1]				Mann-Kendall Test [2]			
					Range	Mean	Median	SD	Result[4]	MK Result Note	P-Value	S Value
Plant 6	MW-04-05(6)	Perfluorooctanoic acid (PFOA)	06/19 - 11/25	7 / 7	22.4 - 36	30.5	32	5.2	NST	5	0.094	10
Plant 6	MW-12-12	Perfluorononanoic acid (PFNA)	06/19 - 10/25	21 / 21	3.6 - 12.6	7.9	7.8	2.4	DWN	--	<0.001	-121
Plant 6	MW-12-12	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	21 / 21	19 - 67.5	42.2	43	12.6	DWN	--	<0.001	-120
Plant 6	MW-12-12	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	21 / 21	52 - 150	87.2	83	21.3	NST	--	0.216	27
Plant 6	MW-12-13	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	18 / 21	1.1 - 20.5	5.1	2.3	5.4	UP	--	<0.001	174
Plant 6	MW-13-36R	Perfluorononanoic acid (PFNA)	06/19 - 10/25	21 / 21	11 - 16.5	13.3	13	1.5	NST	--	0.427	-7
Plant 6	MW-13-36R	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	21 / 21	35 - 56.7	45.5	45.5	5.1	DWN	--	0.005	-86
Plant 6	MW-13-36R	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	21 / 21	56 - 81.1	67.2	65	7.2	NST	--	0.464	-4
Plant 6	MW-14-67	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	19 / 19	10.3 - 27.7	16.3	15	5.7	UP	--	0.018	61
Plant 6	MW-14-70	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	20 / 20	6.6 - 51.9	27.8	31	12.6	NST	--	0.142	-34
Plant 6	MW-20-131	Perfluorooctanoic acid (PFOA)	02/21 - 10/25	11 / 11	27 - 45	35.9	37.3	5.1	NST	--	0.195	-12
Plant 6	MW-20-132	Perfluorononanoic acid (PFNA)	02/21 - 10/25	11 / 11	2.1 - 8.4	6.4	7.2	2	NST	--	0.438	-3
Plant 6	MW-20-132	Perfluorooctane sulfonic acid (PFOS)	02/21 - 10/25	11 / 11	6.9 - 20.9	16.1	19	4.7	NST	--	0.239	-10
Plant 6	MW-20-132	Perfluorooctanoic acid (PFOA)	02/21 - 10/25	11 / 11	13 - 50	36.1	39	10.8	NST	--	0.175	-13
Plant 6	MW-21-133	Perfluorooctanoic acid (PFOA)	03/21 - 10/25	11 / 11	16 - 110	62.8	55	30.8	NST	--	0.407	4
Plant 6	MW-21-134	Perfluorooctanoic acid (PFOA)	03/21 - 10/25	11 / 11	22.6 - 55	38	37.6	11.9	NST	--	0.060	21
Plant 6	MW-22-144	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	10 / 10	5 - 17	10.9	11.5	3.9	NST	--	0.093	16
Plant 6	MW-22-145	Perfluorooctane sulfonic acid (PFOS)	08/22 - 11/25	5 / 10	1.1 - 18	11.1	14	6.8	NST	--	0.146	13
Plant 6	MW-22-145	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	10 / 10	11 - 37	23.8	22.5	9	NST	--	0.466	2
Plant 6	MW-22-151	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	10 / 10	6.9 - 15	8.9	8.35	2.2	NST	--	0.146	13
Plant 6	P6-SB-07	Perfluorononanoic acid (PFNA)	06/19 - 10/25	19 / 19	74.6 - 220	135	133	46.9	NST	--	0.417	7
Plant 6	P6-SB-07	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	19 / 19	30 - 126	71	62	27.2	NST	--	0.147	-31
Plant 6	P6-SB-07	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	19 / 19	610 - 1930	1210	1200	403	NST	--	0.390	-9

Abbreviations:

-- = not applicable
FOD = frequency of detection (# detects / # samples)
mean = arithmetic mean
SD = standard deviation
MK = Mann-Kendall
NST = no significant trend
DWN = downward trend
UP = upward trend

Notes:

1. All analytical results for VOCs are in µg/L and PFAS are in ng/L.
2. Trend results are presented for well-analyte pairs sampled in 2025 when at least 7 samples and 50% detected values are available, and at least 25% criteria exceedances in the last six samples. Perched wells are compared to the Groundwater Surface Water Interface Criteria (GSI) and Residential Drinking Water Criteria (RDW), all other wells are compared to the RDW.
3. Non-detects were assigned a common value less than the minimum detected value, equal to half the minimum reporting limit (RL) in the dataset (USEPA, 2009). If half the minimum RL was greater than the minimum detected value, then half the minimum detect was assigned.
4. Statistically significant trend defined as having p-value ≤ 0.05, or 95% confidence.
5. MK Trend results for datasets with fewer than 8 samples may not be reliable and should be treated with caution.

Reference:

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Unified Guidance. EPA/530/R-09/007, 2009.

Figures

MW-21-142
MW-14-63
MW-12-02
P2-MW-01
P2-MW-03
MW-16-80
MW-20-126
TW-15-12
MW-23-161
MW-23-162
MW-13-44
MW-13-43
P2-SB-20
P2-SB-03
MW-13-42
PW-14-02
MW-13-45
MW-15-73
MW-20-127
MW-22-155
MW-23-163
MW-19-118S/D
MW-14-59
LMW-12-03S
MW-16-85
MW-22-153
MW-19-125
MW-16-82
MW-22-157
MW-14-58R
MW-20-128
MW-16-84
MW-16-83
MW-17-87
MW-14-60
MW-19-116
MW-22-156
MW-19-117
MW-17-86
PMW-02
MW-12-05R
MW-19-115
LMW-14-13D
LMW-12-07
P2-MW-04
MW-15-72
MW-14-61
MW-19-120
MW-12-09
LMW-12-01
MW-14-57
MW-12-06
MW-19-124
MW-14-56
P2-SB-06
MW-16-81
MW-14-62
MW-21-139
MW-20-130
MW-20-129
MW-19-121
MW-19-122
MW-12-18
MW-14-55
TW-14-02
MW-16-74
MW-14-54
PW-14-01
MW-16-78
MW-16-76
MW-12-01
MW-19-123
MW-21-140
MW-16-77
MW-16-75
MW-12-07
MW-12-08
P2-MW-02
MW-13-51
MW-13-52
MW-13-50
MW-13-53
MW-01(2)
MWBP-10-UST5-6

LEGEND

- LNAPL MONITORING WELL
- PERCHED ZONE MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- BEDROCK MONITORING WELL
- APPROXIMATE EXTENT LNAPL
- PLANT 2
- PLANT 3
- PLANT 6 (Dashed Where Sold)

NOTE:

THE PARKING LOT SOUTH OF PLANT 2 IS PART OF THE PLANT 6 RCRA FACILITY BUT CONSIDERED BY RACER TRUST TO BE PART OF LANSING PART 2 INDUSTRIAL LAND

-AERIAL IMAGERY FROM ESRI ARCGIS ONLINE DATED JULY 2023.

0 200 400
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PLANT 2 MONITORING WELL LOCATIONS

ARCADIS

FIGURE 1A

CITY: Novi DIV: ENV PIC: J. BARRETT PM: T. LINDER TM: K. HUNT TR: PROJECT NUMBER: 30267725 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\Lansing_BuffaloData\MXDs\2024 Annual Groundwater Monitoring Report\2024 Annual Groundwater Monitoring Report.aprx PLOTTED: 6/23/2025 9:43 AM BY: VDavis

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PLANT 6 MONITORING WELL LOCATIONS

ARCADIS

FIGURE
1B

CITY: Novi DIV: ENV PIC: J. BARRETT PM: T. LINDER TM: K. HUNT TR: PROJECT NUMBER: 30267725 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\RACER\Lansing_BuffaloData\MXDs\2024 Annual Groundwater Monitoring Report\2024 Annual Groundwater Monitoring Report.aprx PLOTTED: 6/23/2025 9:43 AM BY: VDavis

CITY: KNOXVILLE DIV: ENV DB: A.SMITH PIC: J. Barrett PM: T. LINDER TM: K. HUNT TR: PROJECT NUMBER: 30267725 COORDINATE SYSTEM:
T:_ENV\RACER\Lansing_BuffaloData\MXDs\2024 Annual Groundwater Monitoring Report\2024 Annual Groundwater Monitoring Report.aprx PLOTTED: 6/23/2025 9:43 AM BY: VDavis

MW-04-04(3)
MW-91-4
MW-13-39B
MW-88-1
MW-19-113
MW-18-97
MW-18-98
MW-19-112
MW-02-04(3)
MW-13-40
MW-02-03(3)
MW-12-04
MW-18-99
MW-19-110
MW-04-03(3)
MW-04-02(3)
MW-18-89
MW-13-38
MW-18-90
MW-13-41
MW-91-3
MW-02-02(3)
MW-93-1
MW-18-103
MW-18-102
MW-19-107
MW-06
UNK-15
MW-91-2R
LMW-12-09
MW-05
MW-23
MW-18-92
MW-18-101
MW-13-37
MW-01(3)
UNK-11
MW-18-93
MW-18-88
CH-14-RO
MW-19-108
MW-22
MW-18-91
MW-18-105
MW-18-104
MW-19-111
P3-SB-28
LMW-12-10
MW-18-94
MW-18-95
MW-19-114
MW-18-96
MW-18-106
MW-18-100
MW-13-26
MW-15-71
MW-12-20
MW-02-01(3)
MW-04-01(3)
MW-13-30
MW-13-22
MW-13-28
MW-13-24
MW-13-23
MW-13-27
MW-91-5
MW-12-21
MW-14-64
TW-15-11
PW-14-03R
MW-19-119S/D
MW-13-32
MW-13-29
MW-13-25
MW-13-48
MW-13-49
MW-91-6
MW-13-47
MW-13-34
MW-13-46
MW-12-03

NOTE:

-AERIAL IMAGERY FROM ESRI ARCGIS ONLINE DATED JULY 2023.

LEGEND

- LNAPL MONITORING WELL
- PERCHED ZONE MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING
- BEDROCK MONITORING WELL
- APPROXIMATE EXTENT LNAPL
- PLANT 2
- PLANT 3
- PLANT 6 (Dashed Where Sold)

0 275 550
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PLANT 3 MONITORING WELL LOCATIONS

ARCADIS

FIGURE
1C

Service Layer Credits: World Imagery: Vantor

MW-23-161
05/07/2025: 42
10/28/2025: 14

MW-23-162
05/08/2025: 24
10/28/2025: 27

MW-22-155
05/07/2025: 153
10/28/2025: 79

MW-23-163
05/07/2025: 8
10/28/2025: 9

MW-14-59

MW-22-157
05/07/2025: 74
10/28/2025: 65

MW-14-58R
10/29/2025: 260

MW-14-60

P2-MW-04
10/29/2025: 23

MW-03-05

MW-22-153
05/07/2025: 38
10/28/2025: 16

MW-14-57

MW-03-06

MW-22-156
05/06/2025: 42
10/28/2025: 126

MW-14-62
10/29/2025: 99

MW-21-139

MW-02-02(6)
11/03/2025: 25

0 400 800
SCALE IN FEET

LEGEND

- PERCHED ZONE MONITORING WELL
- WELLS SAMPLED AND 1,4-DIOXANE EXCEEDS DW CRITERIA (7.2 ug/L)
- WELLS SAMPLED AND 1,4-DIOXANE DOES NOT EXCEED DW CRITERIA
- APPROXIMATE LNAPL EXTENT
- PERCHED 1,4-DIOXANE IMPACTS > DW CRITERIA (7.2 ug/L)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

APPROXIMATE EXTENT OF PERCHED 1,4-DIOXANE PLUME IS BASED ON THE ANALYTICAL DATA FROM THE MOST RECENT SAMPLING EVENT.

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD 8260B SIM.

ALL ANALYTICAL DATA IS IN ug/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ug/L: MICROGRAMS PER LITER.

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF 1,4-DIOXANE ANALYTICAL RESULTS PERCHED WELLS - 2025

ARCADIS

FIGURE
2

T:\ ENVRACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 2025 Semi-Annual Groundwater Monitoring ReportPLOTTED: 4/15/2026 1:55 PM BY: TYarbrough

Service Layer Credits: World Imagery: Vantor

MW-12-21
5/9/2025: 120
8/25/2025: 150
11/4/2025: 145

MW-13-22
5/9/2025: 94
8/25/2025: 131
11/4/2025: 83

PW-14-03R
5/9/2025: 14
8/25/2025: 27
11/4/2025: 20

MW-13-29

MW-13-25

MW-13-48
5/9/2025: 62
11/4/2025: 74

MW-13-46

TW-15-11
5/9/2025: 32
8/25/2025: 94
11/5/2025 : 199

MW-21-142
5/7/2025: 55
11/3/2025: 78

MW-13-34
5/9/2025: 80
11/4/2025: 92

MW-14-63

MW-13-43

TW-15-12

MW-20-126
5/8/2025: 8
11/3/2025: 4

PW-14-02
5/7/2025: 26
10/28/2025: 34

MW-16-80
10/30/2025: 19

MW-13-45
5/7/2025: 17
10/28/2025: 23

MW-20-127
5/6/2025: 113
11/3/2025: 123

MW-16-85
5/8/2025: 4
10/30/2025: 20

MW-16-82
5/8/2025: 11
10/31/2025: 11

MW-16-84
5/8/2025: 14
10/31/2025: 27

MW-19-116
5/8/2025: 76
10/31/2025: 93

MW-19-117

MW-17-86
5/8/2025: 10
10/31/2025: 10

MW-14-56
10/29/2025: 20

MW-19-115

MW-20-128

MW-14-61

MW-19-120

MW-15-72
5/7/2025: 14
10/29/2025: 74

MW-19-124
5/7/2025: 184
11/3/2025: 142

MW-20-129
5/7/2025: 61
8/26/2025: 70
11/3/2025: 75

MW-16-81
5/8/2025: 37
10/29/2025: 32

MW-21-141

MW-19-122

MW-16-78

MW-20-130
10/29/2025: 9

MW-16-76

MW-16-74

MW-19-121

TW-14-02
5/6/2025: 2
10/28/2025: 194

MW-16-77

MW-21-140

PW-14-01
5/7/2025: 4
10/28/2025: 18

MW-19-123
5/6/2025: 30
8/26/2025: 32
11/3/2025: 42

MW-16-75

LEGEND

- DEEP OVERBURDEN MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- BIOSPARGE
- WELLS SAMPLED AND 1,4-DIOXANE EXCEEDS DW CRITERIA (7.2 ug/L)
- WELLS SAMPLED AND 1,4-DIOXANE DOES NOT EXCEED DW CRITERIA
- LOWER WEATHERED BEDROCK1,4-DIOXANE PLUME (>72 ug/L)
- LOWER WEATHERED BEDROCK1,4-DIOXANE IMPACTS > DW CRITERIA (>7.2 ug/L)
- POTENTIAL OFF-SITE LOWER 1,4-DIOXANE PLUME > DW CRITERIA
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

LOWER 1,4-DIOXANE PLUME IS BASED ON ANALYTICAL DATA FROM 2025.

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD SW-846 8260B SIM.

ALL ANALYTICAL DATA IS IN ug/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ug/L: MICROGRAMS PER LITER.

0 400 800
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF 1,4-DIOXANE ANALYTICAL RESULTS IN DEEP OVERBURDEN AND WEATHERED BEDROCK WELLS - 2025

ARCADIS

FIGURE
3

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 2025 Semi-Annual Groundwater Monitoring ReportPLOTTED: 4/15/2026 2:04 PM BY: TYarbrough

Service Layer Credits: World_Imagery: Vantor

TWP-90-05
10/29/2025: 0.36

TWP-90-04
10/29/2025: 0.38

MW-13-28
11/4/2025: 0.35

MW-19-119S/D
11/4/2025: ND(<0.20) (S)
11/4/2025: ND(<0.20) (D)

MW-13-44
10/30/25: 6.7

MW-19-118S/D
10/30/2025: 5.7 (S)
10/30/2025: ND(<0.20) (D)

MW-19-125
10/30/2025: ND(<0.20)

MW-17-87
10/30/25: 2.8

MW-12-05R
10/30/2025: ND(<0.20)

MW-12-06
10/30/25: ND(<0.20)

TWP-90-03
10/29/2025: ND(<0.20)

LEGEND

- MUNICIPAL WELLS
- BEDROCK MONITORING WELLS
- WELLS SAMPLED AND 1,4-DIOXANE DOES NOT EXCEED DW CRITERIA
- LOWER WEATHERED BEDROCK 1,4-DIOXANE PLUME (>72 ug/L)
- LOWER WEATHERED BEDROCK1,4-DIOXANE IMPACTS > DW CRITERIA (>7.2 ug/L)
- POTENTIAL OFF-SITE LOWER 1,4-DIOXANE PLUME > DW CRITERIA
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

THE PARKING LOT SOUTH OF PLANT 2 IS PART OF THE PLANT 6 RCRA FACILITY BUT CONSIDERED BY RACER TRUST TO BE PART OF LANSING PLANT 2 INDUSTRIAL LAND.

LOWER 1,4-DIOXANE PLUME IS BASED ON THE ANALYTICAL DATA FROM THE MOST RECENT SAMPLING EVENT.

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD 522 OR EPA METHOD SW-846 8260B SIM.

ALL ANALYTICAL DATA IS IN ug/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ND: NON-DETECT

S: SHALLOW

D: DEEP

ug/L: MICROGRAMS PER LITER

0 500 1,000
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF 1,4-DIOXANE ANALYTICAL RESULTS IN BEDROCK WELLS BENEATH THE LOWER WEATHERED BEDROCK 1,4-DIOXANE IMPACTS - 2025

ARCADIS

FIGURE
4

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 2025 Semi-Annual GW Monitoring ReportPLOTTED: 4/15/2026 2:04 PM BY: TYarbrough

Service Layer Credits: World_Imagery: Vantor

MW-22-153
MW-22-157
MW-22-156
5/6/2025: 1,1-DCE = 15
10/28/2025: 1,1-DCE = 10
MW-16-84
MW-14-61
MW-19-120
MW-22-152
MW-22-154
MW-20-132
MW-20-131
MW-04-05(6)

LEGEND

- SOIL VAPOR MONITORING POINT
- BEDROCK MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- PERCHED ZONE MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- WELLS SAMPLED AND VOC'S EXCEED DW AND/OR GSI
- WELLS SAMPLED AND VOC'S DO NOT EXCEED DW OR GSI CRITERIA
- EXTENT VOC'S IN PERCHED ZONE> DW CRITERIA
- APPROXIMATE EXTENT LNAPL
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

APPROXIMATE EXTENT OF PERCHED VOC'S PLUME AND LNAPL IMPACTS SHOWN ARE BASED ON SEVERAL INVESTIGATIONS PREVIOUSLY COMPLETED AT THE SITE.

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD 8260B.

ALL ANALYTICAL DATA IS IN ug/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

GSI: EGLE Part 201 GROUNDWATER SURFACE WATER INTERFACE CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ug/L: MICROGRAMS PER LITER.

1,1-DCE: 1,1-DICHLOROETHENE

LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

0 400 800
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF VOC ANALYTICAL RESULTS - 2025

ARCADIS

FIGURE
5

T:_ENVRACER\Lansing_BuffaloDataMXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 2025 Semi-Annual Groundwater Monitoring ReportPLOTTED: 4/15/2026 1:55 PM BY: TYarbrough

Service Layer Credits: World Imagery: Vantor

MW-18-98
11/04/2025: 130
MW-19-113: DRY
MW-18-97
MW-18-89
11/05/2025: 133
MW-02-04(3)
MW-19-112
MW-18-90
11/06/2025: 966
MW-18-99
11/04/2025: 61.8
UNK-15
11/04/2025: 1,210
MW-19-107
MW-91-2R
MW-18-103
MW-18-101
MW-23
MW-18-102
MW-18-92
MW-18-93
MW-18-88
11/06/2025: 337
MW-19-108
MW-18-104
MW-19-111
MW-18-94
CH-14-RO
11/06/2025: 9,560
MW-18-105
MW-18-96
DRY
MW-19-114
MW-18-91
11/06/2025: 41.4
MW-18-100
MW-18-95
11/06/2025: 38.6
MW-22-151
MW-20-132
10/29/2025: 20.9
MW-14-59
10/29/2025: 26.3
MW-12-10R
MW-22-152
MW-22-150
MW-04-05(6)
MW-14-60
10/29/2025: 52
MW-04-06R
MW-12-12
10/31/25: 35.7
MW-14-58R
MW-20-131
MW-12-11
MW-14-70
P2-MW-04
10/29/2025: 27.8
MW-14-61
MW-15-72
MW-12-13
MW-12-09
MW-14-67
MW-16-81
MW-22-149
MW-14-56
MW-04-04R
MW-12-18
MW-20-130
MW-21-139
10/29/2025: 1,760
MW-13-36R
10/31/2025: 45.3
MW-14-62
10/29/2025: 42.8
P2-MW-02
MW-22-148
MW-21-133
MW-22-147
P6-SB-07
10/31/2025: 53.8
MW-21-134
MW-22-160
MW-22-143
MW-22-144
MW-21-136
MW-22-159: DRY
MW-22-158
MW-22-145
MW-21-137
MW-21-138

0 500 1,000
SCALE IN FEET

LEGEND

- BEDROCK MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- PERCHED ZONE MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- WELLS SAMPLED AND PFOS EXCEEDS GSI CRITERIA (12ng/L) AND/OR DW CRITERIA (16 ng/L)
- WELLS SAMPLED AND PFOS DOES NOT EXCEED GSI OR DW CRITERIA
- PFOS IN PERCHED GROUNDWATER (>12 ng/L)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

APPROXIMATE EXTENT OF IMPACTS/PLUMES SHOWN ARE BASED ON A COMBINATION OF SEVERAL INVESTIGATIONS PREVIOUSLY COMPLETED AT THE SITE AND 2025 GROUNDWATER ANALYTICAL DATA.

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD 537 MODIFIED.

ALL ANALYTICAL DATA IS IN ng/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

GSI: EGLE PART 201 GROUNDWATER SURFACE WATER INTERFACE CRITERION.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PFOS: PERFLUOROOCTANE SULFONIC ACID

ng/L: NANOGRAM PER LITER.

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PFOS ANALYTICAL RESULTS - 2025

ARCADIS

FIGURE
6

T:_ENV\RACER\Lansing_Buffalo\Data\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 06_PFOS_2025 PLOTTED: 4/22/2026 3:12 PM BY: TYarbrough

Service Layer Credits: World_Imagery: Vantor

MW-19-113: DRY
MW-18-98
MW-18-97
MW-18-89
11/05/2025: 13.3
MW-02-04(3)
MW-19-112
MW-18-90
11/06/2025: 13.9
CH-14-RO
11/06/2025: 81.9
MW-18-99
UNK-15
11/04/2025: 21
MW-19-107
MW-91-2R
MW-18-93
MW-18-102
MW-18-103
MW-18-92
MW-18-88
11/06/2025: 9.27
MW-19-108
MW-18-101
MW-23
MW-18-91
MW-18-105
MW-18-104
MW-19-111
MW-18-94
MW-19-114
MW-18-96: DRY
MW-18-95
MW-18-100
MW-20-132
10/29/2025: 35.7
MW-22-151
11/04/2025: 9.21
MW-12-10R
MW-20-131
10/29/2025: 32.3
MW-20-132
10/29/2025: 35.7
MW-22-152
MW-14-59
10/29/2025: 42.5
MW-04-06R
MW-22-150
MW-14-60
10/29/2025: 31.2
MW-14-58R
10/29/2025: 17.8
MW-12-11
MW-12-12
10/31/25: 69.7
MW-04-05(6)
11/04/2025: 33.5
MW-14-70
10/31/25: 30
MW-14-62
10/29/2025: 51.8
MW-12-13
10/31/25: 20.5
MW-15-72
MW-12-09
10/29/2025: 20.7
P2-MW-04
10/29/2025: 22.8
MW-14-67
10/31/25: 27.7
MW-16-81
MW-14-61
MW-04-04R
MW-22-149
MW-14-56
MW-20-130
MW-21-139
10/29/2025: 88.3
MW-21-133
10/30/2025: 50
MW-13-36R
10/31/2025: 61.8
MW-12-18
MW-22-148
MW-22-147
P6-SB-07
10/31/2025: 924
P2-MW-02
MW-22-144
11/03/2025: 12
MW-21-134
10/30/2025: 54.2
MW-22-160
MW-22-158
MW-22-145
11/03/2025: 11:
MW-21-138
MW-22-143
MW-22-159: DRY
MW-21-136
MW-21-137

LEGEND

- BEDROCK MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- PERCHED ZONE MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- WELL SAMPLED AND PFOA EXCEEDS DW CRITERIA (8 ng/L) AND/OR GSI CRITERIA (170 ng/L)
- WELL SAMPLED AND PFOA DOES NOT EXCEED DW OR GSI CRITERIA
- PFOA IN PERCHED GROUNDWATER (>8 ng/L)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

APPROXIMATE EXTENT OF IMPACTS/PLUMES SHOWN ARE BASED ON A COMBINATION OF SEVERAL INVESTIGATIONS PREVIOUSLY COMPLETED AT THE SITE AND 2025 GROUNDWATER ANALYTICAL DATA.

ANALYTICAL DATA FROM 2025 IS POSTED

SAMPLES ANALYZED VIA EPA METHOD 537 MODIFIED.

ALL ANALYTICAL DATA IS IN ng/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

GSI: EGLE Part 201 GROUNDWATER SURFACE WATER INTERFACE CRITERIA

PFOA: PERFLUOROOCTANOIC ACID

ng/L: NANOGRAM PER LITER.

0 500 1,000
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PFOA ANALYTICAL RESULTS - 2025

ARCADIS

FIGURE
7

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 07_PFOA_2025 PLOTTED: 4/22/2026 3:12 PM BY: TYarbrough

Service Layer Credits: World_Imagery: Vantor

MW-19-113: DRY
MW-18-97
MW-18-98
MW-19-112
MW-02-04(3)
MW-18-99
MW-18-90
MW-19-107
MW-18-89
MW-18-101
UNK-15
MW-91-2R
MW-18-92
MW-23
MW-18-93
MW-19-108
MW-18-88
MW-18-104
CH-14-RO
MW-19-111
MW-18-91
MW-18-105
MW-18-94
MW-18-95
MW-19-114
MW-18-96: DRY
MW-18-100
MW-18-103
MW-18-102
MW-22-151
MW-22-152
MW-22-150
MW-12-10R
MW-20-131
MW-04-06R
MW-12-11
MW-12-12
10/31/2025: 7.3
MW-04-05(6)
MW-14-70
MW-20-132
10/29/2025: 7.2
MW-12-13
MW-14-67
MW-22-149
MW-04-04R
MW-13-36R
10/31/2025: 12.3
MW-22-148
MW-21-133
MW-22-147
P6-SB-07
10/31/2025: 133
MW-21-134
MW-22-160
MW-21-135
MW-22-144
MW-22-145
MW-21-137
MW-22-143
MW-22-158
MW-22-159: DRY
MW-21-136
MW-21-138
MW-14-59
MW-14-62
10/29/2025: 6.7
MW-14-58R
MW-14-60
P2-MW-04
MW-15-72
MW-12-09
MW-16-81
MW-14-56
MW-20-130
MW-12-18
MW-14-61
MW-21-139
10/29/2025: 14.8
P2-MW-02

LEGEND

- BEDROCK MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- PERCHED ZONE MONITORING WELL
- WEATHERED BEDROCK MONITORING WELL
- WELLS SAMPLED AND PFNA EXCEEDS DW CRITERIA (6ng/L) AND/ OR GSI CRITERIA (30 ng/L)
- WELLS SAMPLED AND PFNA DOES NOT EXCEED DW OR GSI CRITERIA
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

ANALYTICAL DATA FROM 2025 IS POSTED.

SAMPLES ANALYZED VIA EPA METHOD 537 MODIFIED.

ALL ANALYTICAL DATA IS IN ng/L.

DW: EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA.

EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EPA: UNITES STATES ENVIRONMENTAL PROTECTION AGENCY

GSI: EGLE Part 201 GROUNDWATER SURFACE WATER INTERFACE CRITERIA

PFNA: PERFLUORONONANOIC ACID

ng/L: NANOGRAM PER LITER.

0 500 1,000
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF PFNA ANALYTICAL RESULTS - 2025

ARCADIS

FIGURE
8

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 2025 Semi-Annual GW Monitoring Report PLOTTED: 4/15/2026 1:55 PM BY: TYarbrough

P2-MH-2		
Date:	5/9/2025	10/16/2025
PFOS:	**12.5**	**21.6**
PFOA:	15.2	17.2
PFBS:	1.6 J	5.6
PFHxS:	3.4 J	4.5
PFNA:	1.8 J	2.5 J

P2-MH-W		
Date:	5/9/2025	10/16/2025
PFOS:	1.2 J	1.7 J
PFOA:	1.9 J	2.8
PFBS:	1.2 J	1.3 J
PFHxS:	1.7 J	1.3 J
PFNA:	< 0.8	< 0.8

NOTES:
-UTILITY LOCATIONS ARE APPROXIMATE
-ARROWS DENOTE FLOW DIRECTION
-INVERT FLOWS WERE OBSERVED IN MANHOLES ASSOCIATED WITH STORM SEWER SAMPLING
-AERIAL IMAGERY FROM ESRI ARCGIS ONLINE DATED JULY 2023.
-PFAS CONCENTRATIONS SHOWN IN ng/L

-BOLD/HIGHLIGHT = MANHOLE EXCEEDS SURFACE WATER CRITERIA

PFOS RULE 57 SURFACE WATER CRITERIA: 12 ng/L
PFOA RULE 57 SURFACE WATER CRITERIA: 170 ng/L
PFBS RULE 57 SURFACE WATER CRITERIA: 670,000 ng/L
PFHxS RULE 57 SURFACE WATER CRITERIA: 210 ng/L
PFNA RULE 57 SURFACE WATER CRITERIA: 30 ng/L

PFAS: PER- AND POLYFLUOROALKYL SUBSTANCES
PFOS: PERFLUOROOCTANE SULFONIC ACID
PFOA: PERFLUOROOCTANOIC ACID
PFBS PERFLUOROBUTANE SULFONIC ACID
PFHxS: PERFLUOROHEXANESULFONIC ACID
PFNA: PERFLUORONONANOIC ACID
ng/L: NANOGRAMS PER LITER
J: CONSTITUENT IDENTIFIED BELOW SAMPLE REPORTING LIMIT
<: COMPOUND NOT DETECTED

SAMPLES ANALYZED VIA EPA 537M – MI LIST OF 28

ADJUSTMENT TYPE
- FILLED STRUCTURE
- CAPPED STRUCTURE
- COULD NOT LOCATE STRUCTURE
- CATCH BASIN REMAINING OPEN

STRUCTURE & SAMPLE POINTS
- DRY MANHOLE
- MANHOLE

PLANT 2 DRAINAGE NETWORKS
- NORTHEAST (ABANDONED)
- CENTRAL (PARTIALLY ABANDONED)
- SOUTHWEST (ABANDONED)

OBSERVED FLOW (OCTOBER 2025)
- NO FLOW
- TRICKLE (~1 GPM OR LESS)
- LITTLE (~1-3 GPM)
- MODERATE (~3 GPM OR GREATER)

PLANT BOUNDARIES
- PLANT 2
- PLANT 3
- PLANT 6

0 150 300
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

PLANT 2 PFAS STORM SEWER SAMPLING ANALYTICAL RESULTS

ARCADIS

FIGURE
9

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 P2 P3 P6 Storm Sewer Modifications Completion Report\2025 PFAS Sampling Figs.aprx PLOTTED: 2/25/2026 2:24 PM BY: TYarbrough

NOTES:
-UTILITY LOCATIONS ARE APPROXIMATE
-ARROWS DENOTE FLOW DIRECTION
-INVERT FLOWS WERE OBSERVED IN MANHOLES ASSOCIATED WITH STORM SEWER SAMPLING
-AERIAL IMAGERY FROM ESRI ARCGIS ONLINE DATED JULY 2023.
-PFAS CONCENTRATIONS SHOWN IN ng/L

-BOLD/HIGHLIGHT = MANHOLE EXCEEDS SURFACE WATER CRITERIA

PFOS SURFACE WATER CRITERIA: 12 ng/L
PFOA SURFACE WATER CRITERIA: 170 ng/L
PFBS SURFACE WATER CRITERIA: 670,000 ng/L
PFHxS SURFACE WATER CRITERIA: 210 ng/L
PFNA SURFACE WATER CRITERIA: 30 ng/L

PFAS: PER- AND POLYFLUOROALKYL SUBSTANCES
PFOS: PERFLUOROOCTANE SULFONIC ACID
PFOA: PERFLUOROOCTANOIC ACID
PFBS PERFLUOROBUTANE SULFONIC ACID
PFHxS: PERFLUOROHEXANESULFONIC ACID
PFNA: PERFLUORONONANOIC ACID
ng/L: NANOGRAMS PER LITER
J: CONSTITUENT IDENTIFIED BELOW SAMPLE REPORTING LIMIT
<: COMPOUND NOT DETECTED

SAMPLES ANALYZED VIA EPA 537M – MI LIST OF 28

P3-MH-284		
Date:	5/9/2025	10/16/2025
PFOS:	3.5	3.8
PFOA:	< 0.6	< 0.6
PFBS:	1.2 J	0.8 J
PFHxS:	< 0.9	< 0.9
PFNA:	< 0.9	< 0.9

W Willow St
Timber Dr
Harwick Dr
Eastfield Rd
P3-MH-290
P3-MH-284
P3-MH-NE
Western CLSM Monolith
Eastern CLSM Monolith
P3-MH-308
P3-MH-1-1
P3-MH-2-1N
P3-MH-2-1
P3-MH-2-2
P3-MH-1-7
P3-MH-1-10
P3-MH-1-9
P3-MH-2-5
W Saginaw St
N Catherine St
N Grace St
N Rosemary St
Microsoft, Vantor

ADJUSTMENT TYPE
- CAPPED STRUCTURE
- FILLED STRUCTURE
- CLSM MONOLITH
- BULKHEAD
- DISCHARGE OPEN WITH CUSTOM POUR

STRUCTURES & SAMPLE POINTS
- MANHOLE
- CATCH BASIN REMAINING OPEN
- CATCH BASIN COULD NOT BE LOCATED

PLANT 3 DRAINAGE NETWORKS
- COUNTY MAIN (ACTIVE)
- EAST MAIN (ABANDONED)
- WEST MAIN (ABANDONED)
- OTHER (ACTIVE)

OBSERVED FLOW (OCTOBER 2025)
- NO FLOW
- TRICKLE (~1 GPM OR LESS)
- LITTLE (~1-3 GPM)
- MODERATE (~3 GPM OR GREATER)

PLANT BOUNDARIES
- PLANT 2
- PLANT 3

0 200 400
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

PLANT 3 PFAS STORM SEWER SAMPLING ANALYTICAL RESULTS

ARCADIS

FIGURE
10

T:_ENV\RACER\Lansing_Buffalo\Data\MXDs\2025 P2 P3 P6 Storm Sewer Modifications Completion Report\2025 PFAS Sampling Figs.aprx PLOTTED: 2/25/2026 2:24 PM BY: TYarbrough

Osborn-MH-1		
Date:	5/9/2025	10/16/2025
PFOS:	**18.4 [19.2]**	**12.2 [11.2]**
PFOA:	16.0 [18.2]	18.5 [20.3]
PFBS:	1.0 J [0.9 J]	1.6 J [1.5 J]
PFHxS:	1.5 J [1.5 J]	1.9 J [2.0 J]
PFNA:	3.4 J [3.6 J]	2.4 J [2.2 J]

NOTES:
-UTILITY LOCATIONS ARE APPROXIMATE
-ARROWS DENOTE FLOW DIRECTION
-INVERT FLOWS WERE OBSERVED IN MANHOLES ASSOCIATED WITH STORM SEWER SAMPLING
-AERIAL IMAGERY FROM ESRI ARCGIS ONLINE DATED JULY 2023.
-PFAS CONCENTRATIONS SHOWN IN ng/L

-BOLD/HIGHLIGHT = MANHOLE EXCEEDS SURFACE WATER CRITERIA

PFOS RULE 57 SURFACE WATER CRITERIA: 12 ng/L
PFOA RULE 57 SURFACE WATER CRITERIA: 170 ng/L
PFBS RULE 57 SURFACE WATER CRITERIA: 670,000 ng/L
PFHxS RULE 57 SURFACE WATER CRITERIA: 210 ng/L
PFNA RULE 57 SURFACE WATER CRITERIA: 30 ng/L

PFAS: PER- AND POLYFLUOROALKYL SUBSTANCES
PFOS: PERFLUOROOCTANE SULFONIC ACID
PFOA: PERFLUOROOCTANOIC ACID
PFBS PERFLUOROBUTANE SULFONIC ACID
PFHxS: PERFLUOROHEXANESULFONIC ACID
PFNA: PERFLUORONONANOIC ACID
ng/L: NANOGRAMS PER LITER
J: CONSTITUENT IDENTIFIED BELOW SAMPLE REPORTING LIMIT
<: COMPOUND NOT DETECTED

SAMPLES ANALYZED VIA EPA 537M – MI LIST OF 28

MichAve-MH-3		
Date:	5/9/2025	10/16/2025
PFOS:	4.6	5.9
PFOA:	6.3	6.7
PFBS:	3.5 J	3.4 J
PFHxS:	2.8 J	4.3
PFNA:	< 0.8	< 0.8

Verlinden-MH-5		
Date:	5/9/2025	10/16/2025
PFOS:	8.5	**13.3**
PFOA:	14.8	38.0
PFBS:	2.3 J	3.2 J
PFHxS:	1.1 J	2.0 J
PFNA:	1.7 J	3.2 J

ADJUSTMENT TYPE
- BULKHEAD
- FILLED STRUCTURE
- CAPPED STRUCTURE

STRUCTURES & SAMPLE POINTS
- MANHOLE
- CATCH BASIN REMAINING OPEN
- DRY MANHOLE
- SEWER LINE CUT AND CAPPED AT PROPERTY LINE DURING 2014 DEMOLITION

PLANT 6 DRAINAGE NETWORKS
- STORMWATER LINE
- SANITARY LINE

OBSERVED FLOW (OCTOBER 2025)
- NO FLOW
- TRICKLE (~1 GPM OR LESS)
- LITTLE (~1-3 GPM)
- MODERATE (~3 GPM OR GREATER)

PLANT BOUNDARIES
- PLANT 2
- PLANT 6

0 150 300
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

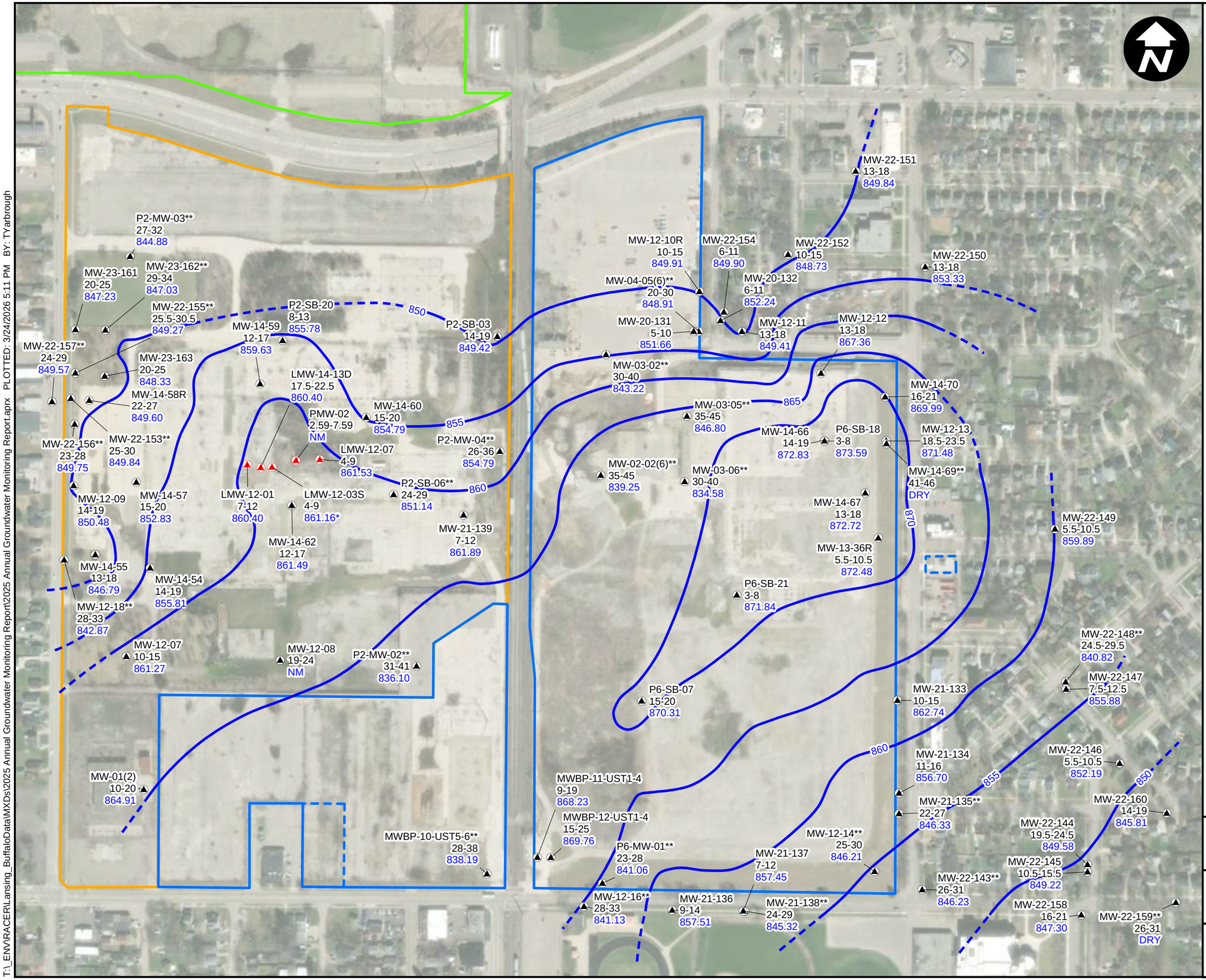
PLANT 6 PFAS STORM SEWER SAMPLING ANALYTICAL RESULTS

ARCADIS

FIGURE
11

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 P2 P3 P6 Storm Sewer Modifications Completion Report\2025 PFAS Sampling Figs.aprx PLOTTED: 2/25/2026 2:24 PM BY: TYarbrough

T:_ENVRACER\Lansing_BuffaloData\MXDs\2025 Annual Groundwater Monitoring Report\2025 Annual Groundwater Monitoring Report.aprx PLOTTED: 3/24/2026 5:11 PM BY: TYarbrough



LEGEND

- PERCHED ZONE MONITORING WELL
- LNAPL MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (FT AMSL)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

1. DEPTH TO WATER MEASUREMENT WERE TAKEN OCTOBER 27, 2025. ALL MEASUREMENTS WERE COLLECTED FROM THE TOP OF THE WELL CASINGS.

2. WELL LABELING:
WELL NAME
WELL SCREEN (FT BGS)
GROUNDWATER ELEVATION (FT AMSL)

3. * = LNAPL MONITORING WELLS CORRECTED FOR PRESENCE OF LNAPL

4. **MONITORING WELL NOT UTILIZED IN CONTOURING CALCULATIONS. DUE TO VERTICAL GRADIENT, GROUNDWATER ELEVATION CONTOURS ONLY CONSIDER MONITORING WELLS INSTALLED < 27 FEET BELOW GRADE

BGS: BELOW GROUND SURFACE

FT: FEET

LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

AMSL: ABOVE MEAN SEA LEVEL

NM: NOT MEASURED

0 300 600

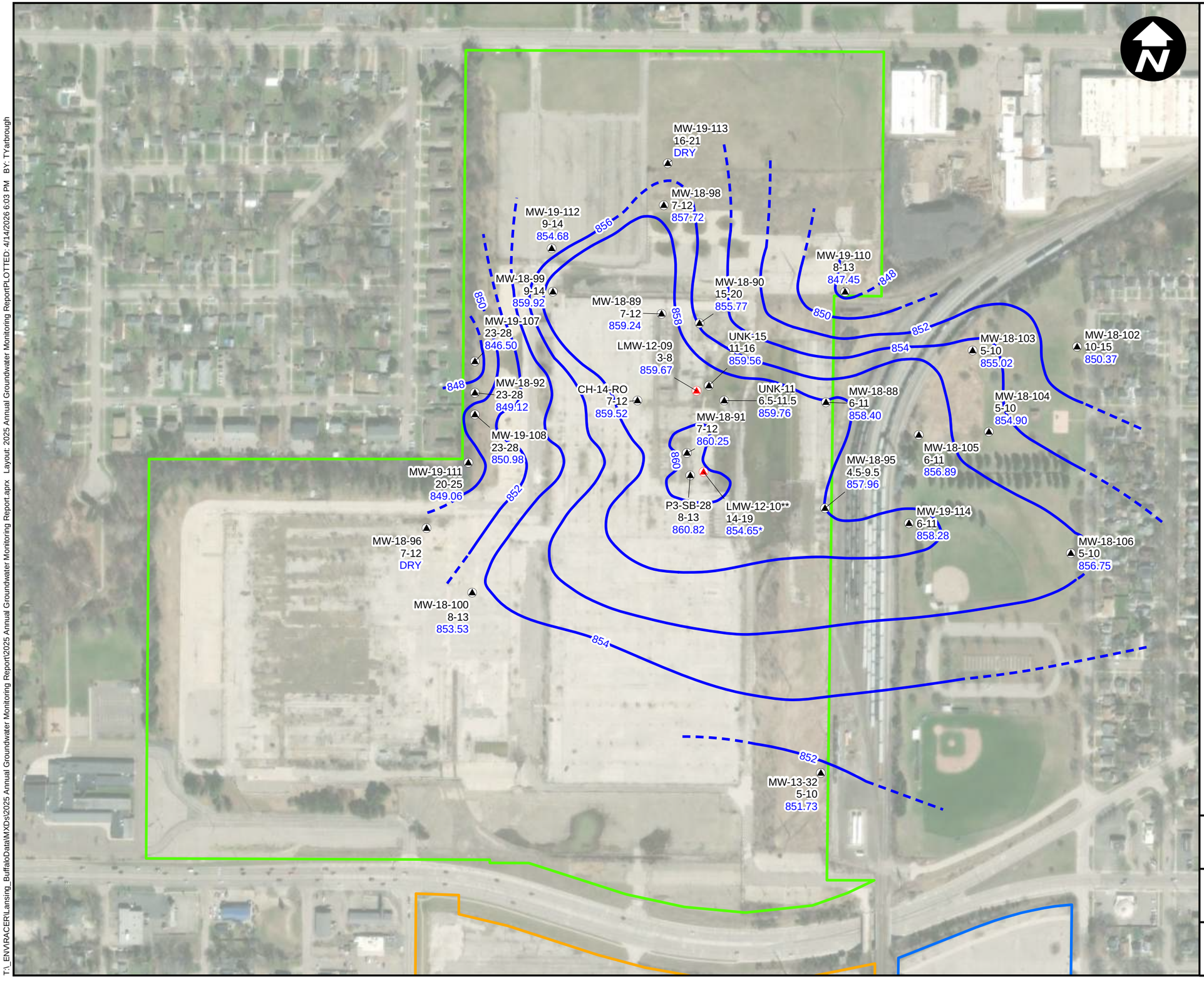
SCALE IN FEET

RACER TRUST
LANSING, MICHIGAN
PLANTS 2, 3 & 6

PERCHED POTENTIOMETRIC SURFACE CONTOUR MAP - PLANTS 2 & 6 OCTOBER 27, 2025

ARCADIS

FIGURE 12



LEGEND

- PERCHED ZONE MONITORING WELL
- LNAPL MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (FT AMSL)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

1. DEPTH TO WATER MEASUREMENT TO OCTOBER 27 THROUGH 28, 2025. ALL MEASUREMENTS WERE COLLECTED FROM THE TOP OF THE WELL CASINGS.

2. WELL LABELING:
WELL NAME
WELL SCREEN (FT BGS)
GROUNDWATER ELEVATION (FT AMSL)

3. * = LNAPL MONITORING WELLS CORRECTED FOR PRESENCE OF LNAPL

4. **MONITORING WELL NOT UTILIZED IN CONTOURING CALCULATIONS.

BGS: BELOW GROUND SURFACE

FT: FEET

LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

AMSL: ABOVE MEAN SEA LEVEL

NM: NOT MEASURED

0 300 600

SCALE IN FEET

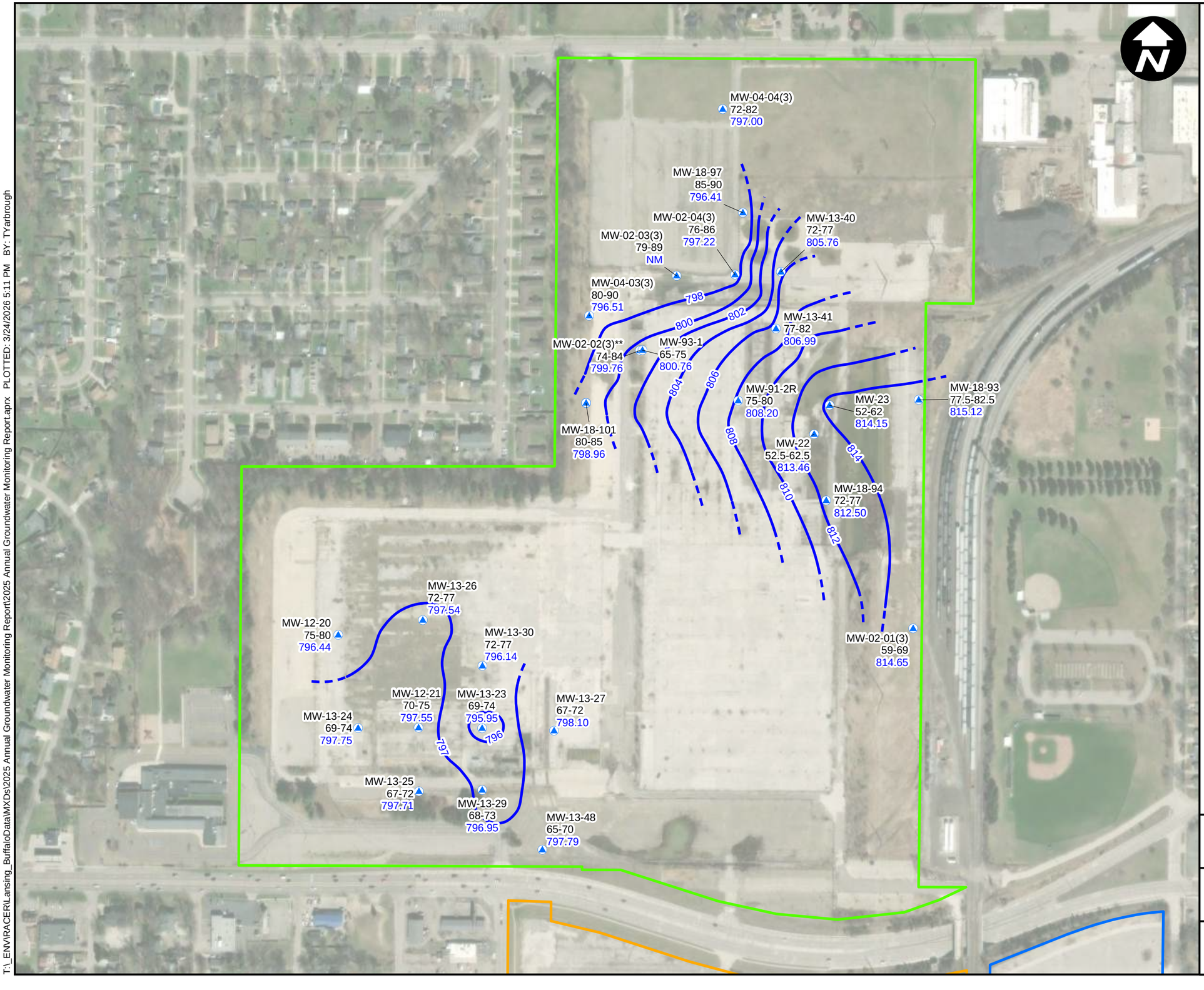
RACER TRUST
LANSING, MICHIGAN
PLANTS 2, 3 & 6

PERCHED POTENTIOMETRIC SURFACE CONTOUR MAP - PLANT 3 OCTOBER 27, 2025

ARCADIS

FIGURE
13

T:_ENV\RACER\Lansing_Buffalo\Data\MXDs\2025 Annual Groundwater Monitoring Report\2025 Annual Groundwater Monitoring Report.aprx Layout: 2025 Annual Groundwater Monitoring ReportPLOTTED: 4/14/2026 6:03 PM BY: TYarbrough



LEGEND

- DEEP OVERBURDEN MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (FT AMSL)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

1. DEPTH TO WATER MEASUREMENT TAKEN OCTOBER 27, 2025. ALL MEASUREMENTS WERE COLLECTED FROM THE TOP OF THE WELL CASINGS.

2. WELL LABELING:
WELL NAME
WELL SCREEN (FT BGS)
GROUNDWATER ELEVATION (FT AMSL)

3. **MONITORING WELL NOT UTILIZED IN CONTOURING CALCULATIONS.

BGS: BELOW GROUND SURFACE

FT: FEET

LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID

AMSL: ABOVE MEAN SEA LEVEL

NM: NOT MEASURED

0 290 580

SCALE IN FEET

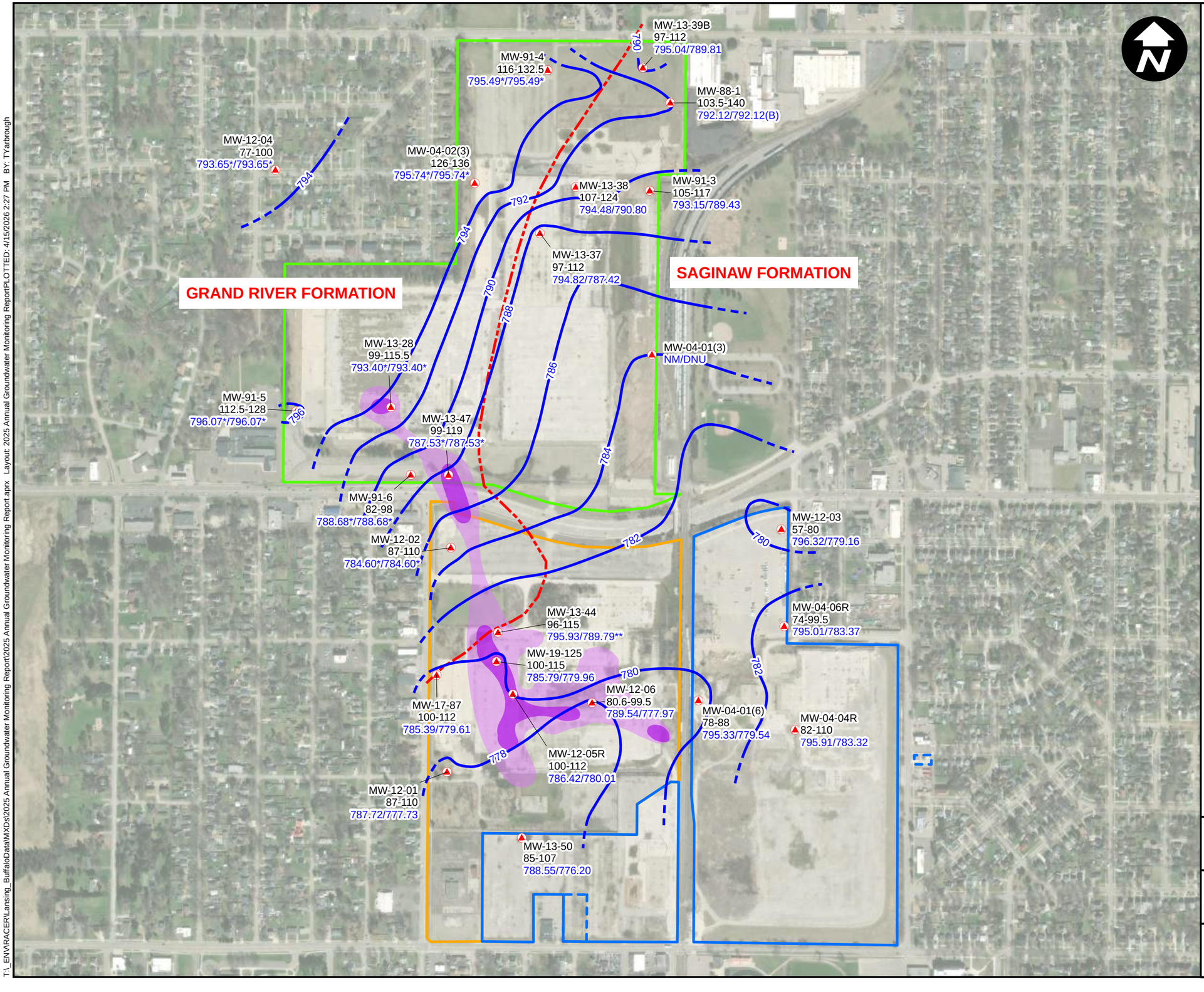
RACER TRUST
LANSING, MICHIGAN
PLANTS 2, 3 & 6

DEEP OVERBURDEN POTENTIOMETRIC SURFACE CONTOUR MAP - PLANT 3 OCTOBER 27, 2025

ARCADIS

FIGURE
14

T:_ENV\RACER\Lansing_BuffaloData\MXDs\2025 Annual Groundwater Monitoring Report\2025 Annual Groundwater Monitoring Report.aprx PLOTTED: 3/24/2026 5:11 PM BY: TYarbrough



LEGEND

- WEATHERED BEDROCK/BEDROCK MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) (FT AMSL)
- APPROXIMATE LOCATION OF GRAND RIVER/SAGINAW FORMATION GEOLOGIC CONTACT
- LOWER 1,4-DIOXANE IMPACTS > DW CRITERIA
- LOWER 1,4-DIOXANE PLUME > 72 ug/L
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

MONITORING WELLS LOCATED IN THE SAGINAW FORMATION ARE CORRECTED FOR AN AVERAGE VERTICAL GRADIENT OF 0.34 (FT/FT DOWNWARD)

* MONITORING WELLS LOCATED IN GRAND RIVER FORMATION NOT CORRECTED FOR VERTICAL GRADIENT

** WELL MW-13-44 GROUNDWATER ELEVATION WAS NOT USED IN CONTOURING DUE TO ERROR IN THE RECORDED GAUGING MEASUREMENT.

APPROXIMATE EXTENT OF IMPACTS/PLUMES SHOWN ARE BASED ON SEVERAL INVESTIGATIONS PREVIOUSLY COMPLETED AT THE SITE

(B) - BASELINE WELL (DEEPEST WELL)

793.41/789.50 - UNCORRECTED GW ELEV/CORRECTED GW ELEV

DEPTH TO WATER MEASUREMENTS WERE TAKEN OCTOBER 27 AND 28, 2025 AND WERE COLLECTED FROM THE TOP OF THE WELL CASING

ELEVATION IS GIVEN IN FEET ABOVE MEAN SEA LEVEL (FT AMSL)

DNU: GROUNDWATER ELEVATION NOT USED IN CONTOUR MAP CREATION. WELL MW-04-01(3) HAS HISTORICALLY MEASURED HIGH RELATIVE TO OTHER BEDROCK WELLS
DW: DRINKING WATER
ELEV: ELEVATION
FT: FEET
GW: GROUNDWATER
NM: NOT MEASURED
µg/L: MICROGRAMS PER LITER

0 550 1,100

SCALE IN FEET

RACER TRUST
LANSING, MICHIGAN
PLANTS 2, 3 & 6

BEDROCK POTENTIOMETRIC SURFACE CONTOUR MAP OCTOBER 27, 2025

ARCADIS

FIGURE
15

T:_ENVIRACER\Lansing_BuffaloData\MXDs\2025 Annual Groundwater Monitoring Report\2025 Annual Groundwater Monitoring Report.aprx Layout: 2025 Annual Groundwater Monitoring ReportPLOTTED: 4/15/2026 2:27 PM BY: TYarbrough

Service Layer Credits: World Imagery: Vantor

MW-19-113
MW-18-98
MW-18-89
MW-19-112
MW-18-90
MW-18-99
MW-19-110
MW-18-103
PFHxS: Increasing trend
MW-18-102
MW-19-107
UNK-15
MW-18-88
MW-18-92
CH-14-RO
PFOA: Increasing trend
MW-19-108
PFOS: Increasing trend
MW-18-91
MW-19-111
MW-18-105
MW-18-104
P3-SB-28
MW-18-95
MW-18-96
MW-19-114
MW-18-100
MW-23-162
MW-14-59
PFOA: Increasing trend
1,4-D: Decreasing trend
MW-23-161
MW-12-10R
MW-22-151
MW-22-152
MW-22-150
MW-23-163
MW-14-60
MW-20-132
PFOS: Increasing trend
MW-22-155
PFOA: Increasing trend
MW-04-05(6)
MW-22-154
1,4-D: Decreasing trend
MW-20-131
MW-12-11
MW-14-58R
MW-12-12
MW-22-153
MW-14-70
MW-22-157
MW-03-05
MW-12-13
1,4-D: Increasing trend
P2-MW-04
MW-02-02(6)
PFOA: Increasing trend
MW-22-156
MW-03-06
MW-14-67
MW-14-62
MW-21-139
PFOA: Increasing trend
MW-12-09
MW-14-57
MW-13-36R
MW-22-149
PFOA: Increasing trend
MW-12-18
P2-MW-02
MW-22-148
P6-SB-07
MW-21-133
MW-22-147
MW-22-146
MW-21-134
MW-22-160
MW-21-135
MW-22-144
MW-22-145
MW-22-143
MW-21-136
MW-22-158
MW-21-137
MW-21-138
MW-22-159

LEGEND

- INCREASING TREND OBSERVED
- DECREASING, STABLE, OR NO SIGNIFICANT TREND OBSERVED
- DOES NOT MEET CRITERIA FOR TREND ANALYSIS
- APPROXIMATE EXTENT LNAPL
- EXTENT VOC'S IN PERCHED ZONE> DW CRITERIA
- PFOS IN PERCHED GROUNDWATER (>12 ng/L)
- PFOA IN PERCHED GROUNDWATER (>8 ng/L)
- PERCHED 1,4-DIOXANE IMPACTS > DW CRITERIA (7.2 ug/L)
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

MANN-KENDALL TREND ANALYSIS CONDUCTED WHEN AT LEAST SEVEN SAMPLES, 50% DETECTED VALUES, AND 25% EXCEEDANCES ARE AVAILABLE. SIGNIFICANCE OF TRENDS EVALUATED AT 90% CONFIDENCE.

- ALL DATA COLLECTED THROUGH 2025 SHOWN.
- ANALYTICAL DATA COMPARED AGAINST EGLE

Part 201 RESIDENTIAL DRINKING WATER CRITERIA AND/OR EGLE Part 201 GROUNDWATER SURFACE WATER INTERFACE CRITERIA DURING TREND ANALYSIS REVIEW.

ANALYTICAL DATA AVAILABLE IN TABLE 2. TREND RESULTS SUMMARIZED IN APPENDIX E.

1,4-D: 1,4-DIOXANE
DW: DRINKING WATER
EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
PFHxS: PERFLUOROHEXANESULFONIC ACID
PFOA: PERFLUOROOCTANOIC ACID
PFOS: PERFLUOROOCTANE SULFONIC ACID
VOCs: VOLATILE ORGANIC COMPOUNDS
ng/L: NANOGRAMS PER LITER

0 500 1,000
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF TRENDS IN PERCHED GROUNDWATER - 2025

ARCADIS

FIGURE
16

T:\ ENVIRACER\Lansing_BuffaloData\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 16_2025 MK Perched Trends PLOTTED: 4/28/2026 4:52 PM BY: TYarbrough

Service Layer Credits: World Imagery: Vantor

TWP-90-05
MW-18-97
MW-02-04(3)
MW-91-2R
MW-18-93
MW-18-101
MW-23
MW-18-94
MW-12-21
MW-13-22
PW-14-03R
TW-15-11
MW-13-25
MW-13-29
MW-13-48
MW-13-34
1,4-D: Increasing trend
TWP-90-04
MW-13-46
MW-21-142
MW-14-63
MW-20-126
MW-16-80
TW-15-12
MW-13-43
PW-14-02
MW-20-128
MW-13-45
MW-16-85
MW-20-127
MW-19-116
1,4-D: Increasing trend
MW-16-84
MW-16-82
MW-17-86
MW-19-115
MW-14-61
MW-19-117
MW-19-120
MW-14-56
1,4-D: Increasing trend
MW-15-72
MW-19-124
MW-20-130
TWP-90-03
MW-16-81
MW-20-129
MW-21-141
TW-14-02
MW-19-121
PW-14-01
MW-16-78
MW-21-140
MW-16-76
MW-19-123
MW-16-74
MW-16-77
MW-19-122
MW-16-75

LEGEND

- INCREASING TREND OBSERVED
- DECREASING, STABLE, OR NO SIGNIFICANT TREND OBSERVED
- DOES NOT MEET CRITERIA FOR TREND ANALYSIS
- LOWER 1,4-DIOXANE IMPACTS > DW CRITERIA
- POTENTIAL OFF-SITE LOWER 1,4-DIOXANE PLUME > DW CRITERIA
- PLANT 2 BOUNDARY
- PLANT 3 BOUNDARY
- PLANT 6 BOUNDARY (DASHED WHERE SOLD)

NOTES:

MANN-KENDALL TREND ANALYSIS CONDUCTED WHEN AT LEAST SEVEN SAMPLES, 50% DETECTED VALUES, AND 25% EXCEEDANCES ARE AVAILABLE. SIGNIFICANCE OF TRENDS EVALUATED AT 90% CONFIDENCE.

ALL DATA COLLECTED THROUGH 2025 IS SHOWN.

ANALYTICAL DATA COMPARED AGAINST EGLE Part 201 RESIDENTIAL DRINKING WATER CRITERIA DURING TREND ANALYSIS REVIEW.

ANALYTICAL DATA AVAILABLE IN TABLE 2. TREND RESULTS SUMMARIZED IN APPENDIX E.

1,4-D: 1,4-DIOXANE
DW: DRINKING WATER
EGLE: MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
µg/L: MICROGRAMS PER LITER

0 400 800
SCALE IN FEET

RACER TRUST
PLANTS 2, 3 & 6
LANSING, MICHIGAN

SUMMARY OF GROUNDWATER TRENDS IN DEEP OVERBURDEN AND WEATHERED BEDROCK - 2025

ARCADIS

FIGURE
17

T:\ ENVIRACER\Lansing_Buffalo\Data\MXDs\2025 Semi-Annual GW Monitoring Report\2025 Semi-Annual Groundwater Monitoring Report.aprx Layout: 17_2025 MK Deep OB Weathered BR Trends PLOTTED: 4/28/2026 4:52 PM BY: TYarbrough

Appendix A

Lansing Township Municipal Well Sampling Laboratory Analytical Reports

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ANALYTICAL REPORT

PREPARED FOR

Attn: Tiffany Linder
Arcadis US Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Generated 11/6/2025 11:07:59 PM

JOB DESCRIPTION

Racer Lansing
4Q Lansing Municipal Well

JOB NUMBER

240-236582-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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11/6/2025 11:07:59 PM

Authorized for release by
Michael DelMonico, Project Manager I
Michael.DelMonico@et.eurofinsus.com
(330)966-9783

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Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Qualifiers

GC/MS Semi VOA

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

Job Narrative
240-236582-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/30/2025 9:50 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 time was 1.8°C.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Method	Method Description	Protocol	Laboratory
522	1,4 Dioxane (GC/MS SIM)	EPA	EET EDI
522	Solid-Phase Extraction (SPE)	EPA	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-236582-1	TWP-90-04_102925	Water	10/29/25 09:15	10/30/25 09:50	Michigan
240-236582-2	DUP-01_102925	Water	10/29/25 00:00	10/30/25 09:50	Michigan
240-236582-3	TWP-90-03_102925	Water	10/29/25 10:00	10/30/25 09:50	Michigan
240-236582-4	TWP-90-05_102925	Water	10/29/25 09:40	10/30/25 09:50	Michigan
240-236582-5	FB-01-102925	Water	10/29/25 10:05	10/30/25 09:50	Michigan

Detection Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: TWP-90-04_102925 — Lab Sample ID: 240-236582-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.38		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: DUP-01_102925 — Lab Sample ID: 240-236582-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.37		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: TWP-90-03_102925 — Lab Sample ID: 240-236582-3

No Detections.

Client Sample ID: TWP-90-05_102925 — Lab Sample ID: 240-236582-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.36		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: FB-01-102925 — Lab Sample ID: 240-236582-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.21		0.20	0.20	ug/L	1		522	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: TWP-90-04_102925
Date Collected: 10/29/25 09:15
Date Received: 10/30/25 09:50

Lab Sample ID: 240-236582-1
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.38		0.20	0.20	ug/L		11/04/25 06:48	11/05/25 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*106*		*70 - 130*	*11/04/25 06:48*	*11/05/25 14:08*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: DUP-01_102925
Date Collected: 10/29/25 00:00
Date Received: 10/30/25 09:50

Lab Sample ID: 240-236582-2
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.37		0.20	0.20	ug/L		11/04/25 06:48	11/05/25 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*121*		*70 - 130*	*11/04/25 06:48*	*11/05/25 14:23*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: TWP-90-03_102925
Date Collected: 10/29/25 10:00
Date Received: 10/30/25 09:50

Lab Sample ID: 240-236582-3
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/04/25 06:48	11/05/25 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*118*		*70 - 130*	*11/04/25 06:48*	*11/05/25 14:39*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: TWP-90-05_102925
Date Collected: 10/29/25 09:40
Date Received: 10/30/25 09:50

Lab Sample ID: 240-236582-4
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.36		0.20	0.20	ug/L		11/04/25 06:48	11/06/25 08:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*105*		*70 - 130*	*11/04/25 06:48*	*11/06/25 08:00*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: FB-01-102925
Date Collected: 10/29/25 10:05
Date Received: 10/30/25 09:50

Lab Sample ID: 240-236582-5
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.21		0.20	0.20	ug/L		11/04/25 06:48	11/06/25 08:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*111*		*70 - 130*	*11/04/25 06:48*	*11/06/25 08:15*	*1*

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(70-130)							
240-236582-1	TWP-90-04_102925	106							
240-236582-2	DUP-01_102925	121							
240-236582-3	TWP-90-03_102925	118							
240-236582-4	TWP-90-05_102925	105							
240-236582-5	FB-01-102925	111							
LCS 460-1072454/2-A	Lab Control Sample	113							
LCSD 460-1072454/3-A	Lab Control Sample Dup	116							
MB 460-1072454/1-A	Method Blank	109							

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MB 460-1072454/1-A
Matrix: Water
Analysis Batch: 1072698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1072454

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/04/25 06:48	11/05/25 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*109*		*70 - 130*	*11/04/25 06:48*	*11/05/25 11:33*	*1*

Lab Sample ID: LCS 460-1072454/2-A
Matrix: Water
Analysis Batch: 1072698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1072454

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			4.00	3.99		ug/L		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 460-1072454/3-A
Matrix: Water
Analysis Batch: 1072698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1072454

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			4.00	4.17		ug/L		104	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*116*		*70 - 130*

GC/MS Semi VOA

Prep Batch: 1072454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236582-1	TWP-90-04_102925	Total/NA	Water	522	
240-236582-2	DUP-01_102925	Total/NA	Water	522	
240-236582-3	TWP-90-03_102925	Total/NA	Water	522	
240-236582-4	TWP-90-05_102925	Total/NA	Water	522	
240-236582-5	FB-01-102925	Total/NA	Water	522	
MB 460-1072454/1-A	Method Blank	Total/NA	Water	522	
LCS 460-1072454/2-A	Lab Control Sample	Total/NA	Water	522	
LCSD 460-1072454/3-A	Lab Control Sample Dup	Total/NA	Water	522	

Analysis Batch: 1072698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236582-1	TWP-90-04_102925	Total/NA	Water	522	1072454
240-236582-2	DUP-01_102925	Total/NA	Water	522	1072454
240-236582-3	TWP-90-03_102925	Total/NA	Water	522	1072454
MB 460-1072454/1-A	Method Blank	Total/NA	Water	522	1072454
LCS 460-1072454/2-A	Lab Control Sample	Total/NA	Water	522	1072454
LCSD 460-1072454/3-A	Lab Control Sample Dup	Total/NA	Water	522	1072454

Analysis Batch: 1072947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236582-4	TWP-90-05_102925	Total/NA	Water	522	1072454
240-236582-5	FB-01-102925	Total/NA	Water	522	1072454

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Client Sample ID: TWP-90-04_102925

Lab Sample ID: 240-236582-1

Date Collected: 10/29/25 09:15
Matrix: Water
Date Received: 10/30/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1072454	AXB	EET EDI	11/04/25 06:48
Total/NA	Analysis	522		1	1072698	DXD	EET EDI	11/05/25 14:08

Client Sample ID: DUP-01_102925

Lab Sample ID: 240-236582-2

Date Collected: 10/29/25 00:00
Matrix: Water
Date Received: 10/30/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1072454	AXB	EET EDI	11/04/25 06:48
Total/NA	Analysis	522		1	1072698	DXD	EET EDI	11/05/25 14:23

Client Sample ID: TWP-90-03_102925

Lab Sample ID: 240-236582-3

Date Collected: 10/29/25 10:00
Matrix: Water
Date Received: 10/30/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1072454	AXB	EET EDI	11/04/25 06:48
Total/NA	Analysis	522		1	1072698	DXD	EET EDI	11/05/25 14:39

Client Sample ID: TWP-90-05_102925

Lab Sample ID: 240-236582-4

Date Collected: 10/29/25 09:40
Matrix: Water
Date Received: 10/30/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1072454	AXB	EET EDI	11/04/25 06:48
Total/NA	Analysis	522		1	1072947	MME	EET EDI	11/06/25 08:00

Client Sample ID: FB-01-102925

Lab Sample ID: 240-236582-5

Date Collected: 10/29/25 10:05
Matrix: Water
Date Received: 10/30/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1072454	AXB	EET EDI	11/04/25 06:48
Total/NA	Analysis	522		1	1072947	MME	EET EDI	11/06/25 08:15

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236582-1
SDG: 4Q Lansing Municipal Well

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	09-30-26
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-03-26
Georgia	State	12028 (NJ)	06-30-26
Illinois	NELAP	2000942025-2	04-30-26
Massachusetts	State	M-NJ312	06-30-26
New Jersey	NELAP	12028	06-30-26
New York	NELAP	11452	04-01-26
Pennsylvania	NELAP	68-00522	02-28-26
Rhode Island	State	LAO00376	12-23-25
USDA	US Federal Programs	525-24-149-77606	05-21-27

Eurofins Canton
180 S. Van Buren Ave

Barberton, OH 44203-3543
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	**Project Manager:**		COC No:
Arcadis	Email: tiffany.linder@arcadis.com	**Site Contact: Kara Donahue**	**Date:**	1 of 1 COCs
28550 Cabot Drive, Suite 500	Tel/Fax: (810) 225-1928	**Lab Contact: Michael DelMonico**	**Carrier:**	TALS Project #:
Novi, MI 48377	**Analysis Turnaround Time**			Sampler:
(810) 225-1928 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
tiffany.linder@arcadis.com, kara.donahue@arcadis.com	TAT if different from Below Standard			Walk-in Client:
Project Name: RACER Lansing/ 30267725.0470A	☐ 2 weeks			Lab Sampling:
4Q Lansing Municipal Well	☐ 1 week			
P O #	☐ 2 days			Job / SDG No.:
	☐ 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)	522 - 1,4-Dioxane	Sample Specific Notes:
TWP-90-04_102925	10/29/25	0915	G	W	1	N	N	X	
DUP-01_102925	10/29/25	———	G	W	1	W	W	X	
TWP-90-03_102925	10/29/25	1000	G	W	1	W	W	X	
TWP-90-05_102925	10/29/25	0940	G	W	1	W	W	X	
FB-01_102925	10/29/25	1005	G	W	1	W	W	X	

240-236582 COC

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: Austin Westhuis	Company: Arcadis	Date/Time: 10/29/25	Received by: FedEx	Company: FedEx	Date/Time: 10/29/25
Relinquished by:	Company:	Date/Time:	Received by: JORDAN PYLES	Company: EURO	Date/Time: 10/30/25 0950
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Arcadis Site Name _____ Cooler unpacked by: JPyles

Cooler Received on 10/30/25 Opened on 10/31/25

FedEx. 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC 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 # 17 (CF +0.7 °C) Observed Cooler Temp. 1.1 °C Corrected Cooler Temp 1.8 °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# HC567196
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

Labeled by:

Labels Verified 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 _____

10/31/2025

Login Container Summary Report

240-236582

11/6/2025

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
TWP-90-04 102925	240-236582-A-1	Amber Glass 250 mL - NaSO3/NaHSO4				
DUP-01_102925	240-236582-A-2	Amber Glass 250 mL - NaSO3/NaHSO4				
TWP-90-03_102925	240-236582-A-3	Amber Glass 250 mL - NaSO3/NaHSO4				
TWP-90-05_102925	240-236582-A-4	Amber Glass 250 mL - NaSO3/NaHSO4				
FB-01-102925	240-236582-A-5	Amber Glass 250 mL - NaSO3/NaHSO4				

240-236582 Waybill

ORIGIN ID:LANA (248) 994-2240

ARCADIS
28550 CABOT DR STE 500

NOVI, MI 48377
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 23.40 LB
CAD: 8994398/SSFE2640
DIMS: 18x11x16 IN

BILL THIRD PARTY

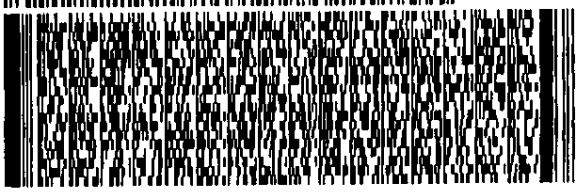
TO EUROFINS CLEVELAND

180 S VANBUREN AVE

BARBERTON OH 44203

(330) 497-9396 REF:

INV:
PO: DEPT:



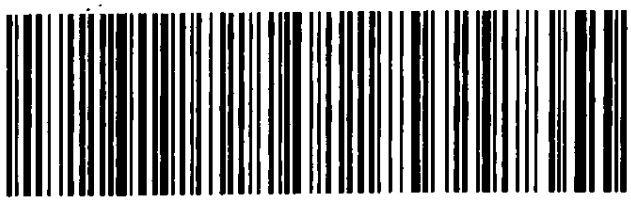
FedEx
Express

TRK# 0201 3947 6850 0766

THU - 30 OCT 10:30A
PRIORITY OVERNIGHT

AHS
44203
OH-US CLE

NP CAKA



Part # 156297-435 RRDW EXP 11/25

11/6/2025

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: DelMonico, Michael	Carrier Tracking No(s): N/A	COC No: 240-210306.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Michael.DelMonico@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast L		Accreditations Required (See note): N/A		Job #: 240-236582-1
Address: 777 New Durham Road,	Due Date Requested: 11/17/2025			
City: Edison	TAT Requested (days): N/A			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Racer Lansing B0064480.2016.00603	Project #: 24017406			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	522/522_CWA_Prep1,4 Dioxane by 522	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
TWP-90-04_102925 (240-236582-1)	10/29/25	09:15 Eastern	G	Water			X	1	
DUP-01_102925 (240-236582-2)	10/29/25	Eastern	G	Water			X	1	
TWP-90-03_102925 (240-236582-3)	10/29/25	10:00 Eastern	G	Water			X	1	
TWP-90-05_102925 (240-236582-4)	10/29/25	09:40 Eastern	G	Water			X	1	
FB-01 102925 (240-236582-5)	10/29/25	10:05 Eastern	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FEDEX

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	JM	10/31/25 1530	EC	Emily Roffler	11/1/25 1013	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: IR#9 3.4/2.9

Ver: 10/10/2024

11/6/2025

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 240-236582-1
SDG Number: 4Q Lansing Municipal Well

Login Number: 236582
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 11/03/25 12:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4/2.9°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B-1

Monitoring Well Sampling Laboratory Analytical Reports

Analytical Laboratory Report

Report ID: S74375.01(01)+QC01
Generated on 05/15/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S74375.01-S74375.29
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 05/07/2025 - 05/08/2025
Submitted Date/Time: 05/09/2025 14:25
Sampled by: D. Richmond, A. Westhuis
P.O. #: US3460024033

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
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Laboratory Accreditations (Page 3)
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Method Summary (Page 4)
Sample Summary (Page 5)
QC Report (Pages 35-108)

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (29 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74375.01	MW-21-142_050725	Groundwater	05/07/25 09:50
S74375.02	MW-20-128_050725	Groundwater	05/07/25 11:20
S74375.03	PW-14-02_050725	Groundwater	05/07/25 12:35
S74375.04	PW-14-01_050725	Groundwater	05/07/25 13:55
S74375.05	MW-20-129_050725	Groundwater	05/07/25 15:10
S74375.06	MW-19-124_050725	Groundwater	05/07/25 16:30
S74375.07	MW-20-126_050825	Groundwater	05/08/25 09:35
S74375.08	MW-19-116_050825	Groundwater	05/08/25 10:40
S74375.09	MW-19-117_050825	Groundwater	05/08/25 12:00
S74375.10	MW-19-122_050825	Groundwater	05/08/25 13:25
S74375.11	MW-19-120_050825	Groundwater	05/08/25 14:55
S74375.12	DUP-03_050825	Groundwater	05/08/25 00:01
S74375.13	MW-13-43_050725	Groundwater	05/07/25 10:40
S74375.14	MW-13-45_050725	Groundwater	05/07/25 12:25
S74375.15	MW-14-61_050725	Groundwater	05/07/25 14:00
S74375.16	MW-16-74_050725	Groundwater	05/07/25 15:20
S74375.17	MW-15-72_050725	Groundwater	05/07/25 16:25
S74375.18	MW-16-75_050825	Groundwater	05/08/25 10:25
S74375.19	MW-16-77_050825	Groundwater	05/08/25 11:30
S74375.20	MW-16-82_050825	Groundwater	05/08/25 13:25
S74375.21	MW-16-81_050825	Groundwater	05/08/25 14:30
S74375.22	MW-16-78_050825	Groundwater	05/08/25 16:00
S74375.23	DUP-02_050725	Groundwater	05/07/25 00:01
S74375.24	MW-19-115_050825	Groundwater	05/08/25 13:45
S74375.25	MW-16-84_050825	Groundwater	05/08/25 15:10
S74375.26	MW-16-84_050825 MS	Groundwater	05/08/25 15:10
S74375.27	MW-16-84_050825 MSD	Groundwater	05/08/25 15:10
S74375.28	MW-16-85_050825	Groundwater	05/08/25 16:25
S74375.29	MW-17-86_050825	Groundwater	05/08/25 16:45

Analytical Laboratory Report

Lab Sample ID: S74375.01
Sample Tag: MW-21-142_050725
Collected Date/Time: 05/07/2025 09:50
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 03:36, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	55	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.02
Sample Tag: MW-20-128_050725
Collected Date/Time: 05/07/2025 11:20
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 04:27, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.03
Sample Tag: PW-14-02_050725
Collected Date/Time: 05/07/2025 12:35
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 09:30, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	26	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74375.04
Sample Tag: PW-14-01_050725
Collected Date/Time: 05/07/2025 13:55
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 04:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.05
Sample Tag: MW-20-129_050725
Collected Date/Time: 05/07/2025 15:10
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 09:05, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	61	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.06
Sample Tag: MW-19-124_050725
Collected Date/Time: 05/07/2025 16:30
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 10:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	184	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.07
Sample Tag: MW-20-126_050825
Collected Date/Time: 05/08/2025 09:35
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 06:33, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	8	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.08
Sample Tag: MW-19-116_050825
Collected Date/Time: 05/08/2025 10:40
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 09:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	76	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.09
Sample Tag: MW-19-117_050825
Collected Date/Time: 05/08/2025 12:00
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 04:53, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.10
Sample Tag: MW-19-122_050825
Collected Date/Time: 05/08/2025 13:25
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 05:43, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.11
Sample Tag: MW-19-120_050825
Collected Date/Time: 05/08/2025 14:55
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 06:08, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	7	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.12
Sample Tag: DUP-03_050825
Collected Date/Time: 05/08/2025 00:01
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 05:18, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	72	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.13
Sample Tag: MW-13-43_050725
Collected Date/Time: 05/07/2025 10:40
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 21:18, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.14
Sample Tag: MW-13-45_050725
Collected Date/Time: 05/07/2025 12:25
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 18:54, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	17	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.15
Sample Tag: MW-14-61_050725
Collected Date/Time: 05/07/2025 14:00
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 21:44, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	6	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.16
Sample Tag: MW-16-74_050725
Collected Date/Time: 05/07/2025 15:20
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 22:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.17
Sample Tag: MW-15-72_050725
Collected Date/Time: 05/07/2025 16:25
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 20:10, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.18
Sample Tag: MW-16-75_050825
Collected Date/Time: 05/08/2025 10:25
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 22:35, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.19
Sample Tag: MW-16-77_050825
Collected Date/Time: 05/08/2025 11:30
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 23:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74375.20
Sample Tag: MW-16-82_050825
Collected Date/Time: 05/08/2025 13:25
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 23:26, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	11	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.21
Sample Tag: MW-16-81_050825
Collected Date/Time: 05/08/2025 14:30
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 19:45, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	37	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74375.22
Sample Tag: MW-16-78_050825
Collected Date/Time: 05/08/2025 16:00
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/14/25 10:59	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 23:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.23
Sample Tag: DUP-02_050725
Collected Date/Time: 05/07/2025 00:01
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 16:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	8	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.24
Sample Tag: MW-19-115_050825
Collected Date/Time: 05/08/2025 13:45
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 17:13, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	6	1		ug/L	1	123-91-1	

Lab Sample ID: S74375.25
Sample Tag: MW-16-84_050825
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 17:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74375.26
Sample Tag: MW-16-84_050825 MS
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 13:49, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	57	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Analytical Laboratory Report

Lab Sample ID: S74375.27
Sample Tag: MW-16-84_050825 MSD
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 14:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	68	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Analytical Laboratory Report

Lab Sample ID: S74375.28
Sample Tag: MW-16-85_050825
Collected Date/Time: 05/08/2025 16:25
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 18:03, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74375.29
Sample Tag: MW-17-86_050825
Collected Date/Time: 05/08/2025 16:45
Matrix: Groundwater
COC Reference: 3

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/15/25 11:50	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 18:28, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	10	1		ug/L	1	123-91-1	

Quality Control Report

Report ID: S74375.01(01)+QC01
Generated on 05/15/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74375.01-S74375.29
Project: 30267725.0470B / RACER Lansing GWS
Submitted Date/Time: 05/09/2025 14:25
Sampled by: D. Richmond, A. Westhuis
P.O. #: US3460024033

QC Report Sections

Cover Page (Page 35)
Analysis Summary (Pages 36-64)
Prep Batch Summary (Page 65)
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Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74375.01
Sample Tag: MW-21-142_050725
Collected Date/Time: 05/07/2025 09:50
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 03:36	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.02
Sample Tag: MW-20-128_050725
Collected Date/Time: 05/07/2025 11:20
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 04:27	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.03
Sample Tag: PW-14-02_050725
Collected Date/Time: 05/07/2025 12:35
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 09:30	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.04
Sample Tag: PW-14-01_050725
Collected Date/Time: 05/07/2025 13:55
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 04:02	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.05
Sample Tag: MW-20-129_050725
Collected Date/Time: 05/07/2025 15:10
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 09:05	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.06
Sample Tag: MW-19-124_050725
Collected Date/Time: 05/07/2025 16:30
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 10:47	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.07
Sample Tag: MW-20-126_050825
Collected Date/Time: 05/08/2025 09:35
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 06:33	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.08
Sample Tag: MW-19-116_050825
Collected Date/Time: 05/08/2025 10:40
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 09:56	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.09
Sample Tag: MW-19-117_050825
Collected Date/Time: 05/08/2025 12:00
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 04:53	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.10
Sample Tag: MW-19-122_050825
Collected Date/Time: 05/08/2025 13:25
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 05:43	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

Lab Sample ID: S74375.11

Sample Tag: MW-19-120_050825

Collected Date/Time: 05/08/2025 14:55

Matrix: Groundwater

COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 06:08	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.12
Sample Tag: DUP-03_050825
Collected Date/Time: 05/08/2025 00:01
Matrix: Groundwater
COC Reference: 1

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 05:18	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74375.13
Sample Tag: MW-13-43_050725
Collected Date/Time: 05/07/2025 10:40
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 21:18	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.14
Sample Tag: MW-13-45_050725
Collected Date/Time: 05/07/2025 12:25
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 18:54	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.15
Sample Tag: MW-14-61_050725
Collected Date/Time: 05/07/2025 14:00
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 21:44	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.16
Sample Tag: MW-16-74_050725
Collected Date/Time: 05/07/2025 15:20
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 22:09	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74375.17

Sample Tag: MW-15-72_050725

Collected Date/Time: 05/07/2025 16:25

Matrix: Groundwater

COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 20:10	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74375.18

Sample Tag: MW-16-75_050825

Collected Date/Time: 05/08/2025 10:25

Matrix: Groundwater

COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 22:35	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.19
Sample Tag: MW-16-77_050825
Collected Date/Time: 05/08/2025 11:30
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 23:00	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.20
Sample Tag: MW-16-82_050825
Collected Date/Time: 05/08/2025 13:25
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 23:26	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.21
Sample Tag: MW-16-81_050825
Collected Date/Time: 05/08/2025 14:30
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 19:45	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.22
Sample Tag: MW-16-78_050825
Collected Date/Time: 05/08/2025 16:00
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 23:51	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.23
Sample Tag: DUP-02_050725
Collected Date/Time: 05/07/2025 00:01
Matrix: Groundwater
COC Reference: 2

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 16:47	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.24
Sample Tag: MW-19-115_050825
Collected Date/Time: 05/08/2025 13:45
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 17:13	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.25
Sample Tag: MW-16-84_050825
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 17:38	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.26
Sample Tag: MW-16-84_050825 MS
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 13:49	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.27
Sample Tag: MW-16-84_050825 MSD
Collected Date/Time: 05/08/2025 15:10
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 14:15	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.28
Sample Tag: MW-16-85_050825
Collected Date/Time: 05/08/2025 16:25
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 18:03	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74375.29
Sample Tag: MW-17-86_050825
Collected Date/Time: 05/08/2025 16:45
Matrix: Groundwater
COC Reference: 3

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 18:28	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VS250512W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74375.01	1,4-Dioxane	SW8260B - SIM	05/13/25 03:36	250512B9
S74375.02	1,4-Dioxane	SW8260B - SIM	05/13/25 04:27	250512B9
S74375.03	1,4-Dioxane	SW8260B - SIM	05/13/25 09:30	250512B9
S74375.04	1,4-Dioxane	SW8260B - SIM	05/13/25 04:02	250512B9
S74375.05	1,4-Dioxane	SW8260B - SIM	05/13/25 09:05	250512B9
S74375.06	1,4-Dioxane	SW8260B - SIM	05/13/25 10:47	250512B9
S74375.07	1,4-Dioxane	SW8260B - SIM	05/13/25 06:33	250512B9
S74375.08	1,4-Dioxane	SW8260B - SIM	05/13/25 09:56	250512B9
S74375.09	1,4-Dioxane	SW8260B - SIM	05/13/25 04:53	250512B9
S74375.10	1,4-Dioxane	SW8260B - SIM	05/13/25 05:43	250512B9
S74375.11	1,4-Dioxane	SW8260B - SIM	05/13/25 06:08	250512B9
S74375.12	1,4-Dioxane	SW8260B - SIM	05/13/25 05:18	250512B9

Organics - Volatiles, Prep Batch ID: VS250513W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74375.13	1,4-Dioxane	SW8260B - SIM	05/13/25 21:18	250513A9
S74375.15	1,4-Dioxane	SW8260B - SIM	05/13/25 21:44	250513A9
S74375.16	1,4-Dioxane	SW8260B - SIM	05/13/25 22:09	250513A9
S74375.18	1,4-Dioxane	SW8260B - SIM	05/13/25 22:35	250513A9
S74375.19	1,4-Dioxane	SW8260B - SIM	05/13/25 23:00	250513A9
S74375.20	1,4-Dioxane	SW8260B - SIM	05/13/25 23:26	250513A9
S74375.22	1,4-Dioxane	SW8260B - SIM	05/13/25 23:51	250513A9

Organics - Volatiles, Prep Batch ID: VS250514W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74375.14	1,4-Dioxane	SW8260B - SIM	05/14/25 18:54	250514A9
S74375.17	1,4-Dioxane	SW8260B - SIM	05/14/25 20:10	250514A9
S74375.21	1,4-Dioxane	SW8260B - SIM	05/14/25 19:45	250514A9
S74375.23	1,4-Dioxane	SW8260B - SIM	05/14/25 16:47	250514A9
S74375.24	1,4-Dioxane	SW8260B - SIM	05/14/25 17:13	250514A9
S74375.25	1,4-Dioxane	SW8260B - SIM	05/14/25 17:38	250514A9
S74375.26	1,4-Dioxane	SW8260B - SIM	05/14/25 13:49	250514A9
S74375.27	1,4-Dioxane	SW8260B - SIM	05/14/25 14:15	250514A9
S74375.28	1,4-Dioxane	SW8260B - SIM	05/14/25 18:03	250514A9
S74375.29	1,4-Dioxane	SW8260B - SIM	05/14/25 18:28	250514A9

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.13

Sample Tag: MW-13-43_050725

Collected Date/Time: 05/07/2025 10:40

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 21:18, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**94.9**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.15

Sample Tag: MW-14-61_050725

Collected Date/Time: 05/07/2025 14:00

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 21:44, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**96.3**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.16

Sample Tag: MW-16-74_050725

Collected Date/Time: 05/07/2025 15:20

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 22:09, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**87.9**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.18

Sample Tag: MW-16-75_050825

Collected Date/Time: 05/08/2025 10:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 22:35, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**102.0**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.19

Sample Tag: MW-16-77_050825

Collected Date/Time: 05/08/2025 11:30

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:00, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**97.9**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.20

Sample Tag: MW-16-82_050825

Collected Date/Time: 05/08/2025 13:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:26, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**95.7**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74375.22

Sample Tag: MW-16-78_050825

Collected Date/Time: 05/08/2025 16:00

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:51, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**113.6**	60.0	140.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W2

QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250513W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**109.2**	60.0	140.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**93.5**	60.0	140.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**95.0**	60.0	140.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250514W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.01

Sample Tag: MW-21-142_050725

Collected Date/Time: 05/07/2025 09:50

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 03:36, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**105.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.02

Sample Tag: MW-20-128_050725

Collected Date/Time: 05/07/2025 11:20

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 04:27, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**97.9**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.03

Sample Tag: PW-14-02_050725

Collected Date/Time: 05/07/2025 12:35

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 09:30, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**74.4**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.04

Sample Tag: PW-14-01_050725

Collected Date/Time: 05/07/2025 13:55

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 04:02, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.05

Sample Tag: MW-20-129_050725

Collected Date/Time: 05/07/2025 15:10

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 09:05, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**85.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.06

Sample Tag: MW-19-124_050725

Collected Date/Time: 05/07/2025 16:30

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 10:47, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**77.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.07

Sample Tag: MW-20-126_050825

Collected Date/Time: 05/08/2025 09:35

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 06:33, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**99.0**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.08

Sample Tag: MW-19-116_050825

Collected Date/Time: 05/08/2025 10:40

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 09:56, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**89.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.09

Sample Tag: MW-19-117_050825

Collected Date/Time: 05/08/2025 12:00

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 04:53, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**92.1**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.10

Sample Tag: MW-19-122_050825

Collected Date/Time: 05/08/2025 13:25

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 05:43, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**100.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.11

Sample Tag: MW-19-120_050825

Collected Date/Time: 05/08/2025 14:55

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 06:08, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**92.1**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.12

Sample Tag: DUP-03_050825

Collected Date/Time: 05/08/2025 00:01

Matrix: Groundwater

COC Reference: 1

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 05:18, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**96.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.13

Sample Tag: MW-13-43_050725

Collected Date/Time: 05/07/2025 10:40

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 21:18, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**101.5**	50.0	200.0
1,4-Dioxane-D8		**100.5**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**102.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.14

Sample Tag: MW-13-45_050725

Collected Date/Time: 05/07/2025 12:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 18:54, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**138.7**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.15

Sample Tag: MW-14-61_050725

Collected Date/Time: 05/07/2025 14:00

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 21:44, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**97.1**	50.0	200.0
1,4-Dioxane-D8		**93.9**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**106.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.16

Sample Tag: MW-16-74_050725

Collected Date/Time: 05/07/2025 15:20

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 22:09, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**103.2**	50.0	200.0
1,4-Dioxane-D8		**94.4**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**103.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.17

Sample Tag: MW-15-72_050725

Collected Date/Time: 05/07/2025 16:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 20:10, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**119.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.18

Sample Tag: MW-16-75_050825

Collected Date/Time: 05/08/2025 10:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 22:35, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**96.0**	50.0	200.0
1,4-Dioxane-D8		**92.2**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**111.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.19

Sample Tag: MW-16-77_050825

Collected Date/Time: 05/08/2025 11:30

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:00, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**83.8**	50.0	200.0
1,4-Dioxane-D8		**84.8**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**100.1**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.20

Sample Tag: MW-16-82_050825

Collected Date/Time: 05/08/2025 13:25

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:26, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**104.2**	50.0	200.0
1,4-Dioxane-D8		**97.9**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**105.2**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.21

Sample Tag: MW-16-81_050825

Collected Date/Time: 05/08/2025 14:30

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 19:45, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**114.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.22

Sample Tag: MW-16-78_050825

Collected Date/Time: 05/08/2025 16:00

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 23:51, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**88.6**	50.0	200.0
1,4-Dioxane-D8		**89.7**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**109.4**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.23

Sample Tag: DUP-02_050725

Collected Date/Time: 05/07/2025 00:01

Matrix: Groundwater

COC Reference: 2

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 16:47, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**97.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.24

Sample Tag: MW-19-115_050825

Collected Date/Time: 05/08/2025 13:45

Matrix: Groundwater

COC Reference: 3

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 17:13, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**122.7**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.25

Sample Tag: MW-16-84_050825

Collected Date/Time: 05/08/2025 15:10

Matrix: Groundwater

COC Reference: 3

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 17:38, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**123.9**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.28

Sample Tag: MW-16-85_050825

Collected Date/Time: 05/08/2025 16:25

Matrix: Groundwater

COC Reference: 3

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 18:03, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**132.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74375.29

Sample Tag: MW-17-86_050825

Collected Date/Time: 05/08/2025 16:45

Matrix: Groundwater

COC Reference: 3

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 18:28, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**131.3**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W2

QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**102.6**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**100.9**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**88.5**	50.0	200.0

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**88.4**	50.0	200.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**100.0**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250513W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**85.3**	50.0	200.0
1,4-Dioxane-D8		**86.3**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**100.2**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**98.8**	50.0	200.0
1,4-Dioxane-D8		**96.3**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**98.7**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**93.8**	50.0	200.0
1,4-Dioxane-D8		**100.7**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**98.7**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250514W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**97.0**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**104.3**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**120.7**	50.0	200.0

Organics - Volatiles, Prep Batch ID: VS250512W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		100.1	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		89.0	70.0	130.0	11.7	30.0

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		93.7	70.0	130.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		77.5	70.0	130.0	16.0	30.0

Organics - Volatiles, Prep Batch ID: VS250513W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		94.0	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		83.1	70.0	130.0	12.4	30.0

Organics - Volatiles, Prep Batch ID: VS250514W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		96.6	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		94.8	70.0	130.0	1.9	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74375
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 05/09/2025 14:25 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.1
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc.

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

C.O.C. PAGE # 1 OF 3

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 947-777-5215 FAX NO:
P.O. NO.: 05346002403 3
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74375.01	5/7/25	950	MW-21-142_050725	GW	3		3						X	X
.02	5/7/25	1120	MW-20-128_050725	GW	3		3						X	X
.03	5/7/25	1235	PW-14-02_050725	GW	3		3						X	X
.04	5/7/25	1355	PW-14-01_050725	GW	3		3						X	X
.05	5/7/25	1510	MW-20-129_050725	GW	3		3						X	X
.06	5/7/25	1630	MW-19-124_050725	GW	3		3						X	X
.07	5/8/25	935	MW-20-126_050825	GW	3		3						X	X
.08	5/8/25	1040	MW-19-116_050825	GW	3		3						X	X
.09	5/8/25	1200	MW-19-117_050825	GW	3		3						X	X
.10	5/8/25	1325	MW-19-122_050825	GW	3		3						X	X
.11	5/8/25	1455	MW-19-120_050825	GW	3		3						X	X
.12	5/8/25	—	DUP-03_050825	GW	3		3						X	X

RELINQUISHED BY SIGNATURE/ORGANIZATION: Sampler DATE: 5/9/25 TIME: 1425
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: 5-9-25 TIME: 1425

RELINQUISHED BY SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS:
SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS:

NOTES: TEMP. ON ARRIVAL: 4.1°C

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

Rev 5.18.12

Plant 2

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

C.O.C. PAGE # 2 OF 3

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-777-5215 | FAX NO. | P.O. NO.: US3460074033
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO.

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470[illegible] / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Donald Richmond / Donald Richmond

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74375.13	5/7/25	1040	MW-13-43_050725	GW	3		3						X	
.14	5/7/25	1225	MW-13-45_050725	GW	3		3						X	
.15	5/7/25	1400	MW-14-61_050725	GW	3		3						X	
.16	5/7/25	1520	MW-16-74_050725	GW	3		3						X	
.17	5/7/25	1625	MW-15-72_050725	GW	3		3						X	
.18	5/8/25	1025	MW-16-75_050825	GW	3		3						X	
.19	5/8/25	1130	MW-16-77_050825	GW	3		3						X	
.20	5/8/25	1325	MW-16-82_050825	GW	3		3						X	
.21	5/8/25	1430	MW-16-81_050825	GW	3		3						X	
.22	5/8/25	1600	MW-16-78_050825	GW	3		3						X	
.23	5/7/25	—	Dup-02_050725	GW	3		3						X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Austin Westhuis / Arcadis (Sampler)	DATE 5/9/25	TIME 1425
RECEIVED BY: SIGNATURE/ORGANIZATION	J. Helrich	DATE 5-9-25	TIME 1425
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO | SEAL INTACT YES☐ NO☐ | INITIALS
SEAL NO | SEAL INTACT YES☐ NO☐ | INITIALS

NOTES | TEMP. ON ARRIVAL 4.1C

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

Rev 1 10.12

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 3 OF 3

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-777-5215 FAX NO:
P.O. NO: u534600244033
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis

TURNAROUND TIME REQUIRED: ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other MI

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	T. Phosphorus	TKN	Nitrate	Special Instructions
74375.24	5/8/25	1345	mw-19-115_050825	GW	3		3						X				
25/26/.27	5/8/25	1510	mw-16-84_050825	GW	9		9						X				ms/msD
.28	5/8/25	1625	mw-16-85_050825	GW	3		3						X				
.29	5/8/25	1645	mw-17-86_050825	GW	3		3						X				

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Austin Westhuis / Arcadis	DATE 5/9/25	TIME 1425
RECEIVED BY: SIGNATURE/ORGANIZATION	J. Hel	DATE 5-9-25	TIME 1425
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
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SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

NOTES: TEMP. ON ARRIVAL: 4.1°C

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

Rev. 5.18.17

Analytical Laboratory Report

Report ID: S74374.01(01)+QC01
Generated on 05/13/2025

Report to

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Report Summary

Lab Sample ID(s): S74374.01-S74374.09
Project: 30267725.0470A
Collected Date(s): 05/07/2025 - 05/08/2025
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: PO

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74374.01	MW-22-157_050725	Groundwater	05/07/25 10:05
S74374.02	MW-22-153_050725	Groundwater	05/07/25 10:50
S74374.03	MW-23-163_050725	Groundwater	05/07/25 11:45
S74374.04	MW-23-163_050725 MS	Groundwater	05/07/25 11:45
S74374.05	MW-23-163_050725 MSD	Groundwater	05/07/25 11:45
S74374.06	MW-22-155_050725	Groundwater	05/07/25 12:50
S74374.07	MW-23-161_050725	Groundwater	05/07/25 13:45
S74374.08	MW-23-162_050825	Groundwater	05/08/25 10:15
S74374.09	Trip Blank	Water	05/07/25 00:01

Lab Sample ID: S74374.01
Sample Tag: MW-22-157_050725
Collected Date/Time: 05/07/2025 10:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 08:14, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	74	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:43, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S74374.01 (continued)
Sample Tag: MW-22-157_050725

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:43, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S74374.02
Sample Tag: MW-22-153_050725
Collected Date/Time: 05/07/2025 10:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 08:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	38	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 04:06, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	5	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	141	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S74374.02 (continued)
Sample Tag: MW-22-153_050725

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 04:06, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S74374.03
Sample Tag: MW-23-163_050725
Collected Date/Time: 05/07/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 06:59, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	8	1		ug/L	1	123-91-1	

Lab Sample ID: S74374.04
Sample Tag: MW-23-163_050725 MS
Collected Date/Time: 05/07/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 11:13, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	55	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/L

Analytical Laboratory Report

Lab Sample ID: S74374.05
Sample Tag: MW-23-163_050725 MSD
Collected Date/Time: 05/07/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 11:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	46	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/L

Lab Sample ID: S74374.06
Sample Tag: MW-22-155_050725
Collected Date/Time: 05/07/2025 12:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 10:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	153	1		ug/L	1	123-91-1	

Lab Sample ID: S74374.07
Sample Tag: MW-23-161_050725
Collected Date/Time: 05/07/2025 13:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 07:49, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Lab Sample ID: S74374.08
Sample Tag: MW-23-162_050825
Collected Date/Time: 05/08/2025 10:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 07:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	24	1		ug/L	1	123-91-1	

Lab Sample ID: S74374.09
Sample Tag: Trip Blank
Collected Date/Time: 05/07/2025 00:01
Matrix: Water
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 01:45, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	3	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S74374.09 (continued)

Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 01:45, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Quality Control Report

Report ID: S74374.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74374.01-S74374.09
Project: 30267725.0470A
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: PO

QC Report Sections

Cover Page (Page 18)
Analysis Summary (Pages 19-27)
Prep Batch Summary (Page 28)
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Surrogates per QC Sample (Pages 32-33)
Internal Standards per Lab Sample (Pages 34-40)
Internal Standards per QC Sample (Pages 41-42)
Batch QC Results (Pages 43-48)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74374.01
Sample Tag: MW-22-157_050725
Collected Date/Time: 05/07/2025 10:05
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 08:14	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS
Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 03:43	250512B11	VF250512W4	Yes	BLK/LCS/LCSD

Lab Sample ID: S74374.02

Sample Tag: MW-22-153_050725

Collected Date/Time: 05/07/2025 10:50

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 08:40	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS
Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 04:06	250512B11	VF250512W4	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74374.03
Sample Tag: MW-23-163_050725
Collected Date/Time: 05/07/2025 11:45
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 06:59	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

Lab Sample ID: S74374.04

Sample Tag: MW-23-163_050725 MS

Collected Date/Time: 05/07/2025 11:45

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 11:13	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74374.05
Sample Tag: MW-23-163_050725 MSD
Collected Date/Time: 05/07/2025 11:45
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 11:38	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74374.06
Sample Tag: MW-22-155_050725
Collected Date/Time: 05/07/2025 12:50
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 10:21	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74374.07
Sample Tag: MW-23-161_050725
Collected Date/Time: 05/07/2025 13:45
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 07:49	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

Lab Sample ID: S74374.08

Sample Tag: MW-23-162_050825

Collected Date/Time: 05/08/2025 10:15

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 07:24	250512B9	VS250512W2	Yes	BLK/LCS/LCSD/MS/MS

QC Report - Analysis Summary

Lab Sample ID: S74374.09

Sample Tag: Trip Blank

Collected Date/Time: 05/07/2025 00:01

Matrix: Water

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 01:45	250512B11	VF250512W4	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF250512W4

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74374.01	Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 03:43	250512B11
S74374.02	Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 04:06	250512B11
S74374.09	Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 01:45	250512B11

Organics - Volatiles, Prep Batch ID: VS250512W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74374.01	1,4-Dioxane	SW8260B - SIM	05/13/25 08:14	250512B9
S74374.02	1,4-Dioxane	SW8260B - SIM	05/13/25 08:40	250512B9
S74374.03	1,4-Dioxane	SW8260B - SIM	05/13/25 06:59	250512B9
S74374.04	1,4-Dioxane	SW8260B - SIM	05/13/25 11:13	250512B9
S74374.05	1,4-Dioxane	SW8260B - SIM	05/13/25 11:38	250512B9
S74374.06	1,4-Dioxane	SW8260B - SIM	05/13/25 10:21	250512B9
S74374.07	1,4-Dioxane	SW8260B - SIM	05/13/25 07:49	250512B9
S74374.08	1,4-Dioxane	SW8260B - SIM	05/13/25 07:24	250512B9

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74374.01

Sample Tag: MW-22-157_050725

Collected Date/Time: 05/07/2025 10:05

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 03:43, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**95.9**	80.0	124.0
1,2-Dichloroethane-D4		**107.5**	72.0	125.0
Toluene-D8		**101.0**	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74374.02

Sample Tag: MW-22-153_050725

Collected Date/Time: 05/07/2025 10:50

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 04:06, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**97.4**	80.0	124.0
1,2-Dichloroethane-D4		**108.0**	72.0	125.0
Toluene-D8		**101.5**	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74374.09

Sample Tag: Trip Blank

Collected Date/Time: 05/07/2025 00:01

Matrix: Water

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 01:45, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**97.5**	80.0	124.0
1,2-Dichloroethane-D4		**107.4**	72.0	125.0
Toluene-D8		**100.7**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF250512W4

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.1**	80.0	124.0
1,2-Dichloroethane-D4		**108.5**	72.0	125.0
Toluene-D8		**101.1**	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.1**	80.0	124.0
1,2-Dichloroethane-D4		**104.2**	72.0	125.0
Toluene-D8		**101.8**	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.1**	80.0	124.0
1,2-Dichloroethane-D4		**105.8**	72.0	125.0
Toluene-D8		**102.3**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W2

QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.01

Sample Tag: MW-22-157_050725

Collected Date/Time: 05/07/2025 10:05

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 08:14, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**89.3**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 03:43, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**94.2**	50.0	200.0
1,4-Difluorobenzene		**96.6**	50.0	200.0
Chlorobenzene-D5		**96.0**	50.0	200.0
1,4-Dichlorobenzene-D4		**91.4**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.02

Sample Tag: MW-22-153_050725

Collected Date/Time: 05/07/2025 10:50

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 08:40, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**86.1**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 04:06, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**95.4**	50.0	200.0
1,4-Difluorobenzene		**97.5**	50.0	200.0
Chlorobenzene-D5		**96.8**	50.0	200.0
1,4-Dichlorobenzene-D4		**94.1**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.03

Sample Tag: MW-23-163_050725

Collected Date/Time: 05/07/2025 11:45

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 06:59, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**109.2**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.06

Sample Tag: MW-22-155_050725

Collected Date/Time: 05/07/2025 12:50

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 10:21, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**92.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.07

Sample Tag: MW-23-161_050725

Collected Date/Time: 05/07/2025 13:45

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 07:49, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**95.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.08

Sample Tag: MW-23-162_050825

Collected Date/Time: 05/08/2025 10:15

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512B9, Run Date: 05/13/2025 07:24, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**97.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74374.09

Sample Tag: Trip Blank

Collected Date/Time: 05/07/2025 00:01

Matrix: Water

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 01:45, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**97.5**	50.0	200.0
1,4-Difluorobenzene		**99.1**	50.0	200.0
Chlorobenzene-D5		**97.1**	50.0	200.0
1,4-Dichlorobenzene-D4		**93.1**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VF250512W4

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**98.9**	50.0	200.0
1,4-Difluorobenzene		**100.8**	50.0	200.0
Chlorobenzene-D5		**99.5**	50.0	200.0
1,4-Dichlorobenzene-D4		**95.1**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**101.2**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**101.9**	50.0	200.0
1,4-Dichlorobenzene-D4		**99.9**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**99.4**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**101.7**	50.0	200.0
1,4-Dichlorobenzene-D4		**100.0**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W2

QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**102.6**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**100.9**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**88.5**	50.0	200.0

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**88.4**	50.0	200.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**100.0**	50.0	200.0

Organics - Volatiles, Prep Batch ID: VF250512W4

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	2.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		112.3	67.4	121.2
Acetone		110.5	29.9	161.5
Methyl iodide		111.3	68.8	116.4
Carbon disulfide		105.0	63.8	137.4
tert-Methyl butyl ether (MTBE)		114.0	73.2	122.4
Acrylonitrile		110.6	69.9	128.9
2-Butanone (MEK)		115.3	44.0	134.4
Dichlorodifluoromethane		101.7	10.0	222.8
Chloromethane		108.2	23.8	166.5
Vinyl chloride		105.8	43.5	149.1
Bromomethane		109.5	56.8	151.3
Chloroethane		92.2	53.4	149.4
Trichlorofluoromethane		99.5	59.7	151.8
1,1-Dichloroethene		107.3	69.6	139.4
Methylene chloride		109.2	73.3	121.1
trans-1,2-Dichloroethene		108.2	73.6	129.3
1,1-Dichloroethane		110.9	71.5	126.2
cis-1,2-Dichloroethene		111.5	76.6	122.1
Tetrahydrofuran		106.6	59.0	117.9
Chloroform		111.0	78.4	124.0

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		111.3	78.2	120.8
1,1,1-Trichloroethane		109.0	79.4	130.9
4-Methyl-2-pentanone (MIBK)		103.1	71.6	125.2
2-Hexanone		105.4	55.4	136.9
Carbon tetrachloride		105.9	72.6	133.0
Benzene		108.3	79.9	124.9
1,2-Dichloroethane		107.9	76.0	126.3
Trichloroethene		107.0	79.7	124.2
1,2-Dichloropropane		108.8	78.6	126.4
Bromodichloromethane		110.7	80.4	128.2
Dibromomethane		106.9	76.9	122.1
cis-1,3-Dichloropropene		109.3	79.8	129.9
Toluene		108.8	79.8	124.5
trans-1,3-Dichloropropene		108.4	74.0	131.3
1,1,2-Trichloroethane		107.8	78.7	123.1
Tetrachloroethene		105.0	74.5	124.5
trans-1,4-Dichloro-2-butene		102.0	68.6	135.4
Dibromochloromethane		106.1	74.6	127.2
1,2-Dibromoethane		107.0	70.3	133.7
Chlorobenzene		106.4	79.2	122.7
1,1,1,2-Tetrachloroethane		106.2	80.3	128.2
Ethylbenzene		108.0	79.5	129.1
p,m-Xylene		108.2	79.4	132.2
o-Xylene		109.5	80.2	131.0
Styrene		110.2	69.5	126.7
Isopropylbenzene		108.3	74.4	121.5
Bromoform		104.4	69.4	128.0
1,1,2,2-Tetrachloroethane		106.8	79.8	126.3
1,2,3-Trichloropropane		109.7	78.3	138.8
n-Propylbenzene		108.2	82.0	130.7
Bromobenzene		107.4	78.7	124.6
1,3,5-Trimethylbenzene		109.2	81.3	128.9
tert-Butylbenzene		111.0	80.7	128.9
1,2,4-Trimethylbenzene		112.6	81.4	130.8
sec-Butylbenzene		109.2	77.4	129.8
p-Isopropyltoluene		111.8	79.8	137.5
1,3-Dichlorobenzene		109.9	77.0	131.3
1,4-Dichlorobenzene		105.6	20.7	137.7
1,2-Dichlorobenzene		109.8	10.0	166.2
1,2,3-Trimethylbenzene		112.2	76.3	124.2
n-Butylbenzene		107.6	80.0	133.3
Hexachloroethane		109.4	23.8	138.1
1,2-Dibromo-3-chloropropane		108.2	21.2	189.4
1,2,4-Trichlorobenzene		108.3	27.4	143.4
1,2,3-Trichlorobenzene		108.6	75.4	131.4
Naphthalene		109.4	32.9	135.8

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		105.9	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		113.8	67.4	121.2	1.3	30.0
Acetone		115.7	29.9	161.5	4.6	30.0
Methyl iodide		112.7	68.8	116.4	1.3	30.0
Carbon disulfide		102.5	63.8	137.4	2.4	30.0
tert-Methyl butyl ether (MTBE)		115.1	73.2	122.4	0.9	30.0
Acrylonitrile		114.2	69.9	128.9	3.3	30.0
2-Butanone (MEK)		110.6	44.0	134.4	4.2	30.0
Dichlorodifluoromethane		99.5	10.0	222.8	2.2	30.0
Chloromethane		106.5	23.8	166.5	1.6	30.0
Vinyl chloride		104.6	43.5	149.1	1.2	30.0
Bromomethane		108.4	56.8	151.3	1.0	30.0
Chloroethane		93.2	53.4	149.4	1.1	30.0
Trichlorofluoromethane		96.4	59.7	151.8	3.2	30.0
1,1-Dichloroethene		103.8	69.6	139.4	3.3	30.0
Methylene chloride		110.3	73.3	121.1	1.1	30.0
trans-1,2-Dichloroethene		108.1	73.6	129.3	0.1	30.0
1,1-Dichloroethane		109.9	71.5	126.2	0.9	30.0
cis-1,2-Dichloroethene		110.9	76.6	122.1	0.5	30.0
Tetrahydrofuran		115.5	59.0	117.9	8.0	30.0
Chloroform		110.7	78.4	124.0	0.2	30.0
Bromochloromethane		113.0	78.2	120.8	1.6	30.0
1,1,1-Trichloroethane		107.9	79.4	130.9	1.0	30.0
4-Methyl-2-pentanone (MIBK)		105.8	71.6	125.2	2.6	30.0
2-Hexanone		106.7	55.4	136.9	1.2	30.0
Carbon tetrachloride		101.0	72.6	133.0	4.8	30.0
Benzene		104.9	79.9	124.9	3.1	30.0
1,2-Dichloroethane		106.5	76.0	126.3	1.3	30.0
Trichloroethene		106.0	79.7	124.2	0.9	30.0
1,2-Dichloropropane		106.3	78.6	126.4	2.3	30.0
Bromodichloromethane		107.5	80.4	128.2	3.0	30.0
Dibromomethane		105.8	76.9	122.1	1.0	30.0
cis-1,3-Dichloropropene		107.6	79.8	129.9	1.6	30.0
Toluene		105.3	79.8	124.5	3.3	30.0
trans-1,3-Dichloropropene		107.2	74.0	131.3	1.2	30.0
1,1,2-Trichloroethane		107.7	78.7	123.1	0.1	30.0
Tetrachloroethene		101.4	74.5	124.5	3.5	30.0
trans-1,4-Dichloro-2-butene		103.3	68.6	135.4	1.4	30.0
Dibromochloromethane		106.1	74.6	127.2	0.0	30.0
1,2-Dibromoethane		106.0	70.3	133.7	0.9	30.0
Chlorobenzene		103.2	79.2	122.7	3.1	30.0

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		106.3	80.3	128.2	0.1	30.0
Ethylbenzene		104.8	79.5	129.1	3.0	30.0
p,m-Xylene		104.7	79.4	132.2	3.3	30.0
o-Xylene		106.5	80.2	131.0	2.8	30.0
Styrene		109.0	69.5	126.7	1.1	30.0
Isopropylbenzene		105.4	74.4	121.5	2.7	30.0
Bromoform		104.6	69.4	128.0	0.1	30.0
1,1,2,2-Tetrachloroethane		103.5	79.8	126.3	3.1	30.0
1,2,3-Trichloropropane		107.1	78.3	138.8	2.4	30.0
n-Propylbenzene		104.1	82.0	130.7	3.8	30.0
Bromobenzene		105.9	78.7	124.6	1.4	30.0
1,3,5-Trimethylbenzene		105.7	81.3	128.9	3.3	30.0
tert-Butylbenzene		108.0	80.7	128.9	2.7	30.0
1,2,4-Trimethylbenzene		108.8	81.4	130.8	3.4	30.0
sec-Butylbenzene		106.1	77.4	129.8	2.9	30.0
p-Isopropyltoluene		107.2	79.8	137.5	4.2	30.0
1,3-Dichlorobenzene		106.8	77.0	131.3	2.8	30.0
1,4-Dichlorobenzene		105.5	20.7	137.7	0.1	30.0
1,2-Dichlorobenzene		107.4	10.0	166.2	2.2	30.0
1,2,3-Trimethylbenzene		108.9	76.3	124.2	3.0	30.0
n-Butylbenzene		102.1	80.0	133.3	5.3	30.0
Hexachloroethane		107.4	23.8	138.1	1.9	30.0
1,2-Dibromo-3-chloropropane		109.8	21.2	189.4	1.4	30.0
1,2,4-Trichlorobenzene		109.2	27.4	143.4	0.9	30.0
1,2,3-Trichlorobenzene		107.5	75.4	131.4	1.1	30.0
Naphthalene		110.5	32.9	135.8	1.0	30.0
2-Methylnaphthalene		107.7	25.5	165.5	1.6	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS250512W2

Surrogates: Yes, QC Types: BLK/LCS/LCSD/MS/MSD

Blank (BLK)

Lab Sample ID: 250512B9.BLKW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 03:11, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:29, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		100.1	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B9.LCSDW12B, Parent Sample ID: 250512B9.LCSW12B

Run in Batch: 250512B9, Run Date: 05/13/2025 01:55, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		89.0	70.0	130.0	11.7	30.0

Matrix Spike (MS)

Lab Sample ID: 250512B9.7437404M, Parent Sample ID: S74374.03

Run in Batch: 250512B9, Run Date: 05/13/2025 11:13, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		93.7	70.0	130.0

Matrix Spike Duplicate (MSD)

Lab Sample ID: 250512B9.7437405N, Parent Sample ID: 250512B9.7437404M

Run in Batch: 250512B9, Run Date: 05/13/2025 11:38, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		77.5	70.0	130.0	16.0	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74374
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A
Submitted: 05/09/2025 14:25 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.1
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-777-5215 FAX NO: P.O. NO:
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other MI

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS	Special Instructions
74374.01	5/7/25	1005	MW-22-157_050725	GW	3		3						X	X	
.02	5/7/25	1050	MW-22-153_050725	GW	3		3						X	X	
03/.04/.05	5/7/25	1145	MW-23-163_050725	GW	9		9						X		MS/MSD
.06	5/7/25	1250	MW-22-155_050725	GW	3		3						X		
.07	5/7/25	1345	MW-23-161_050725	GW	3		3						X		
.08	5/8/25	1015	MW-23-162_050825	GW	3		3						X		
.09	5/7/25	—	Trip Blank	GW	1		1							X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	[signature] Austin Westhuis / Arcadis	DATE 5/9/25	TIME 1425
RECEIVED BY: SIGNATURE/ORGANIZATION	[signature]	DATE 5.9.25	TIME 1425
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
SEAL NO	SEAL INTACT YES☐ NO☐	INITIALS	
SEAL NO	SEAL INTACT YES☐ NO☐	INITIALS	

NOTES: TEMP ON ARRIVAL 4.1C

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

Rev 5.18.12

Analytical Laboratory Report

Report ID: S74372.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

Report Summary

Lab Sample ID(s): S74372.01-S74372.02
Project: 30267725.00102
Collected Date(s): 05/08/2025
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: 30267725.00102

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Analytical Laboratory Report

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74372.01	MW-22-154_050825	Groundwater	05/08/25 11:25
S74372.02	Trip Blank	Water	05/08/25 00:01

Lab Sample ID: S74372.01
Sample Tag: MW-22-154_050825
Collected Date/Time: 05/08/2025 11:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:19, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	1	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S74372.01 (continued)
Sample Tag: MW-22-154_050825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:19, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S74372.02
Sample Tag: Trip Blank
Collected Date/Time: 05/08/2025 00:01
Matrix: Water
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	n/a	n/a	Yes	n/a	n/a

Other / Misc.

Method: , Run Date: 05/13/25 09:45, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
No Analyses*	Completed				1		

Quality Control Report

Report ID: S74372.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74372.01
Project: 30267725.00102
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: 30267725.00102

QC Report Sections

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Batch QC Results (Pages 16-20)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74372.01
Sample Tag: MW-22-154_050825
Collected Date/Time: 05/08/2025 11:25
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 03:19	250512B11	VF250512W4	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF250512W4

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74372.01	Volatile Organics - DEQ List	SW5030C/8260C	05/13/25 03:19	250512B11

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74372.01

Sample Tag: MW-22-154_050825

Collected Date/Time: 05/08/2025 11:25

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 03:19, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**96.9**	80.0	124.0
1,2-Dichloroethane-D4		**111.7**	72.0	125.0
Toluene-D8		**101.3**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF250512W4

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**98.1**	80.0	124.0
1,2-Dichloroethane-D4		**108.5**	72.0	125.0
Toluene-D8		**101.1**	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.1**	80.0	124.0
1,2-Dichloroethane-D4		**104.2**	72.0	125.0
Toluene-D8		**101.8**	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.1**	80.0	124.0
1,2-Dichloroethane-D4		**105.8**	72.0	125.0
Toluene-D8		**102.3**	89.0	112.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74372.01

Sample Tag: MW-22-154_050825

Collected Date/Time: 05/08/2025 11:25

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250512B11, Run Date: 05/13/2025 03:19, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**96.6**	50.0	200.0
1,4-Difluorobenzene		**99.4**	50.0	200.0
Chlorobenzene-D5		**99.7**	50.0	200.0
1,4-Dichlorobenzene-D4		**97.7**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VF250512W4

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**98.9**	50.0	200.0
1,4-Difluorobenzene		**100.8**	50.0	200.0
Chlorobenzene-D5		**99.5**	50.0	200.0
1,4-Dichlorobenzene-D4		**95.1**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**101.2**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**101.9**	50.0	200.0
1,4-Dichlorobenzene-D4		**99.9**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**99.4**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**101.7**	50.0	200.0
1,4-Dichlorobenzene-D4		**100.0**	50.0	200.0

Organics - Volatiles, Prep Batch ID: VF250512W4

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	2.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 250512B11.BLKW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 01:21, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		112.3	67.4	121.2
Acetone		110.5	29.9	161.5
Methyl iodide		111.3	68.8	116.4
Carbon disulfide		105.0	63.8	137.4
tert-Methyl butyl ether (MTBE)		114.0	73.2	122.4
Acrylonitrile		110.6	69.9	128.9
2-Butanone (MEK)		115.3	44.0	134.4
Dichlorodifluoromethane		101.7	10.0	222.8
Chloromethane		108.2	23.8	166.5
Vinyl chloride		105.8	43.5	149.1
Bromomethane		109.5	56.8	151.3
Chloroethane		92.2	53.4	149.4
Trichlorofluoromethane		99.5	59.7	151.8
1,1-Dichloroethene		107.3	69.6	139.4
Methylene chloride		109.2	73.3	121.1
trans-1,2-Dichloroethene		108.2	73.6	129.3
1,1-Dichloroethane		110.9	71.5	126.2
cis-1,2-Dichloroethene		111.5	76.6	122.1
Tetrahydrofuran		106.6	59.0	117.9
Chloroform		111.0	78.4	124.0

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		111.3	78.2	120.8
1,1,1-Trichloroethane		109.0	79.4	130.9
4-Methyl-2-pentanone (MIBK)		103.1	71.6	125.2
2-Hexanone		105.4	55.4	136.9
Carbon tetrachloride		105.9	72.6	133.0
Benzene		108.3	79.9	124.9
1,2-Dichloroethane		107.9	76.0	126.3
Trichloroethene		107.0	79.7	124.2
1,2-Dichloropropane		108.8	78.6	126.4
Bromodichloromethane		110.7	80.4	128.2
Dibromomethane		106.9	76.9	122.1
cis-1,3-Dichloropropene		109.3	79.8	129.9
Toluene		108.8	79.8	124.5
trans-1,3-Dichloropropene		108.4	74.0	131.3
1,1,2-Trichloroethane		107.8	78.7	123.1
Tetrachloroethene		105.0	74.5	124.5
trans-1,4-Dichloro-2-butene		102.0	68.6	135.4
Dibromochloromethane		106.1	74.6	127.2
1,2-Dibromoethane		107.0	70.3	133.7
Chlorobenzene		106.4	79.2	122.7
1,1,1,2-Tetrachloroethane		106.2	80.3	128.2
Ethylbenzene		108.0	79.5	129.1
p,m-Xylene		108.2	79.4	132.2
o-Xylene		109.5	80.2	131.0
Styrene		110.2	69.5	126.7
Isopropylbenzene		108.3	74.4	121.5
Bromoform		104.4	69.4	128.0
1,1,2,2-Tetrachloroethane		106.8	79.8	126.3
1,2,3-Trichloropropane		109.7	78.3	138.8
n-Propylbenzene		108.2	82.0	130.7
Bromobenzene		107.4	78.7	124.6
1,3,5-Trimethylbenzene		109.2	81.3	128.9
tert-Butylbenzene		111.0	80.7	128.9
1,2,4-Trimethylbenzene		112.6	81.4	130.8
sec-Butylbenzene		109.2	77.4	129.8
p-Isopropyltoluene		111.8	79.8	137.5
1,3-Dichlorobenzene		109.9	77.0	131.3
1,4-Dichlorobenzene		105.6	20.7	137.7
1,2-Dichlorobenzene		109.8	10.0	166.2
1,2,3-Trimethylbenzene		112.2	76.3	124.2
n-Butylbenzene		107.6	80.0	133.3
Hexachloroethane		109.4	23.8	138.1
1,2-Dibromo-3-chloropropane		108.2	21.2	189.4
1,2,4-Trichlorobenzene		108.3	27.4	143.4
1,2,3-Trichlorobenzene		108.6	75.4	131.4
Naphthalene		109.4	32.9	135.8

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/12/2025 23:47, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		105.9	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		113.8	67.4	121.2	1.3	30.0
Acetone		115.7	29.9	161.5	4.6	30.0
Methyl iodide		112.7	68.8	116.4	1.3	30.0
Carbon disulfide		102.5	63.8	137.4	2.4	30.0
tert-Methyl butyl ether (MTBE)		115.1	73.2	122.4	0.9	30.0
Acrylonitrile		114.2	69.9	128.9	3.3	30.0
2-Butanone (MEK)		110.6	44.0	134.4	4.2	30.0
Dichlorodifluoromethane		99.5	10.0	222.8	2.2	30.0
Chloromethane		106.5	23.8	166.5	1.6	30.0
Vinyl chloride		104.6	43.5	149.1	1.2	30.0
Bromomethane		108.4	56.8	151.3	1.0	30.0
Chloroethane		93.2	53.4	149.4	1.1	30.0
Trichlorofluoromethane		96.4	59.7	151.8	3.2	30.0
1,1-Dichloroethene		103.8	69.6	139.4	3.3	30.0
Methylene chloride		110.3	73.3	121.1	1.1	30.0
trans-1,2-Dichloroethene		108.1	73.6	129.3	0.1	30.0
1,1-Dichloroethane		109.9	71.5	126.2	0.9	30.0
cis-1,2-Dichloroethene		110.9	76.6	122.1	0.5	30.0
Tetrahydrofuran		115.5	59.0	117.9	8.0	30.0
Chloroform		110.7	78.4	124.0	0.2	30.0
Bromochloromethane		113.0	78.2	120.8	1.6	30.0
1,1,1-Trichloroethane		107.9	79.4	130.9	1.0	30.0
4-Methyl-2-pentanone (MIBK)		105.8	71.6	125.2	2.6	30.0
2-Hexanone		106.7	55.4	136.9	1.2	30.0
Carbon tetrachloride		101.0	72.6	133.0	4.8	30.0
Benzene		104.9	79.9	124.9	3.1	30.0
1,2-Dichloroethane		106.5	76.0	126.3	1.3	30.0
Trichloroethene		106.0	79.7	124.2	0.9	30.0
1,2-Dichloropropane		106.3	78.6	126.4	2.3	30.0
Bromodichloromethane		107.5	80.4	128.2	3.0	30.0
Dibromomethane		105.8	76.9	122.1	1.0	30.0
cis-1,3-Dichloropropene		107.6	79.8	129.9	1.6	30.0
Toluene		105.3	79.8	124.5	3.3	30.0
trans-1,3-Dichloropropene		107.2	74.0	131.3	1.2	30.0
1,1,2-Trichloroethane		107.7	78.7	123.1	0.1	30.0
Tetrachloroethene		101.4	74.5	124.5	3.5	30.0
trans-1,4-Dichloro-2-butene		103.3	68.6	135.4	1.4	30.0
Dibromochloromethane		106.1	74.6	127.2	0.0	30.0
1,2-Dibromoethane		106.0	70.3	133.7	0.9	30.0
Chlorobenzene		103.2	79.2	122.7	3.1	30.0

Organics - Volatiles, Prep Batch ID: VF250512W4 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 250512B11.LCSDW12B, Parent Sample ID: 250512B11.LCSW12B

Run in Batch: 250512B11, Run Date: 05/13/2025 00:10, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		106.3	80.3	128.2	0.1	30.0
Ethylbenzene		104.8	79.5	129.1	3.0	30.0
p,m-Xylene		104.7	79.4	132.2	3.3	30.0
o-Xylene		106.5	80.2	131.0	2.8	30.0
Styrene		109.0	69.5	126.7	1.1	30.0
Isopropylbenzene		105.4	74.4	121.5	2.7	30.0
Bromoform		104.6	69.4	128.0	0.1	30.0
1,1,2,2-Tetrachloroethane		103.5	79.8	126.3	3.1	30.0
1,2,3-Trichloropropane		107.1	78.3	138.8	2.4	30.0
n-Propylbenzene		104.1	82.0	130.7	3.8	30.0
Bromobenzene		105.9	78.7	124.6	1.4	30.0
1,3,5-Trimethylbenzene		105.7	81.3	128.9	3.3	30.0
tert-Butylbenzene		108.0	80.7	128.9	2.7	30.0
1,2,4-Trimethylbenzene		108.8	81.4	130.8	3.4	30.0
sec-Butylbenzene		106.1	77.4	129.8	2.9	30.0
p-Isopropyltoluene		107.2	79.8	137.5	4.2	30.0
1,3-Dichlorobenzene		106.8	77.0	131.3	2.8	30.0
1,4-Dichlorobenzene		105.5	20.7	137.7	0.1	30.0
1,2-Dichlorobenzene		107.4	10.0	166.2	2.2	30.0
1,2,3-Trimethylbenzene		108.9	76.3	124.2	3.0	30.0
n-Butylbenzene		102.1	80.0	133.3	5.3	30.0
Hexachloroethane		107.4	23.8	138.1	1.9	30.0
1,2-Dibromo-3-chloropropane		109.8	21.2	189.4	1.4	30.0
1,2,4-Trichlorobenzene		109.2	27.4	143.4	0.9	30.0
1,2,3-Trichlorobenzene		107.5	75.4	131.4	1.1	30.0
Naphthalene		110.5	32.9	135.8	1.0	30.0
2-Methylnaphthalene		107.7	25.5	165.5	1.6	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74372
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.00102
Submitted: 05/09/2025 14:25 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.1
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[ ] Yes	[X] No	[ ] N/A	All bottles intact	Trip Blank not in cooler
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 6

Merit Laboratories Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO: | P.O. NO:
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0052 / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other MI

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74372.01	5/8/25	1125	mw-22-154_050825	GW	3		3							X
.02	5/8/25	—	Trip Blank	GW	1		1							X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Arcadis (Sampler) — DATE: 5/9/25 — TIME: 1423
RECEIVED BY: SIGNATURE/ORGANIZATION: J. Hel — DATE: 5-9-25 — TIME: 1425

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION — DATE — TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION — DATE — TIME

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP ON ARRIVAL: 4.1°C

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

Rev 5 18 12

Analytical Laboratory Report

Report ID: S74371.01(01)+QC01
Generated on 05/15/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S74371.01-S74371.09
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 05/09/2025
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: US3460024033

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (9 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74371.01	MW-12-21_050925	Groundwater	05/09/25 10:30
S74371.02	MW-12-21_050925 MS	Groundwater	05/09/25 10:30
S74371.03	MW-12-21_050925 MSD	Groundwater	05/09/25 10:30
S74371.04	MW-13-22_050925	Groundwater	05/09/25 09:30
S74371.05	MW-13-34_050925	Groundwater	05/09/25 12:20
S74371.06	MW-13-48_050925	Groundwater	05/09/25 12:55
S74371.07	PW-14-03R_050925	Groundwater	05/09/25 10:55
S74371.08	TW-15-11_050925	Groundwater	05/09/25 09:55
S74371.09	DUP-05_050925	Groundwater	05/09/25 00:01

Analytical Laboratory Report

Lab Sample ID: S74371.01
Sample Tag: MW-12-21_050925
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 19:20, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	120	10		ug/L	10	123-91-1	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74371.02
Sample Tag: MW-12-21_050925 MS
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 14:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	680	10		ug/L	10	123-91-1	Y1

Y-Elevated reporting limit due to high target concentration 1-Sample spiked at 500 mg/l

Lab Sample ID: S74371.03
Sample Tag: MW-12-21_050925 MSD
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 15:06, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	710	10		ug/L	10	123-91-1	Y1

Y-Elevated reporting limit due to high target concentration 1-Sample spiked at 500 mg/l

Lab Sample ID: S74371.04
Sample Tag: MW-13-22_050925
Collected Date/Time: 05/09/2025 09:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 22:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	94	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.05
Sample Tag: MW-13-34_050925
Collected Date/Time: 05/09/2025 12:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 22:33, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	80	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74371.06
Sample Tag: MW-13-48_050925
Collected Date/Time: 05/09/2025 12:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 21:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	62	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.07
Sample Tag: PW-14-03R_050925
Collected Date/Time: 05/09/2025 10:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 20:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.08
Sample Tag: TW-15-11_050925
Collected Date/Time: 05/09/2025 09:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 20:53, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	32	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.09
Sample Tag: DUP-05_050925
Collected Date/Time: 05/09/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 21:42, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Quality Control Report

Report ID: S74371.01(01)+QC01
Generated on 05/15/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74371.01-S74371.09
Project: 30267725.0470B / RACER Lansing GWS
Submitted Date/Time: 05/09/2025 14:25
Sampled by: Austin Westhuis
P.O. #: US3460024033

QC Report Sections

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Analysis Summary (Pages 16-24)
Prep Batch Summary (Page 25)
Surrogates per Lab Sample (Pages 26-31)
Surrogates per QC Sample (Pages 32-34)
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Internal Standards per QC Sample (Pages 42-44)
Batch QC Results (Pages 45-47)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74371.01
Sample Tag: MW-12-21_050925
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 19:20	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74371.02
Sample Tag: MW-12-21_050925 MS
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 14:40	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74371.03
Sample Tag: MW-12-21_050925 MSD
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/14/25 15:06	250514A9	VS250514W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74371.04

Sample Tag: MW-13-22_050925

Collected Date/Time: 05/09/2025 09:30

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/12/25 22:58	250512A9	VS250512W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74371.05

Sample Tag: MW-13-34_050925

Collected Date/Time: 05/09/2025 12:20

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/12/25 22:33	250512A9	VS250512W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74371.06
Sample Tag: MW-13-48_050925
Collected Date/Time: 05/09/2025 12:55
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/12/25 21:17	250512A9	VS250512W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74371.07

Sample Tag: PW-14-03R_050925

Collected Date/Time: 05/09/2025 10:55

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/12/25 20:51	250512A9	VS250512W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74371.08
Sample Tag: TW-15-11_050925
Collected Date/Time: 05/09/2025 09:55
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/13/25 20:53	250513A9	VS250513W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74371.09
Sample Tag: DUP-05_050925
Collected Date/Time: 05/09/2025 00:01
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/12/25 21:42	250512A9	VS250512W1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VS250512W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74371.04	1,4-Dioxane	SW8260B - SIM	05/12/25 22:58	250512A9
S74371.05	1,4-Dioxane	SW8260B - SIM	05/12/25 22:33	250512A9
S74371.06	1,4-Dioxane	SW8260B - SIM	05/12/25 21:17	250512A9
S74371.07	1,4-Dioxane	SW8260B - SIM	05/12/25 20:51	250512A9
S74371.09	1,4-Dioxane	SW8260B - SIM	05/12/25 21:42	250512A9

Organics - Volatiles, Prep Batch ID: VS250513W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74371.08	1,4-Dioxane	SW8260B - SIM	05/13/25 20:53	250513A9

Organics - Volatiles, Prep Batch ID: VS250514W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74371.01	1,4-Dioxane	SW8260B - SIM	05/14/25 19:20	250514A9
S74371.02	1,4-Dioxane	SW8260B - SIM	05/14/25 14:40	250514A9
S74371.03	1,4-Dioxane	SW8260B - SIM	05/14/25 15:06	250514A9

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.04

Sample Tag: MW-13-22_050925

Collected Date/Time: 05/09/2025 09:30

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 22:58, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**100.4**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.05

Sample Tag: MW-13-34_050925

Collected Date/Time: 05/09/2025 12:20

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 22:33, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**101.3**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.06

Sample Tag: MW-13-48_050925

Collected Date/Time: 05/09/2025 12:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 21:17, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**100.7**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.07

Sample Tag: PW-14-03R_050925

Collected Date/Time: 05/09/2025 10:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 20:51, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**108.8**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.08

Sample Tag: TW-15-11_050925

Collected Date/Time: 05/09/2025 09:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 20:53, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**87.4**	60.0	140.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74371.09

Sample Tag: DUP-05_050925

Collected Date/Time: 05/09/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 21:42, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**101.2**	60.0	140.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512A9.BLKW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 14:32, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**97.7**	60.0	140.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 12:51, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**97.4**	60.0	140.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512A9.LCSDW12A, Parent Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 13:17, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**96.4**	60.0	140.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250513W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**109.2**	60.0	140.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**93.5**	60.0	140.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
BROMOFORM-D		**95.0**	60.0	140.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250514W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.01

Sample Tag: MW-12-21_050925

Collected Date/Time: 05/09/2025 10:30

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250514A9, Run Date: 05/14/2025 19:20, Matrix: WW, Dilution: 10

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**131.5**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.04

Sample Tag: MW-13-22_050925

Collected Date/Time: 05/09/2025 09:30

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 22:58, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**91.8**	50.0	200.0
1,4-Dioxane-D8		**96.2**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**93.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.05

Sample Tag: MW-13-34_050925

Collected Date/Time: 05/09/2025 12:20

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 22:33, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**94.2**	50.0	200.0
1,4-Dioxane-D8		**109.6**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**93.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.06

Sample Tag: MW-13-48_050925

Collected Date/Time: 05/09/2025 12:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 21:17, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**117.5**	50.0	200.0
1,4-Dioxane-D8		**104.8**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**118.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.07

Sample Tag: PW-14-03R_050925

Collected Date/Time: 05/09/2025 10:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 20:51, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**117.4**	50.0	200.0
1,4-Dioxane-D8		**107.9**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**122.4**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.08

Sample Tag: TW-15-11_050925

Collected Date/Time: 05/09/2025 09:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250513A9, Run Date: 05/13/2025 20:53, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**105.4**	50.0	200.0
1,4-Dioxane-D8		**100.2**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**105.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74371.09

Sample Tag: DUP-05_050925

Collected Date/Time: 05/09/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250512A9, Run Date: 05/12/2025 21:42, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**117.9**	50.0	200.0
1,4-Dioxane-D8		**108.6**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**119.4**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250512W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512A9.BLKW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 14:32, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**97.3**	50.0	200.0
1,4-Dioxane-D8		**90.5**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**87.6**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 12:51, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**89.6**	50.0	200.0
1,4-Dioxane-D8		**77.9**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**88.7**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512A9.LCSDW12A, Parent Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 13:17, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**99.7**	50.0	200.0
1,4-Dioxane-D8		**99.7**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**96.9**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250513W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**85.3**	50.0	200.0
1,4-Dioxane-D8		**86.3**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**100.2**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**98.8**	50.0	200.0
1,4-Dioxane-D8		**96.3**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**98.7**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,2-DIBROMOETHANE-D4 (I)		**93.8**	50.0	200.0
1,4-Dioxane-D8		**100.7**	50.0	200.0
1,2-DIBROMO-3-CHLOROPROPANE-C3 (I)		**98.7**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250514W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**97.0**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**104.3**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**120.7**	50.0	200.0

Organics - Volatiles, Prep Batch ID: VS250512W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250512A9.BLKW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 14:32, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 12:51, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		126.4	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250512A9.LCSDW12A, Parent Sample ID: 250512A9.LCSW12A

Run in Batch: 250512A9, Run Date: 05/12/2025 13:17, Prep Date: 05/12/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		94.7	70.0	130.0	28.7	30.0

Organics - Volatiles, Prep Batch ID: VS250513W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250513A9.BLKW13A

Run in Batch: 250513A9, Run Date: 05/13/2025 17:05, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:24, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		94.0	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250513A9.LCSDW13B, Parent Sample ID: 250513A9.LCSW13B

Run in Batch: 250513A9, Run Date: 05/13/2025 15:49, Prep Date: 05/13/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		83.1	70.0	130.0	12.4	30.0

Organics - Volatiles, Prep Batch ID: VS250514W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250514A9.BLKW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 16:22, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 12:59, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		96.6	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250514A9.LCSDW14A, Parent Sample ID: 250514A9.LCSW14A

Run in Batch: 250514A9, Run Date: 05/14/2025 13:24, Prep Date: 05/14/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		94.8	70.0	130.0	1.9	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74371
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 05/09/2025 14:25 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.1
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	DUP-05 not listed
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 3

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 947-777-5215 FAX NO:
P.O. NO.: 4534600024033
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) PLEASE PRINT/SIGN NAME: Austin Westhuis / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	T. Phosphorus	TKN	Nitrate
01/02/03	5/9/25	1030	MW-12-21	GW	9		9						X			
74371.04	5/9/25	0930	MW-13-22	GW	3		3						X			
.05	5/9/25	1220	MW-13-34	GW	3		3						X			
06	5/9/25	1255	MW-13-48	GW	3		3						X			
07	5/9/25	1055	PW-14-03R	GW	3		3						X			
08	5/9/25	0955	TW-15-11	GW	3		3						X			

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Austin Westhuis / Arcadis (Sampler) DATE: 5/9/25 TIME: 1425
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] DATE: 5-9-25 TIME: 1425
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO: SEAL INTACT YES☐ NO☐ INITIALS:
SEAL NO: SEAL INTACT YES☐ NO☐ INITIALS:

NOTES: TEMP ON ARRIVAL: 4.1C

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

Rev 5.16.12

Analytical Laboratory Report

Report ID: S74203.01(01)+QC01
Generated on 05/09/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S74203.01-S74203.03
Project: 30267725.0470A / RACER Lansing GWS
Collected Date(s): 05/06/2025
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Unknown
P.O. #: 30267725.0470A

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74203.01	MW-22-156_050625	Groundwater	05/06/25 12:05
S74203.02	DUP-01_050625	Groundwater	05/06/25 00:01
S74203.03	Trip Blank	Groundwater	05/06/25 00:01

Lab Sample ID: S74203.01
Sample Tag: MW-22-156_050625
Collected Date/Time: 05/06/2025 12:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 18:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 07:41, #2: 05/08/25 21:03, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	2	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	9	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	15	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	200	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74203.01 (continued)
Sample Tag: MW-22-156_050625

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 07:41, #2: 05/08/25 21:03, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S74203.02
Sample Tag: DUP-01_050625
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 19:16, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 08:05, #2: 05/08/25 21:27, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	2	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	7	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	14	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	200	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74203.02 (continued)
Sample Tag: DUP-01_050625

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 08:05, #2: 05/08/25 21:27, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S74203.03
Sample Tag: Trip Blank
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 15:28, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Quality Control Report

Report ID: S74203.01(01)+QC01
Generated on 05/09/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74203.01-S74203.03
Project: 30267725.0470A / RACER Lansing GWS
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Unknown
P.O. #: 30267725.0470A

QC Report Sections

Cover Page (Page 11)
Analysis Summary (Pages 12-14)
Prep Batch Summary (Page 15)
Surrogates per Lab Sample (Pages 16-17)
Surrogates per QC Sample (Pages 18-20)
Internal Standards per Lab Sample (Pages 21-23)
Internal Standards per QC Sample (Pages 24-26)
Batch QC Results (Pages 27-37)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74203.01
Sample Tag: MW-22-156_050625
Collected Date/Time: 05/06/2025 12:05
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 18:50	250507A9	VS250507W1	Yes	BLK/LCS/LCSD
Volatile Organics - DEQ List	SW5030C/8260C	05/08/25 07:41	250507B11	VF250507W3	Yes	BLK/LCS/LCSD
Volatile Organics - DEQ List (Replicate 01)	SW5030C/8260C	05/08/25 21:03	250508A11	VF250508W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74203.02

Sample Tag: DUP-01_050625

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 19:16	250507A9	VS250507W1	Yes	BLK/LCS/LCSD
Volatile Organics - DEQ List	SW5030C/8260C	05/08/25 08:05	250507B11	VF250507W3	Yes	BLK/LCS/LCSD
Volatile Organics - DEQ List (Replicate 01)	SW5030C/8260C	05/08/25 21:27	250508A11	VF250508W1	Yes	BLK/LCS/LCSD

Lab Sample ID: S74203.03

Sample Tag: Trip Blank

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 15:28	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: VF250507W3

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74203.01	Volatile Organics - DEQ List	SW5030C/8260C	05/08/25 07:41	250507B11
S74203.02	Volatile Organics - DEQ List	SW5030C/8260C	05/08/25 08:05	250507B11

Organics - Volatiles, Prep Batch ID: VF250508W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74203.01	Volatile Organics - DEQ List (Replicate 01)	SW5030C/8260C	05/08/25 21:03	250508A11
S74203.02	Volatile Organics - DEQ List (Replicate 01)	SW5030C/8260C	05/08/25 21:27	250508A11

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74203.01	1,4-Dioxane	SW8260B - SIM	05/07/25 18:50	250507A9
S74203.02	1,4-Dioxane	SW8260B - SIM	05/07/25 19:16	250507A9
S74203.03	1,4-Dioxane	SW8260B - SIM	05/07/25 15:28	250507A9

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74203.01

Sample Tag: MW-22-156_050625

Collected Date/Time: 05/06/2025 12:05

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250507B11, Run Date: 05/08/2025 07:41, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**97.2**	80.0	124.0
1,2-Dichloroethane-D4		**105.4**	72.0	125.0
Toluene-D8		**100.7**	89.0	112.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List (Replicate 01)

Run in Batch: 250508A11, Run Date: 05/08/2025 21:03, Matrix: WW, Dilution: 10

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**98.7**	80.0	124.0
1,2-Dichloroethane-D4		**109.2**	72.0	125.0
Toluene-D8		**100.2**	89.0	112.0

QC Report - Surrogates per Lab Sample

Lab Sample ID: S74203.02

Sample Tag: DUP-01_050625

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250507B11, Run Date: 05/08/2025 08:05, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**97.2**	80.0	124.0
1,2-Dichloroethane-D4		**100.4**	72.0	125.0
Toluene-D8		**101.0**	89.0	112.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List (Replicate 01)

Run in Batch: 250508A11, Run Date: 05/08/2025 21:27, Matrix: WW, Dilution: 10

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**98.2**	80.0	124.0
1,2-Dichloroethane-D4		**104.8**	72.0	125.0
Toluene-D8		**99.6**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF250507W3

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507B11.BLKW07B

Run in Batch: 250507B11, Run Date: 05/08/2025 00:34, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**100.1**	80.0	124.0
1,2-Dichloroethane-D4		**96.8**	72.0	125.0
Toluene-D8		**99.6**	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 22:59, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**100.6**	80.0	124.0
1,2-Dichloroethane-D4		**110.8**	72.0	125.0
Toluene-D8		**101.4**	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507B11.LCSDW07B, Parent Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 23:23, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL
4-Bromofluorobenzene		**100.2**	80.0	124.0
1,2-Dichloroethane-D4		**105.1**	72.0	125.0
Toluene-D8		**102.8**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VF250508W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250508A11.BLKW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 13:10, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**96.7**	80.0	124.0
1,2-Dichloroethane-D4		**102.8**	72.0	125.0
Toluene-D8		**100.5**	89.0	112.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:36, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**100.5**	80.0	124.0
1,2-Dichloroethane-D4		**104.9**	72.0	125.0
Toluene-D8		**101.9**	89.0	112.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250508A11.LCSDW08A, Parent Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:59, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	%Rec	LCL	UCL
4-Bromofluorobenzene		**103.6**	80.0	124.0
1,2-Dichloroethane-D4		**101.3**	72.0	125.0
Toluene-D8		**101.6**	89.0	112.0

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74203.01

Sample Tag: MW-22-156_050625

Collected Date/Time: 05/06/2025 12:05

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 18:50, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
1,4-Dioxane-D8		**93.7**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250507B11, Run Date: 05/08/2025 07:41, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**97.7**	50.0	200.0
1,4-Difluorobenzene		**96.8**	50.0	200.0
Chlorobenzene-D5		**93.9**	50.0	200.0
1,4-Dichlorobenzene-D4		**92.0**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List (Replicate 01)

Run in Batch: 250508A11, Run Date: 05/08/2025 21:03, Matrix: WW, Dilution: 10

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**101.8**	50.0	200.0
1,4-Difluorobenzene		**101.6**	50.0	200.0
Chlorobenzene-D5		**102.2**	50.0	200.0
1,4-Dichlorobenzene-D4		**99.3**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74203.02

Sample Tag: DUP-01_050625

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 19:16, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**92.5**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List

Run in Batch: 250507B11, Run Date: 05/08/2025 08:05, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**101.3**	50.0	200.0
1,4-Difluorobenzene		**97.1**	50.0	200.0
Chlorobenzene-D5		**94.2**	50.0	200.0
1,4-Dichlorobenzene-D4		**90.2**	50.0	200.0

Organics - Volatiles, Analysis: Volatile Organics - DEQ List (Replicate 01)

Run in Batch: 250508A11, Run Date: 05/08/2025 21:27, Matrix: WW, Dilution: 10

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**99.6**	50.0	200.0
1,4-Difluorobenzene		**99.2**	50.0	200.0
Chlorobenzene-D5		**97.0**	50.0	200.0
1,4-Dichlorobenzene-D4		**93.7**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74203.03

Sample Tag: Trip Blank

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 15:28, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**89.5**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VF250507W3

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507B11.BLKW07B

Run in Batch: 250507B11, Run Date: 05/08/2025 00:34, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**130.3**	50.0	200.0
1,4-Difluorobenzene		**131.7**	50.0	200.0
Chlorobenzene-D5		**125.5**	50.0	200.0
1,4-Dichlorobenzene-D4		**126.0**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 22:59, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**100.7**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**100.6**	50.0	200.0
1,4-Dichlorobenzene-D4		**100.3**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507B11.LCSDW07B, Parent Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 23:23, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
Pentafluorobenzene		**103.8**	50.0	200.0
1,4-Difluorobenzene		**101.5**	50.0	200.0
Chlorobenzene-D5		**102.3**	50.0	200.0
1,4-Dichlorobenzene-D4		**102.9**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VF250508W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250508A11.BLKW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 13:10, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**101.3**	50.0	200.0
1,4-Difluorobenzene		**100.8**	50.0	200.0
Chlorobenzene-D5		**100.8**	50.0	200.0
1,4-Dichlorobenzene-D4		**94.7**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:36, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**101.1**	50.0	200.0
1,4-Difluorobenzene		**100.5**	50.0	200.0
Chlorobenzene-D5		**100.9**	50.0	200.0
1,4-Dichlorobenzene-D4		**104.0**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250508A11.LCSDW08A, Parent Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:59, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
Pentafluorobenzene		**102.2**	50.0	200.0
1,4-Difluorobenzene		**101.1**	50.0	200.0
Chlorobenzene-D5		**101.8**	50.0	200.0
1,4-Dichlorobenzene-D4		**104.1**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.4**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**94.0**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**103.7**	50.0	200.0

Organics - Volatiles, Prep Batch ID: VF250507W3

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507B11.BLKW07B

Run in Batch: 250507B11, Run Date: 05/08/2025 00:34, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	2.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

Organics - Volatiles, Prep Batch ID: VF250507W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 250507B11.BLKW07B

Run in Batch: 250507B11, Run Date: 05/08/2025 00:34, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 22:59, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		115.2	67.4	121.2
Acetone		107.5	29.9	161.5
Methyl iodide		110.0	68.8	116.4
Carbon disulfide		106.4	63.8	137.4
tert-Methyl butyl ether (MTBE)		115.8	73.2	122.4
Acrylonitrile		112.5	69.9	128.9
2-Butanone (MEK)		108.4	44.0	134.4
Dichlorodifluoromethane		105.3	10.0	222.8
Chloromethane		110.4	23.8	166.5
Vinyl chloride		108.7	43.5	149.1
Bromomethane		112.4	56.8	151.3
Chloroethane		116.6	53.4	149.4
Trichlorofluoromethane		96.5	59.7	151.8
1,1-Dichloroethene		106.4	69.6	139.4
Methylene chloride		111.4	73.3	121.1
trans-1,2-Dichloroethene		109.3	73.6	129.3
1,1-Dichloroethane		113.4	71.5	126.2
cis-1,2-Dichloroethene		114.2	76.6	122.1
Tetrahydrofuran		111.9	59.0	117.9
Chloroform		114.4	78.4	124.0

Organics - Volatiles, Prep Batch ID: VF250507W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 22:59, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		113.4	78.2	120.8
1,1,1-Trichloroethane		109.6	79.4	130.9
4-Methyl-2-pentanone (MIBK)		105.3	71.6	125.2
2-Hexanone		104.9	55.4	136.9
Carbon tetrachloride		102.6	72.6	133.0
Benzene		107.5	79.9	124.9
1,2-Dichloroethane		109.6	76.0	126.3
Trichloroethene		107.4	79.7	124.2
1,2-Dichloropropane		108.2	78.6	126.4
Bromodichloromethane		111.2	80.4	128.2
Dibromomethane		107.4	76.9	122.1
cis-1,3-Dichloropropene		109.0	79.8	129.9
Toluene		109.3	79.8	124.5
trans-1,3-Dichloropropene		109.2	74.0	131.3
1,1,2-Trichloroethane		108.8	78.7	123.1
Tetrachloroethene		103.6	74.5	124.5
trans-1,4-Dichloro-2-butene		115.1	68.6	135.4
Dibromochloromethane		107.2	74.6	127.2
1,2-Dibromoethane		106.7	70.3	133.7
Chlorobenzene		107.0	79.2	122.7
1,1,1,2-Tetrachloroethane		108.4	80.3	128.2
Ethylbenzene		108.1	79.5	129.1
p,m-Xylene		107.5	79.4	132.2
o-Xylene		111.0	80.2	131.0
Styrene		111.7	69.5	126.7
Isopropylbenzene		109.1	74.4	121.5
Bromoform		108.1	69.4	128.0
1,1,2,2-Tetrachloroethane		107.8	79.8	126.3
1,2,3-Trichloropropane		109.9	78.3	138.8
n-Propylbenzene		109.6	82.0	130.7
Bromobenzene		110.1	78.7	124.6
1,3,5-Trimethylbenzene		110.6	81.3	128.9
tert-Butylbenzene		112.3	80.7	128.9
1,2,4-Trimethylbenzene		114.6	81.4	130.8
sec-Butylbenzene		109.3	77.4	129.8
p-Isopropyltoluene		112.0	79.8	137.5
1,3-Dichlorobenzene		110.1	77.0	131.3
1,4-Dichlorobenzene		109.8	20.7	137.7
1,2-Dichlorobenzene		110.4	10.0	166.2
1,2,3-Trimethylbenzene		113.1	76.3	124.2
n-Butylbenzene		107.7	80.0	133.3
Hexachloroethane		110.0	23.8	138.1
1,2-Dibromo-3-chloropropane		111.6	21.2	189.4
1,2,4-Trichlorobenzene		113.7	27.4	143.4
1,2,3-Trichlorobenzene		113.1	75.4	131.4
Naphthalene		113.7	32.9	135.8

Organics - Volatiles, Prep Batch ID: VF250507W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 22:59, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		111.1	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507B11.LCSDW07B, Parent Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 23:23, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether		108.6	67.4	121.2	5.9	30.0
Acetone		105.7	29.9	161.5	1.7	30.0
Methyl iodide		105.8	68.8	116.4	3.9	30.0
Carbon disulfide		99.6	63.8	137.4	6.6	30.0
tert-Methyl butyl ether (MTBE)		108.7	73.2	122.4	6.3	30.0
Acrylonitrile		111.1	69.9	128.9	1.2	30.0
2-Butanone (MEK)		114.7	44.0	134.4	5.7	30.0
Dichlorodifluoromethane		99.7	10.0	222.8	5.4	30.0
Chloromethane		107.5	23.8	166.5	2.6	30.0
Vinyl chloride		101.1	43.5	149.1	7.2	30.0
Bromomethane		114.1	56.8	151.3	1.5	30.0
Chloroethane		107.4	53.4	149.4	8.2	30.0
Trichlorofluoromethane		89.4	59.7	151.8	7.7	30.0
1,1-Dichloroethene		98.9	69.6	139.4	7.3	30.0
Methylene chloride		106.0	73.3	121.1	5.0	30.0
trans-1,2-Dichloroethene		102.8	73.6	129.3	6.1	30.0
1,1-Dichloroethane		106.0	71.5	126.2	6.7	30.0
cis-1,2-Dichloroethene		107.6	76.6	122.1	5.9	30.0
Tetrahydrofuran		108.5	59.0	117.9	3.1	30.0
Chloroform		107.6	78.4	124.0	6.1	30.0
Bromochloromethane		108.5	78.2	120.8	4.5	30.0
1,1,1-Trichloroethane		103.1	79.4	130.9	6.2	30.0
4-Methyl-2-pentanone (MIBK)		106.1	71.6	125.2	0.8	30.0
2-Hexanone		105.8	55.4	136.9	0.8	30.0
Carbon tetrachloride		98.9	72.6	133.0	3.7	30.0
Benzene		105.1	79.9	124.9	2.3	30.0
1,2-Dichloroethane		105.3	76.0	126.3	3.9	30.0
Trichloroethene		103.2	79.7	124.2	4.0	30.0
1,2-Dichloropropane		106.6	78.6	126.4	1.5	30.0
Bromodichloromethane		107.9	80.4	128.2	3.1	30.0
Dibromomethane		106.9	76.9	122.1	0.5	30.0
cis-1,3-Dichloropropene		106.1	79.8	129.9	2.6	30.0
Toluene		106.7	79.8	124.5	2.4	30.0
trans-1,3-Dichloropropene		107.2	74.0	131.3	1.9	30.0
1,1,2-Trichloroethane		105.3	78.7	123.1	3.2	30.0
Tetrachloroethene		100.8	74.5	124.5	2.8	30.0
trans-1,4-Dichloro-2-butene		103.9	68.6	135.4	10.2	30.0
Dibromochloromethane		103.6	74.6	127.2	3.5	30.0
1,2-Dibromoethane		105.0	70.3	133.7	1.6	30.0
Chlorobenzene		103.3	79.2	122.7	3.5	30.0

Organics - Volatiles, Prep Batch ID: VF250507W3 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 250507B11.LCSDW07B, Parent Sample ID: 250507B11.LCSW07B

Run in Batch: 250507B11, Run Date: 05/07/2025 23:23, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		104.8	80.3	128.2	3.4	30.0
Ethylbenzene		104.2	79.5	129.1	3.7	30.0
p,m-Xylene		104.6	79.4	132.2	2.8	30.0
o-Xylene		106.1	80.2	131.0	4.5	30.0
Styrene		109.1	69.5	126.7	2.4	30.0
Isopropylbenzene		104.6	74.4	121.5	4.1	30.0
Bromoform		105.0	69.4	128.0	2.9	30.0
1,1,2,2-Tetrachloroethane		108.2	79.8	126.3	0.3	30.0
1,2,3-Trichloropropane		107.4	78.3	138.8	2.3	30.0
n-Propylbenzene		105.1	82.0	130.7	4.2	30.0
Bromobenzene		105.1	78.7	124.6	4.6	30.0
1,3,5-Trimethylbenzene		108.2	81.3	128.9	2.2	30.0
tert-Butylbenzene		108.0	80.7	128.9	3.9	30.0
1,2,4-Trimethylbenzene		110.3	81.4	130.8	3.8	30.0
sec-Butylbenzene		104.5	77.4	129.8	4.5	30.0
p-Isopropyltoluene		107.2	79.8	137.5	4.4	30.0
1,3-Dichlorobenzene		106.5	77.0	131.3	3.3	30.0
1,4-Dichlorobenzene		106.8	20.7	137.7	2.8	30.0
1,2-Dichlorobenzene		107.4	10.0	166.2	2.8	30.0
1,2,3-Trimethylbenzene		107.6	76.3	124.2	5.0	30.0
n-Butylbenzene		103.3	80.0	133.3	4.1	30.0
Hexachloroethane		105.2	23.8	138.1	4.5	30.0
1,2-Dibromo-3-chloropropane		109.4	21.2	189.4	1.9	30.0
1,2,4-Trichlorobenzene		112.9	27.4	143.4	0.7	30.0
1,2,3-Trichlorobenzene		112.5	75.4	131.4	0.5	30.0
Naphthalene		112.7	32.9	135.8	0.9	30.0
2-Methylnaphthalene		114.9	25.5	165.5	3.3	30.0

Organics - Volatiles, Prep Batch ID: VF250508W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250508A11.BLKW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 13:10, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Diethyl ether		ND	1.00	ug/l
Acetone		ND	10.00	ug/l
Methyl iodide		ND	1.00	ug/l
Carbon disulfide		ND	1.00	ug/l
tert-Methyl butyl ether (MTBE)		ND	1.00	ug/l
Acrylonitrile		ND	1.00	ug/l
2-Butanone (MEK)		ND	10.00	ug/l
Dichlorodifluoromethane		ND	1.00	ug/l
Chloromethane		ND	1.00	ug/l
Vinyl chloride		ND	1.00	ug/l
Bromomethane		ND	1.00	ug/l
Chloroethane		ND	1.00	ug/l
Trichlorofluoromethane		ND	1.00	ug/l
1,1-Dichloroethene		ND	1.00	ug/l
Methylene chloride		ND	1.00	ug/l
trans-1,2-Dichloroethene		ND	1.00	ug/l
1,1-Dichloroethane		ND	1.00	ug/l
cis-1,2-Dichloroethene		ND	1.00	ug/l
Tetrahydrofuran		ND	10.00	ug/l
Chloroform		ND	1.00	ug/l
Bromochloromethane		ND	1.00	ug/l
1,1,1-Trichloroethane		ND	1.00	ug/l
4-Methyl-2-pentanone (MIBK)		ND	10.00	ug/l
2-Hexanone		ND	10.00	ug/l
Carbon tetrachloride		ND	1.00	ug/l
Benzene		ND	1.00	ug/l
1,2-Dichloroethane		ND	1.00	ug/l
Trichloroethene		ND	1.00	ug/l
1,2-Dichloropropane		ND	1.00	ug/l
Bromodichloromethane		ND	1.00	ug/l
Dibromomethane		ND	1.00	ug/l
cis-1,3-Dichloropropene		ND	1.00	ug/l
Toluene		ND	1.00	ug/l
trans-1,3-Dichloropropene		ND	1.00	ug/l
1,1,2-Trichloroethane		ND	1.00	ug/l
Tetrachloroethene		ND	1.00	ug/l
trans-1,4-Dichloro-2-butene		ND	1.00	ug/l
Dibromochloromethane		ND	1.00	ug/l
1,2-Dibromoethane		ND	1.00	ug/l
Chlorobenzene		ND	1.00	ug/l
1,1,1,2-Tetrachloroethane		ND	1.00	ug/l
Ethylbenzene		ND	1.00	ug/l
p,m-Xylene		ND	2.00	ug/l
o-Xylene		ND	1.00	ug/l
Styrene		ND	1.00	ug/l
Isopropylbenzene		ND	1.00	ug/l

Organics - Volatiles, Prep Batch ID: VF250508W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK) (continued)

Lab Sample ID: 250508A11.BLKW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 13:10, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Bromoform		ND	1.00	ug/l
1,1,2,2-Tetrachloroethane		ND	1.00	ug/l
1,2,3-Trichloropropane		ND	1.00	ug/l
n-Propylbenzene		ND	1.00	ug/l
Bromobenzene		ND	1.00	ug/l
1,3,5-Trimethylbenzene		ND	1.00	ug/l
tert-Butylbenzene		ND	1.00	ug/l
1,2,4-Trimethylbenzene		ND	1.00	ug/l
sec-Butylbenzene		ND	1.00	ug/l
p-Isopropyltoluene		ND	1.00	ug/l
1,3-Dichlorobenzene		ND	1.00	ug/l
1,4-Dichlorobenzene		ND	1.00	ug/l
1,2-Dichlorobenzene		ND	1.00	ug/l
1,2,3-Trimethylbenzene		ND	1.00	ug/l
n-Butylbenzene		ND	1.00	ug/l
Hexachloroethane		ND	1.00	ug/l
1,2-Dibromo-3-chloropropane		ND	1.00	ug/l
1,2,4-Trichlorobenzene		ND	1.00	ug/l
1,2,3-Trichlorobenzene		ND	1.00	ug/l
Naphthalene		ND	1.00	ug/l
2-Methylnaphthalene		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:36, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Diethyl ether		107.5	67.4	121.2
Acetone		99.7	29.9	161.5
Methyl iodide		109.9	68.8	116.4
Carbon disulfide		103.7	63.8	137.4
tert-Methyl butyl ether (MTBE)		108.7	73.2	122.4
Acrylonitrile		107.4	69.9	128.9
2-Butanone (MEK)		107.1	44.0	134.4
Dichlorodifluoromethane		105.7	10.0	222.8
Chloromethane		107.5	23.8	166.5
Vinyl chloride		108.6	43.5	149.1
Bromomethane		108.9	56.8	151.3
Chloroethane		99.7	53.4	149.4
Trichlorofluoromethane		96.7	59.7	151.8
1,1-Dichloroethene		102.8	69.6	139.4
Methylene chloride		106.0	73.3	121.1
trans-1,2-Dichloroethene		105.3	73.6	129.3
1,1-Dichloroethane		105.9	71.5	126.2
cis-1,2-Dichloroethene		106.5	76.6	122.1
Tetrahydrofuran		105.2	59.0	117.9
Chloroform		108.2	78.4	124.0

Organics - Volatiles, Prep Batch ID: VF250508W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:36, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Bromochloromethane		108.8	78.2	120.8
1,1,1-Trichloroethane		105.8	79.4	130.9
4-Methyl-2-pentanone (MIBK)		102.8	71.6	125.2
2-Hexanone		103.6	55.4	136.9
Carbon tetrachloride		102.8	72.6	133.0
Benzene		105.4	79.9	124.9
1,2-Dichloroethane		105.3	76.0	126.3
Trichloroethene		104.5	79.7	124.2
1,2-Dichloropropane		105.2	78.6	126.4
Bromodichloromethane		106.2	80.4	128.2
Dibromomethane		104.5	76.9	122.1
cis-1,3-Dichloropropene		108.9	79.8	129.9
Toluene		106.7	79.8	124.5
trans-1,3-Dichloropropene		108.4	74.0	131.3
1,1,2-Trichloroethane		104.8	78.7	123.1
Tetrachloroethene		103.9	74.5	124.5
trans-1,4-Dichloro-2-butene		106.4	68.6	135.4
Dibromochloromethane		104.1	74.6	127.2
1,2-Dibromoethane		104.9	70.3	133.7
Chlorobenzene		105.6	79.2	122.7
1,1,1,2-Tetrachloroethane		106.9	80.3	128.2
Ethylbenzene		107.2	79.5	129.1
p,m-Xylene		107.4	79.4	132.2
o-Xylene		109.0	80.2	131.0
Styrene		110.2	69.5	126.7
Isopropylbenzene		109.0	74.4	121.5
Bromoform		102.2	69.4	128.0
1,1,2,2-Tetrachloroethane		107.5	79.8	126.3
1,2,3-Trichloropropane		106.7	78.3	138.8
n-Propylbenzene		109.2	82.0	130.7
Bromobenzene		106.3	78.7	124.6
1,3,5-Trimethylbenzene		110.3	81.3	128.9
tert-Butylbenzene		111.5	80.7	128.9
1,2,4-Trimethylbenzene		114.2	81.4	130.8
sec-Butylbenzene		105.6	77.4	129.8
p-Isopropyltoluene		108.2	79.8	137.5
1,3-Dichlorobenzene		104.6	77.0	131.3
1,4-Dichlorobenzene		104.1	20.7	137.7
1,2-Dichlorobenzene		105.4	10.0	166.2
1,2,3-Trimethylbenzene		107.5	76.3	124.2
n-Butylbenzene		106.5	80.0	133.3
Hexachloroethane		107.4	23.8	138.1
1,2-Dibromo-3-chloropropane		105.3	21.2	189.4
1,2,4-Trichlorobenzene		108.6	27.4	143.4
1,2,3-Trichlorobenzene		109.3	75.4	131.4
Naphthalene		108.3	32.9	135.8

Organics - Volatiles, Prep Batch ID: VF250508W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:36, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
2-Methylnaphthalene		111.1	25.5	165.5

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250508A11.LCSDW08A, Parent Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:59, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Diethyl ether	*	140.7	67.4	121.2	26.8	30.0
Acetone		117.9	29.9	161.5	16.7	30.0
Methyl iodide	*	139.9	68.8	116.4	24.0	30.0
Carbon disulfide		127.9	63.8	137.4	20.9	30.0
tert-Methyl butyl ether (MTBE)	*	135.1	73.2	122.4	21.7	30.0
Acrylonitrile	*	135.5	69.9	128.9	23.1	30.0
2-Butanone (MEK)		133.0	44.0	134.4	21.6	30.0
Dichlorodifluoromethane		102.9	10.0	222.8	2.7	30.0
Chloromethane		105.1	23.8	166.5	2.3	30.0
Vinyl chloride		103.1	43.5	149.1	5.1	30.0
Bromomethane		110.4	56.8	151.3	1.4	30.0
Chloroethane		108.2	53.4	149.4	8.2	30.0
Trichlorofluoromethane		111.8	59.7	151.8	14.6	30.0
1,1-Dichloroethene		121.4	69.6	139.4	16.6	30.0
Methylene chloride	*	134.3	73.3	121.1	23.6	30.0
trans-1,2-Dichloroethene		125.5	73.6	129.3	17.5	30.0
1,1-Dichloroethane	*	130.3	71.5	126.2	20.7	30.0
cis-1,2-Dichloroethene	*	132.9	76.6	122.1	22.1	30.0
Tetrahydrofuran	*	132.7	59.0	117.9	23.1	30.0
Chloroform	*	127.3	78.4	124.0	16.2	30.0
Bromochloromethane	*	135.0	78.2	120.8	21.5	30.0
1,1,1-Trichloroethane		103.0	79.4	130.9	2.6	30.0
4-Methyl-2-pentanone (MIBK)		106.3	71.6	125.2	3.4	30.0
2-Hexanone		107.5	55.4	136.9	3.7	30.0
Carbon tetrachloride		101.3	72.6	133.0	1.5	30.0
Benzene		104.1	79.9	124.9	1.2	30.0
1,2-Dichloroethane		107.4	76.0	126.3	2.0	30.0
Trichloroethene		102.8	79.7	124.2	1.7	30.0
1,2-Dichloropropane		105.7	78.6	126.4	0.5	30.0
Bromodichloromethane		107.5	80.4	128.2	1.2	30.0
Dibromomethane		105.9	76.9	122.1	1.2	30.0
cis-1,3-Dichloropropene		109.5	79.8	129.9	0.5	30.0
Toluene		105.6	79.8	124.5	1.1	30.0
trans-1,3-Dichloropropene		110.8	74.0	131.3	2.2	30.0
1,1,2-Trichloroethane		107.3	78.7	123.1	2.3	30.0
Tetrachloroethene		102.5	74.5	124.5	1.3	30.0
trans-1,4-Dichloro-2-butene		109.0	68.6	135.4	2.4	30.0
Dibromochloromethane		106.9	74.6	127.2	2.6	30.0
1,2-Dibromoethane		107.7	70.3	133.7	2.6	30.0
Chlorobenzene		104.2	79.2	122.7	1.4	30.0

Organics - Volatiles, Prep Batch ID: VF250508W1 (continued)

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: 250508A11.LCSDW08A, Parent Sample ID: 250508A11.LCSW08A

Run in Batch: 250508A11, Run Date: 05/08/2025 11:59, Prep Date: 05/08/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,1,1,2-Tetrachloroethane		106.6	80.3	128.2	0.2	30.0
Ethylbenzene		105.7	79.5	129.1	1.5	30.0
p,m-Xylene		107.0	79.4	132.2	0.3	30.0
o-Xylene		108.4	80.2	131.0	0.6	30.0
Styrene		110.3	69.5	126.7	0.1	30.0
Isopropylbenzene		107.4	74.4	121.5	1.5	30.0
Bromoform		106.2	69.4	128.0	3.8	30.0
1,1,2,2-Tetrachloroethane		109.6	79.8	126.3	1.9	30.0
1,2,3-Trichloropropane		110.3	78.3	138.8	3.3	30.0
n-Propylbenzene		109.1	82.0	130.7	0.1	30.0
Bromobenzene		108.3	78.7	124.6	1.8	30.0
1,3,5-Trimethylbenzene		107.8	81.3	128.9	2.2	30.0
tert-Butylbenzene		110.6	80.7	128.9	0.8	30.0
1,2,4-Trimethylbenzene		112.6	81.4	130.8	1.4	30.0
sec-Butylbenzene		105.0	77.4	129.8	0.6	30.0
p-Isopropyltoluene		108.0	79.8	137.5	0.2	30.0
1,3-Dichlorobenzene		105.2	77.0	131.3	0.6	30.0
1,4-Dichlorobenzene		104.2	20.7	137.7	0.1	30.0
1,2-Dichlorobenzene		105.9	10.0	166.2	0.5	30.0
1,2,3-Trimethylbenzene		108.4	76.3	124.2	0.8	30.0
n-Butylbenzene		104.4	80.0	133.3	1.9	30.0
Hexachloroethane		105.5	23.8	138.1	1.8	30.0
1,2-Dibromo-3-chloropropane		109.0	21.2	189.4	3.4	30.0
1,2,4-Trichlorobenzene		111.4	27.4	143.4	2.6	30.0
1,2,3-Trichlorobenzene		110.7	75.4	131.4	1.3	30.0
Naphthalene		111.9	32.9	135.8	3.3	30.0
2-Methylnaphthalene		115.6	25.5	165.5	4.0	30.0

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		97.8	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		88.2	70.0	130.0	10.4	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74203
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A / RACER Lansing GWS
Submitted: 05/06/2025 15:45 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.4
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☒ No	☐ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-777-5215 | FAX NO. | PO NO
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74203.01	5/6/25	1205	MW-22-156_050625	GW	3		3						X	X
.02	5/6/25	—	DUP-01_050625	GW	3		3						X	X
.03	5/6/25	—	Trip Blank	GW	1		1						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis (Sampler)	DATE 5/6/25	TIME 1545
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 5/6/25	TIME 1545
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	5/6/25	1545
RECEIVED BY: SIGNATURE/ORGANIZATION		5/6/25	1545

SEAL NO. | SEAL INTACT YES☐ NO☐ | INITIALS
SEAL NO. | SEAL INTACT YES☐ NO☐ | INITIALS

NOTES | TEMP. ON ARRIVAL 6.4

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

Rev 5.18

Analytical Laboratory Report

Report ID: S74202.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S74202.01-S74202.06
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 05/06/2025
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Unknown
P.O. #: US3460024033

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
E300.0	EPA Method 300.0 Revision 2.1 (1993)
N/A	Not Applicable
SM4500-N/NH3 G	Standard Method 4500 N(org)B 2021 / 4500 NH3 G 2021
SM4500-PE	Standard Method 4500 P E 2021 / 4500 P B(5) 2021
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74202.01	MW-20-127_050625	Groundwater	05/06/25 12:35
S74202.02	TW-15-12_050625	Groundwater	05/06/25 13:50
S74202.03	TW-14-02_050625	Groundwater	05/06/25 15:10
S74202.04	DUP-04_050625	Groundwater	05/06/25 00:01
S74202.05	MW-19-123_050625	Groundwater	05/06/25 11:20
S74202.06	MW-19-121_050625	Groundwater	05/06/25 13:40

Analytical Laboratory Report

Lab Sample ID: S74202.01
Sample Tag: MW-20-127_050625
Collected Date/Time: 05/06/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR
1	250mL Plastic	H2SO4	Yes	6.4	IR
1	125mL Plastic	None	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Inorganics

Method: E300.0, Run Date: 05/08/25 11:07, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nitrate-N	Not detected	0.50		mg/L	5	14797-55-8	

Method: SM4500-N/NH3 G, Run Date: 05/09/25 13:56, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Kjeldahl Nitrogen*	0.7	0.1		mg/L	4		

Method: SM4500-PE, Run Date: 05/09/25 13:01, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	0.04	0.01	0.009	mg/L	1	7723-14-0	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 19:41, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	113	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74202.02
Sample Tag: TW-15-12_050625
Collected Date/Time: 05/06/2025 13:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR
1	250mL Plastic	H2SO4	Yes	6.4	IR
1	125mL Plastic	None	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Inorganics

Method: E300.0, Run Date: 05/08/25 10:57, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nitrate-N	Not detected	0.50		mg/L	5	14797-55-8	

Method: SM4500-N/NH3 G, Run Date: 05/09/25 14:00, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Kjeldahl Nitrogen*	Not detected	0.1		mg/L	4		

Method: SM4500-PE, Run Date: 05/09/25 13:05, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	0.12	0.01	0.009	mg/L	1	7723-14-0	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 16:44, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S74202.03
Sample Tag: TW-14-02_050625
Collected Date/Time: 05/06/2025 15:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 17:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74202.04
Sample Tag: DUP-04_050625
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 17:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74202.05
Sample Tag: MW-19-123_050625
Collected Date/Time: 05/06/2025 11:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR
1	250mL Plastic	H2SO4	Yes	6.4	IR
1	125mL Plastic	None	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Inorganics

Method: E300.0, Run Date: 05/08/25 10:44, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nitrate-N	Not detected	0.50		mg/L	5	14797-55-8	

Method: SM4500-N/NH3 G, Run Date: 05/09/25 14:02, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Kjeldahl Nitrogen*	Not detected	0.1		mg/L	4		

Method: SM4500-PE, Run Date: 05/09/25 13:09, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	Not detected	0.01	0.009	mg/L	1	7723-14-0	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 18:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	30	1		ug/L	1	123-91-1	

Lab Sample ID: S74202.06
Sample Tag: MW-19-121_050625
Collected Date/Time: 05/06/2025 13:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR
1	250mL Plastic	H2SO4	Yes	6.4	IR
1	125mL Plastic	None	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Inorganics

Method: E300.0, Run Date: 05/08/25 11:17, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nitrate-N	6.49	0.50		mg/L	5	14797-55-8	

Method: SM4500-N/NH3 G, Run Date: 05/09/25 14:04, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Kjeldahl Nitrogen*	2.2	0.1		mg/L	4		

Method: SM4500-PE, Run Date: 05/09/25 13:17, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	4.4	0.3	0.2	mg/L	25	7723-14-0	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 18:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Quality Control Report

Report ID: S74202.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74202.01-S74202.06
Project: 30267725.0470B / RACER Lansing GWS
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Unknown
P.O. #: US3460024033

QC Report Sections

Cover Page (Page 12)
Analysis Summary (Pages 13-18)
Prep Batch Summary (Page 19)
Surrogates per QC Sample (Page 20)
Internal Standards per Lab Sample (Pages 21-26)
Internal Standards per QC Sample (Page 27)
Batch QC Results (Pages 28-31)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74202.01
Sample Tag: MW-20-127_050625
Collected Date/Time: 05/06/2025 12:35
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Nitrate-N	E300.0	05/08/25 11:07	NTRA250508-W1-B	NTRA250508-W1-B	No	BLK/LCS/MS/MSD/DU
Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 13:56	TKN250509B	TKN250509B	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	05/09/25 13:01	PHS250509QC	PHS250509QC	No	BLK/LCS/MS/DUP
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 19:41	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74202.02
Sample Tag: TW-15-12_050625
Collected Date/Time: 05/06/2025 13:50
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Nitrate-N	E300.0	05/08/25 10:57	NTRA250508-W1-B	NTRA250508-W1-B	No	BLK/LCS/MS/MSD/DU
Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:00	TKN250509B	TKN250509B	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	05/09/25 13:05	PHS250509QC	PHS250509QC	No	BLK/LCS/MS/DUP
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 16:44	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74202.03
Sample Tag: TW-14-02_050625
Collected Date/Time: 05/06/2025 15:10
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 17:09	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74202.04
Sample Tag: DUP-04_050625
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 17:34	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74202.05
Sample Tag: MW-19-123_050625
Collected Date/Time: 05/06/2025 11:20
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Nitrate-N	E300.0	05/08/25 10:44	NTRA250508-W1-B	NTRA250508-W1-B	No	BLK/LCS/MS/MSD/DU
Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:02	TKN250509B	TKN250509B	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	05/09/25 13:09	PHS250509QC	PHS250509QC	No	BLK/LCS/MS/DUP
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 18:00	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Analysis Summary

Lab Sample ID: S74202.06
Sample Tag: MW-19-121_050625
Collected Date/Time: 05/06/2025 13:40
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Nitrate-N	E300.0	05/08/25 11:17	NTRA250508-W1-B	NTRA250508-W1-B	No	BLK/LCS/MS/MSD/DU
Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:04	TKN250509B	TKN250509B	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	05/09/25 13:17	PHS250509QC	PHS250509QC	No	BLK/LCS/MS/DUP
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 18:25	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: NTRA250508-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74202.01	Nitrate-N	E300.0	05/08/25 11:07	NTRA250508-W1-B
S74202.02	Nitrate-N	E300.0	05/08/25 10:57	NTRA250508-W1-B
S74202.05	Nitrate-N	E300.0	05/08/25 10:44	NTRA250508-W1-B
S74202.06	Nitrate-N	E300.0	05/08/25 11:17	NTRA250508-W1-B

Inorganics, Prep Batch ID: PHS250509QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74202.01	Total Phosphorus	SM4500-PE	05/09/25 13:01	PHS250509QC
S74202.02	Total Phosphorus	SM4500-PE	05/09/25 13:05	PHS250509QC
S74202.05	Total Phosphorus	SM4500-PE	05/09/25 13:09	PHS250509QC
S74202.06	Total Phosphorus	SM4500-PE	05/09/25 13:17	PHS250509QC

Inorganics, Prep Batch ID: TKN250509B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74202.01	Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 13:56	TKN250509B
S74202.02	Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:00	TKN250509B
S74202.05	Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:02	TKN250509B
S74202.06	Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 14:04	TKN250509B

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74202.01	1,4-Dioxane	SW8260B - SIM	05/07/25 19:41	250507A9
S74202.02	1,4-Dioxane	SW8260B - SIM	05/07/25 16:44	250507A9
S74202.03	1,4-Dioxane	SW8260B - SIM	05/07/25 17:09	250507A9
S74202.04	1,4-Dioxane	SW8260B - SIM	05/07/25 17:34	250507A9
S74202.05	1,4-Dioxane	SW8260B - SIM	05/07/25 18:00	250507A9
S74202.06	1,4-Dioxane	SW8260B - SIM	05/07/25 18:25	250507A9

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.01

Sample Tag: MW-20-127_050625

Collected Date/Time: 05/06/2025 12:35

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 19:41, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**91.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.02

Sample Tag: TW-15-12_050625

Collected Date/Time: 05/06/2025 13:50

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 16:44, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.0**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.03

Sample Tag: TW-14-02_050625

Collected Date/Time: 05/06/2025 15:10

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 17:09, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.8**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.04

Sample Tag: DUP-04_050625

Collected Date/Time: 05/06/2025 00:01

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 17:34, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**95.2**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.05

Sample Tag: MW-19-123_050625

Collected Date/Time: 05/06/2025 11:20

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 18:00, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**78.6**	50.0	200.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74202.06

Sample Tag: MW-19-121_050625

Collected Date/Time: 05/06/2025 13:40

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 18:25, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**88.2**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.4**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**94.0**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**103.7**	50.0	200.0

Inorganics, Prep Batch ID: NTRA250508-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: NTRA250508-W1-B.LRB1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 13:32, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Nitrate-N		ND	0.10	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: NTRA250508-W1-B.LCS1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 10:10, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Nitrate-N		93.0	90	110

Matrix Spike (MS)

Lab Sample ID: NTRA250508-W1-B.MS1, Parent Sample ID: S74219.02

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:22, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Nitrate-N		108.2	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: NTRA250508-W1-B.MSD1, Parent Sample ID: NTRA250508-W1-B.MS1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:32, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Nitrate-N		106.6	80	120	1	15

Duplicate (DUP)

Lab Sample ID: NTRA250508-W1-B.DP1, Parent Sample ID: S74219.02

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:12, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	RPD	RPD CL
Nitrate-N		1.0	15

Inorganics, Prep Batch ID: PHS250509QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS250509QC.LRB1

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:15, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS250509QC.LRB2

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:21, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS250509QC.LCS1

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:28, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		100	90	110

Matrix Spike (MS)

Lab Sample ID: PHS250509QC.MS1, Parent Sample ID: S74085.01

Run in Batch: PHS250509QC, Run Date: 05/09/2025 17:45, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		86	80	120

Duplicate (DUP)

Lab Sample ID: PHS250509QC.DP1, Parent Sample ID: S74103.01

Run in Batch: PHS250509QC, Run Date: 05/09/2025 17:42, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Phosphorus		9.3	20

Inorganics, Prep Batch ID: TKN250509B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: TKN250509B.LRB1

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:10, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Kjeldahl Nitrogen		ND	0.02	mg/L

Blank (BLK)

Lab Sample ID: TKN250509B.LRB2

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:18, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Kjeldahl Nitrogen		ND	0.1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TKN250509B.LCS1

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:22, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Kjeldahl Nitrogen		90.2	90	110

Matrix Spike (MS)

Lab Sample ID: TKN250509B.MS1, Parent Sample ID: S74202.01

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:58, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 4

Analyte	Flags	% Rec	LCL	UCL
Total Kjeldahl Nitrogen		99.3	80	120

Duplicate (DUP)

Lab Sample ID: TKN250509B.DP1, Parent Sample ID: S74181.01

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:26, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 50

Analyte	Flags	RPD	RPD CL
Total Kjeldahl Nitrogen		1.2	20

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		97.8	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		88.2	70.0	130.0	10.4	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74202
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 05/06/2025 15:45 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.4
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☒ Yes	☐ No	☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☒ No	☐ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S74202 Submitted: 05/06/2025 15:45

Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30267725.0470B / RACER Lansing GWS

Initial Preservation Check: 05/06/2025 16:45 MMC

Preservation Recheck (E200.8): N/A

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S74202.01	250mL Plastic H2SO4	<2			
S74202.02	250mL Plastic H2SO4	<2			
S74202.05	250mL Plastic H2SO4	<2			
S74202.06	250mL Plastic H2SO4	<2			

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-777-5215 | FAX NO: | P.O. NO.: 05346024033
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS | SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	T. Phosphorus	TKN	Nitrate
74202.01	5/6/25	1235	MW-20-127_050625	GW	5	1	3		1				X	X	X	X
.02	5/6/25	1350	TW-15-12_050625	GW	5	1	3		1				X	X	X	X
.03	5/6/25	1510	TW-14-02_050625	GW	3		3						X			
.04	5/6/25	—	Dup-04_050625	GW	3		3						X			
.05	5/6/25	1120	MW-19-123_050625	GW	5	1	3		1				X	X	X	X
.06	5/6/25	1340	MW-19-121_050625	GW	5	1	3		1				X	X	X	X

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] /Arcadis (Sampler) DATE: 5/6/25 TIME: 1545
RECEIVED BY SIGNATURE/ORGANIZATION: Merit Drop Box DATE: 5/6/25 TIME: 1545
RELINQUISHED BY SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY SIGNATURE/ORGANIZATION: Merit Drop Box DATE: 5/6/25 TIME: 1545
RECEIVED BY SIGNATURE/ORGANIZATION: [signature] DATE: 5/6/25 TIME: 1545

SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:
SEAL NO.: SEAL INTACT YES ☐ NO ☐ INITIALS:

NOTES: TEMP ON ARRIVAL 6.4

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

Rev 5 16 12

Analytical Laboratory Report

Report ID: S74201.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Addtional Contacts: Marina Samp, Tiffany Linder

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S74201.01
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 05/06/2025
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Billy Cobern
P.O. #: US3460024033

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
E300.0	EPA Method 300.0 Revision 2.1 (1993)
N/A	Not Applicable
SM4500-N/NH3 G	Standard Method 4500 N(org)B 2021 / 4500 NH3 G 2021
SM4500-PE	Standard Method 4500 P E 2021 / 4500 P B(5) 2021
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74201.01	MW-13-29_050625	Groundwater	05/06/25 10:55

Analytical Laboratory Report

Lab Sample ID: S74201.01
Sample Tag: MW-13-29_050625
Collected Date/Time: 05/06/2025 10:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR
1	250mL Plastic	H2SO4	Yes	6.4	IR
1	125mL Plastic	None	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Inorganics

Method: E300.0, Run Date: 05/08/25 10:20, Analyst: SRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Nitrate-N	Not detected	0.50		mg/L	5	14797-55-8	

Method: SM4500-N/NH3 G, Run Date: 05/09/25 13:40, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Kjeldahl Nitrogen*	0.4	0.1		mg/L	4		

Method: SM4500-PE, Run Date: 05/09/25 12:57, Analyst: MJC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Phosphorus*	0.02	0.01	0.009	mg/L	1	7723-14-0	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 16:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Quality Control Report

Report ID: S74201.01(01)+QC01
Generated on 05/13/2025

Report to

Attention: Kaitlyn Hunt
Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 C:947-777-5215 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S74201.01
Project: 30267725.0470B / RACER Lansing GWS
Submitted Date/Time: 05/06/2025 15:45
Sampled by: Billy Cobern
P.O. #: US3460024033

QC Report Sections

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Analysis Summary (Page 8)
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Internal Standards per QC Sample (Page 12)
Batch QC Results (Pages 13-16)

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager and his/her designee, as verified by the following signature.

Barbara Ball
Quality Assurance Manager

QC Report - Analysis Summary

Lab Sample ID: S74201.01
Sample Tag: MW-13-29_050625
Collected Date/Time: 05/06/2025 10:55
Matrix: Groundwater
COC Reference:

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Inorganics						
Nitrate-N	E300.0	05/08/25 10:20	NTRA250508-W1-B	NTRA250508-W1-B	No	BLK/LCS/MS/MSD/DU
Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 13:40	TKN250509B	TKN250509B	No	BLK/LCS/MS/DUP
Total Phosphorus	SM4500-PE	05/09/25 12:57	PHS250509QC	PHS250509QC	No	BLK/LCS/MS/DUP
Organics - Volatiles						
1,4-Dioxane	SW8260B - SIM	05/07/25 16:19	250507A9	VS250507W1	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Inorganics, Prep Batch ID: NTRA250508-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74201.01	Nitrate-N	E300.0	05/08/25 10:20	NTRA250508-W1-B

Inorganics, Prep Batch ID: PHS250509QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74201.01	Total Phosphorus	SM4500-PE	05/09/25 12:57	PHS250509QC

Inorganics, Prep Batch ID: TKN250509B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74201.01	Total Kjeldahl Nitrogen	SM4500-N/NH3 G	05/09/25 13:40	TKN250509B

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S74201.01	1,4-Dioxane	SW8260B - SIM	05/07/25 16:19	250507A9

QC Report - Surrogates per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Surrogate	Flags	**%Rec**	LCL	UCL

No Surrogates

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S74201.01

Sample Tag: MW-13-29_050625

Collected Date/Time: 05/06/2025 10:55

Matrix: Groundwater

COC Reference:

Organics - Volatiles, Analysis: 1,4-Dioxane

Run in Batch: 250507A9, Run Date: 05/07/2025 16:19, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**85.8**	50.0	200.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: VS250507W1

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**93.4**	50.0	200.0

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**94.0**	50.0	200.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Internal Standard	Flags	**%Rec**	LCL	UCL
1,4-Dioxane-D8		**103.7**	50.0	200.0

Inorganics, Prep Batch ID: NTRA250508-W1-B

Surrogates: No, QC Types: BLK/LCS/MS/MSD/DUP

Blank (BLK)

Lab Sample ID: NTRA250508-W1-B.LRB1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 13:32, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Nitrate-N		ND	0.10	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: NTRA250508-W1-B.LCS1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 10:10, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Nitrate-N		93.0	90	110

Matrix Spike (MS)

Lab Sample ID: NTRA250508-W1-B.MS1, Parent Sample ID: S74219.02

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:22, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL
Nitrate-N		108.2	80	120

Matrix Spike Duplicate (MSD)

Lab Sample ID: NTRA250508-W1-B.MSD1, Parent Sample ID: NTRA250508-W1-B.MS1

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:32, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
Nitrate-N		106.6	80	120	1	15

Duplicate (DUP)

Lab Sample ID: NTRA250508-W1-B.DP1, Parent Sample ID: S74219.02

Run in Batch: NTRA250508-W1-B, Run Date: 05/08/2025 14:12, Prep Date: 05/08/2025, Matrix: Liquid, Dilution: 5

Analyte	Flags	RPD	RPD CL
Nitrate-N		1.0	15

Inorganics, Prep Batch ID: PHS250509QC

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: PHS250509QC.LRB1

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:15, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Blank (BLK)

Lab Sample ID: PHS250509QC.LRB2

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:21, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Phosphorus		ND	0.01	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: PHS250509QC.LCS1

Run in Batch: PHS250509QC, Run Date: 05/09/2025 12:28, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		100	90	110

Matrix Spike (MS)

Lab Sample ID: PHS250509QC.MS1, Parent Sample ID: S74085.01

Run in Batch: PHS250509QC, Run Date: 05/09/2025 17:45, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Phosphorus		86	80	120

Duplicate (DUP)

Lab Sample ID: PHS250509QC.DP1, Parent Sample ID: S74103.01

Run in Batch: PHS250509QC, Run Date: 05/09/2025 17:42, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	RPD	RPD CL
Total Phosphorus		9.3	20

Inorganics, Prep Batch ID: TKN250509B

Surrogates: No, QC Types: BLK/LCS/MS/DUP

Blank (BLK)

Lab Sample ID: TKN250509B.LRB1

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:10, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Kjeldahl Nitrogen		ND	0.02	mg/L

Blank (BLK)

Lab Sample ID: TKN250509B.LRB2

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:18, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	Conc	RDL	Units
Total Kjeldahl Nitrogen		ND	0.1	mg/L

Laboratory Control Sample (LCS)

Lab Sample ID: TKN250509B.LCS1

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:22, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
Total Kjeldahl Nitrogen		90.2	90	110

Matrix Spike (MS)

Lab Sample ID: TKN250509B.MS1, Parent Sample ID: S74202.01

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:58, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 4

Analyte	Flags	% Rec	LCL	UCL
Total Kjeldahl Nitrogen		99.3	80	120

Duplicate (DUP)

Lab Sample ID: TKN250509B.DP1, Parent Sample ID: S74181.01

Run in Batch: TKN250509B, Run Date: 05/09/2025 13:26, Prep Date: 05/09/2025, Matrix: Liquid, Dilution: 50

Analyte	Flags	RPD	RPD CL
Total Kjeldahl Nitrogen		1.2	20

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS250507W1

Surrogates: Yes, QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: 250507A9.BLKW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 14:12, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		ND	1.00	ug/l

Laboratory Control Sample (LCS)

Lab Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:32, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		97.8	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 250507A9.LCSDW07A, Parent Sample ID: 250507A9.LCSW07A

Run in Batch: 250507A9, Run Date: 05/07/2025 12:57, Prep Date: 05/07/2025, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		88.2	70.0	130.0	10.4	30.0

Merit Laboratories Login Checklist

Lab Set ID: S74201
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 05/06/2025 15:45 Login User: MMC

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.4
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☒ Yes	☐ No	☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☒ No	☐ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S74201 Submitted: 05/06/2025 15:45

Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)

Project: 30267725.0470B / RACER Lansing GWS

Initial Preservation Check: 05/06/2025 16:42 MMC

Preservation Recheck (E200.8): N/A

Attention: Kaitlyn Hunt
Address: Arcadis
28550 Cabot Drive
Suite 500
Novi, MI 48377

Phone: O:248-809-4013 FAX:
Email: Kaitlyn.Hunt@arcadis.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S74201.01	250mL Plastic H2SO4	<2			

Plant 3

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 947-777-5215 FAX NO.:
P.O. NO.: JS34600240333
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Billy J. Loscar

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	T. Phosphorus	TKN	Nitrate
74201.01	5/6/25	1055	MW-13_29_050625	GW	5	1	3		1				X	X	X	X

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Arcadis (DS Sampler) DATE: 5/6/25 TIME: 1545
RECEIVED BY: SIGNATURE/ORGANIZATION: Merit Drop Box DATE: 5/6/25 TIME: 1545

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY SIGNATURE/ORGANIZATION: Merit Drop Box DATE: 5/6/25 TIME: 1545
RECEIVED BY: SIGNATURE/ORGANIZATION: M Abbott DATE: 5/6/25 TIME: 1545

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP ON ARRIVAL: 6.4

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

Rev 5 18 12

Analytical Laboratory Report

Report ID: S78171.01(01)
Generated on 08/29/2025

Report to

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

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

Addtional Contacts: Marina Samp, Kaitlyn Hunt

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S78171.01-S78171.06
Project: 30267725.0470B / Racer Lansing GWS
Collected Date(s): 08/25/2025
Submitted Date/Time: 08/26/2025 16:45
Sampled by: Billy Cobern
P.O. #: 30267725.0470B

Table of Contents

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S78171.01	MW-13-22_082525	Groundwater	08/25/25 11:15
S78171.02	MW-12-21_082525	Groundwater	08/25/25 12:20
S78171.03	AS-19-A05_082525	Groundwater	08/25/25 14:10
S78171.04	TW-15-11_082525	Groundwater	08/25/25 15:30
S78171.05	PW-14-03R_082525	Groundwater	08/25/25 16:45
S78171.06	DUP-01_082525	Groundwater	08/25/25 00:01

Analytical Laboratory Report

Lab Sample ID: S78171.01
Sample Tag: MW-13-22_082525
Collected Date/Time: 08/25/2025 11:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 19:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	131	1		ug/L	1	123-91-1	

Lab Sample ID: S78171.02
Sample Tag: MW-12-21_082525
Collected Date/Time: 08/25/2025 12:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 19:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	150	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.03
Sample Tag: AS-19-A05_082525
Collected Date/Time: 08/25/2025 14:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:06, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.04
Sample Tag: TW-15-11_082525
Collected Date/Time: 08/25/2025 15:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:31, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	94	1		ug/L	1	123-91-1	

Lab Sample ID: S78171.05
Sample Tag: PW-14-03R_082525
Collected Date/Time: 08/25/2025 16:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	27	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.06
Sample Tag: DUP-01_082525
Collected Date/Time: 08/25/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 21:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	140	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S78171
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / Racer Lansing GWS
Submitted: 08/26/2025 16:45 Login User: PFD

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

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

	Selection			Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 3

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

C.O.C. PAGE # _____ OF _____

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO | P.O. NO.
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Billy T. Cuberm

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS
78171.01	8/25/25	1115	MW-13-22_082525	GW	3		3						3
.02	8/25/25	1220	MW-12-21_082525	GW	3		3						3
.03	8/25/25	1410	AS-19-A05_082525	GW	3		3						3
.04	8/25/25	1530	TW-15-11_082525	GW	3		3						3
.05	8/25/25	1645	PW-14-03R_082525	GW	3		3						3
.06	8/25/25	—	Dup-01_082525	GW	3		3						3

RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature] Arcadis (Sampler) DATE 8-26-25 TIME 1645
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] DATE 8/26/25 TIME 1645
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME

SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP. ON ARRIVAL 4, 4

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

Rev 5.18.12

Analytical Laboratory Report

Report ID: S78170.01(01)
Generated on 08/29/2025

Report to

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

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

Addtional Contacts: Kaitlyn Hunt, Marina Samp

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S78170.01-S78170.06
Project: 30267725.0470B / Racer Lansing GWS
Collected Date(s): 08/26/2025
Submitted Date/Time: 08/26/2025 16:45
Sampled by: Billy Cobern
P.O. #: 30267725.0470B

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S78170.01	MW-19-122_082625	Groundwater	08/26/25 10:00
S78170.02	MW-20-129_082625	Groundwater	08/26/25 11:15
S78170.03	TW-14-02_082625	Groundwater	08/26/25 12:35
S78170.04	TW-14-02_082625 MS	Groundwater	08/26/25 12:35
S78170.05	TW-14-02_082625 MSD	Groundwater	08/26/25 12:35
S78170.06	MW-19-123_082625	Groundwater	08/26/25 14:00

Analytical Laboratory Report

Lab Sample ID: S78170.01
Sample Tag: MW-19-122_082625
Collected Date/Time: 08/26/2025 10:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 17:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Lab Sample ID: S78170.02
Sample Tag: MW-20-129_082625
Collected Date/Time: 08/26/2025 11:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 17:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	70	1		ug/L	1	123-91-1	

Lab Sample ID: S78170.03
Sample Tag: TW-14-02_082625
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 18:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78170.04
Sample Tag: TW-14-02_082625 MS
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 14:35, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	53	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Lab Sample ID: S78170.05
Sample Tag: TW-14-02_082625 MSD
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 15:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	55	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Analytical Laboratory Report

Lab Sample ID: S78170.06
Sample Tag: MW-19-123_082625
Collected Date/Time: 08/26/2025 14:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 18:49, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	32	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S78170
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / Racer Lansing GWS
Submitted: 08/26/2025 16:45 Login User: PFD

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc.

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

C.O.C. PAGE # _____ OF _____

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO | P.O. NO.
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: [Brandi Cobean]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	Special Instructions
7870.01	8/26/25	1000	MW-19-122_082625	GW	3		3						3	
02	8/26/25	1115	MW-20-129_082625	GW	3		3						3	
03,04,05	8/26/25	1235	TW-14-02_082625	GW	9		9						9	MS/MSD
06	8/26/25	1400	MW-19-123_082625	GW	3		3						3	

RELINQUISHED BY SIGNATURE/ORGANIZATION	☒ Sampler ARCADIS	DATE 8.26.25	TIME 1645
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 8/26/25	TIME 1645
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	

NOTES: TEMP. ON ARRIVAL 4.4

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

Rev. 5.18.12

Analytical Laboratory Report

Report ID: S80629.01(01)
Generated on 11/03/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80629.01-S80629.13
Project: 30267725.0470A / RACER Lansing GWS
Collected Date(s): 10/29/2025
Submitted Date/Time: 10/30/2025 08:15
Sampled by: Donald Richmond / Emma Giem
P.O. #: US3460027590

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
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Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (13 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80629.01	MW-14-58R_102925	Groundwater	10/29/25 13:10
S80629.02	MW-14-59_102925	Groundwater	10/29/25 14:10
S80629.03	MW-14-60_102925	Groundwater	10/29/25 15:45
S80629.04	MW-14-62_102925	Groundwater	10/29/25 10:00
S80629.05	MW-21-139_102925	Groundwater	10/29/25 11:45
S80629.06	P2-MW-04_102925	Groundwater	10/29/25 12:55
S80629.07	MW-14-61_102925	Groundwater	10/29/25 09:50
S80629.08	MW-15-72_102925	Groundwater	10/29/25 11:35
S80629.09	MW-16-81_102925	Groundwater	10/29/25 13:05
S80629.10	MW-14-56_102925	Groundwater	10/29/25 14:45
S80629.11	MW-20-130_102925	Groundwater	10/29/25 16:30
S80629.12	DUP-03_102925	Groundwater	10/29/25 00:01
S80629.13	Trip Blank	Groundwater	10/29/25 00:01

Analytical Laboratory Report

Lab Sample ID: S80629.01
Sample Tag: MW-14-58R_102925
Collected Date/Time: 10/29/2025 13:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 18:24, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	260	10		ug/L	10	123-91-1	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S80629.02
Sample Tag: MW-14-59_102925
Collected Date/Time: 10/29/2025 14:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 15:27, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	6	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80629.03
Sample Tag: MW-14-60_102925
Collected Date/Time: 10/29/2025 15:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 19:22, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80629.04
Sample Tag: MW-14-62_102925
Collected Date/Time: 10/29/2025 10:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 19:47, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	99	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.05
Sample Tag: MW-21-139_102925
Collected Date/Time: 10/29/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 17:15, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80629.06
Sample Tag: P2-MW-04_102925
Collected Date/Time: 10/29/2025 12:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 17:40, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	23	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.07
Sample Tag: MW-14-61_102925
Collected Date/Time: 10/29/2025 09:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 15:08, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	3	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 15:31, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80629.07 (continued)
Sample Tag: MW-14-61_102925

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 15:31, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80629.08
Sample Tag: MW-15-72_102925
Collected Date/Time: 10/29/2025 11:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 15:33, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	74	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80629.09
Sample Tag: MW-16-81_102925
Collected Date/Time: 10/29/2025 13:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 15:59, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	32	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.10
Sample Tag: MW-14-56_102925
Collected Date/Time: 10/29/2025 14:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 18:05, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	20	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.11
Sample Tag: MW-20-130_102925
Collected Date/Time: 10/29/2025 16:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 15:52, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	9	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.12
Sample Tag: DUP-03_102925
Collected Date/Time: 10/29/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 18:55, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	20	1		ug/L	1	123-91-1	

Lab Sample ID: S80629.13
Sample Tag: Trip Blank
Collected Date/Time: 10/29/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 14:43, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80629.13 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 14:43, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID: S80629
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A / RACER Lansing GWS
Submitted: 10/30/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: US346D0027588
QUOTE NO.:
PROJECT NO./NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Donald Richmond, Emma Grieu, Karly Wagenstahl

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80629.01	10/29/25	1310	MW-14-58R_102925	GW	3		3						X	
.02	10/29/25	1410	MW-14-59_102925	GW	3		3						X	
.03	10/29/25	1545	MW-14-60_102925	GW	3		3						X	
.04	10/29/25	1000	MW-14-62_102925	GW	3		3						X	
.05	10/29/25	1145	MW-21-139_102925	GW	3		3						X	
.06	10/29/25	1255	P2-MW-04_102925	GW	3		3						X	
.07	10/29/25	0950	MW-14-61_102925	GW	3		3						X	X
.08	10/29/25	1135	MW-15-72_102925	GW	3		3						X	
.09	10/29/25	1305	MW-16-81_102925	GW	3		3						X	
.10	10/29/25	1445	MW-14-56_102925	GW	3		3						X	
.11	10/29/25	1630	MW-20-130_102925	GW	3		3						X	
.12	10/29/25	—	DUP-03_102925	GW	3		3						X	
13	10/29/25	—	Trip Blank	GW	3		3						X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Emma Grieu / Sampler	DATE: 10/29/25	TIME: 1800	RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature]	DATE: 10/29/25	TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature]	DATE: 10/29/25	TIME: 1680	RECEIVED BY: SIGNATURE/ORGANIZATION: Merit Drop Box	DATE: 10/29/25	TIME:
RELINQUISHED BY: SIGNATURE/ORGANIZATION: MERIT DROP BOX	DATE: 10/29/25	TIME: 1930	SEAL NO.: Merit Fridge	SEAL INTACT: ☒	INITIALS: 10/30/25 0815
RECEIVED BY: SIGNATURE/ORGANIZATION: MERIT FRIDGE	DATE: 10/29/25	TIME: 1930	SEAL NO.: M Wilcox	SEAL INTACT: ☒	INITIALS: 10/30/25 0815

NOTES: KL
TEMP. ON ARRIVAL: 5.4

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

Rev. 5 18 12

10/29/25 | — | Trip Blank | Please analyze for VOCs

Analytical Laboratory Report

Report ID: S80628.01(01)
Generated on 11/04/2025

Report to

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Report Summary

Lab Sample ID(s): S80628.01-S80628.05
Project: 30267725.00102 / RACER Lansing GWS
Collected Date(s): 10/29/2025
Submitted Date/Time: 10/30/2025 08:15
Sampled by: AustinWesthuis/KarlyWogenstahl
P.O. #: US3460027590

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80628.01	MW-20-131_102925	Groundwater	10/29/25 16:45
S80628.02	MW-20-132_102925	Groundwater	10/29/25 17:35
S80628.03	MW-22-154_102925	Groundwater	10/29/25 16:25
S80628.04	Trip Blank	Groundwater	10/29/25 00:01
S80628.05	DUP-14_102925	Groundwater	10/29/25 00:01

Lab Sample ID: S80628.01
Sample Tag: MW-20-131_102925
Collected Date/Time: 10/29/2025 16:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 07:58, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	2	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	3	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80628.01 (continued)
Sample Tag: MW-20-131_102925

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 07:58, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80628.02
Sample Tag: MW-20-132_102925
Collected Date/Time: 10/29/2025 17:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 08:22, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	2	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	8	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80628.02 (continued)
Sample Tag: MW-20-132_102925

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 08:22, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80628.03
Sample Tag: MW-22-154_102925
Collected Date/Time: 10/29/2025 16:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 08:46, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	2	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80628.03 (continued)
Sample Tag: MW-22-154_102925

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 08:46, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80628.04
Sample Tag: Trip Blank
Collected Date/Time: 10/29/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 02:24, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80628.04 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/01/25 02:24, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80628.05
Sample Tag: DUP-14_102925
Collected Date/Time: 10/29/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/04/25 12:29	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/03/25 16:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	2	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80628.05 (continued)
Sample Tag: DUP-14_102925

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/03/25 16:21, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID: S80628
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.00102 / RACER Lansing GWS
Submitted: 10/30/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 6

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-465-3086 FAX NO: P.O. NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com QUOTE NO:
PROJECT NO /NAME: 30267725.00102/ RACER Lansing GWS SAMPLER(S) PLEASE PRINT/SIGN NAME: Karly Wagenstahl / Austin Westhuis / Ann LeVasseur

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

INVOICE TO

CONTACT NAME ☒ SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS: tiffany.linder@arcadis.com

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

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

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOC - 8260 SIMS
80628.01	10/29/25	1645	MW-20-131_102925	GW	3		3						X
.02	10/29/25	1735	MW-20-132_102925	GW	3		3						X
.03	10/29/25	1625	MW-22-154_102925	GW	3		3						X
.04	10/29/25	—	Trip Blank	GW	1		1						X
.05	10/29/25	—	DUP-14_102925	GW	3		3						X

RELINQUISHED BY SIGNATURE/ORGANIZATION	Ann LeVasseur / Arcadis ☒ Sampler	DATE 10/29/25	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/29/25	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	DATE 10/29/25	TIME 1930
RECEIVED BY: SIGNATURE/ORGANIZATION	MERIT FRIDGE	DATE 10/29/25	TIME 1930

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	DATE 10/30/25	TIME 0815
RECEIVED BY: SIGNATURE/ORGANIZATION	MM Walcott	DATE 10/30/25	TIME 0815
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	

NOTES: ICE TEMP ON ARRIVAL: 5.4

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

rev 5 16 12

Analytical Laboratory Report

Report ID: S80561.01(01)
Generated on 11/03/2025

Report to

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

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

Addtional Contacts: Kara Donahue

Report produced by

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

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

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

Report Summary

Lab Sample ID(s): S80561.01-S80561.11
Project: 30267725.0470A / RACER Lansing GWS
Collected Date(s): 10/28/2025
Submitted Date/Time: 10/29/2025 08:15
Sampled by: Emma Giem / Karly Wogenstahl
P.O. #: US3460027590

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (11 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80561.01	MW-14-57_102825	Groundwater	10/28/25 11:35
S80561.02	MW-22-153_102825	Groundwater	10/28/25 13:25
S80561.03	MW-22-155_102825	Groundwater	10/28/25 14:25
S80561.04	MW-22-156_102825	Groundwater	10/28/25 12:40
S80561.05	DUP-01_102825	Groundwater	10/28/25 00:01
S80561.06	MW-19-120_102825	Groundwater	10/28/25 15:35
S80561.07	MW-22-157_102825	Groundwater	10/28/25 11:45
S80561.08	MW-23-163_102825	Groundwater	10/28/25 13:15
S80561.09	MW-23-161_102825	Groundwater	10/28/25 14:25
S80561.10	MW-23-162_102825	Groundwater	10/28/25 15:10
S80561.11	Trip Blank	Groundwater	10/28/25 00:01

Analytical Laboratory Report

Lab Sample ID: S80561.01
Sample Tag: MW-14-57_102825
Collected Date/Time: 10/28/2025 11:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 22:23, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.02
Sample Tag: MW-22-153_102825
Collected Date/Time: 10/28/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 22:48, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	16	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:10, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.02 (continued)
Sample Tag: MW-22-153_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:10, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80561.03
Sample Tag: MW-22-155_102825
Collected Date/Time: 10/28/2025 14:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 23:13, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	79	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.04
Sample Tag: MW-22-156_102825
Collected Date/Time: 10/28/2025 12:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 23:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	126	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 10/31/25 06:34, #2: 10/31/25 22:27, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	Not detected	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	Not detected	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	10	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	180	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S80561.04 (continued)
Sample Tag: MW-22-156_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 10/31/25 06:34, #2: 10/31/25 22:27, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S80561.05
Sample Tag: DUP-01_102825
Collected Date/Time: 10/28/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 00:04, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	19	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:57, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.05 (continued)
Sample Tag: DUP-01_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:57, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.06
Sample Tag: MW-19-120_102825
Collected Date/Time: 10/28/2025 15:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 19:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:21, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.06 (continued)
Sample Tag: MW-19-120_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:21, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.07
Sample Tag: MW-22-157_102825
Collected Date/Time: 10/28/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 21:57, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	65	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:45, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.07 (continued)
Sample Tag: MW-22-157_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:45, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.08
Sample Tag: MW-23-163_102825
Collected Date/Time: 10/28/2025 13:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 19:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	9	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.09
Sample Tag: MW-23-161_102825
Collected Date/Time: 10/28/2025 14:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 21:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80561.10
Sample Tag: MW-23-162_102825
Collected Date/Time: 10/28/2025 15:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 20:41, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	27	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.11
Sample Tag: Trip Blank
Collected Date/Time: 10/28/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 02:59, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80561.11 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 02:59, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID: S80561
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A / RACER Lansing GWS
Submitted: 10/29/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.7
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO: | P.O. NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Emma Grelm / Karly Wozenstahl

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH*	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
805610.01	10/28/25	1135	MW-14-57_102825	GW	3		3						X	
.02	10/28/25	1325	MW-22-153_102825	GW	3		3						X	X
.03	10/28/25	1425	MW-22-155_102825	GW	3		3						X	
.04	10/28/25	1240	MW-22-156_102825	GW	3		3						X	X
.05	10/28/25	—	DUP-01_102825	GW	3		3						X	X
.06	10/28/25	1535	MW-19-120_102825	GW	3		3						X	X
.07	10/28/25	1145	MW-22-157_102825	GW	3		3						X	X
.08	10/28/25	1315	MW-23-163_102825	GW	3		3						X	
.09	10/28/25	1425	MW-23-161_102825	GW	3		3						X	
.10	10/28/25	1510	MW-23-162_102825	GW	3		3						X	
.11	10/28/25	—	Trip Blank	GW	1		1							X

RELINQUISHED BY SIGNATURE/ORGANIZATION	Emma Grelm / Arcadis	DATE	TIME
RECEIVED BY SIGNATURE/ORGANIZATION	AnnaLeah Austin Westhuis / Arcadis	10/28/25	1530
RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Prop Box	10/28/25	1536
RECEIVED BY SIGNATURE/ORGANIZATION		10/29/25	0815

RELINQUISHED BY SIGNATURE/ORGANIZATION	AnnaLeah Austin Westhuis / Arcadis	DATE 10/28/25	TIME 835
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/28/25	TIME 835

SEAL NO: | SEAL INTACT YES ☐ NO ☐ | INITIALS:
SEAL NO: | SEAL INTACT YES ☐ NO ☐ | INITIALS:

NOTES: | TEMP ON ARRIVAL: 5.7

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

Rev 5 18 12

Analytical Laboratory Report

Report ID: S80560.01(01)
Generated on 10/31/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80560.01-S80560.08
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 10/28/2025
Submitted Date/Time: 10/29/2025 08:15
Sampled by: Austin Westhuis/DonnieRichmond
P.O. #: US3460027593

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80560.01	TW-15-12_102825	Groundwater	10/28/25 13:10
S80560.02	PW-14-02_102825	Groundwater	10/28/25 14:15
S80560.03	PW-14-01_102825	Groundwater	10/28/25 16:00
S80560.04	TW-14-02_102825	Groundwater	10/28/25 16:50
S80560.05	MW-13-43_102825	Groundwater	10/28/25 11:55
S80560.06	MW-13-45_102825	Groundwater	10/28/25 13:20
S80560.07	MW-16-74_102825	Groundwater	10/28/25 14:50
S80560.08	MW-16-75_102825	Groundwater	10/28/25 16:20

Analytical Laboratory Report

Lab Sample ID: S80560.01
Sample Tag: TW-15-12_102825
Collected Date/Time: 10/28/2025 13:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 16:52, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.02
Sample Tag: PW-14-02_102825
Collected Date/Time: 10/28/2025 14:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 21:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	34	1		ug/L	1	123-91-1	

Lab Sample ID: S80560.03
Sample Tag: PW-14-01_102825
Collected Date/Time: 10/28/2025 16:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 18:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	18	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.04
Sample Tag: TW-14-02_102825
Collected Date/Time: 10/28/2025 16:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 17:43, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	194	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.05
Sample Tag: MW-13-43_102825
Collected Date/Time: 10/28/2025 11:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 19:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.06
Sample Tag: MW-13-45_102825
Collected Date/Time: 10/28/2025 13:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 20:16, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	23	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.07
Sample Tag: MW-16-74_102825
Collected Date/Time: 10/28/2025 14:50
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 18:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	3	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80560.08
Sample Tag: MW-16-75_102825
Collected Date/Time: 10/28/2025 16:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 17:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80560
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 10/29/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.7
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant _____

Merit Laboratories, Inc

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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO: | P.O. NO.: US3460027593
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis, Dianne Richmond

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
805601.01	10/28/25	1310	TW-15-12_102825	GW	3		3						X	
.02	10/28/25	1415	PW-14-02_102825	GW	3		3						X	
.03	10/28/25	1600	PW-14-01_102825	GW	3		3						X	
.04	10/28/25	1650	TW-14-02_102825	GW	3		3						X	
.05	10/28/25	1155	MW-13-43_102825	GW	3		3						X	
.06	10/28/25	1320	MW-13-45_102825	GW	3		3						X	
.07	10/28/25	1450	MW-16-74_102825	GW	3		3						X	
.08	10/28/25	1620	MW-16-75_102825	GW	3		3						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	Sampler: Austin Westhuis	DATE 10/29/25	TIME 1035
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/29/25	TIME 1035
RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/30/25	TIME 0845
RECEIVED BY SIGNATURE/ORGANIZATION	Pat Keen	DATE 10/30/25	TIME 0845

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION — DATE — TIME

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP ON ARRIVAL 5.7

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

Rev 5.16.12

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Tiffany Linder
Arcadis US Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Generated 11/11/2025 1:37:38 AM

JOB DESCRIPTION

Racer Lansing

JOB NUMBER

240-236914-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
11/11/2025 1:37:38 AM

Authorized for release by
Michael DelMonico, Project Manager I
Michael.DelMonico@et.eurofinsus.com
(330)966-9783

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Definitions/Glossary

Client: Arcadis US Inc.
Job ID: 240-236914-1
Project/Site: Racer Lansing

Qualifiers

GC/MS Semi VOA

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

Job Narrative
240-236914-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 11/5/2025 9:15 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 time was 2.7°C.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Method	Method Description	Protocol	Laboratory
522	1,4 Dioxane (GC/MS SIM)	EPA	EET EDI
522	Solid-Phase Extraction (SPE)	EPA	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-236914-1	MW-19-119S_110425	Water	11/04/25 10:25	11/05/25 09:15	Michigan
240-236914-2	MW-19-119D_110425	Water	11/04/25 11:15	11/05/25 09:15	Michigan
240-236914-3	MW-13-28_110425	Water	11/04/25 12:25	11/05/25 09:15	Michigan
240-236914-4	DUP-08_110425	Water	11/04/25 00:00	11/05/25 09:15	Michigan

Detection Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: MW-19-119S_110425 — Lab Sample ID: 240-236914-1

No Detections.

Client Sample ID: MW-19-119D_110425 — Lab Sample ID: 240-236914-2

No Detections.

Client Sample ID: MW-13-28_110425 — Lab Sample ID: 240-236914-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.35		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: DUP-08_110425 — Lab Sample ID: 240-236914-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.28		0.20	0.20	ug/L	1		522	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: MW-19-119S_110425
Date Collected: 11/04/25 10:25
Date Received: 11/05/25 09:15

Lab Sample ID: 240-236914-1
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 11:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*108*		*70 - 130*	*11/07/25 05:20*	*11/09/25 11:48*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: MW-19-119D_110425
Date Collected: 11/04/25 11:15
Date Received: 11/05/25 09:15

Lab Sample ID: 240-236914-2
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*104*		*70 - 130*	*11/07/25 05:20*	*11/09/25 12:04*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: MW-13-28_110425
Date Collected: 11/04/25 12:25
Date Received: 11/05/25 09:15

Lab Sample ID: 240-236914-3
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.35		0.20	0.20	ug/L		11/07/25 05:20	11/09/25 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*102*		*70 - 130*	*11/07/25 05:20*	*11/09/25 12:19*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: DUP-08_110425
Date Collected: 11/04/25 00:00
Date Received: 11/05/25 09:15

Lab Sample ID: 240-236914-4
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.28		0.20	0.20	ug/L		11/07/25 05:20	11/09/25 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*103*		*70 - 130*	*11/07/25 05:20*	*11/09/25 12:50*	*1*

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(70-130)							
240-236914-1	MW-19-119S_110425	108							
240-236914-2	MW-19-119D_110425	104							
240-236914-3	MW-13-28_110425	102							
240-236914-4	DUP-08_110425	103							
240-236914-4 MS	DUP-08_110425	105							
LCS 460-1073202/2-A	Lab Control Sample	98							
LCSD 460-1073202/3-A	Lab Control Sample Dup	99							
MB 460-1073202/1-A	Method Blank	101							

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MB 460-1073202/1-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1073202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 09:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*101*		*70 - 130*	*11/07/25 05:20*	*11/09/25 09:45*	*1*

Lab Sample ID: LCS 460-1073202/2-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1073202

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			20.0	15.5		ug/L		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 460-1073202/3-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1073202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			20.0	15.8		ug/L		79	70 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 240-236914-4 MS
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: DUP-08_110425
Prep Type: Total/NA
Prep Batch: 1073202

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane	0.28		4.00	3.54		ug/L		82	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*105*		*70 - 130*

QC Association Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

GC/MS Semi VOA

Prep Batch: 1073202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236914-1	MW-19-119S_110425	Total/NA	Water	522	
240-236914-2	MW-19-119D_110425	Total/NA	Water	522	
240-236914-3	MW-13-28_110425	Total/NA	Water	522	
240-236914-4	DUP-08_110425	Total/NA	Water	522	
MB 460-1073202/1-A	Method Blank	Total/NA	Water	522	
LCS 460-1073202/2-A	Lab Control Sample	Total/NA	Water	522	
LCSD 460-1073202/3-A	Lab Control Sample Dup	Total/NA	Water	522	
240-236914-4 MS	DUP-08_110425	Total/NA	Water	522	

Analysis Batch: 1073536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236914-1	MW-19-119S_110425	Total/NA	Water	522	1073202
240-236914-2	MW-19-119D_110425	Total/NA	Water	522	1073202
240-236914-3	MW-13-28_110425	Total/NA	Water	522	1073202
240-236914-4	DUP-08_110425	Total/NA	Water	522	1073202
MB 460-1073202/1-A	Method Blank	Total/NA	Water	522	1073202
LCS 460-1073202/2-A	Lab Control Sample	Total/NA	Water	522	1073202
LCSD 460-1073202/3-A	Lab Control Sample Dup	Total/NA	Water	522	1073202
240-236914-4 MS	DUP-08_110425	Total/NA	Water	522	1073202

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Client Sample ID: MW-19-119S_110425

Lab Sample ID: 240-236914-1

Date Collected: 11/04/25 10:25

Matrix: Water

Date Received: 11/05/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 11:48

Client Sample ID: MW-19-119D_110425

Lab Sample ID: 240-236914-2

Date Collected: 11/04/25 11:15

Matrix: Water

Date Received: 11/05/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 12:04

Client Sample ID: MW-13-28_110425

Lab Sample ID: 240-236914-3

Date Collected: 11/04/25 12:25

Matrix: Water

Date Received: 11/05/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 12:19

Client Sample ID: DUP-08_110425

Lab Sample ID: 240-236914-4

Date Collected: 11/04/25 00:00

Matrix: Water

Date Received: 11/05/25 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 12:50

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236914-1

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	09-30-26
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-03-26
Georgia	State	12028 (NJ)	06-30-26
Illinois	NELAP	2000942025-2	04-30-26
Massachusetts	State	M-NJ312	06-30-26
New Jersey	NELAP	12028	06-30-26
New York	NELAP	11452	04-01-26
Pennsylvania	NELAP	68-00522	02-28-26
Rhode Island	State	LAO00376	12-23-25
USDA	US Federal Programs	525-24-149-77606	05-21-27

2.0
2.7

Chain of Custody Record

eurofins | Environment Testing America

Eurofins Canton
180 S. Van Buren Ave

Barberton, OH 44203-3543
phone 330.497.9396 fax 330.497.0772

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager:	Site Contact: Kara Donahue	Date:	COC No:
Arcadis	Email: tiffany.linder@arcadis.com	Lab Contact: Michael DelMonico	Carrier:	1 of 1 COCs
28550 Cabot Drive, Suite 500	Tel/Fax: (810) 225-1928			TALS Project #:
Novi, MI 48377	Analysis Turnaround Time			Sampler:
(810) 225-1928 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
tiffany.linder@arcadis.com, kara.donahue@arcadis.com	TAT if different from Below Standard			Walk-in Client:
Project Name: RACER Lansing/ 30267725.0470A	☐ 2 weeks			Lab Sampling:
4Q Bedrock Well	☐ 1 week			Job / SDG No.:
P O #	☐ 2 days ☐ 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)	622 - 1,4-Dioxane	Sample Specific Notes:
MW-19-1195_110425	11/4/25	1025	G	W	1	N	N	X	
MW-19-119D_110425	11/4/25	1115	G	W	1	N	N	X	
MW-13-28_110425	11/4/25	1225	G	W	1	N	N	X	
[redacted] DUP-08_110425	11/4/25	—	G	W	1	N	N	X	

240-236914 COC

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other NaHSO4

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: Austin Westhuis	Company: Arcadis	Date/Time: 11/4/25	Received by: FedEx	Company: FedEx	Date/Time: 11/4/25
Relinquished by:	Company:	Date/Time:	Received by: Martin	Company: EVL	Date/Time: 11/5/25 915
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :_____
Barberton Facility

Client Arcadis Site Name_____ Cooler unpacked by
Cooler Received on 11/5/25 Opened on 11/5/25 KMartin
FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other_____
Receipt After-hours Drop-off Date/Time_____ Storage Location_____
Eurofins Cooler # EC 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 # 17 (CF +0.7 °C) Observed Cooler Temp 2.0 °C Corrected Cooler Temp 2.7 °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# HC567196
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

Labeled by:
Labels Verified 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 _____

11/5/2025

Login Container Summary Report

240-236914

11/11/2025

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
MW-19 119S_110425	240-236914-A-1	Amber Glass 250 mL NaSO3/NaHSO4				
MW-19-119D 110425	240-236914-A-2	Amber Glass 250 mL - NaSO3/NaHSO4				
MW-13-28_110425	240-236914-A-3	Amber Glass 250 mL - NaSO3/NaHSO4				
DUP-08_110425	240-236914-A-4	Amber Glass 250 mL - NaSO3/NaHSO4				

ORIGIN ID:LANA (248) 994-2240
AUSTIN WESTHUIS
ARCADIS
28550 CABOT DR STE 500
NOVI, MI 48377
UNITED STATES US
SHIP DATE: 04NOV25
ACTWGT: 20.35 LB
CAD: 6570264/ROSA2670
DIMS: 13x10x11 IN
BILL THIRD PARTY
TO EUROFINS CLEVELAND
180 S VAN BUREN AVE
BARBERTON OH 44203
(330) 497-9396
REF:
INV:
PO: 30267725.0470A
DEPT:
Part # 165897-435 RRD22 EXP 09/26
FedEx
Express
TRK# 0201 8857 5368 8719
WED - 05 NOV 10:30
PRIORITY OVERNIGHT
AHS
44203
OH-US CLE
NP CAKA

240-236914 Waybill

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: DelMonico, Michael	Carrier Tracking No(s): N/A	COC No: 240-210541 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Michael.DelMonico@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast L		Accreditations Required (See note): N/A		Job #: 240-236914-1
Address: 777 New Durham Road,	Due Date Requested: 11/20/2025			Preservation Codes:
City: Edison	TAT Requested (days): N/A			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Racer Lansing B0064480.2016.00603	Project #: 24017406			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	622/622_CWA_Prep1,4 Dioxane by 622	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-19-119S_110425 (240-236914-1)	11/4/25	10:25 Eastern	G	Water			X	1	
MW-19-119D_110425 (240-236914-2)	11/4/25	11 15 Eastern	G	Water			X	1	
MW-13-28_110425 (240-236914-3)	11/4/25	12:25 Eastern	G	Water			X	1	
DUP-08_110425 (240-236914-4)	11/4/25	Eastern	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fedex

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
JM	11/5/25 1530	ET	Black	11/6/25 10:50	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	*Date/Time:*	*Company*	*Received by:*	*Date/Time:*	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver 10/10/2024

IR-9 14-09

11/11/2025

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 240-236914-1

Login Number: 236914
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 11/06/25 12:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4/0.9°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

PREPARED FOR

Attn: Tiffany Linder
Arcadis US Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Generated 11/11/2025 1:37:38 AM

JOB DESCRIPTION

Racer Lansing

JOB NUMBER

240-236662-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Definitions/Glossary

Client: Arcadis US Inc.
Job ID: 240-236662-1
Project/Site: Racer Lansing

Qualifiers

GC/MS Semi VOA

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

Job Narrative
240-236662-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 10/31/2025 9:50 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 time was 2.0°C.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Method	Method Description	Protocol	Laboratory
522	1,4 Dioxane (GC/MS SIM)	EPA	EET EDI
522	Solid-Phase Extraction (SPE)	EPA	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
240-236662-1	MW-12-05R_103025	Water	10/30/25 11:20	10/31/25 09:50	Michigan
240-236662-2	MW-12-06_103025	Water	10/30/25 13:05	10/31/25 09:50	Michigan
240-236662-3	MW-13-44_103025	Water	10/30/25 14:35	10/31/25 09:50	Michigan
240-236662-4	MW-17-87_103025	Water	10/30/25 16:05	10/31/25 09:50	Michigan
240-236662-5	MW-19-118D_103025	Water	10/30/25 12:50	10/31/25 09:50	Michigan
240-236662-6	MW-19-118S_103025	Water	10/30/25 13:45	10/31/25 09:50	Michigan
240-236662-7	MW-19-125_103025	Water	10/30/25 14:55	10/31/25 09:50	Michigan

Detection Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-12-05R_103025 — Lab Sample ID: 240-236662-1

No Detections.

Client Sample ID: MW-12-06_103025 — Lab Sample ID: 240-236662-2

No Detections.

Client Sample ID: MW-13-44_103025 — Lab Sample ID: 240-236662-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	6.7		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: MW-17-87_103025 — Lab Sample ID: 240-236662-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.8		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: MW-19-118D_103025 — Lab Sample ID: 240-236662-5

No Detections.

Client Sample ID: MW-19-118S_103025 — Lab Sample ID: 240-236662-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	5.7		0.20	0.20	ug/L	1		522	Total/NA

Client Sample ID: MW-19-125_103025 — Lab Sample ID: 240-236662-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-12-05R_103025
Date Collected: 10/30/25 11:20
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-1
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 10:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*91*		*70 - 130*	*11/07/25 05:20*	*11/09/25 10:01*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-12-06_103025
Date Collected: 10/30/25 13:05
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-2
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 10:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*107*		*70 - 130*	*11/07/25 05:20*	*11/09/25 10:16*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-13-44_103025
Date Collected: 10/30/25 14:35
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-3
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	6.7		0.20	0.20	ug/L		11/07/25 05:20	11/09/25 10:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*98*		*70 - 130*	*11/07/25 05:20*	*11/09/25 10:31*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-17-87_103025
Date Collected: 10/30/25 16:05
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-4
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.8		0.20	0.20	ug/L		11/07/25 05:20	11/09/25 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*99*		*70 - 130*	*11/07/25 05:20*	*11/09/25 10:47*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-19-118D_103025
Date Collected: 10/30/25 12:50
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-5
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*98*		*70 - 130*	*11/07/25 05:20*	*11/09/25 11:02*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-19-118S_103025
Date Collected: 10/30/25 13:45
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-6
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	5.7		0.20	0.20	ug/L		11/07/25 05:20	11/09/25 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*109*		*70 - 130*	*11/07/25 05:20*	*11/09/25 11:18*	*1*

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-19-125_103025
Date Collected: 10/30/25 14:55
Date Received: 10/31/25 09:50

Lab Sample ID: 240-236662-7
Matrix: Water

Method: EPA 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*110*		*70 - 130*	*11/07/25 05:20*	*11/09/25 11:33*	*1*

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		DXE							
Lab Sample ID	Client Sample ID	(70-130)							
240-236662-1	MW-12-05R_103025	91							
240-236662-2	MW-12-06_103025	107							
240-236662-3	MW-13-44_103025	98							
240-236662-4	MW-17-87_103025	99							
240-236662-5	MW-19-118D_103025	98							
240-236662-6	MW-19-118S_103025	109							
240-236662-7	MW-19-125_103025	110							
LCS 460-1073202/2-A	Lab Control Sample	98							
LCSD 460-1073202/3-A	Lab Control Sample Dup	99							
MB 460-1073202/1-A	Method Blank	101							

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MB 460-1073202/1-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 1073202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.20	U	0.20	0.20	ug/L		11/07/25 05:20	11/09/25 09:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*101*		*70 - 130*	*11/07/25 05:20*	*11/09/25 09:45*	*1*

Lab Sample ID: LCS 460-1073202/2-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 1073202

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane			20.0	15.5		ug/L		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 460-1073202/3-A
Matrix: Water
Analysis Batch: 1073536

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 1073202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane			20.0	15.8		ug/L		79	70 - 130	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*99*		*70 - 130*

QC Association Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

GC/MS Semi VOA

Prep Batch: 1073202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236662-1	MW-12-05R_103025	Total/NA	Water	522	
240-236662-2	MW-12-06_103025	Total/NA	Water	522	
240-236662-3	MW-13-44_103025	Total/NA	Water	522	
240-236662-4	MW-17-87_103025	Total/NA	Water	522	
240-236662-5	MW-19-118D_103025	Total/NA	Water	522	
240-236662-6	MW-19-118S_103025	Total/NA	Water	522	
240-236662-7	MW-19-125_103025	Total/NA	Water	522	
MB 460-1073202/1-A	Method Blank	Total/NA	Water	522	
LCS 460-1073202/2-A	Lab Control Sample	Total/NA	Water	522	
LCSD 460-1073202/3-A	Lab Control Sample Dup	Total/NA	Water	522	

Analysis Batch: 1073536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-236662-1	MW-12-05R_103025	Total/NA	Water	522	1073202
240-236662-2	MW-12-06_103025	Total/NA	Water	522	1073202
240-236662-3	MW-13-44_103025	Total/NA	Water	522	1073202
240-236662-4	MW-17-87_103025	Total/NA	Water	522	1073202
240-236662-5	MW-19-118D_103025	Total/NA	Water	522	1073202
240-236662-6	MW-19-118S_103025	Total/NA	Water	522	1073202
240-236662-7	MW-19-125_103025	Total/NA	Water	522	1073202
MB 460-1073202/1-A	Method Blank	Total/NA	Water	522	1073202
LCS 460-1073202/2-A	Lab Control Sample	Total/NA	Water	522	1073202
LCSD 460-1073202/3-A	Lab Control Sample Dup	Total/NA	Water	522	1073202

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Client Sample ID: MW-12-05R_103025
Lab Sample ID: 240-236662-1
Date Collected: 10/30/25 11:20
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 10:01

Client Sample ID: MW-12-06_103025
Lab Sample ID: 240-236662-2
Date Collected: 10/30/25 13:05
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 10:16

Client Sample ID: MW-13-44_103025
Lab Sample ID: 240-236662-3
Date Collected: 10/30/25 14:35
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 10:31

Client Sample ID: MW-17-87_103025
Lab Sample ID: 240-236662-4
Date Collected: 10/30/25 16:05
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 10:47

Client Sample ID: MW-19-118D_103025
Lab Sample ID: 240-236662-5
Date Collected: 10/30/25 12:50
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 11:02

Client Sample ID: MW-19-118S_103025
Lab Sample ID: 240-236662-6
Date Collected: 10/30/25 13:45
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 11:18

Lab Chronicle

Client: Arcadis US Inc.
Job ID: 240-236662-1
Project/Site: Racer Lansing

Client Sample ID: MW-19-125_103025
Lab Sample ID: 240-236662-7
Date Collected: 10/30/25 14:55
Matrix: Water
Date Received: 10/31/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	522			1073202	AXB	EET EDI	11/07/25 05:20
Total/NA	Analysis	522		1	1073536	YAH	EET EDI	11/09/25 11:33

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: Racer Lansing

Job ID: 240-236662-1

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	09-30-26
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-03-26
Georgia	State	12028 (NJ)	06-30-26
Illinois	NELAP	2000942025-2	04-30-26
Massachusetts	State	M-NJ312	06-30-26
New Jersey	NELAP	12028	06-30-26
New York	NELAP	11452	04-01-26
Pennsylvania	NELAP	68-00522	02-28-26
Rhode Island	State	LAO00376	12-23-25
USDA	US Federal Programs	525-24-149-77606	05-21-27

Eurofins Canton
180 S. Van Buren Ave

Barberton, OH 44203-3543
phone 330.497.9396 fax 330.497.0772

1.4|2.0

Chain of Custody Record

eurofins | Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact	Project Manager:	Site Contact: Kara Donahue	Date:	COC No:
Arcadis	Email: tiffany.linder@arcadis.com	Lab Contact: Michael DelMonico	Carrier:	1 of 1 COCs
28550 Cabot Drive, Suite 500	Tel/Fax: (810) 225-1928			TALS Project #:
Novi, MI 48377	Analysis Turnaround Time			Sampler:
(810) 225-1928 Phone	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
tiffany.linder@arcadis.com, kara.donahue@arcadis.com	TAT if different from Below Standard			Walk-in Client:
Project Name: RACER Lansing/ 30267725.0470A	☐ 2 weeks			Lab Sampling:
4Q Bedrock Well	☐ 1 week			Job / SDG No.:
P O #	☐ 2 days ☐ 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)	522 - 1,4-Dioxane	Sample Specific Notes:
MW-12-05R_103025	10/30/25	1120	G	W	1	N	N	X	
MW-12-06_103025	10/30/25	1305	G	W	1	N	N	X	
MW-13-44_103025	10/30/25	1435	G	W	1	N	N	X	
MW-17-87_103025	10/30/25	1605	G	W	1	N	N	X	
MW-19-118D_103025	10/30/25	1250	G	W	1	N	N	X	
MW-19-118S_103025	10/30/25	1345	G	W	1	N	N	X	
MW-19-125_103025	10/30/25	1455	G	W	1	N	N	X	

240-236662 COC

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: Arcadis	Date/Time: 10/30/25	Received by: FedEx	Company: FedEx	Date/Time: 10/30/25
Relinquished by:	Company:	Date/Time:	Received by: KMartin	Company: EUL	Date/Time: 10/31/25 950
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # ._____
Barberton Facility

Client Arcadis Site Name (w) Cooler unpacked by: JMartin

Cooler Received on 10/31/25 Opened on to 11/1/25

FedEx. 1st Grd (Exp) UPS FAS Waypoint Client Drop Off Eurofins Courier Other_____

Receipt After-hours Drop-off Date/Time_____ Storage Location_____

Eurofins Cooler # EC 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 # 13 (CF +0.6 °C) Observed Cooler Temp 1.4 °C Corrected Cooler Temp 2.0 °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# HC567196
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

Labeled by

Labels Verified by:

Sample ID'd MW-19-1180-103025 has a label that reads MW-19-1185-103025 but timeldate match MW-19-1180-103025, logging sample with this ID

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 _____

11/1/2025

Login Container Summary Report

240-236662

11/11/2025

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
MW-12-05R_103025	240-236662-A-1	Amber Glass 250 mL - NaSO3/NaHSO4				
MW-12-06_103025	240-236662-A-2	Amber Glass 250 mL - NaSO3/NaHSO4				
MW-13-44_103025	240-236662-A-3	Amber Glass 250 mL - NaSO3/NaHSO4				
MW-17 87_103025	240-236662-A-4	Amber Glass 250 mL - NaSO3/NaHSO4				
MW-19-118D_103025	240-236662-A-5	Amber Glass 250 mL - NaSO3/NaHSO4				
MW 19-118S_103025	240-236662-A-6	Amber Glass 250 mL - NaSO3/NaHSO4				
MW 19-125_103025	240-236662-A-7	Amber Glass 250 mL - NaSO3/NaHSO4				

ORIGIN ID:GRRA (248) 994-2240
AUSTIN WESTHUIS
ARCADIS
28550 CABOT DR STE 500
NOVI, MI 48377
UNITED STATES US

SHIP DATE: 30OCT25
ACTWGT: 33.75 LB
CAD: 6994185/SSFE2621
DIMS: 24x14x14 IN
BILL THIRD PARTY

TO EUROFINS CLEVELAND
180 S. VANBUREN AVE
BARBERTON OH 44203
(330) 497-9396
INV:
PO:
REF:
DEPT:

58HJ2/501C/59F2

FedEx Express

J254025092401uv

240-236662 Waybill

TRK# 0201 3948 3186 8192

FRI - 31 OCT 10:30A
PRIORITY OVERNIGHT
AHS
44203
OH-US CLE

NP CAKA

Part # 156297-435 RRDW2 EXP 02/26

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: DelMonico, Michael	Carrier Tracking No(s): N/A	COC No: 240-210412.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Michael.DelMonico@et.eurofinsus.com	State of Origin: Michigan	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast L		Accreditations Required (See note): N/A		Job #: 240-236662-1
Address: 777 New Durham Road	Due Date Requested: 11/12/2025			
City: Edison	TAT Requested (days): N/A			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Racer Lansing	Project #: 24017406			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	522/522_CWA_Prep1,4 Dioxane by 522	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-12-05R_103025 (240-236662-1)	10/30/25	11:20 Eastern	G	Water			X	1	
MW-12-06_103025 (240-236662-2)	10/30/25	13:05 Eastern	G	Water			X	1	
MW-13-44_103025 (240-236662-3)	10/30/25	14:35 Eastern	G	Water			X	1	
MW-17-87_103025 (240-236662-4)	10/30/25	16:05 Eastern	G	Water			X	1	
MW-19-118D_103025 (240-236662-5)	10/30/25	12:50 Eastern	G	Water			X	1	
MW-19-118S_103025 (240-236662-6)	10/30/25	13:45 Eastern	G	Water			X	1	
MW-19-125_103025 (240-236662-7)	10/30/25	14:55 Eastern	G	Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Fedex

Relinquished by:	Date/Time: 11/3/25 1500	Company ET	Received by: BRock	Date/Time: 11/4/25 1050	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

IR9 1-5-1-0

Ver: 10/10/2024

11/11/2025

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 240-236662-1

Login Number: 236662
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 11/04/25 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5/1.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

November 19, 2025

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Date Received: **11/07/2025**
Work Order: **HN2516771**

Re: **RACER PFAS Analysis**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda
/S/ KATHY JONES-GRONDA

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2516771
Project: RACER PFAS Analysis **Date Received:** 07-Nov-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

29 groundwater samples were received for analysis at ALS Environmental on 07-Nov-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Run ID: 3687857

HN2516771-005: 13C4-PFBA - Surrogate high due to matrix interference.

HN2516771-006: 13C4-PFBA - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Run ID: 3687875

HN2516771-020: 13C2-FtS 4:2 and 13C2-FtS 6:2 - Surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516771-023: 13C4-PFOA and 13C2-FtS 6:2 - Surrogate recoveries were below the lower control limits. The sample results may be biased low.
HN2516771-023: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516771-024: 13C4-PFOA and 13C2-FtS 6:2 - Surrogate recoveries were below the lower control limits. The sample results may be biased low.
HN2516771-024: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516771-026: 13C2-FtS 4:2, 13C2-FtS 6:2 and 13C2-FtS 8:2 - Surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516771-027: 13C2-FtS 4:2, 13C2-FtS 6:2 and 13C2-FtS 8:2 - Surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Run ID: 3692878

HN2516771-028: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-23_110525 — **Lab ID: HN2516771-001**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	5.81		0.881	4.59	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	2.36		0.887	1.85	ng/L	EPA 537Mod

CLIENT ID: MW-18-97_110525 — **Lab ID: HN2516771-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	2.87	J	0.887	4.61	ng/L	EPA 537Mod

CLIENT ID: MW-91-2R_110525 — **Lab ID: HN2516771-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	0.428	J	0.356	4.48	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	5.79		2.63	5.06	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	1.79	J	1.30	5.06	ng/L	EPA 537Mod

CLIENT ID: MW-18-101_110525 — **Lab ID: HN2516771-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	4.01	J	2.76	5.31	ng/L	EPA 537Mod

CLIENT ID: MW-18-94_110525 — **Lab ID: HN2516771-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	7.16		2.63	5.07	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	1.31	J	1.30	5.07	ng/L	EPA 537Mod

CLIENT ID: MW-02-04(3)_110525 — **Lab ID: HN2516771-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	28.4		0.866	4.50	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.01	J	0.343	4.32	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.00		2.54	4.89	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	5.20		1.17	4.89	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	7.40		1.25	4.89	ng/L	EPA 537Mod

CLIENT ID: MW-19-111_110525 — **Lab ID: HN2516771-010**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	54.2		0.869	4.52	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.26	J	0.344	4.33	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.01	J	0.885	4.46	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.01	J	0.875	1.82	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	4.89		0.618	1.96	ng/L	EPA 537Mod

CLIENT ID: MW-19-114_110525 — **Lab ID: HN2516771-011**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	10.4		0.966	5.03	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-19-114_110525			Lab ID: HN2516771-011			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	0.998	J	0.383	4.82	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	4.14	J	2.84	5.45	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	4.72		0.973	2.02	ng/L	EPA 537Mod

CLIENT ID: MW-18-105_110525			Lab ID: HN2516771-012			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	45.5		0.915	4.76	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	4.44	J	0.362	4.56	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.47	J	0.933	4.70	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.91		0.921	1.92	ng/L	EPA 537Mod

CLIENT ID: MW-18-104_110525			Lab ID: HN2516771-013			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	34.5		0.934	4.86	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.466	J	0.370	4.66	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.32		0.940	1.96	ng/L	EPA 537Mod

CLIENT ID: MW-18-103_110525			Lab ID: HN2516771-014			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	35.4		0.926	4.82	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	12.5		0.367	4.62	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.70		2.72	5.22	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	181		0.944	4.75	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	8.25		0.932	1.94	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.699	J	0.658	2.09	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	11.9		0.581	4.90	ng/L	EPA 537Mod

CLIENT ID: MW-18-102_110525			Lab ID: HN2516771-015			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	0.753	J	0.486	4.90	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	1.05	J	0.923	4.80	ng/L	EPA 537Mod
Perfluorododecanoic acid (PFDOA)	0.916	J	0.720	5.21	ng/L	EPA 537Mod

CLIENT ID: DUP-05			Lab ID: HN2516771-016			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	9.10		0.892	4.64	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.837	J	0.353	4.45	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	4.24	J	2.62	5.03	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	5.23		0.898	1.87	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-19-108_110525			Lab ID: HN2516771-018			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	30.7		0.867	4.51	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	3.03	J	0.343	4.32	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.01	J	0.883	4.45	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	2.03		0.873	1.82	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	1.93	J	0.616	1.96	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.545	J	0.544	4.59	ng/L	EPA 537Mod

CLIENT ID: MW-18-92_110525			Lab ID: HN2516771-019			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	5.29		0.861	4.48	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.541	J	0.341	4.30	ng/L	EPA 537Mod

CLIENT ID: MW-18-89_110525			Lab ID: HN2516771-020			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	209		0.875	4.56	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.813	J	0.347	4.37	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.82		2.57	4.94	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	2.80	J	0.559	4.70	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.87	J	1.71	4.94	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	4.96		0.892	4.50	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	4.44	J	1.19	4.94	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.17	J	0.860	4.94	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	133		0.881	1.83	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	13.3		0.623	1.98	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.781	J	0.549	4.63	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	4.70	J	1.26	4.94	ng/L	EPA 537Mod

CLIENT ID: CH-14-RO_110625			Lab ID: HN2516771-023			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	58500		171	888	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	58.2		0.338	4.25	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	16.3		2.50	4.81	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	76.5		0.545	4.58	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	12.5		1.67	4.81	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	922		8.69	43.8	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	27.0		1.16	4.81	ng/L	EPA 537Mod
Perfluorononane sulfonic acid (PFNS)	1.62	J	0.477	4.62	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	9560		34.3	71.5	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	81.9		0.606	1.93	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	228		0.535	4.51	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: CH-14-RO_110625			Lab ID: HN2516771-023			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoropentanoic acid (PFPeA)	16.8		1.23	4.81	ng/L	EPA 537Mod

CLIENT ID: DUP-04_110625			Lab ID: HN2516771-024			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	60900		170	885	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	56.5		0.337	4.24	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	16.5		2.50	4.80	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	77.3		0.543	4.57	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	12.0		1.66	4.80	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	893		8.67	43.7	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	25.6		1.15	4.80	ng/L	EPA 537Mod
Perfluorononane sulfonic acid (PFNS)	1.23	J	0.476	4.61	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	9320		34.3	71.3	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	79.0		0.605	1.92	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	229		0.534	4.50	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	16.2		1.23	4.80	ng/L	EPA 537Mod

CLIENT ID: MW-19-107_110625			Lab ID: HN2516771-025			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	12.7		0.850	4.42	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.35	J	0.337	4.24	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	4.72		0.866	4.37	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	2.00		0.856	1.78	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.715	J	0.605	1.92	ng/L	EPA 537Mod

CLIENT ID: MW-18-91_110625			Lab ID: HN2516771-026			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	28.4		0.902	4.69	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.886	J	0.357	4.50	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.34		2.65	5.09	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.762	J	0.576	4.85	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.73	J	0.919	4.63	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	1.67	J	1.22	5.09	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	1.34	J	0.724	5.09	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	41.4		0.908	1.89	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	5.14		0.641	2.04	ng/L	EPA 537Mod

CLIENT ID: MW-18-90_110625			Lab ID: HN2516771-027			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	764		4.53	23.5	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-18-90_110625			Lab ID: HN2516771-027			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	3.05	J	0.359	4.52	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	9.25		2.66	5.11	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	2.05	J	1.27	5.11	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	16.5		0.578	4.86	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.46	J	1.77	5.11	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	14.2		0.923	4.65	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	4.19	J	1.23	5.11	ng/L	EPA 537Mod
Perfluorononane sulfonic acid (PFNS)	2.07	J	0.507	4.90	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	1.37	J	0.726	5.11	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	966		4.56	9.48	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	13.9		0.644	2.04	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.70	J	0.568	4.79	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.20	J	1.31	5.11	ng/L	EPA 537Mod

CLIENT ID: MW-18-88_110625			Lab ID: HN2516771-028			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	312		0.926	4.82	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.02	J	0.367	4.62	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.17		2.72	5.23	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	3.35	J	0.592	4.98	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	5.97		0.944	4.76	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	337		0.933	1.94	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	9.27		0.659	2.09	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.639	J	0.581	4.90	ng/L	EPA 537Mod

CLIENT ID: MW-18-95_110625			Lab ID: HN2516771-029			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	37.1		0.936	4.87	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.80	J	0.371	4.67	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	10.5		2.75	5.28	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.818	J	0.598	5.03	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.64	J	0.954	4.81	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.35	J	0.919	5.28	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	38.6		0.942	1.96	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	3.60		0.665	2.11	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Workorder: HN2516771

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516771-001	MW-23_110525	GROUNDWATER	11/05/25 10:50	11/07/25 08:30
HN2516771-002	MW-18-97_110525	GROUNDWATER	11/05/25 12:20	11/07/25 08:30
HN2516771-003	MW-91-2R_110525	GROUNDWATER	11/05/25 14:15	11/07/25 08:30
HN2516771-004	MW-18-101_110525	GROUNDWATER	11/05/25 15:35	11/07/25 08:30
HN2516771-005	MW-18-94_110525	GROUNDWATER	11/05/25 13:10	11/07/25 08:30
HN2516771-006	MW-18-93_110525	GROUNDWATER	11/05/25 14:30	11/07/25 08:30
HN2516771-007	DUP-07_110525	GROUNDWATER	11/05/25	11/07/25 08:30
HN2516771-008	EB-08_110525	GROUNDWATER	11/05/25 16:15	11/07/25 08:30
HN2516771-009	MW-02-04(3)_110525	GROUNDWATER	11/05/25 16:15	11/07/25 08:30
HN2516771-010	MW-19-111_110525	GROUNDWATER	11/05/25 10:36	11/07/25 08:30
HN2516771-011	MW-19-114_110525	GROUNDWATER	11/05/25 10:15	11/07/25 08:30
HN2516771-012	MW-18-105_110525	GROUNDWATER	11/05/25 11:00	11/07/25 08:30
HN2516771-013	MW-18-104_110525	GROUNDWATER	11/05/25 11:48	11/07/25 08:30
HN2516771-014	MW-18-103_110525	GROUNDWATER	11/05/25 12:26	11/07/25 08:30
HN2516771-015	MW-18-102_110525	GROUNDWATER	11/05/25 13:28	11/07/25 08:30
HN2516771-016	DUP-05	GROUNDWATER	11/05/25	11/07/25 08:30
HN2516771-017	EB-06_110525	GROUNDWATER	11/05/25 13:40	11/07/25 08:30
HN2516771-018	MW-19-108_110525	GROUNDWATER	11/05/25 12:28	11/07/25 08:30
HN2516771-019	MW-18-92_110525	GROUNDWATER	11/05/25 14:34	11/07/25 08:30
HN2516771-020	MW-18-89_110525	GROUNDWATER	11/05/25 16:23	11/07/25 08:30
HN2516771-021	EB-05_110525	GROUNDWATER	11/05/25 12:47	11/07/25 08:30
HN2516771-022	EB-07_110525	GROUNDWATER	11/05/25 10:05	11/07/25 08:30
HN2516771-023	CH-14-RO_110625	GROUNDWATER	11/06/25 09:50	11/07/25 08:30
HN2516771-024	DUP-04_110625	GROUNDWATER	11/06/25	11/07/25 08:30
HN2516771-025	MW-19-107_110625	GROUNDWATER	11/06/25 10:05	11/07/25 08:30
HN2516771-026	MW-18-91_110625	GROUNDWATER	11/06/25 09:50	11/07/25 08:30
HN2516771-027	MW-18-90_110625	GROUNDWATER	11/06/25 10:40	11/07/25 08:30
HN2516771-028	MW-18-88_110625	GROUNDWATER	11/06/25 11:15	11/07/25 08:30
HN2516771-029	MW-18-95_110625	GROUNDWATER	11/06/25 11:39	11/07/25 08:30

Chain of Custody Form

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ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 3

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US346002758 8	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

Environmental Division
Holland
Work Order Reference
HN2516771

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G
1	MW-23_110525	11/5/25	1050	GW	None	3	X						
2	MW-18-97_110525	11/5/25	1220	GW	None	3	X						
3	MW-91-2R_110525	11/5/25	1415	GW	None	3	X						
4	MW-18-101_110525	11/5/25	1535	GW	None	3	X						
5	MW-18-94_110525	11/5/25	1310	GW	None	3	X						
6	MW-18-93_110525	11/5/25	1430	GW	None	3	X						
7	DUP-07_110525	11/5/25	———	GW	None	3	X						
8	EB-08_110525	11/5/25	1615	GW	None	3	X						
9	MW-02-04(3)_110525	11/5/25	1615	GW	None	3	X						
10	MW-19-111_110525	11/5/25	1036	GW	None	3	X						

Sampler(s): Please Print & Sign
Austin Westhuis/Arcadis

Shipment Method:

Turnaround Time: (Business Days)
☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Arcadis	11/7/25			11/7/25	7:40	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
	11/7/25	8:30		11/7/25	0830	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			

Cooler Temp °C	pH Verified	QC Package: (Check Box Below)	
4		☑ Level II: Standard QC	☐ Level III: Raw Data
1R7		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Environmental
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(Fax) 616.399.6185

Plant 3

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com; Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-19-114_110525	11-5-25	1015	GW		3	X										
2	MW-18-105_110525		1100			3	X										
3	MW-18-104_110525		1148			3	X										
4	MW-18-103_110525		1226			3	X										
5	MW-18-102_110525		1328			3	X										
6	Dup-05	11-5-25	—			3	X										
7	EB-06_110525	11-5-25	1340			3	X										
8	MW-19-108_110525	11/5/25	1228	GW		3	X										
9	MW-18-92_110525 MS/MSD	11/5/25	1434	GW		9	X										
10	MW-18-89_110525	11/5/25	1623	GW		3	X										

Sampler(s): Please Print & Sign: Karly Wogenstahl / Karly Wogenstahl

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Karly Wogenstahl / Arcadis	11-5-25	1350	Arcadis	11/5/25	1350	
Relinquished by: Arcadis	11/7/25		Received by (Laboratory):	11/7/25	7:40	
Logged by (Laboratory): RELINQUISHED BY:	11/7/25	8:30	Checked by (Laboratory):			

Cooler Temp °C: 4.1 RT

pH Verified:

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 3

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com, Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	EB-05_110525	11/5/25	1247	GW		3	X										
2	EB-07_110525	11/5/25	1005	GW		3	X										
3	CH-14-RO_110625	11/6/25	0950	GW		3	X										
4	DUP-04_110625	11/6/25	—	GW		3	X										
5	MW-19-107_110625	11/6/25	1005	GW		3	X										
6	MW-18-91_110625	11/6/25	0950	GW		3	X										
7	MW-18-90_110625	11/6/25	1040	GW		3	X										
8	MW-18-88_110625	11/6/25	1115	GW		3	X										
9	MW-18-95_110625	11/6/25	1139	GW		3	X										
10																	

Sampler(s): Please Print & Sign: Austin Upsthur Sjoerdsma, Nick Battjes, Donnie Richmond, Kerly Wozenstahl

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
				11/7/25	7:40	
Relinquished by:	Date: 11/7/25	Time: 8:30	Received by (Laboratory):	Date: 11/7/25	Time: 0830	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			

Cooler Temp °C: 4.6, 1.7 | pH Verified:

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by:	MK
Date/Time:	11/7/25 0830
Carrier Name:	ALS
Shipping container/cooler in good condition?	Yes / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / Not Present
Custody seals intact on sample bottles?	Yes / No / Not Present
Chain of Custody present?	Yes / No
COC signed when relinquished and received?	Yes / No
COC agrees with sample labels?	Yes / No
Samples in proper container/bottle?	Yes / No
Sample containers intact?	Yes / No
Sufficient sample volume for indicated test?	Yes / No
All samples received within holding time?	Yes / No
Container/Temp Blank temperature in compliance?	Yes / No
Temperature(s) (°C):	4/4/4.6
Thermometer(s):	IR7
Sample(s) received on ice?	Yes / No
Matrix/Matrices:	W
Cooler(s)/Kit(s):	
Date/Time sample(s) sent to storage:	
Water – VOA vials have zero headspace?	Yes / No / No Vials
Water – pH acceptable upon receipt?	Yes / No / N/A
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / N/A
pH adjusted by:	

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: MW-23_110525
Laboratory Code: HN2516771-001
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

Sample Name: MW-18-97_110525
Laboratory Code: HN2516771-002
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

Sample Name: MW-91-2R_110525
Laboratory Code: HN2516771-003
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf
EPA 537Mod	EPA 537Mod	003-AA	2330370	Clayton Rzepka	3693422	Emily Schaaf

Sample Name: MW-18-101_110525
Laboratory Code: HN2516771-004
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	004-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: MW-18-94_110525
Laboratory Code: HN2516771-005
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	005-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

Sample Name: MW-18-93_110525
Laboratory Code: HN2516771-006
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	006-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

Sample Name: DUP-07_110525
Laboratory Code: HN2516771-007
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	007-AA	2330370	Clayton Rzepka	3687857	Emily Schaaf

Sample Name: EB-08_110525
Laboratory Code: HN2516771-008
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	008-AA	2331185	Gabe	3687875	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: MW-02-04(3)_110525
Laboratory Code: HN2516771-009
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	009-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-19-111_110525
Laboratory Code: HN2516771-010
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	010-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-19-114_110525
Laboratory Code: HN2516771-011
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	011-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-105_110525
Laboratory Code: HN2516771-012
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	012-AA	2331185	Gabe	3687875	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: MW-18-104_110525
Laboratory Code: HN2516771-013
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	013-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-103_110525
Laboratory Code: HN2516771-014
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	014-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-102_110525
Laboratory Code: HN2516771-015
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	015-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: DUP-05
Laboratory Code: HN2516771-016
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	016-AA	2331185	Gabe	3687875	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: EB-06_110525
Laboratory Code: HN2516771-017
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	017-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-19-108_110525
Laboratory Code: HN2516771-018
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	018-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-92_110525
Laboratory Code: HN2516771-019
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	019-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-89_110525
Laboratory Code: HN2516771-020
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	020-AA	2331185	Gabe	3687875	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: EB-05_110525
Laboratory Code: HN2516771-021
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	021-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: EB-07_110525
Laboratory Code: HN2516771-022
Sample Matrix: GROUNDWATER
Date Collected: 11/05/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	022-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: CH-14-RO_110625
Laboratory Code: HN2516771-023
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	023-AA	2331185	Gabe	3687875	Emily Schaaf
EPA 537Mod	EPA 537Mod	023-AA	2331185	Gabe	3692929	Emily Schaaf
EPA 537Mod	EPA 537Mod	023-AA	2331185	Gabe	3695751	Emily Schaaf
EPA 537Mod	EPA 537Mod	023-AA	2331185	Gabe	3693549	Emily Schaaf

Sample Name: DUP-04_110625
Laboratory Code: HN2516771-024
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	024-AA	2331185	Gabe	3687875	Emily Schaaf
EPA 537Mod	EPA 537Mod	024-AA	2331185	Gabe	3692929	Emily Schaaf
EPA 537Mod	EPA 537Mod	024-AA	2331185	Gabe	3693549	Emily Schaaf
EPA 537Mod	EPA 537Mod	024-AA	2331185	Gabe	3695751	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Work Order: HN2516771

Sample Name: MW-19-107_110625
Laboratory Code: HN2516771-025
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	025-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-91_110625
Laboratory Code: HN2516771-026
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	026-AA	2331185	Gabe	3687875	Emily Schaaf

Sample Name: MW-18-90_110625
Laboratory Code: HN2516771-027
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	027-AA	2331185	Gabe	3687875	Emily Schaaf
EPA 537Mod	EPA 537Mod	027-AA	2331185	Gabe	3692929	Emily Schaaf

Sample Name: MW-18-88_110625
Laboratory Code: HN2516771-028
Sample Matrix: GROUNDWATER
Date Collected: 11/06/25
Date Received: 11/07/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	028-AA	2333390	Kaylin Aviles	3692878	Emily Schaaf

ANALYST SUMMARY

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis		

Sample Name:	MW-18-95_110625	**Date Collected:**	11/06/25
Laboratory Code:	HN2516771-029	**Date Received:**	11/07/25
Sample Matrix:	GROUNDWATER		

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	029-AA	2333390	Kaylin Aviles	3692878	Emily Schaaf

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-23_110525 **Lab ID: HN2516771-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.69	1	11/13/25 15:04	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.76	1	11/13/25 15:04	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.931	U	ng/L	0.931	4.65	1	11/13/25 15:04	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.91	U	ng/L	1.91	4.62	1	11/13/25 15:04	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.97	1	11/13/25 15:04	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.00	U	ng/L	3.00	4.97	1	11/13/25 15:04	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.38	U	ng/L	1.38	4.97	1	11/13/25 15:04	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.559	U	ng/L	0.559	4.69	1	11/13/25 15:04	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.446	U	ng/L	0.446	4.64	1	11/13/25 15:04	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.97	1	11/13/25 15:04	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.97	1	11/13/25 15:04	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.641	U	ng/L	0.641	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**5.81**		ng/L	0.881	4.59	1	11/13/25 15:04	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.349	U	ng/L	0.349	4.40	1	11/13/25 15:04	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.97	U	ng/L	1.97	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.79	1	11/13/25 15:04	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-23_110525 **Lab ID: HN2516771-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.687	U	ng/L	0.687	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.563	U	ng/L	0.563	4.73	1	11/13/25 15:04	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.72	U	ng/L	1.72	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.898	U	ng/L	0.898	4.53	1	11/13/25 15:04	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.873	U	ng/L	0.873	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.493	U	ng/L	0.493	4.77	1	11/13/25 15:04	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.865	U	ng/L	0.865	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.707	U	ng/L	0.707	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**2.36**		ng/L	0.887	1.85	1	11/13/25 15:04	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.627	U	ng/L	0.627	1.99	1	11/13/25 15:04	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.67	1	11/13/25 15:04	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.27	U	ng/L	1.27	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.63	U	ng/L	2.63	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.97	1	11/13/25 15:04	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.969	U	ng/L	0.969	4.97	1	11/13/25 15:04	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***129***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***142***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***126***		*%REC*		*27-134*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***110***		*%REC*		*41-142*	*1*	*11/13/25 15:04*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-23_110525 **Lab ID: HN2516771-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***121***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***111***		*%REC*		*42-141*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***108***		*%REC*		*43-138*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***82.0***		*%REC*		*30-122*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***99.7***		*%REC*		*35-136*	*1*	*11/13/25 15:04*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***105***		*%REC*		*34-142*	*1*	*11/13/25 15:04*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-97_110525 **Lab ID: HN2516771-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.467	U	ng/L	0.467	4.71	1	11/13/25 15:48	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.79	1	11/13/25 15:48	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.937	U	ng/L	0.937	4.67	1	11/13/25 15:48	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.92	U	ng/L	1.92	4.64	1	11/13/25 15:48	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.08	U	ng/L	1.08	5.00	1	11/13/25 15:48	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.02	U	ng/L	3.02	5.00	1	11/13/25 15:48	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.39	U	ng/L	1.39	5.00	1	11/13/25 15:48	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.562	U	ng/L	0.562	4.71	1	11/13/25 15:48	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.66	1	11/13/25 15:48	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	5.00	1	11/13/25 15:48	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.55	U	ng/L	1.55	5.00	1	11/13/25 15:48	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.644	U	ng/L	0.644	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**2.87**	J	ng/L	0.887	4.61	1	11/13/25 15:48	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.351	U	ng/L	0.351	4.42	1	11/13/25 15:48	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.60	U	ng/L	2.60	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.37	U	ng/L	1.37	4.82	1	11/13/25 15:48	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-97_110525 **Lab ID: HN2516771-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.691	U	ng/L	0.691	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.566	U	ng/L	0.566	4.76	1	11/13/25 15:48	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.73	U	ng/L	1.73	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.904	U	ng/L	0.904	4.55	1	11/13/25 15:48	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.879	U	ng/L	0.879	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.20	U	ng/L	1.20	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.496	U	ng/L	0.496	4.80	1	11/13/25 15:48	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.871	U	ng/L	0.871	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.711	U	ng/L	0.711	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.893	U	ng/L	0.893	1.86	1	11/13/25 15:48	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.630	U	ng/L	0.630	2.00	1	11/13/25 15:48	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.556	U	ng/L	0.556	4.69	1	11/13/25 15:48	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.28	U	ng/L	1.28	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.64	U	ng/L	2.64	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.93	U	ng/L	1.93	5.00	1	11/13/25 15:48	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.975	U	ng/L	0.975	5.00	1	11/13/25 15:48	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***121***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***106***		*%REC*		*27-134*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***87.0***		*%REC*		*41-142*	*1*	*11/13/25 15:48*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-97_110525 **Lab ID: HN2516771-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***94.7***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***109***		*%REC*		*42-141*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***100***		*%REC*		*43-138*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***70.6***		*%REC*		*30-122*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***94.2***		*%REC*		*35-136*	*1*	*11/13/25 15:48*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***99.6***		*%REC*		*34-142*	*1*	*11/13/25 15:48*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-91-2R_110525 **Lab ID: HN2516771-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.473	U	ng/L	0.473	4.77	1	11/15/25 00:08	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.85	1	11/15/25 00:08	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.948	U	ng/L	0.948	4.73	1	11/15/25 00:08	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.94	U	ng/L	1.94	4.70	1	11/15/25 00:08	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.09	U	ng/L	1.09	5.06	1	11/15/25 00:08	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.06	U	ng/L	3.06	5.06	1	11/15/25 00:08	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.41	U	ng/L	1.41	5.06	1	11/15/25 00:08	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.569	U	ng/L	0.569	4.77	1	11/15/25 00:08	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.454	U	ng/L	0.454	4.72	1	11/15/25 00:08	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.06	1	11/15/25 00:08	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.56	U	ng/L	1.56	5.06	1	11/15/25 00:08	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.652	U	ng/L	0.652	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.897	U	ng/L	0.897	4.67	1	11/15/25 00:08	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.428**	J	ng/L	0.356	4.48	1	11/15/25 00:08	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.79**		ng/L	2.63	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.88	1	11/15/25 00:08	11/11/25 17:03

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-91-2R_110525 **Lab ID: HN2516771-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.700	U	ng/L	0.700	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.573	U	ng/L	0.573	4.82	1	11/15/25 00:08	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.75	U	ng/L	1.75	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.915	U	ng/L	0.915	4.61	1	11/15/25 00:08	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.889	U	ng/L	0.889	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.22	U	ng/L	1.22	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.502	U	ng/L	0.502	4.86	1	11/15/25 00:08	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.881	U	ng/L	0.881	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.720	U	ng/L	0.720	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.904	U	ng/L	0.904	1.88	1	11/15/25 00:08	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.638	U	ng/L	0.638	2.03	1	11/15/25 00:08	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.563	U	ng/L	0.563	4.75	1	11/15/25 00:08	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**1.79**	J	ng/L	1.30	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.67	U	ng/L	2.67	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.96	U	ng/L	1.96	5.06	1	11/15/25 00:08	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.987	U	ng/L	0.987	5.06	1	11/15/25 00:08	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***96.1***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***95.9***		*%REC*		*27-134*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***104***		*%REC*		*41-142*	*1*	*11/15/25 00:08*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-91-2R_110525 **Lab ID: HN2516771-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***92.5***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***120***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***99.9***		*%REC*		*42-141*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***104***		*%REC*		*43-138*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***89.6***		*%REC*		*30-122*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***98.9***		*%REC*		*50-150*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***82.9***		*%REC*		*35-136*	*1*	*11/15/25 00:08*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***92.6***		*%REC*		*34-142*	*1*	*11/15/25 00:08*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 15:35
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-101_110525 **Lab ID: HN2516771-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.496	U	ng/L	0.496	5.00	1	11/13/25 16:16	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.20	U	ng/L	1.20	5.09	1	11/13/25 16:16	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.994	U	ng/L	0.994	4.96	1	11/13/25 16:16	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.04	U	ng/L	2.04	4.93	1	11/13/25 16:16	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.15	U	ng/L	1.15	5.31	1	11/13/25 16:16	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.21	U	ng/L	3.21	5.31	1	11/13/25 16:16	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.48	U	ng/L	1.48	5.31	1	11/13/25 16:16	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.597	U	ng/L	0.597	5.00	1	11/13/25 16:16	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.95	1	11/13/25 16:16	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.24	U	ng/L	1.24	5.31	1	11/13/25 16:16	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.64	U	ng/L	1.64	5.31	1	11/13/25 16:16	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.684	U	ng/L	0.684	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.941	U	ng/L	0.941	4.89	1	11/13/25 16:16	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.373	U	ng/L	0.373	4.69	1	11/13/25 16:16	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**4.01**	J	ng/L	2.76	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.11	U	ng/L	2.11	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.45	U	ng/L	1.45	5.12	1	11/13/25 16:16	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 15:35
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-101_110525 **Lab ID: HN2516771-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.32	U	ng/L	1.32	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.734	U	ng/L	0.734	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.601	U	ng/L	0.601	5.05	1	11/13/25 16:16	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.84	U	ng/L	1.84	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.959	U	ng/L	0.959	4.83	1	11/13/25 16:16	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.932	U	ng/L	0.932	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.27	U	ng/L	1.27	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.527	U	ng/L	0.527	5.10	1	11/13/25 16:16	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.924	U	ng/L	0.924	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.755	U	ng/L	0.755	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.947	U	ng/L	0.947	1.97	1	11/13/25 16:16	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.669	U	ng/L	0.669	2.12	1	11/13/25 16:16	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.590	U	ng/L	0.590	4.98	1	11/13/25 16:16	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.36	U	ng/L	1.36	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.80	U	ng/L	2.80	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.05	U	ng/L	2.05	5.31	1	11/13/25 16:16	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.31	1	11/13/25 16:16	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***86.9***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***96.2***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***99.0***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***93.7***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***87.6***		*%REC*		*27-134*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***97.7***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***82.8***		*%REC*		*41-142*	*1*	*11/13/25 16:16*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 15:35
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-101_110525 **Lab ID: HN2516771-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***85.0***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***88.9***		*%REC*		*42-141*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***94.4***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***94.3***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***86.8***		*%REC*		*43-138*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***72.7***		*%REC*		*30-122*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***90.4***		*%REC*		*50-150*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***78.6***		*%REC*		*35-136*	*1*	*11/13/25 16:16*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***87.2***		*%REC*		*34-142*	*1*	*11/13/25 16:16*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-94_110525 **Lab ID: HN2516771-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.473	U	ng/L	0.473	4.77	1	11/13/25 16:45	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.85	1	11/13/25 16:45	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.949	U	ng/L	0.949	4.73	1	11/13/25 16:45	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.95	U	ng/L	1.95	4.70	1	11/13/25 16:45	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.09	U	ng/L	1.09	5.07	1	11/13/25 16:45	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.06	U	ng/L	3.06	5.07	1	11/13/25 16:45	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.41	U	ng/L	1.41	5.07	1	11/13/25 16:45	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.570	U	ng/L	0.570	4.77	1	11/13/25 16:45	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.454	U	ng/L	0.454	4.72	1	11/13/25 16:45	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.07	1	11/13/25 16:45	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.07	1	11/13/25 16:45	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.653	U	ng/L	0.653	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.898	U	ng/L	0.898	4.67	1	11/13/25 16:45	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.356	U	ng/L	0.356	4.48	1	11/13/25 16:45	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.16**		ng/L	2.63	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.88	1	11/13/25 16:45	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-94_110525 **Lab ID: HN2516771-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.700	U	ng/L	0.700	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.574	U	ng/L	0.574	4.82	1	11/13/25 16:45	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.75	U	ng/L	1.75	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.915	U	ng/L	0.915	4.61	1	11/13/25 16:45	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.890	U	ng/L	0.890	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.22	U	ng/L	1.22	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.503	U	ng/L	0.503	4.86	1	11/13/25 16:45	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.882	U	ng/L	0.882	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.721	U	ng/L	0.721	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.904	U	ng/L	0.904	1.88	1	11/13/25 16:45	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.638	U	ng/L	0.638	2.03	1	11/13/25 16:45	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.563	U	ng/L	0.563	4.75	1	11/13/25 16:45	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**1.31**	J	ng/L	1.30	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.68	U	ng/L	2.68	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.96	U	ng/L	1.96	5.07	1	11/13/25 16:45	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.987	U	ng/L	0.987	5.07	1	11/13/25 16:45	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***130***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***141***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***121***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***129***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***125***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***118***		*%REC*		*27-134*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***130***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***116***		*%REC*		*41-142*	*1*	*11/13/25 16:45*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-94_110525 **Lab ID: HN2516771-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***151***	*S*	*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***120***		*%REC*		*42-141*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***137***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***136***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***130***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***121***		*%REC*		*43-138*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***97.5***		*%REC*		*30-122*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***139***		*%REC*		*50-150*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***98.5***		*%REC*		*35-136*	*1*	*11/13/25 16:45*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***113***		*%REC*		*34-142*	*1*	*11/13/25 16:45*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-93_110525 **Lab ID: HN2516771-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.461	U	ng/L	0.461	4.65	1	11/13/25 17:00	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.73	1	11/13/25 17:00	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.925	U	ng/L	0.925	4.61	1	11/13/25 17:00	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.90	U	ng/L	1.90	4.58	1	11/13/25 17:00	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.94	1	11/13/25 17:00	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.94	1	11/13/25 17:00	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.94	1	11/13/25 17:00	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.555	U	ng/L	0.555	4.65	1	11/13/25 17:00	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.443	U	ng/L	0.443	4.60	1	11/13/25 17:00	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.94	1	11/13/25 17:00	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.94	1	11/13/25 17:00	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.636	U	ng/L	0.636	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.875	U	ng/L	0.875	4.55	1	11/13/25 17:00	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.347	U	ng/L	0.347	4.37	1	11/13/25 17:00	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.76	1	11/13/25 17:00	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-93_110525 **Lab ID: HN2516771-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.683	U	ng/L	0.683	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.559	U	ng/L	0.559	4.70	1	11/13/25 17:00	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.71	U	ng/L	1.71	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.892	U	ng/L	0.892	4.49	1	11/13/25 17:00	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.867	U	ng/L	0.867	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.74	1	11/13/25 17:00	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.859	U	ng/L	0.859	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.702	U	ng/L	0.702	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.881	U	ng/L	0.881	1.83	1	11/13/25 17:00	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.622	U	ng/L	0.622	1.98	1	11/13/25 17:00	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.549	U	ng/L	0.549	4.63	1	11/13/25 17:00	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.94	1	11/13/25 17:00	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.962	U	ng/L	0.962	4.94	1	11/13/25 17:00	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***123***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***146***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***129***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***135***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***129***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***131***		*%REC*		*27-134*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***132***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***123***		*%REC*		*41-142*	*1*	*11/13/25 17:00*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-93_110525 **Lab ID: HN2516771-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***151***	*S*	*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***122***		*%REC*		*42-141*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***144***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***131***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***139***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***122***		*%REC*		*43-138*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***102***		*%REC*		*30-122*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***127***		*%REC*		*50-150*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***114***		*%REC*		*35-136*	*1*	*11/13/25 17:00*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***122***		*%REC*		*34-142*	*1*	*11/13/25 17:00*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-07_110525 **Lab ID: HN2516771-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.468	U	ng/L	0.468	4.72	1	11/13/25 17:14	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.80	1	11/13/25 17:14	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.938	U	ng/L	0.938	4.68	1	11/13/25 17:14	11/11/25 17:03
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.92	U	ng/L	1.92	4.65	1	11/13/25 17:14	11/11/25 17:03
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.08	U	ng/L	1.08	5.01	1	11/13/25 17:14	11/11/25 17:03
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.03	U	ng/L	3.03	5.01	1	11/13/25 17:14	11/11/25 17:03
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.39	U	ng/L	1.39	5.01	1	11/13/25 17:14	11/11/25 17:03
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.563	U	ng/L	0.563	4.72	1	11/13/25 17:14	11/11/25 17:03
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.449	U	ng/L	0.449	4.67	1	11/13/25 17:14	11/11/25 17:03
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	5.01	1	11/13/25 17:14	11/11/25 17:03
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.55	U	ng/L	1.55	5.01	1	11/13/25 17:14	11/11/25 17:03
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.645	U	ng/L	0.645	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.888	U	ng/L	0.888	4.62	1	11/13/25 17:14	11/11/25 17:03
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.352	U	ng/L	0.352	4.43	1	11/13/25 17:14	11/11/25 17:03
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.61	U	ng/L	2.61	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.37	U	ng/L	1.37	4.83	1	11/13/25 17:14	11/11/25 17:03

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-07_110525 **Lab ID: HN2516771-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.692	U	ng/L	0.692	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.567	U	ng/L	0.567	4.77	1	11/13/25 17:14	11/11/25 17:03
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.73	U	ng/L	1.73	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.905	U	ng/L	0.905	4.56	1	11/13/25 17:14	11/11/25 17:03
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.880	U	ng/L	0.880	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.20	U	ng/L	1.20	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.497	U	ng/L	0.497	4.81	1	11/13/25 17:14	11/11/25 17:03
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.872	U	ng/L	0.872	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.712	U	ng/L	0.712	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.894	U	ng/L	0.894	1.86	1	11/13/25 17:14	11/11/25 17:03
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.631	U	ng/L	0.631	2.00	1	11/13/25 17:14	11/11/25 17:03
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.557	U	ng/L	0.557	4.70	1	11/13/25 17:14	11/11/25 17:03
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.28	U	ng/L	1.28	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.65	U	ng/L	2.65	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.93	U	ng/L	1.93	5.01	1	11/13/25 17:14	11/11/25 17:03
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.976	U	ng/L	0.976	5.01	1	11/13/25 17:14	11/11/25 17:03
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-PFDA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-PFDoA	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-PFHxA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-PFTeA	*EPA 537Mod*	***110***		*%REC*		*27-134*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C2-PFUnA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***101***		*%REC*		*41-142*	*1*	*11/13/25 17:14*	*11/11/25 17:03*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-07_110525 **Lab ID: HN2516771-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***97.7***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C4-PFBA	*EPA 537Mod*	***125***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C4-PFHpA	*EPA 537Mod*	***108***		*%REC*		*42-141*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C4-PFOA	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C4-PFOS	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C5-PFNA	*EPA 537Mod*	***124***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C5-PFPeA	*EPA 537Mod*	***103***		*%REC*		*43-138*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 13C8-FOSA	*EPA 537Mod*	***80.9***		*%REC*		*30-122*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: 18O2-PFHxS	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***91.5***		*%REC*		*35-136*	*1*	*11/13/25 17:14*	*11/11/25 17:03*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***99.4***		*%REC*		*34-142*	*1*	*11/13/25 17:14*	*11/11/25 17:03*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-08_110525 **Lab ID: HN2516771-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.52	1	11/13/25 23:45	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.59	1	11/13/25 23:45	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.898	U	ng/L	0.898	4.48	1	11/13/25 23:45	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.84	U	ng/L	1.84	4.45	1	11/13/25 23:45	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.79	1	11/13/25 23:45	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.90	U	ng/L	2.90	4.79	1	11/13/25 23:45	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.33	U	ng/L	1.33	4.79	1	11/13/25 23:45	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.539	U	ng/L	0.539	4.52	1	11/13/25 23:45	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.430	U	ng/L	0.430	4.47	1	11/13/25 23:45	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.79	1	11/13/25 23:45	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.79	1	11/13/25 23:45	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.618	U	ng/L	0.618	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.850	U	ng/L	0.850	4.42	1	11/13/25 23:45	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.337	U	ng/L	0.337	4.24	1	11/13/25 23:45	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.49	U	ng/L	2.49	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.31	U	ng/L	1.31	4.62	1	11/13/25 23:45	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-08_110525 **Lab ID: HN2516771-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.663	U	ng/L	0.663	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.543	U	ng/L	0.543	4.56	1	11/13/25 23:45	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.66	U	ng/L	1.66	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.866	U	ng/L	0.866	4.36	1	11/13/25 23:45	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.842	U	ng/L	0.842	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.15	U	ng/L	1.15	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.60	1	11/13/25 23:45	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.834	U	ng/L	0.834	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.682	U	ng/L	0.682	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.855	U	ng/L	0.855	1.78	1	11/13/25 23:45	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.604	U	ng/L	0.604	1.92	1	11/13/25 23:45	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.533	U	ng/L	0.533	4.50	1	11/13/25 23:45	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.85	U	ng/L	1.85	4.79	1	11/13/25 23:45	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.934	U	ng/L	0.934	4.79	1	11/13/25 23:45	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***89.4***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***88.6***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***91.6***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***65.6***		*%REC*		*27-134*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.9***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.8***		*%REC*		*41-142*	*1*	*11/13/25 23:45*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-08_110525 **Lab ID: HN2516771-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***85.6***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***99.3***		*%REC*		*42-141*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***93.9***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***89.3***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***89.0***		*%REC*		*43-138*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***82.0***		*%REC*		*30-122*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***88.9***		*%REC*		*50-150*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***84.3***		*%REC*		*35-136*	*1*	*11/13/25 23:45*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***85.3***		*%REC*		*34-142*	*1*	*11/13/25 23:45*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-02-04(3)_110525 **Lab ID: HN2516771-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.456	U	ng/L	0.456	4.60	1	11/14/25 00:00	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.68	1	11/14/25 00:00	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.914	U	ng/L	0.914	4.56	1	11/14/25 00:00	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.88	U	ng/L	1.88	4.53	1	11/14/25 00:00	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.06	U	ng/L	1.06	4.89	1	11/14/25 00:00	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.95	U	ng/L	2.95	4.89	1	11/14/25 00:00	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.89	1	11/14/25 00:00	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.549	U	ng/L	0.549	4.60	1	11/14/25 00:00	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.438	U	ng/L	0.438	4.55	1	11/14/25 00:00	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.89	1	11/14/25 00:00	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.89	1	11/14/25 00:00	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.629	U	ng/L	0.629	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**28.4**		ng/L	0.866	4.50	1	11/14/25 00:00	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.01**	J	ng/L	0.343	4.32	1	11/14/25 00:00	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.00**		ng/L	2.54	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.94	U	ng/L	1.94	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.71	1	11/14/25 00:00	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-02-04(3)_110525 **Lab ID: HN2516771-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.675	U	ng/L	0.675	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.65	1	11/14/25 00:00	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.69	U	ng/L	1.69	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.882	U	ng/L	0.882	4.45	1	11/14/25 00:00	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.858	U	ng/L	0.858	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**5.20**		ng/L	1.17	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.69	1	11/14/25 00:00	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.850	U	ng/L	0.850	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.695	U	ng/L	0.695	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.872	U	ng/L	0.872	1.81	1	11/14/25 00:00	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.616	U	ng/L	0.616	1.95	1	11/14/25 00:00	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.543	U	ng/L	0.543	4.58	1	11/14/25 00:00	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**7.40**		ng/L	1.25	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.58	U	ng/L	2.58	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.89	1	11/14/25 00:00	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.952	U	ng/L	0.952	4.89	1	11/14/25 00:00	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***92.2***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***94.1***		*%REC*		*27-134*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***90.9***		*%REC*		*41-142*	*1*	*11/14/25 00:00*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-02-04(3)_110525 **Lab ID: HN2516771-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.7***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***92.1***		*%REC*		*42-141*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***94.7***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***91.0***		*%REC*		*43-138*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***79.4***		*%REC*		*30-122*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***96.6***		*%REC*		*50-150*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***85.9***		*%REC*		*35-136*	*1*	*11/14/25 00:00*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***89.4***		*%REC*		*34-142*	*1*	*11/14/25 00:00*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:36
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-111_110525 **Lab ID: HN2516771-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.458	U	ng/L	0.458	4.62	1	11/14/25 00:43	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.70	1	11/14/25 00:43	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.918	U	ng/L	0.918	4.58	1	11/14/25 00:43	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.88	U	ng/L	1.88	4.55	1	11/14/25 00:43	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.06	U	ng/L	1.06	4.90	1	11/14/25 00:43	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.96	U	ng/L	2.96	4.90	1	11/14/25 00:43	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.90	1	11/14/25 00:43	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.551	U	ng/L	0.551	4.62	1	11/14/25 00:43	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.439	U	ng/L	0.439	4.57	1	11/14/25 00:43	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.90	1	11/14/25 00:43	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.90	1	11/14/25 00:43	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.631	U	ng/L	0.631	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**54.2**		ng/L	0.869	4.52	1	11/14/25 00:43	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.26**	J	ng/L	0.344	4.33	1	11/14/25 00:43	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.95	U	ng/L	1.95	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.73	1	11/14/25 00:43	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:36
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-111_110525 **Lab ID: HN2516771-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.677	U	ng/L	0.677	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.555	U	ng/L	0.555	4.67	1	11/14/25 00:43	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.70	U	ng/L	1.70	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.01**	J	ng/L	0.885	4.46	1	11/14/25 00:43	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.861	U	ng/L	0.861	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.486	U	ng/L	0.486	4.71	1	11/14/25 00:43	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.853	U	ng/L	0.853	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.697	U	ng/L	0.697	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.01**	J	ng/L	0.875	1.82	1	11/14/25 00:43	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**4.89**		ng/L	0.618	1.96	1	11/14/25 00:43	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.545	U	ng/L	0.545	4.60	1	11/14/25 00:43	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.25	U	ng/L	1.25	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.90	1	11/14/25 00:43	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.955	U	ng/L	0.955	4.90	1	11/14/25 00:43	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***141***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***91.9***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.8***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***84.9***		*%REC*		*27-134*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***92.6***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***86.8***		*%REC*		*41-142*	*1*	*11/14/25 00:43*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:36
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-111_110525 **Lab ID: HN2516771-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.3***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***96.4***		*%REC*		*42-141*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***90.6***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***90.3***		*%REC*		*43-138*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***78.3***		*%REC*		*30-122*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.0***		*%REC*		*50-150*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***86.2***		*%REC*		*35-136*	*1*	*11/14/25 00:43*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***91.2***		*%REC*		*34-142*	*1*	*11/14/25 00:43*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-114_110525 **Lab ID: HN2516771-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.509	U	ng/L	0.509	5.14	1	11/14/25 00:58	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.23	U	ng/L	1.23	5.22	1	11/14/25 00:58	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.02	U	ng/L	1.02	5.09	1	11/14/25 00:58	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.09	U	ng/L	2.09	5.06	1	11/14/25 00:58	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.18	U	ng/L	1.18	5.45	1	11/14/25 00:58	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.29	U	ng/L	3.29	5.45	1	11/14/25 00:58	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.52	U	ng/L	1.52	5.45	1	11/14/25 00:58	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.613	U	ng/L	0.613	5.14	1	11/14/25 00:58	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.489	U	ng/L	0.489	5.08	1	11/14/25 00:58	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.28	U	ng/L	1.28	5.45	1	11/14/25 00:58	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.69	U	ng/L	1.69	5.45	1	11/14/25 00:58	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.702	U	ng/L	0.702	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**10.4**		ng/L	0.966	5.03	1	11/14/25 00:58	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.998**	J	ng/L	0.383	4.82	1	11/14/25 00:58	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**4.14**	J	ng/L	2.84	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.17	U	ng/L	2.17	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.49	U	ng/L	1.49	5.26	1	11/14/25 00:58	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-114_110525 **Lab ID: HN2516771-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.35	U	ng/L	1.35	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.754	U	ng/L	0.754	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.617	U	ng/L	0.617	5.19	1	11/14/25 00:58	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.89	U	ng/L	1.89	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.985	U	ng/L	0.985	4.96	1	11/14/25 00:58	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.958	U	ng/L	0.958	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.541	U	ng/L	0.541	5.24	1	11/14/25 00:58	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.949	U	ng/L	0.949	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.775	U	ng/L	0.775	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**4.72**		ng/L	0.973	2.02	1	11/14/25 00:58	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.687	U	ng/L	0.687	2.18	1	11/14/25 00:58	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.606	U	ng/L	0.606	5.12	1	11/14/25 00:58	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.40	U	ng/L	1.40	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.88	U	ng/L	2.88	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.11	U	ng/L	2.11	5.45	1	11/14/25 00:58	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.06	U	ng/L	1.06	5.45	1	11/14/25 00:58	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***92.4***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***100.0***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***87.1***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***96.3***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***90.5***		*%REC*		*27-134*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***91.7***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***90.6***		*%REC*		*41-142*	*1*	*11/14/25 00:58*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-114_110525 **Lab ID: HN2516771-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.5***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***93.5***		*%REC*		*42-141*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***85.8***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.6***		*%REC*		*43-138*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***80.1***		*%REC*		*30-122*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***89.4***		*%REC*		*50-150*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***81.3***		*%REC*		*35-136*	*1*	*11/14/25 00:58*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***89.9***		*%REC*		*34-142*	*1*	*11/14/25 00:58*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:00
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-105_110525 **Lab ID: HN2516771-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.482	U	ng/L	0.482	4.86	1	11/14/25 01:12	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.95	1	11/14/25 01:12	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.967	U	ng/L	0.967	4.82	1	11/14/25 01:12	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.98	U	ng/L	1.98	4.79	1	11/14/25 01:12	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.12	U	ng/L	1.12	5.16	1	11/14/25 01:12	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.12	U	ng/L	3.12	5.16	1	11/14/25 01:12	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.44	U	ng/L	1.44	5.16	1	11/14/25 01:12	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.580	U	ng/L	0.580	4.86	1	11/14/25 01:12	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.463	U	ng/L	0.463	4.81	1	11/14/25 01:12	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.21	U	ng/L	1.21	5.16	1	11/14/25 01:12	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.60	U	ng/L	1.60	5.16	1	11/14/25 01:12	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.665	U	ng/L	0.665	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**45.5**		ng/L	0.915	4.76	1	11/14/25 01:12	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**4.44**	J	ng/L	0.362	4.56	1	11/14/25 01:12	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.69	U	ng/L	2.69	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.05	U	ng/L	2.05	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.41	U	ng/L	1.41	4.98	1	11/14/25 01:12	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:00
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-105_110525 **Lab ID: HN2516771-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.28	U	ng/L	1.28	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.714	U	ng/L	0.714	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.585	U	ng/L	0.585	4.92	1	11/14/25 01:12	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.79	U	ng/L	1.79	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.47**	J	ng/L	0.933	4.70	1	11/14/25 01:12	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.907	U	ng/L	0.907	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.512	U	ng/L	0.512	4.96	1	11/14/25 01:12	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.898	U	ng/L	0.898	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.734	U	ng/L	0.734	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.91**		ng/L	0.921	1.92	1	11/14/25 01:12	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.651	U	ng/L	0.651	2.07	1	11/14/25 01:12	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.574	U	ng/L	0.574	4.84	1	11/14/25 01:12	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.32	U	ng/L	1.32	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.73	U	ng/L	2.73	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.16	1	11/14/25 01:12	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.16	1	11/14/25 01:12	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***93.1***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.9***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***92.7***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***87.1***		*%REC*		*27-134*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.7***		*%REC*		*41-142*	*1*	*11/14/25 01:12*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:00
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-105_110525 **Lab ID: HN2516771-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***82.5***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***98.4***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***94.2***		*%REC*		*42-141*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.0***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.2***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***89.7***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.5***		*%REC*		*43-138*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***78.0***		*%REC*		*30-122*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***88.5***		*%REC*		*50-150*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***83.0***		*%REC*		*35-136*	*1*	*11/14/25 01:12*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***88.3***		*%REC*		*34-142*	*1*	*11/14/25 01:12*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:48
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-104_110525 **Lab ID: HN2516771-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.492	U	ng/L	0.492	4.97	1	11/14/25 01:27	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.05	1	11/14/25 01:27	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.987	U	ng/L	0.987	4.92	1	11/14/25 01:27	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.89	1	11/14/25 01:27	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.27	1	11/14/25 01:27	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.18	U	ng/L	3.18	5.27	1	11/14/25 01:27	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.47	U	ng/L	1.47	5.27	1	11/14/25 01:27	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.592	U	ng/L	0.592	4.97	1	11/14/25 01:27	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.472	U	ng/L	0.472	4.91	1	11/14/25 01:27	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.27	1	11/14/25 01:27	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.27	1	11/14/25 01:27	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.679	U	ng/L	0.679	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**34.5**		ng/L	0.934	4.86	1	11/14/25 01:27	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.466**	J	ng/L	0.370	4.66	1	11/14/25 01:27	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.74	U	ng/L	2.74	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.08	1	11/14/25 01:27	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:48
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-104_110525 **Lab ID: HN2516771-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.728	U	ng/L	0.728	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.597	U	ng/L	0.597	5.02	1	11/14/25 01:27	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.952	U	ng/L	0.952	4.80	1	11/14/25 01:27	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.926	U	ng/L	0.926	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.27	U	ng/L	1.27	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.523	U	ng/L	0.523	5.06	1	11/14/25 01:27	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.917	U	ng/L	0.917	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.750	U	ng/L	0.750	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.32**		ng/L	0.940	1.96	1	11/14/25 01:27	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.664	U	ng/L	0.664	2.11	1	11/14/25 01:27	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.586	U	ng/L	0.586	4.94	1	11/14/25 01:27	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.35	U	ng/L	1.35	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.78	U	ng/L	2.78	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.27	1	11/14/25 01:27	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.27	1	11/14/25 01:27	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***87.2***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***92.5***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***85.4***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.1***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***91.8***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***87.1***		*%REC*		*27-134*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***89.9***		*%REC*		*41-142*	*1*	*11/14/25 01:27*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 11:48
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-104_110525 **Lab ID: HN2516771-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.9***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***96.7***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***97.4***		*%REC*		*42-141*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.2***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.3***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***99.0***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***90.6***		*%REC*		*43-138*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***75.7***		*%REC*		*30-122*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***87.1***		*%REC*		*35-136*	*1*	*11/14/25 01:27*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***93.5***		*%REC*		*34-142*	*1*	*11/14/25 01:27*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:26
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-103_110525 **Lab ID: HN2516771-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.488	U	ng/L	0.488	4.92	1	11/14/25 01:41	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	5.01	1	11/14/25 01:41	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.978	U	ng/L	0.978	4.88	1	11/14/25 01:41	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.01	U	ng/L	2.01	4.85	1	11/14/25 01:41	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.22	1	11/14/25 01:41	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.16	U	ng/L	3.16	5.22	1	11/14/25 01:41	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.45	U	ng/L	1.45	5.22	1	11/14/25 01:41	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.587	U	ng/L	0.587	4.92	1	11/14/25 01:41	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.468	U	ng/L	0.468	4.87	1	11/14/25 01:41	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.22	1	11/14/25 01:41	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.61	U	ng/L	1.61	5.22	1	11/14/25 01:41	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.673	U	ng/L	0.673	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**35.4**		ng/L	0.926	4.82	1	11/14/25 01:41	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**12.5**		ng/L	0.367	4.62	1	11/14/25 01:41	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.70**		ng/L	2.72	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.43	U	ng/L	1.43	5.04	1	11/14/25 01:41	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:26
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-103_110525 **Lab ID: HN2516771-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.722	U	ng/L	0.722	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.591	U	ng/L	0.591	4.97	1	11/14/25 01:41	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.81	U	ng/L	1.81	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**181**		ng/L	0.944	4.75	1	11/14/25 01:41	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.917	U	ng/L	0.917	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.25	U	ng/L	1.25	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.518	U	ng/L	0.518	5.02	1	11/14/25 01:41	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.909	U	ng/L	0.909	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.743	U	ng/L	0.743	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**8.25**		ng/L	0.932	1.94	1	11/14/25 01:41	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.699**	J	ng/L	0.658	2.09	1	11/14/25 01:41	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**11.9**		ng/L	0.581	4.90	1	11/14/25 01:41	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.34	U	ng/L	1.34	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.76	U	ng/L	2.76	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.22	1	11/14/25 01:41	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.22	1	11/14/25 01:41	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***97.9***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.7***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***91.7***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***92.8***		*%REC*		*27-134*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***88.2***		*%REC*		*41-142*	*1*	*11/14/25 01:41*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:26
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-103_110525 **Lab ID: HN2516771-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***90.7***		*%REC*		*42-141*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***90.2***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.5***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***89.9***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***92.6***		*%REC*		*43-138*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***78.7***		*%REC*		*30-122*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***85.3***		*%REC*		*35-136*	*1*	*11/14/25 01:41*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***90.7***		*%REC*		*34-142*	*1*	*11/14/25 01:41*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-102_110525 **Lab ID: HN2516771-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	**0.753**	J	ng/L	0.486	4.90	1	11/14/25 01:55	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	4.99	1	11/14/25 01:55	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.975	U	ng/L	0.975	4.86	1	11/14/25 01:55	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.00	U	ng/L	2.00	4.83	1	11/14/25 01:55	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.12	U	ng/L	1.12	5.21	1	11/14/25 01:55	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.14	U	ng/L	3.14	5.21	1	11/14/25 01:55	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.45	U	ng/L	1.45	5.21	1	11/14/25 01:55	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.585	U	ng/L	0.585	4.90	1	11/14/25 01:55	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.467	U	ng/L	0.467	4.85	1	11/14/25 01:55	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.21	1	11/14/25 01:55	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.61	U	ng/L	1.61	5.21	1	11/14/25 01:55	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.671	U	ng/L	0.671	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**1.05**	J	ng/L	0.923	4.80	1	11/14/25 01:55	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.366	U	ng/L	0.366	4.60	1	11/14/25 01:55	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.71	U	ng/L	2.71	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.43	U	ng/L	1.43	5.02	1	11/14/25 01:55	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-102_110525 **Lab ID: HN2516771-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	**0.916**	J	ng/L	0.720	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.589	U	ng/L	0.589	4.96	1	11/14/25 01:55	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.80	U	ng/L	1.80	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.940	U	ng/L	0.940	4.74	1	11/14/25 01:55	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.914	U	ng/L	0.914	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.25	U	ng/L	1.25	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.517	U	ng/L	0.517	5.00	1	11/14/25 01:55	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.906	U	ng/L	0.906	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.740	U	ng/L	0.740	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.929	U	ng/L	0.929	1.93	1	11/14/25 01:55	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.656	U	ng/L	0.656	2.08	1	11/14/25 01:55	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.579	U	ng/L	0.579	4.88	1	11/14/25 01:55	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.33	U	ng/L	1.33	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.75	U	ng/L	2.75	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.21	1	11/14/25 01:55	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.21	1	11/14/25 01:55	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***99.1***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***99.8***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***95.6***		*%REC*		*27-134*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***99.3***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***88.6***		*%REC*		*41-142*	*1*	*11/14/25 01:55*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-102_110525 **Lab ID: HN2516771-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***99.6***		*%REC*		*42-141*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***93.4***		*%REC*		*43-138*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***82.7***		*%REC*		*30-122*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***87.1***		*%REC*		*35-136*	*1*	*11/14/25 01:55*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***97.4***		*%REC*		*34-142*	*1*	*11/14/25 01:55*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-05 **Lab ID: HN2516771-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.470	U	ng/L	0.470	4.74	1	11/14/25 02:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.82	1	11/14/25 02:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.942	U	ng/L	0.942	4.70	1	11/14/25 02:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.93	U	ng/L	1.93	4.67	1	11/14/25 02:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.09	U	ng/L	1.09	5.03	1	11/14/25 02:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.04	U	ng/L	3.04	5.03	1	11/14/25 02:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.40	U	ng/L	1.40	5.03	1	11/14/25 02:10	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.566	U	ng/L	0.566	4.74	1	11/14/25 02:10	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.451	U	ng/L	0.451	4.69	1	11/14/25 02:10	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.18	U	ng/L	1.18	5.03	1	11/14/25 02:10	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.56	U	ng/L	1.56	5.03	1	11/14/25 02:10	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.648	U	ng/L	0.648	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**9.10**		ng/L	0.892	4.64	1	11/14/25 02:10	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.837**	J	ng/L	0.353	4.45	1	11/14/25 02:10	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**4.24**	J	ng/L	2.62	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.00	U	ng/L	2.00	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.38	U	ng/L	1.38	4.85	1	11/14/25 02:10	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-05 **Lab ID: HN2516771-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.25	U	ng/L	1.25	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.696	U	ng/L	0.696	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.570	U	ng/L	0.570	4.79	1	11/14/25 02:10	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.74	U	ng/L	1.74	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.909	U	ng/L	0.909	4.58	1	11/14/25 02:10	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.884	U	ng/L	0.884	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.21	U	ng/L	1.21	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.499	U	ng/L	0.499	4.83	1	11/14/25 02:10	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.876	U	ng/L	0.876	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.716	U	ng/L	0.716	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**5.23**		ng/L	0.898	1.87	1	11/14/25 02:10	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.634	U	ng/L	0.634	2.01	1	11/14/25 02:10	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.560	U	ng/L	0.560	4.72	1	11/14/25 02:10	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.66	U	ng/L	2.66	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.94	U	ng/L	1.94	5.03	1	11/14/25 02:10	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.980	U	ng/L	0.980	5.03	1	11/14/25 02:10	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***95.1***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***95.9***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***98.0***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***95.8***		*%REC*		*27-134*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***96.4***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***87.1***		*%REC*		*41-142*	*1*	*11/14/25 02:10*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-05 **Lab ID: HN2516771-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***89.3***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***102***		*%REC*		*42-141*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.2***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.3***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.6***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***94.5***		*%REC*		*43-138*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***81.9***		*%REC*		*30-122*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***96.1***		*%REC*		*50-150*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***90.2***		*%REC*		*35-136*	*1*	*11/14/25 02:10*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***92.2***		*%REC*		*34-142*	*1*	*11/14/25 02:10*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-06_110525 **Lab ID: HN2516771-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.439	U	ng/L	0.439	4.43	1	11/14/25 02:24	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.06	U	ng/L	1.06	4.50	1	11/14/25 02:24	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.880	U	ng/L	0.880	4.39	1	11/14/25 02:24	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.81	U	ng/L	1.81	4.36	1	11/14/25 02:24	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.02	U	ng/L	1.02	4.70	1	11/14/25 02:24	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.84	U	ng/L	2.84	4.70	1	11/14/25 02:24	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.31	U	ng/L	1.31	4.70	1	11/14/25 02:24	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.528	U	ng/L	0.528	4.43	1	11/14/25 02:24	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.421	U	ng/L	0.421	4.38	1	11/14/25 02:24	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.10	U	ng/L	1.10	4.70	1	11/14/25 02:24	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.45	U	ng/L	1.45	4.70	1	11/14/25 02:24	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.606	U	ng/L	0.606	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.833	U	ng/L	0.833	4.34	1	11/14/25 02:24	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.330	U	ng/L	0.330	4.16	1	11/14/25 02:24	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.44	U	ng/L	2.44	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.87	U	ng/L	1.87	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.29	U	ng/L	1.29	4.53	1	11/14/25 02:24	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-06_110525 **Lab ID: HN2516771-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.650	U	ng/L	0.650	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.532	U	ng/L	0.532	4.48	1	11/14/25 02:24	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.63	U	ng/L	1.63	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.849	U	ng/L	0.849	4.28	1	11/14/25 02:24	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.826	U	ng/L	0.826	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.13	U	ng/L	1.13	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.466	U	ng/L	0.466	4.51	1	11/14/25 02:24	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.818	U	ng/L	0.818	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.669	U	ng/L	0.669	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.839	U	ng/L	0.839	1.75	1	11/14/25 02:24	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.592	U	ng/L	0.592	1.88	1	11/14/25 02:24	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.523	U	ng/L	0.523	4.41	1	11/14/25 02:24	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.48	U	ng/L	2.48	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.82	U	ng/L	1.82	4.70	1	11/14/25 02:24	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.916	U	ng/L	0.916	4.70	1	11/14/25 02:24	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***72.1***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***91.4***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.3***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.5***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***82.0***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***70.3***		*%REC*		*27-134*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.1***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***80.8***		*%REC*		*41-142*	*1*	*11/14/25 02:24*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 13:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-06_110525 **Lab ID: HN2516771-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***75.5***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***94.6***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***86.3***		*%REC*		*42-141*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***91.3***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***71.4***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***83.1***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***81.4***		*%REC*		*43-138*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***71.1***		*%REC*		*30-122*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***75.9***		*%REC*		*50-150*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***72.4***		*%REC*		*35-136*	*1*	*11/14/25 02:24*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***78.9***		*%REC*		*34-142*	*1*	*11/14/25 02:24*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-108_110525 **Lab ID: HN2516771-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.457	U	ng/L	0.457	4.61	1	11/14/25 02:39	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.69	1	11/14/25 02:39	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.916	U	ng/L	0.916	4.57	1	11/14/25 02:39	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.88	U	ng/L	1.88	4.54	1	11/14/25 02:39	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.06	U	ng/L	1.06	4.89	1	11/14/25 02:39	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.95	U	ng/L	2.95	4.89	1	11/14/25 02:39	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.89	1	11/14/25 02:39	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.550	U	ng/L	0.550	4.61	1	11/14/25 02:39	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.438	U	ng/L	0.438	4.56	1	11/14/25 02:39	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.89	1	11/14/25 02:39	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.89	1	11/14/25 02:39	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.630	U	ng/L	0.630	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**30.7**		ng/L	0.867	4.51	1	11/14/25 02:39	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.03**	J	ng/L	0.343	4.32	1	11/14/25 02:39	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.94	U	ng/L	1.94	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.72	1	11/14/25 02:39	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-108_110525 **Lab ID: HN2516771-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.676	U	ng/L	0.676	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.554	U	ng/L	0.554	4.66	1	11/14/25 02:39	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.69	U	ng/L	1.69	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.01**	J	ng/L	0.883	4.45	1	11/14/25 02:39	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.859	U	ng/L	0.859	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.70	1	11/14/25 02:39	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.851	U	ng/L	0.851	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.696	U	ng/L	0.696	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**2.03**		ng/L	0.873	1.82	1	11/14/25 02:39	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**1.93**	J	ng/L	0.616	1.96	1	11/14/25 02:39	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.545**	J	ng/L	0.544	4.59	1	11/14/25 02:39	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.25	U	ng/L	1.25	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.58	U	ng/L	2.58	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.89	1	11/14/25 02:39	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.953	U	ng/L	0.953	4.89	1	11/14/25 02:39	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***133***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***97.9***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***88.4***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***90.7***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***92.0***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***90.6***		*%REC*		*27-134*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.3***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***99.1***		*%REC*		*41-142*	*1*	*11/14/25 02:39*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:28
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-108_110525 **Lab ID: HN2516771-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***83.9***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***93.9***		*%REC*		*42-141*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***93.8***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***83.7***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***92.0***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***90.1***		*%REC*		*43-138*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***81.1***		*%REC*		*30-122*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***82.8***		*%REC*		*50-150*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***87.5***		*%REC*		*35-136*	*1*	*11/14/25 02:39*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***90.6***		*%REC*		*34-142*	*1*	*11/14/25 02:39*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:34
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-92_110525 **Lab ID: HN2516771-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.454	U	ng/L	0.454	4.58	1	11/13/25 12:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.65	1	11/13/25 12:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.910	U	ng/L	0.910	4.54	1	11/13/25 12:10	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	4.51	1	11/13/25 12:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.86	1	11/13/25 12:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.93	U	ng/L	2.93	4.86	1	11/13/25 12:10	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.35	U	ng/L	1.35	4.86	1	11/13/25 12:10	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.546	U	ng/L	0.546	4.58	1	11/13/25 12:10	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.435	U	ng/L	0.435	4.53	1	11/13/25 12:10	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.86	1	11/13/25 12:10	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.50	U	ng/L	1.50	4.86	1	11/13/25 12:10	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.626	U	ng/L	0.626	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**5.29**		ng/L	0.861	4.48	1	11/13/25 12:10	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.541**	J	ng/L	0.341	4.30	1	11/13/25 12:10	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.93	U	ng/L	1.93	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.33	U	ng/L	1.33	4.68	1	11/13/25 12:10	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:34
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-92_110525 **Lab ID: HN2516771-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.671	U	ng/L	0.671	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.550	U	ng/L	0.550	4.63	1	11/13/25 12:10	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.68	U	ng/L	1.68	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.877	U	ng/L	0.877	4.42	1	11/13/25 12:10	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.853	U	ng/L	0.853	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.482	U	ng/L	0.482	4.66	1	11/13/25 12:10	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.845	U	ng/L	0.845	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.691	U	ng/L	0.691	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.867	U	ng/L	0.867	1.80	1	11/13/25 12:10	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.612	U	ng/L	0.612	1.94	1	11/13/25 12:10	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.540	U	ng/L	0.540	4.56	1	11/13/25 12:10	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.24	U	ng/L	1.24	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.88	U	ng/L	1.88	4.86	1	11/13/25 12:10	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.946	U	ng/L	0.946	4.86	1	11/13/25 12:10	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***150***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***133***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***94.3***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***107***		*%REC*		*27-134*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***99.9***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***112***		*%REC*		*41-142*	*1*	*11/13/25 12:10*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 14:34
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-92_110525 **Lab ID: HN2516771-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***115***		*%REC*		*42-141*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***104***		*%REC*		*43-138*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***91.9***		*%REC*		*30-122*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***95.3***		*%REC*		*35-136*	*1*	*11/13/25 12:10*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***100***		*%REC*		*34-142*	*1*	*11/13/25 12:10*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:23
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-89_110525 **Lab ID: HN2516771-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.461	U	ng/L	0.461	4.65	1	11/14/25 02:53	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.73	1	11/14/25 02:53	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.925	U	ng/L	0.925	4.61	1	11/14/25 02:53	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.90	U	ng/L	1.90	4.58	1	11/14/25 02:53	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.94	1	11/14/25 02:53	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.94	1	11/14/25 02:53	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.94	1	11/14/25 02:53	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.555	U	ng/L	0.555	4.65	1	11/14/25 02:53	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.443	U	ng/L	0.443	4.60	1	11/14/25 02:53	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.94	1	11/14/25 02:53	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.94	1	11/14/25 02:53	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.636	U	ng/L	0.636	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**209**		ng/L	0.875	4.56	1	11/14/25 02:53	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.813**	J	ng/L	0.347	4.37	1	11/14/25 02:53	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.82**		ng/L	2.57	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.76	1	11/14/25 02:53	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:23
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-89_110525 **Lab ID: HN2516771-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.683	U	ng/L	0.683	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**2.80**	J	ng/L	0.559	4.70	1	11/14/25 02:53	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.87**	J	ng/L	1.71	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**4.96**		ng/L	0.892	4.50	1	11/14/25 02:53	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.868	U	ng/L	0.868	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**4.44**	J	ng/L	1.19	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.74	1	11/14/25 02:53	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.17**	J	ng/L	0.860	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.703	U	ng/L	0.703	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**133**		ng/L	0.881	1.83	1	11/14/25 02:53	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**13.3**		ng/L	0.623	1.98	1	11/14/25 02:53	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.781**	J	ng/L	0.549	4.63	1	11/14/25 02:53	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**4.70**	J	ng/L	1.26	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.94	1	11/14/25 02:53	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.962	U	ng/L	0.962	4.94	1	11/14/25 02:53	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***331***	*S*	*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***187***	*S*	*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***137***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***95.8***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***96.0***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***96.5***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***104***		*%REC*		*27-134*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.3***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***94.5***		*%REC*		*41-142*	*1*	*11/14/25 02:53*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 16:23
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-89_110525 **Lab ID: HN2516771-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***89.8***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***107***		*%REC*		*42-141*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.0***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***89.1***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***98.6***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***95.9***		*%REC*		*43-138*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***84.2***		*%REC*		*30-122*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***87.9***		*%REC*		*50-150*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***89.9***		*%REC*		*35-136*	*1*	*11/14/25 02:53*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***104***		*%REC*		*34-142*	*1*	*11/14/25 02:53*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:47
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-05_110525 **Lab ID: HN2516771-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.461	U	ng/L	0.461	4.65	1	11/14/25 03:37	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.73	1	11/14/25 03:37	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.925	U	ng/L	0.925	4.61	1	11/14/25 03:37	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.90	U	ng/L	1.90	4.58	1	11/14/25 03:37	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.94	1	11/14/25 03:37	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.94	1	11/14/25 03:37	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.94	1	11/14/25 03:37	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.555	U	ng/L	0.555	4.65	1	11/14/25 03:37	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.443	U	ng/L	0.443	4.60	1	11/14/25 03:37	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.94	1	11/14/25 03:37	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.94	1	11/14/25 03:37	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.636	U	ng/L	0.636	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.875	U	ng/L	0.875	4.55	1	11/14/25 03:37	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.347	U	ng/L	0.347	4.37	1	11/14/25 03:37	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.76	1	11/14/25 03:37	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:47
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-05_110525 **Lab ID: HN2516771-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.683	U	ng/L	0.683	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.559	U	ng/L	0.559	4.70	1	11/14/25 03:37	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.71	U	ng/L	1.71	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.892	U	ng/L	0.892	4.50	1	11/14/25 03:37	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.868	U	ng/L	0.868	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.74	1	11/14/25 03:37	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.860	U	ng/L	0.860	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.703	U	ng/L	0.703	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.881	U	ng/L	0.881	1.83	1	11/14/25 03:37	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.622	U	ng/L	0.622	1.98	1	11/14/25 03:37	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.549	U	ng/L	0.549	4.63	1	11/14/25 03:37	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.94	1	11/14/25 03:37	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.962	U	ng/L	0.962	4.94	1	11/14/25 03:37	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***80.0***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***84.9***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***93.5***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***85.8***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***94.0***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***71.2***		*%REC*		*27-134*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***88.2***		*%REC*		*41-142*	*1*	*11/14/25 03:37*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 12:47
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-05_110525 **Lab ID: HN2516771-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***82.6***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***90.6***		*%REC*		*42-141*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.5***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***94.1***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.8***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.4***		*%REC*		*43-138*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***77.7***		*%REC*		*30-122*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***85.8***		*%REC*		*50-150*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***77.8***		*%REC*		*35-136*	*1*	*11/14/25 03:37*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***90.3***		*%REC*		*34-142*	*1*	*11/14/25 03:37*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-07_110525 **Lab ID: HN2516771-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.456	U	ng/L	0.456	4.60	1	11/14/25 03:51	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.68	1	11/14/25 03:51	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.914	U	ng/L	0.914	4.56	1	11/14/25 03:51	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	4.53	1	11/14/25 03:51	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.88	1	11/14/25 03:51	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.95	U	ng/L	2.95	4.88	1	11/14/25 03:51	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.88	1	11/14/25 03:51	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.549	U	ng/L	0.549	4.60	1	11/14/25 03:51	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.437	U	ng/L	0.437	4.55	1	11/14/25 03:51	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.88	1	11/14/25 03:51	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.88	1	11/14/25 03:51	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.629	U	ng/L	0.629	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.865	U	ng/L	0.865	4.50	1	11/14/25 03:51	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.343	U	ng/L	0.343	4.31	1	11/14/25 03:51	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.94	U	ng/L	1.94	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.71	1	11/14/25 03:51	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-07_110525 **Lab ID: HN2516771-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.675	U	ng/L	0.675	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.65	1	11/14/25 03:51	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.69	U	ng/L	1.69	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.882	U	ng/L	0.882	4.44	1	11/14/25 03:51	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.857	U	ng/L	0.857	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.484	U	ng/L	0.484	4.69	1	11/14/25 03:51	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.849	U	ng/L	0.849	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.694	U	ng/L	0.694	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.871	U	ng/L	0.871	1.81	1	11/14/25 03:51	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.615	U	ng/L	0.615	1.95	1	11/14/25 03:51	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.543	U	ng/L	0.543	4.58	1	11/14/25 03:51	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.25	U	ng/L	1.25	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.58	U	ng/L	2.58	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.88	1	11/14/25 03:51	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.951	U	ng/L	0.951	4.88	1	11/14/25 03:51	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***92.0***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***94.3***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***99.4***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***70.6***		*%REC*		*27-134*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.5***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***93.8***		*%REC*		*41-142*	*1*	*11/14/25 03:51*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/05/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: EB-07_110525 **Lab ID: HN2516771-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***90.8***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***98.1***		*%REC*		*42-141*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***99.0***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***96.9***		*%REC*		*43-138*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***82.9***		*%REC*		*30-122*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***92.8***		*%REC*		*35-136*	*1*	*11/14/25 03:51*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***98.2***		*%REC*		*34-142*	*1*	*11/14/25 03:51*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: CH-14-RO_110625 **Lab ID: HN2516771-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.450	U	ng/L	0.450	4.53	1	11/14/25 04:05	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.61	1	11/14/25 04:05	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.901	U	ng/L	0.901	4.50	1	11/14/25 04:05	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.85	U	ng/L	1.85	4.47	1	11/14/25 04:05	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.81	1	11/14/25 04:05	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.91	U	ng/L	2.91	4.81	1	11/14/25 04:05	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.34	U	ng/L	1.34	4.81	1	11/14/25 04:05	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.541	U	ng/L	0.541	4.53	1	11/14/25 04:05	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.431	U	ng/L	0.431	4.49	1	11/14/25 04:05	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.13	U	ng/L	1.13	4.81	1	11/14/25 04:05	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.81	1	11/14/25 04:05	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.620	U	ng/L	0.620	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**58500**		ng/L	171	888	200	11/17/25 12:23	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**58.2**		ng/L	0.338	4.25	1	11/14/25 04:05	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**16.3**		ng/L	2.50	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.64	1	11/14/25 04:05	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: CH-14-RO_110625 **Lab ID: HN2516771-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.665	U	ng/L	0.665	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**76.5**		ng/L	0.545	4.58	1	11/14/25 04:05	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**12.5**		ng/L	1.67	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**922**		ng/L	8.69	43.8	10	11/15/25 04:57	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.845	U	ng/L	0.845	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**27.0**		ng/L	1.16	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	**1.62**	J	ng/L	0.477	4.62	1	11/14/25 04:05	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.837	U	ng/L	0.837	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.684	U	ng/L	0.684	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**9560**		ng/L	34.3	71.5	40	11/17/25 12:52	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**81.9**		ng/L	0.606	1.93	1	11/14/25 04:05	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**228**		ng/L	0.535	4.51	1	11/14/25 04:05	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**16.8**		ng/L	1.23	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.81	1	11/14/25 04:05	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.938	U	ng/L	0.938	4.81	1	11/14/25 04:05	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***207***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***31.0***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***84.8***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***92.9***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***89.2***		*%REC*		*27-134*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***96.6***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***103***		*%REC*		*41-142*	*1*	*11/14/25 04:05*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: CH-14-RO_110625 **Lab ID: HN2516771-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***97.0***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***119***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***58.6***		*%REC*		*42-141*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***32.1***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***53.9***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***69.5***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***99.8***		*%REC*		*43-138*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***91.2***		*%REC*		*30-122*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***77.8***		*%REC*		*35-136*	*1*	*11/14/25 04:05*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***84.1***		*%REC*		*34-142*	*1*	*11/14/25 04:05*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-04_110625 **Lab ID: HN2516771-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.52	1	11/14/25 04:20	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.60	1	11/14/25 04:20	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.899	U	ng/L	0.899	4.48	1	11/14/25 04:20	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.84	U	ng/L	1.84	4.46	1	11/14/25 04:20	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.80	1	11/14/25 04:20	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.90	U	ng/L	2.90	4.80	1	11/14/25 04:20	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.33	U	ng/L	1.33	4.80	1	11/14/25 04:20	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.540	U	ng/L	0.540	4.52	1	11/14/25 04:20	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.430	U	ng/L	0.430	4.47	1	11/14/25 04:20	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.80	1	11/14/25 04:20	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.80	1	11/14/25 04:20	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.618	U	ng/L	0.618	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**60900**		ng/L	170	885	200	11/17/25 12:38	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**56.5**		ng/L	0.337	4.24	1	11/14/25 04:20	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**16.5**		ng/L	2.50	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.63	1	11/14/25 04:20	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-04_110625 **Lab ID: HN2516771-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.663	U	ng/L	0.663	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**77.3**		ng/L	0.543	4.57	1	11/14/25 04:20	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**12.0**		ng/L	1.66	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**893**		ng/L	8.67	43.7	10	11/15/25 05:11	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.843	U	ng/L	0.843	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**25.6**		ng/L	1.15	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	**1.23**	J	ng/L	0.476	4.61	1	11/14/25 04:20	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.835	U	ng/L	0.835	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.683	U	ng/L	0.683	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**9320**		ng/L	34.3	71.3	40	11/17/25 13:07	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**79.0**		ng/L	0.605	1.92	1	11/14/25 04:20	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**229**		ng/L	0.534	4.50	1	11/14/25 04:20	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**16.2**		ng/L	1.23	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.85	U	ng/L	1.85	4.80	1	11/14/25 04:20	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.935	U	ng/L	0.935	4.80	1	11/14/25 04:20	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***224***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***29.2***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***92.7***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***94.1***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***91.8***		*%REC*		*27-134*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***93.2***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***108***		*%REC*		*41-142*	*1*	*11/14/25 04:20*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: DUP-04_110625 **Lab ID: HN2516771-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***128***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***62.3***		*%REC*		*42-141*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***33.4***	*S*	*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***60.0***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***69.4***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***108***		*%REC*		*43-138*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***93.9***		*%REC*		*30-122*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***76.8***		*%REC*		*50-150*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***81.3***		*%REC*		*35-136*	*1*	*11/14/25 04:20*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***86.7***		*%REC*		*34-142*	*1*	*11/14/25 04:20*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-107_110625 **Lab ID: HN2516771-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.52	1	11/14/25 08:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.60	1	11/14/25 08:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.898	U	ng/L	0.898	4.48	1	11/14/25 08:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.84	U	ng/L	1.84	4.45	1	11/14/25 08:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.80	1	11/14/25 08:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.90	U	ng/L	2.90	4.80	1	11/14/25 08:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.33	U	ng/L	1.33	4.80	1	11/14/25 08:03	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.539	U	ng/L	0.539	4.52	1	11/14/25 08:03	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.430	U	ng/L	0.430	4.47	1	11/14/25 08:03	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.80	1	11/14/25 08:03	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.80	1	11/14/25 08:03	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.618	U	ng/L	0.618	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**12.7**		ng/L	0.850	4.42	1	11/14/25 08:03	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.35**	J	ng/L	0.337	4.24	1	11/14/25 08:03	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.49	U	ng/L	2.49	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.31	U	ng/L	1.31	4.63	1	11/14/25 08:03	11/12/25 17:49

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-107_110625 **Lab ID: HN2516771-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.663	U	ng/L	0.663	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.543	U	ng/L	0.543	4.57	1	11/14/25 08:03	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.66	U	ng/L	1.66	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**4.72**		ng/L	0.866	4.37	1	11/14/25 08:03	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.842	U	ng/L	0.842	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.15	U	ng/L	1.15	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.61	1	11/14/25 08:03	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.835	U	ng/L	0.835	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.682	U	ng/L	0.682	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**2.00**		ng/L	0.856	1.78	1	11/14/25 08:03	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.715**	J	ng/L	0.605	1.92	1	11/14/25 08:03	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.534	U	ng/L	0.534	4.50	1	11/14/25 08:03	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.85	U	ng/L	1.85	4.80	1	11/14/25 08:03	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.935	U	ng/L	0.935	4.80	1	11/14/25 08:03	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***143***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***97.0***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***89.9***		*%REC*		*27-134*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.6***		*%REC*		*41-142*	*1*	*11/14/25 08:03*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:05
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-19-107_110625 **Lab ID: HN2516771-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***91.1***		*%REC*		*42-141*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.7***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.3***		*%REC*		*43-138*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***75.5***		*%REC*		*30-122*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***85.0***		*%REC*		*35-136*	*1*	*11/14/25 08:03*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***92.6***		*%REC*		*34-142*	*1*	*11/14/25 08:03*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-91_110625 **Lab ID: HN2516771-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.475	U	ng/L	0.475	4.79	1	11/14/25 08:17	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.88	1	11/14/25 08:17	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.953	U	ng/L	0.953	4.75	1	11/14/25 08:17	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.95	U	ng/L	1.95	4.72	1	11/14/25 08:17	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.09	1	11/14/25 08:17	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.07	U	ng/L	3.07	5.09	1	11/14/25 08:17	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.42	U	ng/L	1.42	5.09	1	11/14/25 08:17	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.572	U	ng/L	0.572	4.79	1	11/14/25 08:17	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.456	U	ng/L	0.456	4.74	1	11/14/25 08:17	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.09	1	11/14/25 08:17	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.09	1	11/14/25 08:17	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.656	U	ng/L	0.656	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**28.4**		ng/L	0.902	4.69	1	11/14/25 08:17	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.886**	J	ng/L	0.357	4.50	1	11/14/25 08:17	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.34**		ng/L	2.65	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.91	1	11/14/25 08:17	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-91_110625 **Lab ID: HN2516771-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.703	U	ng/L	0.703	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.762**	J	ng/L	0.576	4.85	1	11/14/25 08:17	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.76	U	ng/L	1.76	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.73**	J	ng/L	0.919	4.63	1	11/14/25 08:17	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.894	U	ng/L	0.894	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**1.67**	J	ng/L	1.22	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.505	U	ng/L	0.505	4.89	1	11/14/25 08:17	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.886	U	ng/L	0.886	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**1.34**	J	ng/L	0.724	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**41.4**		ng/L	0.908	1.89	1	11/14/25 08:17	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**5.14**		ng/L	0.641	2.04	1	11/14/25 08:17	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.566	U	ng/L	0.566	4.77	1	11/14/25 08:17	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.69	U	ng/L	2.69	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.97	U	ng/L	1.97	5.09	1	11/14/25 08:17	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.992	U	ng/L	0.992	5.09	1	11/14/25 08:17	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***362***	*S*	*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***241***	*S*	*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***184***	*S*	*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***96.9***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***98.9***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***92.2***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***94.8***		*%REC*		*27-134*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***88.9***		*%REC*		*41-142*	*1*	*11/14/25 08:17*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-91_110625 **Lab ID: HN2516771-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***86.7***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***91.7***		*%REC*		*42-141*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.3***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.5***		*%REC*		*43-138*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***80.9***		*%REC*		*30-122*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***82.9***		*%REC*		*50-150*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***87.9***		*%REC*		*35-136*	*1*	*11/14/25 08:17*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***98.6***		*%REC*		*34-142*	*1*	*11/14/25 08:17*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-90_110625 **Lab ID: HN2516771-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.477	U	ng/L	0.477	4.81	1	11/14/25 05:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.89	1	11/14/25 05:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.956	U	ng/L	0.956	4.77	1	11/14/25 05:03	11/12/25 17:49
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.96	U	ng/L	1.96	4.74	1	11/14/25 05:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.11	1	11/14/25 05:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.09	U	ng/L	3.09	5.11	1	11/14/25 05:03	11/12/25 17:49
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.42	U	ng/L	1.42	5.11	1	11/14/25 05:03	11/12/25 17:49
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.574	U	ng/L	0.574	4.81	1	11/14/25 05:03	11/12/25 17:49
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.458	U	ng/L	0.458	4.76	1	11/14/25 05:03	11/12/25 17:49
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.20	U	ng/L	1.20	5.11	1	11/14/25 05:03	11/12/25 17:49
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.58	U	ng/L	1.58	5.11	1	11/14/25 05:03	11/12/25 17:49
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.658	U	ng/L	0.658	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**764**		ng/L	4.53	23.5	5	11/15/25 05:40	11/12/25 17:49
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.05**	J	ng/L	0.359	4.52	1	11/14/25 05:03	11/12/25 17:49
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**9.25**		ng/L	2.66	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.40	U	ng/L	1.40	4.92	1	11/14/25 05:03	11/12/25 17:49

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-90_110625 **Lab ID: HN2516771-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**2.05**	J	ng/L	1.27	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.706	U	ng/L	0.706	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**16.5**		ng/L	0.578	4.86	1	11/14/25 05:03	11/12/25 17:49
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.46**	J	ng/L	1.77	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**14.2**		ng/L	0.923	4.65	1	11/14/25 05:03	11/12/25 17:49
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.897	U	ng/L	0.897	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**4.19**	J	ng/L	1.23	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	**2.07**	J	ng/L	0.507	4.90	1	11/14/25 05:03	11/12/25 17:49
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.889	U	ng/L	0.889	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**1.37**	J	ng/L	0.726	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**966**		ng/L	4.56	9.48	5	11/15/25 05:40	11/12/25 17:49
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**13.9**		ng/L	0.644	2.04	1	11/14/25 05:03	11/12/25 17:49
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.70**	J	ng/L	0.568	4.79	1	11/14/25 05:03	11/12/25 17:49
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.20**	J	ng/L	1.31	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.70	U	ng/L	2.70	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.97	U	ng/L	1.97	5.11	1	11/14/25 05:03	11/12/25 17:49
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.995	U	ng/L	0.995	5.11	1	11/14/25 05:03	11/12/25 17:49
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***339***	*S*	*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***232***	*S*	*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***186***	*S*	*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-PFDA	*EPA 537Mod*	***99.7***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-PFDoA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-PFHxA	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-PFTeA	*EPA 537Mod*	***94.6***		*%REC*		*27-134*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C2-PFUnA	*EPA 537Mod*	***99.1***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***86.7***		*%REC*		*41-142*	*1*	*11/14/25 05:03*	*11/12/25 17:49*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-90_110625 **Lab ID: HN2516771-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C4-PFBA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C4-PFHpA	*EPA 537Mod*	***109***		*%REC*		*42-141*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C4-PFOA	*EPA 537Mod*	***95.6***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C4-PFOS	*EPA 537Mod*	***92.8***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C5-PFNA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C5-PFPeA	*EPA 537Mod*	***93.3***		*%REC*		*43-138*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 13C8-FOSA	*EPA 537Mod*	***82.9***		*%REC*		*30-122*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: 18O2-PFHxS	*EPA 537Mod*	***91.5***		*%REC*		*50-150*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***93.8***		*%REC*		*35-136*	*1*	*11/14/25 05:03*	*11/12/25 17:49*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***97.9***		*%REC*		*34-142*	*1*	*11/14/25 05:03*	*11/12/25 17:49*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-88_110625 **Lab ID: HN2516771-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.488	U	ng/L	0.488	4.92	1	11/14/25 23:38	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	5.01	1	11/14/25 23:38	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.979	U	ng/L	0.979	4.88	1	11/14/25 23:38	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.01	U	ng/L	2.01	4.85	1	11/14/25 23:38	11/13/25 11:26
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.23	1	11/14/25 23:38	11/13/25 11:26
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.16	U	ng/L	3.16	5.23	1	11/14/25 23:38	11/13/25 11:26
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.45	U	ng/L	1.45	5.23	1	11/14/25 23:38	11/13/25 11:26
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.588	U	ng/L	0.588	4.92	1	11/14/25 23:38	11/13/25 11:26
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.468	U	ng/L	0.468	4.87	1	11/14/25 23:38	11/13/25 11:26
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.23	1	11/14/25 23:38	11/13/25 11:26
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.23	1	11/14/25 23:38	11/13/25 11:26
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.673	U	ng/L	0.673	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**312**		ng/L	0.926	4.82	1	11/14/25 23:38	11/13/25 11:26
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.02**	J	ng/L	0.367	4.62	1	11/14/25 23:38	11/13/25 11:26
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.17**		ng/L	2.72	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.08	U	ng/L	2.08	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.43	U	ng/L	1.43	5.04	1	11/14/25 23:38	11/13/25 11:26

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-88_110625 **Lab ID: HN2516771-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.723	U	ng/L	0.723	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**3.35**	J	ng/L	0.592	4.98	1	11/14/25 23:38	11/13/25 11:26
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.81	U	ng/L	1.81	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**5.97**		ng/L	0.944	4.76	1	11/14/25 23:38	11/13/25 11:26
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.918	U	ng/L	0.918	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.25	U	ng/L	1.25	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.519	U	ng/L	0.519	5.02	1	11/14/25 23:38	11/13/25 11:26
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.910	U	ng/L	0.910	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.743	U	ng/L	0.743	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**337**		ng/L	0.933	1.94	1	11/14/25 23:38	11/13/25 11:26
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**9.27**		ng/L	0.659	2.09	1	11/14/25 23:38	11/13/25 11:26
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.639**	J	ng/L	0.581	4.90	1	11/14/25 23:38	11/13/25 11:26
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.34	U	ng/L	1.34	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.76	U	ng/L	2.76	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.23	1	11/14/25 23:38	11/13/25 11:26
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.23	1	11/14/25 23:38	11/13/25 11:26
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***162***	*S*	*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***123***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-PFDA	*EPA 537Mod*	***94.6***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-PFDoA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-PFHxA	*EPA 537Mod*	***99.9***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-PFTeA	*EPA 537Mod*	***103***		*%REC*		*27-134*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C2-PFUnA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***107***		*%REC*		*41-142*	*1*	*11/14/25 23:38*	*11/13/25 11:26*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:15
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-88_110625 **Lab ID: HN2516771-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C4-PFBA	*EPA 537Mod*	***121***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C4-PFHpA	*EPA 537Mod*	***109***		*%REC*		*42-141*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.0***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C4-PFOS	*EPA 537Mod*	***99.6***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C5-PFNA	*EPA 537Mod*	***99.4***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C5-PFPeA	*EPA 537Mod*	***113***		*%REC*		*43-138*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 13C8-FOSA	*EPA 537Mod*	***64.4***		*%REC*		*30-122*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: 18O2-PFHxS	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***93.9***		*%REC*		*35-136*	*1*	*11/14/25 23:38*	*11/13/25 11:26*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***100***		*%REC*		*34-142*	*1*	*11/14/25 23:38*	*11/13/25 11:26*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:39
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-95_110625 **Lab ID: HN2516771-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.493	U	ng/L	0.493	4.97	1	11/14/25 23:52	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.06	1	11/14/25 23:52	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.989	U	ng/L	0.989	4.93	1	11/14/25 23:52	11/13/25 11:26
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.03	U	ng/L	2.03	4.90	1	11/14/25 23:52	11/13/25 11:26
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.28	1	11/14/25 23:52	11/13/25 11:26
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.19	U	ng/L	3.19	5.28	1	11/14/25 23:52	11/13/25 11:26
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.47	U	ng/L	1.47	5.28	1	11/14/25 23:52	11/13/25 11:26
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.594	U	ng/L	0.594	4.97	1	11/14/25 23:52	11/13/25 11:26
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.473	U	ng/L	0.473	4.92	1	11/14/25 23:52	11/13/25 11:26
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.24	U	ng/L	1.24	5.28	1	11/14/25 23:52	11/13/25 11:26
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.28	1	11/14/25 23:52	11/13/25 11:26
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.680	U	ng/L	0.680	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**37.1**		ng/L	0.936	4.87	1	11/14/25 23:52	11/13/25 11:26
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.80**	J	ng/L	0.371	4.67	1	11/14/25 23:52	11/13/25 11:26
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**10.5**		ng/L	2.75	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.10	U	ng/L	2.10	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.45	U	ng/L	1.45	5.09	1	11/14/25 23:52	11/13/25 11:26

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:39
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-95_110625 **Lab ID: HN2516771-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.730	U	ng/L	0.730	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.818**	J	ng/L	0.598	5.03	1	11/14/25 23:52	11/13/25 11:26
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.83	U	ng/L	1.83	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.64**	J	ng/L	0.954	4.81	1	11/14/25 23:52	11/13/25 11:26
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.927	U	ng/L	0.927	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.27	U	ng/L	1.27	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.524	U	ng/L	0.524	5.07	1	11/14/25 23:52	11/13/25 11:26
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.35**	J	ng/L	0.919	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.751	U	ng/L	0.751	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**38.6**		ng/L	0.942	1.96	1	11/14/25 23:52	11/13/25 11:26
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**3.60**		ng/L	0.665	2.11	1	11/14/25 23:52	11/13/25 11:26
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.587	U	ng/L	0.587	4.95	1	11/14/25 23:52	11/13/25 11:26
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.35	U	ng/L	1.35	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.79	U	ng/L	2.79	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.28	1	11/14/25 23:52	11/13/25 11:26
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.28	1	11/14/25 23:52	11/13/25 11:26
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***142***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-PFDA	*EPA 537Mod*	***91.0***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-PFDoA	*EPA 537Mod*	***98.9***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-PFHxA	*EPA 537Mod*	***97.8***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-PFTeA	*EPA 537Mod*	***98.8***		*%REC*		*27-134*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.9***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***110***		*%REC*		*41-142*	*1*	*11/14/25 23:52*	*11/13/25 11:26*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	11/06/25 11:39
Matrix:	GROUNDWATER	**Date Received:**	11/07/25 08:30

CLIENT ID: MW-18-95_110625 **Lab ID: HN2516771-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***98.4***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C4-PFBA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C4-PFHpA	*EPA 537Mod*	***105***		*%REC*		*42-141*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C4-PFOA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C4-PFOS	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C5-PFNA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C5-PFPeA	*EPA 537Mod*	***106***		*%REC*		*43-138*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 13C8-FOSA	*EPA 537Mod*	***77.3***		*%REC*		*30-122*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: 18O2-PFHxS	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***88.4***		*%REC*		*35-136*	*1*	*11/14/25 23:52*	*11/13/25 11:26*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***95.9***		*%REC*		*34-142*	*1*	*11/14/25 23:52*	*11/13/25 11:26*

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330370	**Run ID:**	3687857

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2330370-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:01 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2330370

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687857

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2330370-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:01 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***148***	*ng/L*			149.44		99.2	*50-150*			
Surr: 13C2-FtS 6:2	***170***	*ng/L*			152		112	*50-150*			
Surr: 13C2-FtS 8:2	***166***	*ng/L*			153.28		109	*50-150*			
Surr: 13C2-PFDA	***156***	*ng/L*			160		97.7	*50-150*			
Surr: 13C2-PFDoA	***156***	*ng/L*			160		97.2	*50-150*			
Surr: 13C2-PFHxA	***168***	*ng/L*			160		105	*50-150*			
Surr: 13C2-PFTeA	***96.6***	*ng/L*			160		60.4	*27-134*			
Surr: 13C2-PFUnA	***164***	*ng/L*			160		102	*50-150*			
Surr: 13C3-HFPO-DA	***159***	*ng/L*			160		99.4	*41-142*			
Surr: 13C3-PFBS	***142***	*ng/L*			148.8		95.4	*50-150*			
Surr: 13C4-PFBA	***193***	*ng/L*			160		121	*50-150*			
Surr: 13C4-PFHpA	***175***	*ng/L*			160		109	*42-141*			
Surr: 13C4-PFOA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C4-PFOS	***153***	*ng/L*			152.8		100.0	*50-150*			
Surr: 13C5-PFNA	***173***	*ng/L*			160		108	*50-150*			
Surr: 13C5-PFPeA	***166***	*ng/L*			160		104	*43-138*			
Surr: 13C8-FOSA	***151***	*ng/L*			160		94.4	*30-122*			
Surr: 18O2-PFHxS	***164***	*ng/L*			151.2		109	*50-150*			
Surr: d3-N-MeFOSAA	***153***	*ng/L*			160		95.5	*35-136*			
Surr: d5-N-EtFOSAA	***162***	*ng/L*			160		101	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2330370-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:15 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	29.4	ng/L	0.467	4.71	30.1		97.7	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	26.9	ng/L	1.13	4.79	30.7		87.7	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.3	ng/L	0.936	4.67	29.9		94.8	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	29.2	ng/L	1.92	4.74	30.3		96.2	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.7	ng/L	1.08	5.00	32		86.5	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330370	**Run ID:**	3687857

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2330370-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 08:15

Prep Date: 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.8	ng/L	3.02	5.00	32		109	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.5	ng/L	1.39	5.00	32		111	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.7	ng/L	0.562	4.71	30.1		95.2	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	30.1	ng/L	0.448	4.66	29.8		101	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	27.1	ng/L	1.17	5.00	32		84.7	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.3	ng/L	1.54	5.00	32		91.5	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	30.6	ng/L	0.644	5.00	32		95.7	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.9	ng/L	0.886	4.61	28.8		114	74-131			
Perfluorobutane sulfonic acid (PFBS)	30.2	ng/L	0.351	4.42	28.3		107	69-131			
Perfluorobutanoic acid (PFBA)	30.2	ng/L	2.60	5.00	32		94.4	73-139			
Perfluorobutylsulfonamide (PFBSA)	32.9	ng/L	1.98	5.00	32		103	68-164			
Perfluorodecane sulfonic acid (PFDS)	27.8	ng/L	1.37	4.82	30.8		90.3	64-128			
Perfluorodecanoic acid (PFDA)	30.3	ng/L	1.24	5.00	32		94.7	77-135			
Perfluorododecanoic acid (PFDOA)	31.9	ng/L	0.691	5.00	32		99.7	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	27.6	ng/L	0.566	4.76	30.5		90.4	70-137			
Perfluoroheptanoic acid (PFHpA)	31.3	ng/L	1.73	5.00	32		97.8	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.5	ng/L	0.903	4.55	29.1		101	68-131			
Perfluorohexanesulfonamide (PFHxSA)	29.1	ng/L	0.878	5.00	32		91.0	69-135			
Perfluorohexanoic acid (PFHxA)	30.6	ng/L	1.20	5.00	32		95.5	72-129			
Perfluorononane sulfonic acid (PFNS)	28.3	ng/L	0.496	4.80	30.7		92.2	70-132			
Perfluorononanoic acid (PFNA)	30.5	ng/L	0.870	5.00	32		95.3	75-131			
Perfluorooctane sulfonamide (PFOSAm)	31.7	ng/L	0.711	5.00	32		99.1	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.6	ng/L	0.892	1.86	29.7		93.0	72-133			
Perfluorooctanoic acid (PFOA)	32.3	ng/L	0.630	2.00	32		101	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.3	ng/L	0.556	4.69	30		97.5	73-137			
Perfluoropentanoic acid (PFPeA)	31.2	ng/L	1.28	5.00	32		97.6	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.1	ng/L	2.64	5.00	32		90.9	62-139			
Perfluorotridecanoic acid (PFTrDA)	42.6	ng/L	1.93	5.00	32		133	47-147			
Perfluoroundecanoic acid (PFUnDA)	32.0	ng/L	0.974	5.00	32		100	80-135			
Surr: 13C2-FtS 4:2	***183***	*ng/L*			149.44		123	*50-150*			
Surr: 13C2-FtS 6:2	***202***	*ng/L*			152		133	*50-150*			
Surr: 13C2-FtS 8:2	***219***	*ng/L*			153.28		143	*50-150*			
Surr: 13C2-PFDA	***184***	*ng/L*			160		115	*50-150*			
Surr: 13C2-PFDoA	***204***	*ng/L*			160		127	*50-150*			
Surr: 13C2-PFHxA	***188***	*ng/L*			160		118	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2330370

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687857

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2330370-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:15 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***108***	*ng/L*			160		67.3	*27-134*			
Surr: 13C2-PFUnA	***195***	*ng/L*			160		122	*50-150*			
Surr: 13C3-HFPO-DA	***193***	*ng/L*			160		121	*41-142*			
Surr: 13C3-PFBS	***164***	*ng/L*			148.8		110	*50-150*			
Surr: 13C4-PFBA	***211***	*ng/L*			160		132	*50-150*			
Surr: 13C4-PFHpA	***189***	*ng/L*			160		118	*42-141*			
Surr: 13C4-PFOA	***189***	*ng/L*			160		118	*50-150*			
Surr: 13C4-PFOS	***161***	*ng/L*			152.8		106	*50-150*			
Surr: 13C5-PFNA	***194***	*ng/L*			160		121	*50-150*			
Surr: 13C5-PFPeA	***191***	*ng/L*			160		119	*43-138*			
Surr: 13C8-FOSA	***171***	*ng/L*			160		107	*30-122*			
Surr: 18O2-PFHxS	***168***	*ng/L*			151.2		111	*50-150*			
Surr: d3-N-MeFOSAA	***179***	*ng/L*			160		112	*35-136*			
Surr: d5-N-EtFOSAA	***190***	*ng/L*			160		119	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2330370-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 09:58 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	29.1	ng/L	0.490	4.94	31.553	<0.490	92.0	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	30.4	ng/L	1.18	5.02	32.182	<1.18	93.8	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.2	ng/L	0.981	4.90	31.343	<0.981	91.8	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	35.5	ng/L	2.01	4.86	31.762	<2.01	111	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	37.7	ng/L	1.13	5.24	33.544	<1.13	111	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	37.2	ng/L	3.17	5.24	33.544	<3.17	110	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	31.9	ng/L	1.46	5.24	33.544	<1.46	91.4	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.6	ng/L	0.589	4.94	31.553	<0.589	99.1	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.8	ng/L	0.470	4.88	31.238	<0.470	88.5	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	26.9	ng/L	1.23	5.24	33.544	<1.23	76.8	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.6	ng/L	1.62	5.24	33.544	<1.62	93.9	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	39.8	ng/L	0.675	5.24	33.544	<0.675	118	67-133			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2330370

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687857

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2330370-005**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/13/25 09:58
Prep Date: 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.9	ng/L	0.929	4.83	30.19	<0.929	107	74-131			
Perfluorobutane sulfonic acid (PFBS)	61.0	ng/L	0.368	4.63	29.666	37.5	79.3	69-141			
Perfluorobutanoic acid (PFBA)	50.8	ng/L	2.73	5.24	33.544	24.6	78.1	73-139			
Perfluorobutylsulfonamide (PFBSA)	33.9	ng/L	2.08	5.24	33.544	<2.08	95.3	68-164			
Perfluorodecane sulfonic acid (PFDS)	27.5	ng/L	1.44	5.05	32.286	<1.44	85.1	64-128			
Perfluorodecanoic acid (PFDA)	34.3	ng/L	1.30	5.24	33.544	<1.30	101	77-135			
Perfluorododecanoic acid (PFDOA)	35.1	ng/L	0.724	5.24	33.544	<0.724	104	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	34.7	ng/L	0.593	4.99	31.972	3.83	96.6	70-137			
Perfluoroheptanoic acid (PFHpA)	58.9	ng/L	1.81	5.24	33.544	31.3	82.3	67-130			
Perfluorohexane sulfonic acid (PFHxS)	45.1	ng/L	0.947	4.77	30.504	14.2	101	68-131			
Perfluorohexanesulfonamide (PFHxSA)	32.8	ng/L	0.920	5.24	33.544	<0.920	97.2	69-135			
Perfluorohexanoic acid (PFHxA)	66.5	ng/L	1.26	5.24	33.544	41.1	75.7	72-129			
Perfluorononane sulfonic acid (PFNS)	31.1	ng/L	0.520	5.03	32.182	<0.520	96.3	70-132			
Perfluorononanoic acid (PFNA)	42.8	ng/L	0.912	5.24	33.544	7.93	104	75-131			
Perfluorooctane sulfonamide (PFOSAm)	35.8	ng/L	0.745	5.24	33.544	<0.745	106	66-140			
Perfluorooctane sulfonic acid (PFOS)	70.9	ng/L	0.935	1.95	31.133	42.3	91.7	72-133			
Perfluorooctanoic acid (PFOA)	221	ng/L	0.660	2.10	32	192	NC	71-133			O
Perfluoropentane sulfonic acid (PFPeS)	30.4	ng/L	0.583	4.92	31.448	1.52	91.8	73-137			
Perfluoropentanoic acid (PFPeA)	71.4	ng/L	1.34	5.24	33.544	45.6	77.0	72-129			
Perfluorotetradecanoic acid (PFTDA)	32.7	ng/L	2.77	5.24	33.544	<2.77	96.6	62-139			
Perfluorotridecanoic acid (PFTrDA)	35.3	ng/L	2.02	5.24	33.544	<2.02	105	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.9	ng/L	1.02	5.24	33.544	<1.02	94.9	80-135			
Surr: 13C2-FtS 4:2	***470***	*ng/L*			156.65		300	*50-150*			S
Surr: 13C2-FtS 6:2	***276***	*ng/L*			159.34		173	*50-150*			S
Surr: 13C2-FtS 8:2	***201***	*ng/L*			160.68		125	*50-150*			
Surr: 13C2-PFDA	***161***	*ng/L*			167.72		96.1	*50-150*			
Surr: 13C2-PFDoA	***165***	*ng/L*			167.72		98.5	*50-150*			
Surr: 13C2-PFHxA	***161***	*ng/L*			167.72		96.3	*50-150*			
Surr: 13C2-PFTeA	***159***	*ng/L*			167.72		94.7	*27-134*			
Surr: 13C2-PFUnA	***168***	*ng/L*			167.72		100	*50-150*			
Surr: 13C3-HFPO-DA	***167***	*ng/L*			167.72		99.6	*41-142*			
Surr: 13C3-PFBS	***139***	*ng/L*			155.98		89.2	*50-150*			
Surr: 13C4-PFBA	***170***	*ng/L*			167.72		101	*50-150*			
Surr: 13C4-PFHpA	***170***	*ng/L*			167.72		102	*42-141*			
Surr: 13C4-PFOA	***154***	*ng/L*			167.72		91.9	*50-150*			
Surr: 13C4-PFOS	***165***	*ng/L*			160.17		103	*50-150*			
Surr: 13C5-PFNA	***164***	*ng/L*			167.72		97.8	*50-150*			
Surr: 13C5-PFPeA	***151***	*ng/L*			167.72		89.8	*43-138*			
Surr: 13C8-FOSA	***152***	*ng/L*			167.72		90.8	*30-122*			
Surr: 18O2-PFHxS	***146***	*ng/L*			158.5		92.3	*50-150*			
Surr: d3-N-MeFOSAA	***142***	*ng/L*			167.72		84.9	*35-136*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2330370

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687857

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2330370-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 09:58 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: d5-N-EtFOSAA	***153***	*ng/L*			167.72		91.3	*34-142*			

DUP | **CLIENT ID: Batch QC** | **Lab ID: QC-2330370-007**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 12:54 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71		<0.487			NC		U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79		<1.18			4.11	30	U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67		<0.975			NC		U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.64		<2.00			NC		U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00		<1.13			4.11	30	U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00		<3.15			4.11	30	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00		<1.45			4.11	30	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71		<0.586			NC		U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66		<0.467			NC		U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00		<1.22			4.11	30	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.55	ng/L	1.55	5.00		<1.61			4.11	30	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00		<0.671			4.11	30	U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61		<0.923			4.11	30	U
Perfluorobutane sulfonic acid (PFBS)	42.7	ng/L	0.351	4.42		44.5			4.14	30	
Perfluorobutanoic acid (PFBA)	9.77	ng/L	2.60	5.00		9.67			0.962	30	
Perfluorobutylsulfonamide (PFBSA)	7.51	ng/L	1.99	5.00		7.38			1.81	30	
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82		<1.43			4.11	30	U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00		<1.29			4.11	30	U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00		<0.720			4.11	30	U
Perfluoroheptane sulfonic acid (PFHpS)	1.79	ng/L	0.566	4.76		1.85			4.11	30	J
Perfluoroheptanoic acid (PFHpA)	17.2	ng/L	1.73	5.00		19.3			11.5	30	
Perfluorohexane sulfonic acid (PFHxS)	5.12	ng/L	0.903	4.55		5.11			0.296	30	
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00		<0.915			4.11	30	U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330370	**Run ID:**	3687857

DUP | **CLIENT ID: Batch QC** | **Lab ID: QC-2330370-007**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 12:54 | **Prep Date:** 11/11/25 17:04

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexanoic acid (PFHxA)	20.8	ng/L	1.20	5.00		21.0			0.815	30	
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80		<0.517			4.11	30	U
Perfluorononanoic acid (PFNA)	6.87	ng/L	0.870	5.00		7.34			6.64	30	
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00		<0.741			4.11	30	U
Perfluorooctane sulfonic acid (PFOS)	12.1	ng/L	0.892	1.86		10.8			11.5	30	
Perfluorooctanoic acid (PFOA)	104	ng/L	0.630	2.00		95.4			8.31	30	
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69		0.807			NC		U
Perfluoropentanoic acid (PFPeA)	18.4	ng/L	1.28	5.00		20.2			9.44	30	
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00		<2.75			4.11	30	U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00		<2.01			4.11	30	U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00		<1.02			4.11	30	U
Surr: 13C2-FtS 4:2	***350***	*ng/L*			149.44		234	*50-150*	14.7	30	S
Surr: 13C2-FtS 6:2	***220***	*ng/L*			152		145	*50-150*	10.5	30	
Surr: 13C2-FtS 8:2	***190***	*ng/L*			153.28		124	*50-150*	9.96	30	
Surr: 13C2-PFDA	***146***	*ng/L*			160		91.3	*50-150*	10.1	30	
Surr: 13C2-PFDoA	***153***	*ng/L*			160		95.8	*50-150*	15.6	30	
Surr: 13C2-PFHxA	***152***	*ng/L*			160		95.1	*50-150*	16.3	30	
Surr: 13C2-PFTeA	***147***	*ng/L*			160		91.8	*27-134*	18.9	30	
Surr: 13C2-PFUnA	***149***	*ng/L*			160		93.3	*50-150*	14.6	30	
Surr: 13C3-HFPO-DA	***143***	*ng/L*			160		89.1	*41-142*	11.5	30	
Surr: 13C3-PFBS	***130***	*ng/L*			148.8		87.3	*50-150*	10.9	30	
Surr: 13C4-PFBA	***164***	*ng/L*			160		102	*50-150*	15.4	30	
Surr: 13C4-PFHpA	***161***	*ng/L*			160		100	*42-141*	10.4	30	
Surr: 13C4-PFOA	***149***	*ng/L*			160		93.2	*50-150*	17.4	30	
Surr: 13C4-PFOS	***142***	*ng/L*			152.8		93.1	*50-150*	20.2	30	
Surr: 13C5-PFNA	***152***	*ng/L*			160		94.8	*50-150*	17.5	30	
Surr: 13C5-PFPeA	***143***	*ng/L*			160		89.3	*43-138*	9.39	30	
Surr: 13C8-FOSA	***149***	*ng/L*			160		92.9	*30-122*	14.5	30	
Surr: 18O2-PFHxS	***138***	*ng/L*			151.2		91.2	*50-150*	10.2	30	
Surr: d3-N-MeFOSAA	***136***	*ng/L*			160		85.3	*35-136*	12.6	30	
Surr: d5-N-EtFOSAA	***148***	*ng/L*			160		92.3	*34-142*	13.8	30	

The following samples were analyzed in this batch: HN2516771-001, HN2516771-002, HN2516771-003, HN2516771-004, HN2516771-005, HN2516771-006, HN2516771-007

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2331185

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687875

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2331185-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 09:00
Prep Date: 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2331185

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687875

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2331185-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 09:00 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***127***	*ng/L*			149.44		84.9	*50-150*			
Surr: 13C2-FtS 6:2	***156***	*ng/L*			152		103	*50-150*			
Surr: 13C2-FtS 8:2	***156***	*ng/L*			153.28		101	*50-150*			
Surr: 13C2-PFDA	***147***	*ng/L*			160		92.2	*50-150*			
Surr: 13C2-PFDoA	***158***	*ng/L*			160		98.8	*50-150*			
Surr: 13C2-PFHxA	***155***	*ng/L*			160		97.0	*50-150*			
Surr: 13C2-PFTeA	***134***	*ng/L*			160		83.9	*27-134*			
Surr: 13C2-PFUnA	***155***	*ng/L*			160		96.7	*50-150*			
Surr: 13C3-HFPO-DA	***154***	*ng/L*			160		96.5	*41-142*			
Surr: 13C3-PFBS	***130***	*ng/L*			148.8		87.4	*50-150*			
Surr: 13C4-PFBA	***178***	*ng/L*			160		111	*50-150*			
Surr: 13C4-PFHpA	***160***	*ng/L*			160		99.9	*42-141*			
Surr: 13C4-PFOA	***165***	*ng/L*			160		103	*50-150*			
Surr: 13C4-PFOS	***141***	*ng/L*			152.8		92.2	*50-150*			
Surr: 13C5-PFNA	***163***	*ng/L*			160		102	*50-150*			
Surr: 13C5-PFPeA	***149***	*ng/L*			160		93.3	*43-138*			
Surr: 13C8-FOSA	***127***	*ng/L*			160		79.6	*30-122*			
Surr: 18O2-PFHxS	***150***	*ng/L*			151.2		99.2	*50-150*			
Surr: d3-N-MeFOSAA	***128***	*ng/L*			160		80.0	*35-136*			
Surr: d5-N-EtFOSAA	***139***	*ng/L*			160		86.6	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2331185-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 09:14 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	29.3	ng/L	0.467	4.71	30.1		97.2	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	32.4	ng/L	1.13	4.79	30.7		106	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	32.3	ng/L	0.936	4.67	29.9		108	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	38.1	ng/L	1.92	4.74	30.3		126	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	31.7	ng/L	1.08	5.00	32		99.0	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2331185	**Run ID:**	3687875

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2331185-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 09:14

Prep Date: 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	40.0	ng/L	3.02	5.00	32		125	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36.3	ng/L	1.39	5.00	32		113	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.5	ng/L	0.562	4.71	30.1		105	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	30.1	ng/L	0.448	4.66	29.8		101	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	32.3	ng/L	1.17	5.00	32		101	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	30.0	ng/L	1.54	5.00	32		93.8	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.0	ng/L	0.644	5.00	32		106	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	34.6	ng/L	0.886	4.61	28.8		120	74-131			
Perfluorobutane sulfonic acid (PFBS)	31.7	ng/L	0.351	4.42	28.3		112	69-131			
Perfluorobutanoic acid (PFBA)	32.1	ng/L	2.60	5.00	32		100	73-139			
Perfluorobutylsulfonamide (PFBSA)	37.3	ng/L	1.98	5.00	32		116	68-164			
Perfluorodecane sulfonic acid (PFDS)	29.2	ng/L	1.37	4.82	30.8		94.9	64-128			
Perfluorodecanoic acid (PFDA)	31.2	ng/L	1.24	5.00	32		97.6	77-135			
Perfluorododecanoic acid (PFDOA)	33.9	ng/L	0.691	5.00	32		106	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	32.0	ng/L	0.566	4.76	30.5		105	70-137			
Perfluoroheptanoic acid (PFHpA)	33.2	ng/L	1.73	5.00	32		104	67-130			
Perfluorohexane sulfonic acid (PFHxS)	30.2	ng/L	0.903	4.55	29.1		104	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.8	ng/L	0.878	5.00	32		106	69-135			
Perfluorohexanoic acid (PFHxA)	33.6	ng/L	1.20	5.00	32		105	72-129			
Perfluorononane sulfonic acid (PFNS)	30.7	ng/L	0.496	4.80	30.7		99.9	70-132			
Perfluorononanoic acid (PFNA)	33.6	ng/L	0.870	5.00	32		105	75-131			
Perfluorooctane sulfonamide (PFOSAm)	35.1	ng/L	0.711	5.00	32		110	66-140			
Perfluorooctane sulfonic acid (PFOS)	29.6	ng/L	0.892	1.86	29.7		99.7	72-133			
Perfluorooctanoic acid (PFOA)	35.6	ng/L	0.630	2.00	32		111	71-133			
Perfluoropentane sulfonic acid (PFPeS)	30.6	ng/L	0.556	4.69	30		102	73-137			
Perfluoropentanoic acid (PFPeA)	35.0	ng/L	1.28	5.00	32		109	72-129			
Perfluorotetradecanoic acid (PFTDA)	33.1	ng/L	2.64	5.00	32		103	62-139			
Perfluorotridecanoic acid (PFTrDA)	39.2	ng/L	1.93	5.00	32		122	47-147			
Perfluoroundecanoic acid (PFUnDA)	33.1	ng/L	0.974	5.00	32		103	80-135			
Surr: 13C2-FtS 4:2	***134***	*ng/L*			149.44		89.4	*50-150*			
Surr: 13C2-FtS 6:2	***159***	*ng/L*			152		105	*50-150*			
Surr: 13C2-FtS 8:2	***169***	*ng/L*			153.28		110	*50-150*			
Surr: 13C2-PFDA	***152***	*ng/L*			160		95.1	*50-150*			
Surr: 13C2-PFDoA	***139***	*ng/L*			160		86.8	*50-150*			
Surr: 13C2-PFHxA	***149***	*ng/L*			160		93.2	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2331185

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687875

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2331185-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 09:14 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***103***	*ng/L*			160		64.6	*27-134*			
Surr: 13C2-PFUnA	***144***	*ng/L*			160		90.2	*50-150*			
Surr: 13C3-HFPO-DA	***145***	*ng/L*			160		90.5	*41-142*			
Surr: 13C3-PFBS	***131***	*ng/L*			148.8		88.0	*50-150*			
Surr: 13C4-PFBA	***175***	*ng/L*			160		109	*50-150*			
Surr: 13C4-PFHpA	***151***	*ng/L*			160		94.5	*42-141*			
Surr: 13C4-PFOA	***147***	*ng/L*			160		91.9	*50-150*			
Surr: 13C4-PFOS	***134***	*ng/L*			152.8		87.8	*50-150*			
Surr: 13C5-PFNA	***149***	*ng/L*			160		92.8	*50-150*			
Surr: 13C5-PFPeA	***151***	*ng/L*			160		94.6	*43-138*			
Surr: 13C8-FOSA	***126***	*ng/L*			160		79.0	*30-122*			
Surr: 18O2-PFHxS	***134***	*ng/L*			151.2		88.7	*50-150*			
Surr: d3-N-MeFOSAA	***130***	*ng/L*			160		81.3	*35-136*			
Surr: d5-N-EtFOSAA	***139***	*ng/L*			160		86.9	*34-142*			

MS | **CLIENT ID: MW-18-92_110525** | **Lab ID: QC-2331185-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 11:41 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	31.4	ng/L	0.466	4.70	30.058	<0.466	104	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.4	ng/L	1.13	4.78	30.657	<1.13	112	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	34.7	ng/L	0.935	4.66	29.858	<0.935	116	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	33.5	ng/L	1.92	4.63	30.258	<1.92	118	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	37.0	ng/L	1.08	4.99	31.955	<1.08	116	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	39.6	ng/L	3.02	4.99	31.955	<3.02	124	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	37.0	ng/L	1.39	4.99	31.955	<1.39	115	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	30.1	ng/L	0.561	4.70	30.058	<0.561	100	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.9	ng/L	0.447	4.65	29.758	<0.447	101	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.0	ng/L	1.17	4.99	31.955	<1.17	93.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	33.8	ng/L	1.54	4.99	31.955	<1.54	105	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	36.3	ng/L	0.643	4.99	31.955	<0.643	113	67-133			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2331185	**Run ID:**	3687875

MS	**CLIENT ID: MW-18-92_110525**	**Lab ID: QC-2331185-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 11:41

Prep Date: 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	39.3	ng/L	0.885	4.60	28.76	5.29	118	74-131			
Perfluorobutane sulfonic acid (PFBS)	34.0	ng/L	0.351	4.41	28.26	0.541	119	69-141			
Perfluorobutanoic acid (PFBA)	34.3	ng/L	2.60	4.99	31.955	<2.60	103	73-139			
Perfluorobutylsulfonamide (PFBSA)	40.1	ng/L	1.98	4.99	31.955	<1.98	125	68-164			
Perfluorodecane sulfonic acid (PFDS)	30.3	ng/L	1.37	4.81	30.757	<1.37	98.4	64-128			
Perfluorodecanoic acid (PFDA)	34.4	ng/L	1.24	4.99	31.955	<1.24	107	77-135			
Perfluorododecanoic acid (PFDOA)	35.6	ng/L	0.690	4.99	31.955	<0.690	111	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.6	ng/L	0.565	4.75	30.457	<0.565	104	70-137			
Perfluoroheptanoic acid (PFHpA)	34.9	ng/L	1.73	4.99	31.955	<1.73	111	67-130			
Perfluorohexane sulfonic acid (PFHxS)	30.2	ng/L	0.902	4.54	29.059	<0.902	103	68-131			
Perfluorohexanesulfonamide (PFHxSA)	32.3	ng/L	0.877	4.99	31.955	<0.877	101	69-135			
Perfluorohexanoic acid (PFHxA)	33.4	ng/L	1.20	4.99	31.955	<1.20	107	72-129			
Perfluorononane sulfonic acid (PFNS)	34.2	ng/L	0.495	4.79	30.657	<0.495	112	70-132			
Perfluorononanoic acid (PFNA)	37.2	ng/L	0.869	4.99	31.955	<0.869	118	75-131			
Perfluorooctane sulfonamide (PFOSAm)	39.5	ng/L	0.710	4.99	31.955	<0.710	123	66-140			
Perfluorooctane sulfonic acid (PFOS)	28.9	ng/L	0.891	1.85	29.658	<0.891	96.6	72-133			
Perfluorooctanoic acid (PFOA)	34.4	ng/L	0.629	2.00	31.955	<0.629	107	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.4	ng/L	0.555	4.68	29.958	<0.555	97.8	73-137			
Perfluoropentanoic acid (PFPeA)	37.2	ng/L	1.28	4.99	31.955	<1.28	119	72-129			
Perfluorotetradecanoic acid (PFTDA)	36.5	ng/L	2.64	4.99	31.955	<2.64	113	62-139			
Perfluorotridecanoic acid (PFTrDA)	35.2	ng/L	1.93	4.99	31.955	<1.93	110	47-147			
Perfluoroundecanoic acid (PFUnDA)	33.8	ng/L	0.973	4.99	31.955	<0.973	106	80-135			
Surr: 13C2-FtS 4:2	***181***	*ng/L*			149.23		121	*50-150*			
Surr: 13C2-FtS 6:2	***158***	*ng/L*			151.79		104	*50-150*			
Surr: 13C2-FtS 8:2	***161***	*ng/L*			153.07		105	*50-150*			
Surr: 13C2-PFDA	***140***	*ng/L*			159.78		87.5	*50-150*			
Surr: 13C2-PFDoA	***148***	*ng/L*			159.78		92.8	*50-150*			
Surr: 13C2-PFHxA	***154***	*ng/L*			159.78		96.5	*50-150*			
Surr: 13C2-PFTeA	***147***	*ng/L*			159.78		91.7	*27-134*			
Surr: 13C2-PFUnA	***144***	*ng/L*			159.78		90.3	*50-150*			
Surr: 13C3-HFPO-DA	***143***	*ng/L*			159.78		89.6	*41-142*			
Surr: 13C3-PFBS	***123***	*ng/L*			148.59		83.1	*50-150*			
Surr: 13C4-PFBA	***161***	*ng/L*			159.78		101	*50-150*			
Surr: 13C4-PFHpA	***152***	*ng/L*			159.78		94.9	*42-141*			
Surr: 13C4-PFOA	***156***	*ng/L*			159.78		97.4	*50-150*			
Surr: 13C4-PFOS	***138***	*ng/L*			152.59		90.3	*50-150*			
Surr: 13C5-PFNA	***149***	*ng/L*			159.78		93.5	*50-150*			
Surr: 13C5-PFPeA	***140***	*ng/L*			159.78		87.8	*43-138*			
Surr: 13C8-FOSA	***120***	*ng/L*			159.78		74.9	*30-122*			
Surr: 18O2-PFHxS	***139***	*ng/L*			150.99		92.2	*50-150*			
Surr: d3-N-MeFOSAA	***127***	*ng/L*			159.78		79.8	*35-136*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2331185

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687875

MS | **CLIENT ID: MW-18-92_110525** | **Lab ID: QC-2331185-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 11:41 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: d5-N-EtFOSAA	***144***	*ng/L*			159.78		89.9	*34-142*			

MSD | **CLIENT ID: MW-18-92_110525** | **Lab ID: QC-2331185-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 11:55 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	30.5	ng/L	0.467	4.71	29.195	<0.467	104	61-128	2.83	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	32.9	ng/L	1.13	4.79	29.777	<1.13	110	61-148	4.46	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	34.4	ng/L	0.936	4.67	29.001	<0.936	118	67-143	0.815	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	34.4	ng/L	1.92	4.74	29.389	<1.92	125	66-151	2.89	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36.2	ng/L	1.08	5.00	31.038	<1.08	117	39-117	2.23	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	38.9	ng/L	3.02	5.00	31.038	<3.02	125	71-138	1.83	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	31.1	ng/L	1.39	5.00	31.038	<1.39	99.6	64-134	17.2	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.9	ng/L	0.562	4.71	29.195	<0.562	102	74-135	0.740	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	28.7	ng/L	0.448	4.66	28.904	<0.448	99.3	69-133	4.18	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	28.3	ng/L	1.17	5.00	31.038	<1.17	91.0	65-139	5.64	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	33.4	ng/L	1.54	5.00	31.038	<1.54	107	67-140	1.11	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.9	ng/L	0.644	5.00	31.038	<0.644	115	67-133	0.950	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	36.9	ng/L	0.886	4.61	27.934	5.29	113	74-131	6.48	30	
Perfluorobutane sulfonic acid (PFBS)	31.6	ng/L	0.351	4.42	27.449	0.541	113	69-141	7.33	30	
Perfluorobutanoic acid (PFBA)	32.5	ng/L	2.60	5.00	31.038	<2.60	100	73-139	5.33	30	
Perfluorobutylsulfonamide (PFBSA)	35.3	ng/L	1.98	5.00	31.038	<1.98	114	68-164	12.9	30	
Perfluorodecane sulfonic acid (PFDS)	29.2	ng/L	1.37	4.82	29.874	<1.37	97.7	64-128	3.72	30	
Perfluorodecanoic acid (PFDA)	33.7	ng/L	1.24	5.00	31.038	<1.24	108	77-135	2.25	30	
Perfluorododecanoic acid (PFDOA)	34.5	ng/L	0.691	5.00	31.038	<0.691	111	77-137	2.95	30	
Perfluoroheptane sulfonic acid (PFHpS)	28.9	ng/L	0.566	4.76	29.583	<0.566	97.7	70-137	8.87	30	
Perfluoroheptanoic acid (PFHpA)	33.3	ng/L	1.73	5.00	31.038	<1.73	110	67-130	4.54	30	
Perfluorohexane sulfonic acid (PFHxS)	27.5	ng/L	0.903	4.55	28.225	<0.903	96.4	68-131	9.22	30	
Perfluorohexanesulfonamide (PFHxSA)	30.6	ng/L	0.878	5.00	31.038	<0.878	98.6	69-135	5.47	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2331185	**Run ID:**	3687875

MSD | **CLIENT ID: MW-18-92_110525** | **Lab ID: QC-2331185-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 11:55 | **Prep Date:** 11/12/25 17:50

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexanoic acid (PFHxA)	32.1	ng/L	1.20	5.00	31.038	<1.20	106	72-129	3.84	30	
Perfluorononane sulfonic acid (PFNS)	32.6	ng/L	0.496	4.80	29.777	<0.496	109	70-132	4.80	30	
Perfluorononanoic acid (PFNA)	34.6	ng/L	0.870	5.00	31.038	<0.870	113	75-131	7.13	30	
Perfluorooctane sulfonamide (PFOSAm)	35.6	ng/L	0.711	5.00	31.038	<0.711	114	66-140	10.3	30	
Perfluorooctane sulfonic acid (PFOS)	28.0	ng/L	0.892	1.86	28.807	<0.892	96.1	72-133	3.37	30	
Perfluorooctanoic acid (PFOA)	32.9	ng/L	0.630	2.00	31.038	<0.630	106	71-133	4.24	30	
Perfluoropentane sulfonic acid (PFPeS)	26.4	ng/L	0.556	4.69	29.098	<0.556	90.3	73-137	10.8	30	
Perfluoropentanoic acid (PFPeA)	35.7	ng/L	1.28	5.00	31.038	<1.28	118	72-129	4.02	30	
Perfluorotetradecanoic acid (PFTDA)	34.3	ng/L	2.64	5.00	31.038	<2.64	110	62-139	5.99	30	
Perfluorotridecanoic acid (PFTrDA)	35.2	ng/L	1.93	5.00	31.038	<1.93	113	47-147	0.0558	30	
Perfluoroundecanoic acid (PFUnDA)	32.8	ng/L	0.974	5.00	31.038	<0.974	106	80-135	2.87	30	
Surr: 13C2-FtS 4:2	***188***	*ng/L*			144.95		130	*50-150*	4.01	30	
Surr: 13C2-FtS 6:2	***156***	*ng/L*			147.43		106	*50-150*	1.08	30	
Surr: 13C2-FtS 8:2	***154***	*ng/L*			148.67		103	*50-150*	4.73	30	
Surr: 13C2-PFDA	***140***	*ng/L*			155.19		90.5	*50-150*	0.434	30	
Surr: 13C2-PFDoA	***145***	*ng/L*			155.19		93.6	*50-150*	2.07	30	
Surr: 13C2-PFHxA	***150***	*ng/L*			155.19		96.6	*50-150*	2.86	30	
Surr: 13C2-PFTeA	***143***	*ng/L*			155.19		92.2	*27-134*	2.43	30	
Surr: 13C2-PFUnA	***143***	*ng/L*			155.19		91.9	*50-150*	1.13	30	
Surr: 13C3-HFPO-DA	***135***	*ng/L*			155.19		87.2	*41-142*	5.56	30	
Surr: 13C3-PFBS	***124***	*ng/L*			144.33		85.6	*50-150*	0.0325	30	
Surr: 13C4-PFBA	***165***	*ng/L*			155.19		107	*50-150*	2.65	30	
Surr: 13C4-PFHpA	***151***	*ng/L*			155.19		97.0	*42-141*	0.715	30	
Surr: 13C4-PFOA	***152***	*ng/L*			155.19		97.8	*50-150*	2.53	30	
Surr: 13C4-PFOS	***140***	*ng/L*			148.21		94.5	*50-150*	1.71	30	
Surr: 13C5-PFNA	***153***	*ng/L*			155.19		98.5	*50-150*	2.32	30	
Surr: 13C5-PFPeA	***138***	*ng/L*			155.19		88.9	*43-138*	1.74	30	
Surr: 13C8-FOSA	***127***	*ng/L*			155.19		81.7	*30-122*	5.74	30	
Surr: 18O2-PFHxS	***146***	*ng/L*			146.65		99.8	*50-150*	4.95	30	
Surr: d3-N-MeFOSAA	***128***	*ng/L*			155.19		82.6	*35-136*	0.520	30	
Surr: d5-N-EtFOSAA	***137***	*ng/L*			155.19		88.4	*34-142*	4.69	30	

The following samples were analyzed in this batch: HN2516771-008, HN2516771-009, HN2516771-010, HN2516771-011, HN2516771-012, HN2516771-013, HN2516771-014, HN2516771-015, HN2516771-016, HN2516771-017, HN2516771-018, HN2516771-019, HN2516771-020, HN2516771-021, HN2516771-022, HN2516771-023, HN2516771-024, HN2516771-025, HN2516771-026, HN2516771-027

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2333390

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687886

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2333390-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/14/25 06:18
Prep Date: 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	1.28	ng/L	0.886	4.61							J
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2333390

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687886

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2333390-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/14/25 06:18 | **Prep Date:** 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***137***	*ng/L*			149.44		91.4	*50-150*			
Surr: 13C2-FtS 6:2	***172***	*ng/L*			152		113	*50-150*			
Surr: 13C2-FtS 8:2	***176***	*ng/L*			153.28		115	*50-150*			
Surr: 13C2-PFDA	***122***	*ng/L*			160		76.2	*50-150*			
Surr: 13C2-PFDoA	***128***	*ng/L*			160		79.9	*50-150*			
Surr: 13C2-PFHxA	***127***	*ng/L*			160		79.5	*50-150*			
Surr: 13C2-PFTeA	***141***	*ng/L*			160		88.0	*27-134*			
Surr: 13C2-PFUnA	***123***	*ng/L*			160		77.1	*50-150*			
Surr: 13C3-HFPO-DA	***161***	*ng/L*			160		100	*41-142*			
Surr: 13C3-PFBS	***148***	*ng/L*			148.8		99.3	*50-150*			
Surr: 13C4-PFBA	***141***	*ng/L*			160		87.9	*50-150*			
Surr: 13C4-PFHpA	***174***	*ng/L*			160		108	*42-141*			
Surr: 13C4-PFOA	***133***	*ng/L*			160		83.4	*50-150*			
Surr: 13C4-PFOS	***120***	*ng/L*			152.8		78.5	*50-150*			
Surr: 13C5-PFNA	***124***	*ng/L*			160		77.5	*50-150*			
Surr: 13C5-PFPeA	***162***	*ng/L*			160		101	*43-138*			
Surr: 13C8-FOSA	***143***	*ng/L*			160		89.2	*30-122*			
Surr: 18O2-PFHxS	***114***	*ng/L*			151.2		75.6	*50-150*			
Surr: d3-N-MeFOSAA	***140***	*ng/L*			160		87.3	*35-136*			
Surr: d5-N-EtFOSAA	***155***	*ng/L*			160		97.1	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2333390-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/14/25 06:32 | **Prep Date:** 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	26.1	ng/L	0.467	4.71	30.1		86.7	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	29.0	ng/L	1.13	4.79	30.7		94.4	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.6	ng/L	0.936	4.67	29.9		99.0	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.6	ng/L	1.92	4.74	30.3		104	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	31.1	ng/L	1.08	5.00	32		97.2	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2333390	**Run ID:**	3687886

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2333390-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/14/25 06:32

Prep Date: 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	36.8	ng/L	3.02	5.00	32		115	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.7	ng/L	1.39	5.00	32		108	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.6	ng/L	0.562	4.71	30.1		95.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.4	ng/L	0.448	4.66	29.8		98.5	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	29.5	ng/L	1.17	5.00	32		92.3	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	28.3	ng/L	1.54	5.00	32		88.6	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	32.4	ng/L	0.644	5.00	32		101	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.1	ng/L	0.886	4.61	28.8		112	74-131			
Perfluorobutane sulfonic acid (PFBS)	28.3	ng/L	0.351	4.42	28.3		100	69-131			
Perfluorobutanoic acid (PFBA)	30.8	ng/L	2.60	5.00	32		96.2	73-139			
Perfluorobutylsulfonamide (PFBSA)	33.4	ng/L	1.98	5.00	32		105	68-164			
Perfluorodecane sulfonic acid (PFDS)	24.7	ng/L	1.37	4.82	30.8		80.1	64-128			
Perfluorodecanoic acid (PFDA)	33.7	ng/L	1.24	5.00	32		105	77-135			
Perfluorododecanoic acid (PFDOA)	32.6	ng/L	0.691	5.00	32		102	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	33.0	ng/L	0.566	4.76	30.5		108	70-137			
Perfluoroheptanoic acid (PFHpA)	31.3	ng/L	1.73	5.00	32		97.7	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.4	ng/L	0.903	4.55	29.1		97.5	68-131			
Perfluorohexanesulfonamide (PFHxSA)	23.7	ng/L	0.878	5.00	32		74.0	69-135			
Perfluorohexanoic acid (PFHxA)	30.3	ng/L	1.20	5.00	32		94.6	72-129			
Perfluorononane sulfonic acid (PFNS)	29.8	ng/L	0.496	4.80	30.7		97.2	70-132			
Perfluorononanoic acid (PFNA)	32.4	ng/L	0.870	5.00	32		101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	30.8	ng/L	0.711	5.00	32		96.2	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.1	ng/L	0.892	1.86	29.7		91.3	72-133			
Perfluorooctanoic acid (PFOA)	30.6	ng/L	0.630	2.00	32		95.7	71-133			
Perfluoropentane sulfonic acid (PFPeS)	31.1	ng/L	0.556	4.69	30		104	73-137			
Perfluoropentanoic acid (PFPeA)	31.3	ng/L	1.28	5.00	32		97.9	72-129			
Perfluorotetradecanoic acid (PFTDA)	27.9	ng/L	2.64	5.00	32		87.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	36.3	ng/L	1.93	5.00	32		113	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.3	ng/L	0.974	5.00	32		97.8	80-135			
Surr: 13C2-FtS 4:2	***128***	*ng/L*			149.44		85.5	*50-150*			
Surr: 13C2-FtS 6:2	***148***	*ng/L*			152		97.4	*50-150*			
Surr: 13C2-FtS 8:2	***165***	*ng/L*			153.28		108	*50-150*			
Surr: 13C2-PFDA	***132***	*ng/L*			160		82.7	*50-150*			
Surr: 13C2-PFDoA	***156***	*ng/L*			160		97.7	*50-150*			
Surr: 13C2-PFHxA	***151***	*ng/L*			160		94.6	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2333390

Work Order: HN2516771
Date Collected: NA
Date Received: NA
Run ID: 3687886

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2333390-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/14/25 06:32 | **Prep Date:** 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***89.3***	*ng/L*			160		55.8	*27-134*			
Surr: 13C2-PFUnA	***146***	*ng/L*			160		91.0	*50-150*			
Surr: 13C3-HFPO-DA	***144***	*ng/L*			160		90.2	*41-142*			
Surr: 13C3-PFBS	***136***	*ng/L*			148.8		91.5	*50-150*			
Surr: 13C4-PFBA	***166***	*ng/L*			160		104	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.6	*42-141*			
Surr: 13C4-PFOA	***160***	*ng/L*			160		100	*50-150*			
Surr: 13C4-PFOS	***136***	*ng/L*			152.8		88.9	*50-150*			
Surr: 13C5-PFNA	***153***	*ng/L*			160		95.5	*50-150*			
Surr: 13C5-PFPeA	***150***	*ng/L*			160		93.8	*43-138*			
Surr: 13C8-FOSA	***104***	*ng/L*			160		64.8	*30-122*			
Surr: 18O2-PFHxS	***128***	*ng/L*			151.2		84.6	*50-150*			
Surr: d3-N-MeFOSAA	***136***	*ng/L*			160		85.2	*35-136*			
Surr: d5-N-EtFOSAA	***150***	*ng/L*			160		94.0	*34-142*			

DLCS | **CLIENT ID: Laboratory Control Sample Duplicate** | **Lab ID: QC-2333390-003**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/14/25 06:47 | **Prep Date:** 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	26.1	ng/L	0.467	4.71	30.1		86.6	61-128	0.0613	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.3	ng/L	1.13	4.79	30.7		108	61-148	13.9	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.5	ng/L	0.936	4.67	29.9		102	67-143	2.99	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.6	ng/L	1.92	4.74	30.3		104	66-151	0.00	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	29.1	ng/L	1.08	5.00	32		91.1	39-117	6.52	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.7	ng/L	3.02	5.00	32		111	71-138	3.08	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.1	ng/L	1.39	5.00	32		106	64-134	1.91	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	32.8	ng/L	0.562	4.71	30.1		109	74-135	13.6	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25.7	ng/L	0.448	4.66	29.8		86.3	69-133	13.2	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	27.8	ng/L	1.17	5.00	32		86.8	65-139	6.13	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.7	ng/L	1.54	5.00	32		92.9	67-140	4.74	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.5	ng/L	0.644	5.00	32		111	67-133	9.03	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2333390	**Run ID:**	3687886

DLCS	CLIENT ID: Laboratory Control Sample Duplicate	Lab ID: QC-2333390-003
Method: EPA 537Mod	**Dilution:** 1	**Analysis Date:** 11/14/25 06:47
		Prep Date: 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	30.4	ng/L	0.886	4.61	28.8		106	74-131	5.45	30	
Perfluorobutane sulfonic acid (PFBS)	28.8	ng/L	0.351	4.42	28.3		102	69-131	1.50	30	
Perfluorobutanoic acid (PFBA)	30.7	ng/L	2.60	5.00	32		96.0	73-139	0.187	30	
Perfluorobutylsulfonamide (PFBSA)	37.8	ng/L	1.98	5.00	32		118	68-164	12.1	30	
Perfluorodecane sulfonic acid (PFDS)	25.7	ng/L	1.37	4.82	30.8		83.5	64-128	4.14	30	
Perfluorodecanoic acid (PFDA)	32.3	ng/L	1.24	5.00	32		101	77-135	4.25	30	
Perfluorododecanoic acid (PFDOA)	32.4	ng/L	0.691	5.00	32		101	77-137	0.640	30	
Perfluoroheptane sulfonic acid (PFHpS)	27.9	ng/L	0.566	4.76	30.5		91.4	70-137	16.9	30	
Perfluoroheptanoic acid (PFHpA)	32.7	ng/L	1.73	5.00	32		102	67-130	4.48	30	
Perfluorohexane sulfonic acid (PFHxS)	27.4	ng/L	0.903	4.55	29.1		94.1	68-131	3.59	30	
Perfluorohexanesulfonamide (PFHxSA)	26.8	ng/L	0.878	5.00	32		83.8	69-135	12.5	30	
Perfluorohexanoic acid (PFHxA)	31.5	ng/L	1.20	5.00	32		98.5	72-129	4.02	30	
Perfluorononane sulfonic acid (PFNS)	28.7	ng/L	0.496	4.80	30.7		93.5	70-132	3.86	30	
Perfluorononanoic acid (PFNA)	34.0	ng/L	0.870	5.00	32		106	75-131	4.85	30	
Perfluorooctane sulfonamide (PFOSAm)	35.3	ng/L	0.711	5.00	32		110	66-140	13.8	30	
Perfluorooctane sulfonic acid (PFOS)	27.2	ng/L	0.892	1.86	29.7		91.6	72-133	0.283	30	
Perfluorooctanoic acid (PFOA)	32.5	ng/L	0.630	2.00	32		101	71-133	5.86	30	
Perfluoropentane sulfonic acid (PFPeS)	27.9	ng/L	0.556	4.69	30		93.0	73-137	10.9	30	
Perfluoropentanoic acid (PFPeA)	33.0	ng/L	1.28	5.00	32		103	72-129	5.34	30	
Perfluorotetradecanoic acid (PFTDA)	30.1	ng/L	2.64	5.00	32		94.1	62-139	7.47	30	
Perfluorotridecanoic acid (PFTrDA)	36.1	ng/L	1.93	5.00	32		113	47-147	0.646	30	
Perfluoroundecanoic acid (PFUnDA)	31.6	ng/L	0.974	5.00	32		98.8	80-135	0.997	30	
Surr: 13C2-FtS 4:2	***130***	*ng/L*			149.44		87.1	*50-150*	1.83	30	
Surr: 13C2-FtS 6:2	***152***	*ng/L*			152		99.8	*50-150*	2.44	30	
Surr: 13C2-FtS 8:2	***151***	*ng/L*			153.28		98.6	*50-150*	8.68	30	
Surr: 13C2-PFDA	***156***	*ng/L*			160		97.2	*50-150*	16.1	30	
Surr: 13C2-PFDoA	***153***	*ng/L*			160		95.7	*50-150*	2.05	30	
Surr: 13C2-PFHxA	***159***	*ng/L*			160		99.2	*50-150*	4.70	30	
Surr: 13C2-PFTeA	***110***	*ng/L*			160		68.6	*27-134*	20.5	30	
Surr: 13C2-PFUnA	***149***	*ng/L*			160		92.8	*50-150*	2.03	30	
Surr: 13C3-HFPO-DA	***149***	*ng/L*			160		92.9	*41-142*	2.98	30	
Surr: 13C3-PFBS	***141***	*ng/L*			148.8		94.4	*50-150*	3.16	30	
Surr: 13C4-PFBA	***174***	*ng/L*			160		109	*50-150*	4.88	30	
Surr: 13C4-PFHpA	***164***	*ng/L*			160		102	*42-141*	5.75	30	
Surr: 13C4-PFOA	***162***	*ng/L*			160		101	*50-150*	1.16	30	
Surr: 13C4-PFOS	***151***	*ng/L*			152.8		98.7	*50-150*	10.4	30	
Surr: 13C5-PFNA	***151***	*ng/L*			160		94.2	*50-150*	1.38	30	
Surr: 13C5-PFPeA	***151***	*ng/L*			160		94.4	*43-138*	0.644	30	
Surr: 13C8-FOSA	***107***	*ng/L*			160		66.9	*30-122*	3.11	30	
Surr: 18O2-PFHxS	***150***	*ng/L*			151.2		99.3	*50-150*	15.9	30	
Surr: d3-N-MeFOSAA	***144***	*ng/L*			160		90.1	*35-136*	5.56	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516771
Project:	RACER PFAS Analysis	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2333390	**Run ID:**	3687886

DLCS	CLIENT ID: Laboratory Control Sample Duplicate	Lab ID: QC-2333390-003

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/14/25 06:47

Prep Date: 11/13/25 11:27

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: d5-N-EtFOSAA	***148***	*ng/L*			160		92.3	*34-142*	1.76	30	

The following samples were analyzed in this batch: HN2516771-028, HN2516771-029

November 18, 2025

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Date Received: **11/05/2025**
Work Order: **HN2516560**

Re: **RACER Lansing GWS 30267725.0370A**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda
/S/ KATHY JONES-GRONDA

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2516560

Project: RACER Lansing GWS 30267725.0370A **Date Received:** 05-Nov-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

30 groundwater samples were received for analysis at ALS Environmental on 05-Nov-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Run ID: 3676733

HN2516560-001: 13C2-FtS 8:2 - The Continuing Calibration Verification for the MS did not meet method acceptance criteria for the following analytes, results are to be considered estimated: High bias, surrogate within range and corresponding analyte(s) in range in MS and ND in parent sample.
Samples HN2516560-001 through -017: 13C2-FtS 8:2 - The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: High bias, surrogate within range and corresponding analyte(s) non-detect.
HN2516560-008: 13C2-FtS 8:2 - The Continuing Calibration Verification in the DUP did not meet method acceptance criteria for the following analytes, results are to be considered estimated: High bias, surrogate within range and corresponding analyte(s) non-detect.

Run ID: 3687867

HN2516560-019: 13C2-FtS 4:2, 13C-FtS 6:2 and 13C3-PFBS - Surrogate recoveries were below the lower control limits. The sample results may be biased low.
HN2516560-022: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516560-023: 13C2-FtS 4:2 and 13C2-FtS 6:2 - Surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516560-026: d3-N-MeFOSAA and 13C3-PFBS - Surrogate recoveries were below the lower control limits. The sample results may be biased low.
HN2516560-027: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516560-028: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2516560-030: 13C2-FtS 4:2 and 13C2-FtS 6:2 - Surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-12-10R_103125			Lab ID: HN2516560-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	1.61	J	1.38	4.97	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	1.41	J	0.880	4.58	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	3.24	J	0.349	4.39	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	5.90		2.58	4.97	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.74	J	1.72	4.97	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.73	J	0.897	4.52	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	2.61	J	1.19	4.97	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	7.29		0.886	1.84	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	4.60		0.626	1.99	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	4.43	J	1.27	4.97	ng/L	EPA 537Mod

CLIENT ID: MW-12-11_103125			Lab ID: HN2516560-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	5.42		2.60	5.00	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.810	J	0.630	2.00	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.03	J	1.28	5.00	ng/L	EPA 537Mod

CLIENT ID: MW-12-12_103125			Lab ID: HN2516560-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	6.32		1.33	4.79	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	2.78	J	0.849	4.42	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.56	J	0.336	4.24	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	32.6		2.49	4.79	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	9.27		1.19	4.79	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	26.1		1.66	4.79	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.70	J	0.866	4.36	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	46.9		1.15	4.79	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	7.33		0.834	4.79	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	35.7		0.855	1.78	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	69.7		0.604	1.92	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	47.2		1.23	4.79	ng/L	EPA 537Mod

CLIENT ID: MW-14-70_103125			Lab ID: HN2516560-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	46.4		1.32	4.76	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	5.02		0.334	4.21	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	72.3		2.48	4.76	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	120		1.65	4.76	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.35	J	0.860	4.33	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	238		1.14	4.76	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	30.0		0.600	1.90	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-14-70_103125			Lab ID: HN2516560-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoropentane sulfonic acid (PFPeS)	0.878	J	0.529	4.47	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	223		1.22	4.76	ng/L	EPA 537Mod

CLIENT ID: MW-14-67_103125			Lab ID: HN2516560-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	52.0		1.49	5.35	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.26	J	0.376	4.73	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	42.4		2.78	5.35	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	30.7		1.85	5.35	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.46	J	0.967	4.87	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	66.6		1.28	5.35	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.67	J	0.955	1.99	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	27.7		0.674	2.14	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.898	J	0.595	5.02	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	52.3		1.37	5.35	ng/L	EPA 537Mod

CLIENT ID: MW-12-13_103125			Lab ID: HN2516560-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.4		1.49	5.35	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.58	J	0.375	4.73	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	25.3		2.78	5.35	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	27.6		1.85	5.35	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.93	J	0.966	4.87	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	51.0		1.28	5.35	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	20.5		0.674	2.14	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.808	J	0.595	5.02	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	33.4		1.37	5.35	ng/L	EPA 537Mod

CLIENT ID: MW-13-36R_103125			Lab ID: HN2516560-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	4.32	J	1.12	5.19	ng/L	EPA 537Mod
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	9.16		1.44	5.19	ng/L	EPA 537Mod
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	5.96		1.60	5.19	ng/L	EPA 537Mod
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.63	J	0.669	5.19	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	7.67		0.920	4.79	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.74	J	0.364	4.59	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	34.3		2.70	5.19	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	21.0		1.29	5.19	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.734	J	0.588	4.94	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	31.7		1.80	5.19	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-13-36R_103125	Lab ID: HN2516560-007					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorohexane sulfonic acid (PFHxS)	1.92	J	0.938	4.72	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	39.3		1.25	5.19	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	12.3		0.903	5.19	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	5.27		0.738	5.19	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	45.3		0.926	1.93	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	61.8		0.654	2.08	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	32.7		1.33	5.19	ng/L	EPA 537Mod

CLIENT ID: P6-SB-07_103125	Lab ID: HN2516560-008					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	34.9		1.09	5.04	ng/L	EPA 537Mod
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	7.16		3.04	5.04	ng/L	EPA 537Mod
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	208		1.40	5.04	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.34	J	0.893	4.65	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	5.23		0.354	4.45	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	257		2.62	5.04	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	29.2		1.25	5.04	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.667	J	0.570	4.80	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	645		8.72	25.2	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	5.10		0.910	4.58	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	776		6.05	25.2	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	133		0.877	5.04	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	1.35	J	0.716	5.04	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	53.8		0.899	1.87	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	924		3.17	10.1	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.52	J	0.560	4.73	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	737		6.45	25.2	ng/L	EPA 537Mod

CLIENT ID: DUP-10_103125	Lab ID: HN2516560-009					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	61.3		1.46	5.24	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	0.979	J	0.928	4.83	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.26	J	0.368	4.63	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	50.2		2.72	5.24	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	1.32	J	1.30	5.24	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	32.9		1.81	5.24	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.65	J	0.946	4.77	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	75.5		1.26	5.24	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.87	J	0.934	1.94	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	30.1		0.660	2.09	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: DUP-10_103125 — **Lab ID: HN2516560-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoropentane sulfonic acid (PFPeS)	1.48	J	0.582	4.91	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	53.5		1.34	5.24	ng/L	EPA 537Mod

CLIENT ID: MW-22-143_110325 — **Lab ID: HN2516560-010**

Analyte	Results	Flag	MDL	MRL	Units	Method
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.12	J	1.45	5.20	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.26	J	0.365	4.60	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	9.76		2.70	5.20	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	5.39		1.80	5.20	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	12.3		1.25	5.20	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	6.50		0.655	2.08	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	10.3		1.33	5.20	ng/L	EPA 537Mod

CLIENT ID: MW-22-158_110325 — **Lab ID: HN2516560-011**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	1.71	J	0.366	4.61	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	4.46	J	2.71	5.21	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	1.96	J	1.25	5.21	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.941	J	0.657	2.08	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.63	J	1.33	5.21	ng/L	EPA 537Mod

CLIENT ID: MW-22-144_110325 — **Lab ID: HN2516560-012**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	2.72	J	0.362	4.56	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.71		2.68	5.16	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	4.80	J	1.78	5.16	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	8.80		0.931	4.69	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	9.87		1.24	5.16	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.66	J	0.920	1.91	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	12.0		0.650	2.06	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.835	J	0.574	4.84	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	11.0		1.32	5.16	ng/L	EPA 537Mod

CLIENT ID: MW-22-145_110325 — **Lab ID: HN2516560-013**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	2.70	J	0.371	4.68	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.70		2.75	5.29	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	5.95		1.83	5.29	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	5.85		0.956	4.82	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	11.8		1.27	5.29	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.05	J	0.944	1.96	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	11.8		0.667	2.12	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-22-145_110325			Lab ID: HN2516560-013			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoropentanoic acid (PFPeA)	12.1		1.35	5.29	ng/L	EPA 537Mod

CLIENT ID: MW-04-05(6)_110425			Lab ID: HN2516560-015			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	15.1		1.21	4.34	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	4.86		0.769	4.00	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.57	J	0.305	3.84	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	14.9		2.26	4.34	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	18.1		1.50	4.34	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.04	J	0.784	3.95	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	25.0		1.04	4.34	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.03	J	0.755	4.34	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.67		0.774	1.61	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	33.5		0.547	1.74	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.770	J	0.483	4.07	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	24.5		1.11	4.34	ng/L	EPA 537Mod

CLIENT ID: MW-22-148_110425			Lab ID: HN2516560-019			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	4.70	J	0.378	4.76	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	2.97	J	2.80	5.38	ng/L	EPA 537Mod

CLIENT ID: MW-22-147_110425			Lab ID: HN2516560-020			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	3.33	J	0.369	4.64	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	6.58		2.73	5.25	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.95	J	0.949	4.78	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	2.37	J	1.26	5.25	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.78		0.937	1.95	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	5.02		0.662	2.10	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.19	J	1.34	5.25	ng/L	EPA 537Mod

CLIENT ID: MW-22-149_110425			Lab ID: HN2516560-021			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.33	J	0.368	4.64	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	3.74	J	0.594	4.99	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.73	J	0.936	1.95	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	1.40	J	0.661	2.10	ng/L	EPA 537Mod

CLIENT ID: MW-22-151_110425			Lab ID: HN2516560-023			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	9.70		0.373	4.70	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-22-151_110425			Lab ID: HN2516560-023			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	13.7		2.76	5.32	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.81	J	1.84	5.32	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.64	J	0.960	4.84	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	6.73		1.28	5.32	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	5.26		0.949	1.97	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	9.21		0.670	2.13	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	14.4		1.36	5.32	ng/L	EPA 537Mod

CLIENT ID: MW-22-152_110425			Lab ID: HN2516560-024			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	18.0		0.369	4.65	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	5.21	J	2.73	5.26	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.86	J	0.950	4.79	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	2.65	J	1.26	5.26	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	2.70		0.938	1.95	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	4.96		0.663	2.10	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	3.50	J	1.35	5.26	ng/L	EPA 537Mod

CLIENT ID: DUP-13_110425			Lab ID: HN2516560-025			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	2.95	J	0.369	4.65	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.03		2.73	5.25	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.87	J	0.949	4.78	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	2.26	J	1.26	5.25	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.61		0.937	1.95	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	5.36		0.662	2.10	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	1.83	J	1.35	5.25	ng/L	EPA 537Mod

CLIENT ID: MW-19-112_110425			Lab ID: HN2516560-026			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoropentanoic acid (PFPeA)	10.7	J	6.41	25.0	ng/L	EPA 537Mod

CLIENT ID: MW-18-98_110425			Lab ID: HN2516560-027			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	18.6		0.909	4.73	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.706	J	0.360	4.54	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.42		2.67	5.13	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.614	J	0.581	4.89	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.03	J	0.893	5.13	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	130		0.916	1.91	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	2.83		0.647	2.05	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-18-99_110425			Lab ID: HN2516560-028			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	77.2		0.934	4.86	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.799	J	0.370	4.66	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	11.7		2.74	5.27	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	1.04	J	0.596	5.02	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.05	J	0.952	4.80	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	3.19	J	1.26	5.27	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	61.8		0.940	1.96	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	4.34		0.664	2.11	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	3.67	J	1.35	5.27	ng/L	EPA 537Mod

CLIENT ID: MW-18-100_110425			Lab ID: HN2516560-029			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	29.1		0.905	4.71	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.38	J	0.358	4.51	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	12.1		2.66	5.11	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.68	J	1.77	5.11	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	3.57	J	0.922	4.65	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	8.03		1.23	5.11	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.31	J	0.911	1.90	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	4.71		0.643	2.04	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	3.55	J	1.31	5.11	ng/L	EPA 537Mod

CLIENT ID: UNK-15_110425			Lab ID: HN2516560-030			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	757		4.60	23.9	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.35	J	0.365	4.59	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	16.6		2.70	5.19	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	4.74	J	1.29	5.19	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	10.3		0.588	4.94	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.93	J	1.80	5.19	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	14.6		0.938	4.73	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	4.85	J	1.25	5.19	ng/L	EPA 537Mod
Perfluorononane sulfonic acid (PFNS)	3.80	J	0.515	4.99	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.78	J	0.904	5.19	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	0.784	J	0.738	5.19	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1210		4.63	9.64	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	21.0		0.654	2.08	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.53	J	0.577	4.87	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.41	J	1.33	5.19	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Workorder: HN2516560

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516560-001	MW-12-10R_103125	GROUNDWATER	10/31/25 10:50	11/05/25 10:45
HN2516560-002	MW-12-11_103125	GROUNDWATER	10/31/25 09:25	11/05/25 10:45
HN2516560-003	MW-12-12_103125	GROUNDWATER	10/31/25 13:00	11/05/25 10:45
HN2516560-004	MW-14-70_103125	GROUNDWATER	10/31/25 12:15	11/05/25 10:45
HN2516560-005	MW-14-67_103125	GROUNDWATER	10/31/25 09:15	11/05/25 10:45
HN2516560-006	MW-12-13_103125	GROUNDWATER	10/31/25 10:20	11/05/25 10:45
HN2516560-007	MW-13-36R_103125	GROUNDWATER	10/31/25 11:10	11/05/25 10:45
HN2516560-008	P6-SB-07_103125	GROUNDWATER	10/31/25 12:00	11/05/25 10:45
HN2516560-009	DUP-10_103125	GROUNDWATER	10/31/25	11/05/25 10:45
HN2516560-010	MW-22-143_110325	GROUNDWATER	11/03/25 11:05	11/05/25 10:45
HN2516560-011	MW-22-158_110325	GROUNDWATER	11/03/25 12:20	11/05/25 10:45
HN2516560-012	MW-22-144_110325	GROUNDWATER	11/03/25 13:10	11/05/25 10:45
HN2516560-013	MW-22-145_110325	GROUNDWATER	11/03/25 14:15	11/05/25 10:45
HN2516560-014	MW-22-160_110325	GROUNDWATER	11/03/25 15:10	11/05/25 10:45
HN2516560-015	MW-04-05(6)_110425	GROUNDWATER	11/04/25 10:35	11/05/25 10:45
HN2516560-016	MW-04-06R_110425	GROUNDWATER	11/04/25 11:45	11/05/25 10:45
HN2516560-017	MW-04-04R_110425	GROUNDWATER	11/04/25 13:35	11/05/25 10:45
HN2516560-018	DUP-12_110425	GROUNDWATER	11/04/25	11/05/25 10:45
HN2516560-019	MW-22-148_110425	GROUNDWATER	11/04/25 09:45	11/05/25 10:45
HN2516560-020	MW-22-147_110425	GROUNDWATER	11/04/25 10:40	11/05/25 10:45
HN2516560-021	MW-22-149_110425	GROUNDWATER	11/04/25 11:33	11/05/25 10:45
HN2516560-022	MW-22-150_110425	GROUNDWATER	11/04/25 13:10	11/05/25 10:45
HN2516560-023	MW-22-151_110425	GROUNDWATER	11/04/25 14:40	11/05/25 10:45
HN2516560-024	MW-22-152_110425	GROUNDWATER	11/04/25 15:25	11/05/25 10:45
HN2516560-025	DUP-13_110425	GROUNDWATER	11/04/25	11/05/25 10:45
HN2516560-026	MW-19-112_110425	GROUNDWATER	11/04/25 10:25	11/05/25 10:45
HN2516560-027	MW-18-98_110425	GROUNDWATER	11/04/25 11:20	11/05/25 10:45
HN2516560-028	MW-18-99_110425	GROUNDWATER	11/04/25 12:48	11/05/25 10:45
HN2516560-029	MW-18-100_110425	GROUNDWATER	11/04/25 13:58	11/05/25 10:45
HN2516560-030	UNK-15_110425	GROUNDWATER	11/04/25 15:00	11/05/25 10:45

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Plant 6

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US3460027588	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

Environmental Division
Holland
Work Order Reference
HN2516560

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G
1	MW-12-10R_103125	10/31/25	1056	GW		3	X						
2	MW-12-11_103125	10/31/25	0925	GW		3	X						
3	MW-12-12_103125	10/31/25	1300	GW		3	X						
4	MW-14-70_103125	10/31/25	1215	GW		3	X						
5	MW-14-67_103125	10/31/25	0915	GW		3	X						
6	MW-12-13_103125	10/31/25	1020	GW		3	X						
7	MW-13-36R_103125	10/31/25	1110	GW		3	X						
8	P6-SB-07_103125	10/31/25	1200	GW		3	X						
9	DUP-10_103125	10/31/25	—	GW		3	X						
10													

Sampler(s): Please Print & Sign Karly Wogenstahl / Emma Giem Emma

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Emma	10/31/25	1400		11/3/25	1000	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	Cooler Temp °C / pH Verified
	11/4/25			11/4/25	1145	1.9°C, 3.4C 1.3°C IR7
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
BC	11/5/25	11:00				

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Plant 6

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US346002758 8	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-22-143_110325	11/3/25	1105	GW		3	X	>									
2	MW-22-158_110325		1220			3	X										
3	MW-22-144_110325		1310			3	X										
4	MW-22-145_110325		1415			3	X										
5	MW-22-160_110325		1510			3	X										
6																	
7																	
8																	
9																	
10																	

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Sampler(s): Please Print & Sign
Karly Wogenstahl/

Shipment Method:

Turnaround Time: (Business Days)
☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date:
11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
/Arcadis	11/3/25	1555		11/3/25	1555	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
	11/4/25			11/4/25	1145	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
QC	11/5/25	11:00				

Cooler Temp °C	pH Verified
1.1°C, 3.4°C	
1.3°C ELR	

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Plant 6

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US346002 7588	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-04-05(6)_110425	11/4/25	1035	GW	None	3	X										
2	MW-04-06R_110425	11/4/25	1145	GW	None	3	X										
3	MW-04-04R_110425	11/4/25	1335	GW	None	3	X										
4	DUP-12_110425	11/4/25	—	GW	None	3	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign
Austin Westhuis

Shipment Method:

Turnaround Time: (Business Days)
☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Arcadis	11/5/25					
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	Cooler Temp °C: 1.1°C, 3.4°C / 1.3°C IR7
				11/5/25	10:45	pH Verified:
Logged by (Laboratory): BC	Date: 11/5/25	Time: 11:08	Checked by (Laboratory):			

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Chain of Custody Form

Page 2 of 2

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com; Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-22-148-110425	11/4/25	0945	GW		3	X										
2	MW-22-147-110425		1040			3	X										
3	MW-22-149-110425		1133			9	X										MS/MSD
4	MW-22-150-110425		1310			3	X										
5	MW-22-151-110425		1440			3	X										
6	MW-22-152-110425		1525			3	X										
7	DUP-13_110425	11/4/25	—			3	X										
8																	
9																	
10																	

Sampler(s): Please Print & Sign	Shipment Method:	Turnaround Time: (Business Days)	Results Due Date:
Karly Wogenstahl / Kwogenstahl		☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard	11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Kwogenstahl / Arcadis	11/4/25	1540	Arcadis	11/4/25	1540	
Relinquished by: Arcadis	Date: 11/5/25	Time:	Received by (Laboratory):	Date: 11/5/25	Time: 10:45	
Logged by (Laboratory): BC	Date: 11/5/25	Time: 11:00	Checked by (Laboratory):			

Cooler Temp °C	pH Verified	QC Package: (Check Box Below)	
1.9°C 3.4°C		☑ Level II: Standard QC	☐ Level III: Raw Data
1.3°C IR7		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Chain of Custody Form

Page 1 of 1

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 3

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US3460027588	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com; Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-19-12_110425	11/04/25	1025	GW	None	3	3										
2	MW-18-98_110425	11/04/25	1120	GW	None	3	3										
3	MW-18-99_110425	11/04/25	1248	GW	None	3	3										
4	MW-18-100_110425	11/04/25	1358	GW	None	3	3										
5	UNK-15_110425	11/04/25	1500	GW	None	3	3										
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Robert Prigge

Shipment Method:

Turnaround Time: (Business Days): ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Ann LeVan/Arcadis	11/5/25					
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	Cooler Temp °C: 1.9°C, 3.4°C; 1.3°C IR7
				11/5/25	10:45	pH Verified:
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
BC	11/5/25	11:00				

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other: _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by:	BC
Date/Time:	11/4/25 11:45, 11/5/25 10:45
Carrier Name:	ALS
Shipping container/cooler in good condition?	Yes / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / Not Present
Custody seals intact on sample bottles?	Yes / No / Not Present
Chain of Custody present?	Yes / No
COC signed when relinquished and received?	Yes / No
COC agrees with sample labels?	Yes / No
Samples in proper container/bottle?	Yes / No
Sample containers intact?	Yes / No
Sufficient sample volume for indicated test?	Yes / No
All samples received within holding time?	Yes / No
Container/Temp Blank temperature in compliance?	Yes / No
Temperature(s) (°C):	1.9°C, 3.4°C, 1.3°C
Thermometer(s):	IR7
Sample(s) received on ice?	Yes / No
Matrix/Matrices:	water
Cooler(s)/Kit(s):	3
Date/Time sample(s) sent to storage:	11/5/25
Water – VOA vials have zero headspace?	Yes / No / No Vials
Water – pH acceptable upon receipt?	Yes / No / N/A
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / N/A
pH adjusted by:	_____

Login Notes:

HN-SHT-160-R01, Sample Receipt Checklist

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: MW-12-10R_103125
Laboratory Code: HN2516560-001
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-12-11_103125
Laboratory Code: HN2516560-002
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-12-12_103125
Laboratory Code: HN2516560-003
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-14-70_103125
Laboratory Code: HN2516560-004
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	004-AA	2328225	Gabe	3676733	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: MW-14-67_103125
Laboratory Code: HN2516560-005
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	005-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-12-13_103125
Laboratory Code: HN2516560-006
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	006-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-13-36R_103125
Laboratory Code: HN2516560-007
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	007-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: P6-SB-07_103125
Laboratory Code: HN2516560-008
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	008-AA	2328225	Gabe	3676733	Emily Schaaf
EPA 537Mod	EPA 537Mod	008-AA	2328225	Gabe	3677839	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: DUP-10_103125
Laboratory Code: HN2516560-009
Sample Matrix: GROUNDWATER
Date Collected: 10/31/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	009-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-22-143_110325
Laboratory Code: HN2516560-010
Sample Matrix: GROUNDWATER
Date Collected: 11/03/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	010-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-22-158_110325
Laboratory Code: HN2516560-011
Sample Matrix: GROUNDWATER
Date Collected: 11/03/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	011-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-22-144_110325
Laboratory Code: HN2516560-012
Sample Matrix: GROUNDWATER
Date Collected: 11/03/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	012-AA	2328225	Gabe	3676733	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc. **Work Order:** HN2516560
Project: RACER Lansing GWS 30267725.0370A

Sample Name: MW-22-145_110325 **Date Collected:** 11/03/25
Laboratory Code: HN2516560-013 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	013-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-22-160_110325 **Date Collected:** 11/03/25
Laboratory Code: HN2516560-014 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	014-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-04-05(6)_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-015 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	015-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: MW-04-06R_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-016 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	016-AA	2328225	Gabe	3676733	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: MW-04-04R_110425
Laboratory Code: HN2516560-017
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	017-AA	2328225	Gabe	3676733	Emily Schaaf

Sample Name: DUP-12_110425
Laboratory Code: HN2516560-018
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	018-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-22-148_110425
Laboratory Code: HN2516560-019
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	019-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-22-147_110425
Laboratory Code: HN2516560-020
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	020-AA	2330888	Gabe	3687867	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc. **Work Order:** HN2516560
Project: RACER Lansing GWS 30267725.0370A

Sample Name: MW-22-149_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-021 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	021-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-22-150_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-022 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	022-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-22-151_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-023 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	023-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-22-152_110425 **Date Collected:** 11/04/25
Laboratory Code: HN2516560-024 **Date Received:** 11/05/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	024-AA	2330888	Gabe	3687867	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: DUP-13_110425
Laboratory Code: HN2516560-025
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	025-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-19-112_110425
Laboratory Code: HN2516560-026
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	026-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-18-98_110425
Laboratory Code: HN2516560-027
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	027-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: MW-18-99_110425
Laboratory Code: HN2516560-028
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	028-AA	2330888	Gabe	3687867	Emily Schaaf

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516560

Sample Name: MW-18-100_110425
Laboratory Code: HN2516560-029
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	029-AA	2330888	Gabe	3687867	Emily Schaaf

Sample Name: UNK-15_110425
Laboratory Code: HN2516560-030
Sample Matrix: GROUNDWATER
Date Collected: 11/04/25
Date Received: 11/05/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	030-AA	2330888	Gabe	3687867	Emily Schaaf
EPA 537Mod	EPA 537Mod	030-AA	2330888	Gabe	3692892	Emily Schaaf

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-10R_103125 **Lab ID: HN2516560-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.464	U	ng/L	0.464	4.68	1	11/10/25 21:03	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.76	1	11/10/25 21:03	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.930	U	ng/L	0.930	4.64	1	11/10/25 21:03	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.91	U	ng/L	1.91	4.61	1	11/10/25 21:03	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.97	1	11/10/25 21:03	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.00	U	ng/L	3.00	4.97	1	11/10/25 21:03	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**1.61**	J	ng/L	1.38	4.97	1	11/10/25 21:03	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.558	U	ng/L	0.558	4.68	1	11/10/25 21:03	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.445	U	ng/L	0.445	4.63	1	11/10/25 21:03	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.97	1	11/10/25 21:03	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.97	1	11/10/25 21:03	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.640	U	ng/L	0.640	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**1.41**	J	ng/L	0.880	4.58	1	11/10/25 21:03	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.24**	J	ng/L	0.349	4.39	1	11/10/25 21:03	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.90**		ng/L	2.58	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.97	U	ng/L	1.97	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.79	1	11/10/25 21:03	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-10R_103125 **Lab ID: HN2516560-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.687	U	ng/L	0.687	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.562	U	ng/L	0.562	4.73	1	11/10/25 21:03	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.74**	J	ng/L	1.72	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.73**	J	ng/L	0.897	4.52	1	11/10/25 21:03	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.872	U	ng/L	0.872	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**2.61**	J	ng/L	1.19	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.493	U	ng/L	0.493	4.77	1	11/10/25 21:03	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.865	U	ng/L	0.865	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.707	U	ng/L	0.707	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**7.29**		ng/L	0.886	1.84	1	11/10/25 21:03	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**4.60**		ng/L	0.626	1.99	1	11/10/25 21:03	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.66	1	11/10/25 21:03	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**4.43**	J	ng/L	1.27	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.62	U	ng/L	2.62	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.97	1	11/10/25 21:03	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.968	U	ng/L	0.968	4.97	1	11/10/25 21:03	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***126***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***85.6***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.5***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***75.1***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***87.2***		*%REC*		*27-134*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.0***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***74.4***		*%REC*		*41-142*	*1*	*11/10/25 21:03*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:50
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-10R_103125 **Lab ID: HN2516560-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.4***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***93.0***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***87.2***		*%REC*		*42-141*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***85.5***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***87.3***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***87.3***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***72.8***		*%REC*		*43-138*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***54.9***		*%REC*		*30-122*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***87.5***		*%REC*		*50-150*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***64.7***		*%REC*		*35-136*	*1*	*11/10/25 21:03*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.1***		*%REC*		*34-142*	*1*	*11/10/25 21:03*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-11_103125 **Lab ID: HN2516560-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.467	U	ng/L	0.467	4.71	1	11/10/25 21:47	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.79	1	11/10/25 21:47	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.937	U	ng/L	0.937	4.67	1	11/10/25 21:47	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.92	U	ng/L	1.92	4.64	1	11/10/25 21:47	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.08	U	ng/L	1.08	5.00	1	11/10/25 21:47	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.02	U	ng/L	3.02	5.00	1	11/10/25 21:47	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.39	U	ng/L	1.39	5.00	1	11/10/25 21:47	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.562	U	ng/L	0.562	4.71	1	11/10/25 21:47	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.66	1	11/10/25 21:47	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	5.00	1	11/10/25 21:47	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.55	U	ng/L	1.55	5.00	1	11/10/25 21:47	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.644	U	ng/L	0.644	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.887	U	ng/L	0.887	4.61	1	11/10/25 21:47	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.351	U	ng/L	0.351	4.42	1	11/10/25 21:47	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.42**		ng/L	2.60	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.37	U	ng/L	1.37	4.82	1	11/10/25 21:47	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-11_103125 **Lab ID: HN2516560-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.691	U	ng/L	0.691	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.566	U	ng/L	0.566	4.76	1	11/10/25 21:47	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.73	U	ng/L	1.73	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.904	U	ng/L	0.904	4.55	1	11/10/25 21:47	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.879	U	ng/L	0.879	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.20	U	ng/L	1.20	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.496	U	ng/L	0.496	4.80	1	11/10/25 21:47	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.871	U	ng/L	0.871	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.711	U	ng/L	0.711	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.893	U	ng/L	0.893	1.86	1	11/10/25 21:47	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.810**	J	ng/L	0.630	2.00	1	11/10/25 21:47	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.556	U	ng/L	0.556	4.69	1	11/10/25 21:47	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.03**	J	ng/L	1.28	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.64	U	ng/L	2.64	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.93	U	ng/L	1.93	5.00	1	11/10/25 21:47	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.975	U	ng/L	0.975	5.00	1	11/10/25 21:47	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.3***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***87.0***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***95.5***		*%REC*		*27-134*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***80.6***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***82.2***		*%REC*		*41-142*	*1*	*11/10/25 21:47*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-11_103125 **Lab ID: HN2516560-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***96.3***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***88.2***		*%REC*		*42-141*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***82.5***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***80.3***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***86.5***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***82.4***		*%REC*		*43-138*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***70.2***		*%REC*		*30-122*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***79.0***		*%REC*		*50-150*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.2***		*%REC*		*35-136*	*1*	*11/10/25 21:47*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.3***		*%REC*		*34-142*	*1*	*11/10/25 21:47*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 13:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-12_103125 **Lab ID: HN2516560-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.448	U	ng/L	0.448	4.51	1	11/10/25 22:01	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.59	1	11/10/25 22:01	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.897	U	ng/L	0.897	4.48	1	11/10/25 22:01	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.84	U	ng/L	1.84	4.45	1	11/10/25 22:01	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.79	1	11/10/25 22:01	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.89	U	ng/L	2.89	4.79	1	11/10/25 22:01	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**6.32**		ng/L	1.33	4.79	1	11/10/25 22:01	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.539	U	ng/L	0.539	4.51	1	11/10/25 22:01	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.429	U	ng/L	0.429	4.47	1	11/10/25 22:01	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.79	1	11/10/25 22:01	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.79	1	11/10/25 22:01	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.617	U	ng/L	0.617	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**2.78**	J	ng/L	0.849	4.42	1	11/10/25 22:01	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.56**	J	ng/L	0.336	4.24	1	11/10/25 22:01	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**32.6**		ng/L	2.49	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.31	U	ng/L	1.31	4.62	1	11/10/25 22:01	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 13:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-12_103125 **Lab ID: HN2516560-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**9.27**		ng/L	1.19	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.662	U	ng/L	0.662	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.542	U	ng/L	0.542	4.56	1	11/10/25 22:01	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**26.1**		ng/L	1.66	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.70**	J	ng/L	0.866	4.36	1	11/10/25 22:01	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.842	U	ng/L	0.842	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**46.9**		ng/L	1.15	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.475	U	ng/L	0.475	4.60	1	11/10/25 22:01	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	**7.33**		ng/L	0.834	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.681	U	ng/L	0.681	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**35.7**		ng/L	0.855	1.78	1	11/10/25 22:01	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**69.7**		ng/L	0.604	1.92	1	11/10/25 22:01	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.533	U	ng/L	0.533	4.50	1	11/10/25 22:01	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**47.2**		ng/L	1.23	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.85	U	ng/L	1.85	4.79	1	11/10/25 22:01	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.934	U	ng/L	0.934	4.79	1	11/10/25 22:01	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***125***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***75.3***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***84.1***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***68.0***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***92.3***		*%REC*		*27-134*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***83.6***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***68.7***		*%REC*		*41-142*	*1*	*11/10/25 22:01*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 13:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-12_103125 **Lab ID: HN2516560-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***93.2***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.9***		*%REC*		*42-141*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***68.7***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***84.9***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***80.3***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***71.7***		*%REC*		*43-138*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***56.4***		*%REC*		*30-122*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***76.7***		*%REC*		*50-150*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.5***		*%REC*		*35-136*	*1*	*11/10/25 22:01*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***69.5***		*%REC*		*34-142*	*1*	*11/10/25 22:01*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-70_103125 **Lab ID: HN2516560-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.445	U	ng/L	0.445	4.49	1	11/10/25 22:15	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.56	1	11/10/25 22:15	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.891	U	ng/L	0.891	4.45	1	11/10/25 22:15	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.83	U	ng/L	1.83	4.42	1	11/10/25 22:15	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.03	U	ng/L	1.03	4.76	1	11/10/25 22:15	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.88	U	ng/L	2.88	4.76	1	11/10/25 22:15	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**46.4**		ng/L	1.32	4.76	1	11/10/25 22:15	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.535	U	ng/L	0.535	4.49	1	11/10/25 22:15	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.427	U	ng/L	0.427	4.44	1	11/10/25 22:15	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.11	U	ng/L	1.11	4.76	1	11/10/25 22:15	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.47	U	ng/L	1.47	4.76	1	11/10/25 22:15	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.613	U	ng/L	0.613	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.844	U	ng/L	0.844	4.39	1	11/10/25 22:15	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**5.02**		ng/L	0.334	4.21	1	11/10/25 22:15	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**72.3**		ng/L	2.48	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.30	U	ng/L	1.30	4.59	1	11/10/25 22:15	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-70_103125 **Lab ID: HN2516560-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.658	U	ng/L	0.658	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.539	U	ng/L	0.539	4.53	1	11/10/25 22:15	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**120**		ng/L	1.65	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.35**	J	ng/L	0.860	4.33	1	11/10/25 22:15	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.836	U	ng/L	0.836	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**238**		ng/L	1.14	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.472	U	ng/L	0.472	4.57	1	11/10/25 22:15	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.828	U	ng/L	0.828	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.677	U	ng/L	0.677	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.849	U	ng/L	0.849	1.77	1	11/10/25 22:15	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**30.0**		ng/L	0.600	1.90	1	11/10/25 22:15	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.878**	J	ng/L	0.529	4.47	1	11/10/25 22:15	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**223**		ng/L	1.22	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.51	U	ng/L	2.51	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.84	U	ng/L	1.84	4.76	1	11/10/25 22:15	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.927	U	ng/L	0.927	4.76	1	11/10/25 22:15	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***94.7***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***94.6***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***79.9***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***82.7***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***69.5***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***90.3***		*%REC*		*27-134*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***80.8***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***75.2***		*%REC*		*41-142*	*1*	*11/10/25 22:15*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-70_103125 **Lab ID: HN2516560-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***74.8***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***78.7***		*%REC*		*42-141*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.4***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***75.9***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***76.7***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***70.8***		*%REC*		*43-138*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***57.9***		*%REC*		*30-122*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***71.7***		*%REC*		*50-150*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.5***		*%REC*		*35-136*	*1*	*11/10/25 22:15*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.7***		*%REC*		*34-142*	*1*	*11/10/25 22:15*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-67_103125 **Lab ID: HN2516560-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.500	U	ng/L	0.500	5.04	1	11/10/25 22:30	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.21	U	ng/L	1.21	5.13	1	11/10/25 22:30	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.00	U	ng/L	1.00	5.00	1	11/10/25 22:30	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.06	U	ng/L	2.06	4.97	1	11/10/25 22:30	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.16	U	ng/L	1.16	5.35	1	11/10/25 22:30	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.23	U	ng/L	3.23	5.35	1	11/10/25 22:30	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**52.0**		ng/L	1.49	5.35	1	11/10/25 22:30	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.602	U	ng/L	0.602	5.04	1	11/10/25 22:30	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.480	U	ng/L	0.480	4.99	1	11/10/25 22:30	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.25	U	ng/L	1.25	5.35	1	11/10/25 22:30	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.65	U	ng/L	1.65	5.35	1	11/10/25 22:30	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.689	U	ng/L	0.689	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.949	U	ng/L	0.949	4.94	1	11/10/25 22:30	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.26**	J	ng/L	0.376	4.73	1	11/10/25 22:30	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**42.4**		ng/L	2.78	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.13	U	ng/L	2.13	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.47	U	ng/L	1.47	5.16	1	11/10/25 22:30	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-67_103125 **Lab ID: HN2516560-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.33	U	ng/L	1.33	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.740	U	ng/L	0.740	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.606	U	ng/L	0.606	5.10	1	11/10/25 22:30	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**30.7**		ng/L	1.85	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.46**	J	ng/L	0.967	4.87	1	11/10/25 22:30	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.940	U	ng/L	0.940	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**66.6**		ng/L	1.28	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.531	U	ng/L	0.531	5.14	1	11/10/25 22:30	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.931	U	ng/L	0.931	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.761	U	ng/L	0.761	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.67**	J	ng/L	0.955	1.99	1	11/10/25 22:30	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**27.7**		ng/L	0.674	2.14	1	11/10/25 22:30	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.898**	J	ng/L	0.595	5.02	1	11/10/25 22:30	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**52.3**		ng/L	1.37	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.83	U	ng/L	2.83	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.35	1	11/10/25 22:30	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.04	U	ng/L	1.04	5.35	1	11/10/25 22:30	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***92.8***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***92.2***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.6***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.4***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***62.1***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***89.8***		*%REC*		*27-134*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.0***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***64.2***		*%REC*		*41-142*	*1*	*11/10/25 22:30*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 09:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-14-67_103125 **Lab ID: HN2516560-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***70.5***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***84.4***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.9***		*%REC*		*42-141*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***76.9***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***82.2***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***82.9***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***58.9***		*%REC*		*43-138*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.7***		*%REC*		*30-122*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***70.4***		*%REC*		*50-150*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***70.9***		*%REC*		*35-136*	*1*	*11/10/25 22:30*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.9***		*%REC*		*34-142*	*1*	*11/10/25 22:30*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-13_103125 **Lab ID: HN2516560-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.500	U	ng/L	0.500	5.04	1	11/10/25 22:44	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.21	U	ng/L	1.21	5.12	1	11/10/25 22:44	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.00	U	ng/L	1.00	5.00	1	11/10/25 22:44	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.05	U	ng/L	2.05	4.96	1	11/10/25 22:44	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.16	U	ng/L	1.16	5.35	1	11/10/25 22:44	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.23	U	ng/L	3.23	5.35	1	11/10/25 22:44	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**34.4**		ng/L	1.49	5.35	1	11/10/25 22:44	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.601	U	ng/L	0.601	5.04	1	11/10/25 22:44	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.479	U	ng/L	0.479	4.98	1	11/10/25 22:44	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.25	U	ng/L	1.25	5.35	1	11/10/25 22:44	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.65	U	ng/L	1.65	5.35	1	11/10/25 22:44	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.689	U	ng/L	0.689	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.948	U	ng/L	0.948	4.93	1	11/10/25 22:44	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.58**	J	ng/L	0.375	4.73	1	11/10/25 22:44	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**25.3**		ng/L	2.78	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.12	U	ng/L	2.12	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.47	U	ng/L	1.47	5.16	1	11/10/25 22:44	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-13_103125 **Lab ID: HN2516560-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.33	U	ng/L	1.33	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.739	U	ng/L	0.739	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.605	U	ng/L	0.605	5.09	1	11/10/25 22:44	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**27.6**		ng/L	1.85	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.93**	J	ng/L	0.966	4.87	1	11/10/25 22:44	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.939	U	ng/L	0.939	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**51.0**		ng/L	1.28	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.531	U	ng/L	0.531	5.13	1	11/10/25 22:44	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.931	U	ng/L	0.931	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.760	U	ng/L	0.760	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.954	U	ng/L	0.954	1.99	1	11/10/25 22:44	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**20.5**		ng/L	0.674	2.14	1	11/10/25 22:44	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.808**	J	ng/L	0.595	5.02	1	11/10/25 22:44	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**33.4**		ng/L	1.37	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.82	U	ng/L	2.82	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.35	1	11/10/25 22:44	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.04	U	ng/L	1.04	5.35	1	11/10/25 22:44	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***96.2***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***99.6***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***79.7***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***88.3***		*%REC*		*27-134*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***77.5***		*%REC*		*41-142*	*1*	*11/10/25 22:44*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 10:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-12-13_103125 **Lab ID: HN2516560-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***91.4***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.5***		*%REC*		*42-141*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.2***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***77.0***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.9***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***74.0***		*%REC*		*43-138*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***60.1***		*%REC*		*30-122*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***74.6***		*%REC*		*50-150*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.6***		*%REC*		*35-136*	*1*	*11/10/25 22:44*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***72.1***		*%REC*		*34-142*	*1*	*11/10/25 22:44*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 11:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-13-36R_103125 **Lab ID: HN2516560-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.89	1	11/10/25 22:59	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.97	1	11/10/25 22:59	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.972	U	ng/L	0.972	4.85	1	11/10/25 22:59	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.99	U	ng/L	1.99	4.82	1	11/10/25 22:59	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	**4.32**	J	ng/L	1.12	5.19	1	11/10/25 22:59	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.14	U	ng/L	3.14	5.19	1	11/10/25 22:59	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**9.16**		ng/L	1.44	5.19	1	11/10/25 22:59	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.584	U	ng/L	0.584	4.89	1	11/10/25 22:59	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.84	1	11/10/25 22:59	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.21	U	ng/L	1.21	5.19	1	11/10/25 22:59	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	**5.96**		ng/L	1.60	5.19	1	11/10/25 22:59	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	**3.63**	J	ng/L	0.669	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**7.67**		ng/L	0.920	4.79	1	11/10/25 22:59	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.74**	J	ng/L	0.364	4.59	1	11/10/25 22:59	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**34.3**		ng/L	2.70	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.06	U	ng/L	2.06	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	5.01	1	11/10/25 22:59	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 11:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-13-36R_103125 **Lab ID: HN2516560-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**21.0**		ng/L	1.29	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.718	U	ng/L	0.718	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.734**	J	ng/L	0.588	4.94	1	11/10/25 22:59	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**31.7**		ng/L	1.80	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.92**	J	ng/L	0.938	4.72	1	11/10/25 22:59	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.912	U	ng/L	0.912	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**39.3**		ng/L	1.25	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.515	U	ng/L	0.515	4.98	1	11/10/25 22:59	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	**12.3**		ng/L	0.903	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**5.27**		ng/L	0.738	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**45.3**		ng/L	0.926	1.93	1	11/10/25 22:59	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**61.8**		ng/L	0.654	2.08	1	11/10/25 22:59	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.577	U	ng/L	0.577	4.87	1	11/10/25 22:59	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**32.7**		ng/L	1.33	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.74	U	ng/L	2.74	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.19	1	11/10/25 22:59	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.19	1	11/10/25 22:59	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***127***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***120***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***76.2***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***78.9***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***63.6***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***79.5***		*%REC*		*27-134*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***68.4***		*%REC*		*41-142*	*1*	*11/10/25 22:59*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 11:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-13-36R_103125 **Lab ID: HN2516560-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***67.0***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.1***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***71.8***		*%REC*		*42-141*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***69.1***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***69.1***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***76.0***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***67.9***		*%REC*		*43-138*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***57.7***		*%REC*		*30-122*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***62.1***		*%REC*		*50-150*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.4***		*%REC*		*35-136*	*1*	*11/10/25 22:59*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***71.5***		*%REC*		*34-142*	*1*	*11/10/25 22:59*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: P6-SB-07_103125 **Lab ID: HN2516560-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.75	1	11/10/25 21:32	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.83	1	11/10/25 21:32	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.943	U	ng/L	0.943	4.71	1	11/10/25 21:32	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.93	U	ng/L	1.93	4.68	1	11/10/25 21:32	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	**34.9**		ng/L	1.09	5.04	1	11/10/25 21:32	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	**7.16**		ng/L	3.04	5.04	1	11/10/25 21:32	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**208**		ng/L	1.40	5.04	1	11/10/25 21:32	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.566	U	ng/L	0.566	4.75	1	11/10/25 21:32	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.451	U	ng/L	0.451	4.70	1	11/10/25 21:32	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.18	U	ng/L	1.18	5.04	1	11/10/25 21:32	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.56	U	ng/L	1.56	5.04	1	11/10/25 21:32	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.649	U	ng/L	0.649	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**3.34**	J	ng/L	0.893	4.65	1	11/10/25 21:32	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**5.23**		ng/L	0.354	4.45	1	11/10/25 21:32	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**257**		ng/L	2.62	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.00	U	ng/L	2.00	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.38	U	ng/L	1.38	4.86	1	11/10/25 21:32	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: P6-SB-07_103125 **Lab ID: HN2516560-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**29.2**		ng/L	1.25	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.696	U	ng/L	0.696	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.667**	J	ng/L	0.570	4.80	1	11/10/25 21:32	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**645**		ng/L	8.72	25.2	5	11/11/25 13:13	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**5.10**		ng/L	0.910	4.58	1	11/10/25 21:32	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.885	U	ng/L	0.885	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**776**		ng/L	6.05	25.2	5	11/11/25 13:13	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.500	U	ng/L	0.500	4.84	1	11/10/25 21:32	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	**133**		ng/L	0.877	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**1.35**	J	ng/L	0.716	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**53.8**		ng/L	0.899	1.87	1	11/10/25 21:32	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**924**		ng/L	3.17	10.1	5	11/11/25 13:13	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.52**	J	ng/L	0.560	4.73	1	11/10/25 21:32	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**737**		ng/L	6.45	25.2	5	11/11/25 13:13	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.66	U	ng/L	2.66	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.95	U	ng/L	1.95	5.04	1	11/10/25 21:32	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.981	U	ng/L	0.981	5.04	1	11/10/25 21:32	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***75.1***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***84.7***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***60.1***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***89.4***		*%REC*		*27-134*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***80.7***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***74.7***		*%REC*		*41-142*	*1*	*11/10/25 21:32*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: P6-SB-07_103125 **Lab ID: HN2516560-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***76.8***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***69.5***		*%REC*		*42-141*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***57.9***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***80.5***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***80.1***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***65.2***		*%REC*		*43-138*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***59.4***		*%REC*		*30-122*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.5***		*%REC*		*50-150*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.4***		*%REC*		*35-136*	*1*	*11/10/25 21:32*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.3***		*%REC*		*34-142*	*1*	*11/10/25 21:32*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-10_103125 **Lab ID: HN2516560-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.489	U	ng/L	0.489	4.93	1	11/10/25 23:13	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	5.02	1	11/10/25 23:13	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.980	U	ng/L	0.980	4.89	1	11/10/25 23:13	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.01	U	ng/L	2.01	4.86	1	11/10/25 23:13	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.24	1	11/10/25 23:13	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.16	U	ng/L	3.16	5.24	1	11/10/25 23:13	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**61.3**		ng/L	1.46	5.24	1	11/10/25 23:13	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.589	U	ng/L	0.589	4.93	1	11/10/25 23:13	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.469	U	ng/L	0.469	4.88	1	11/10/25 23:13	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.24	1	11/10/25 23:13	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.24	1	11/10/25 23:13	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.675	U	ng/L	0.675	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**0.979**	J	ng/L	0.928	4.83	1	11/10/25 23:13	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.26**	J	ng/L	0.368	4.63	1	11/10/25 23:13	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**50.2**		ng/L	2.72	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.08	U	ng/L	2.08	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.05	1	11/10/25 23:13	11/10/25 17:34

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-10_103125 **Lab ID: HN2516560-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**1.32**	J	ng/L	1.30	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.724	U	ng/L	0.724	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.593	U	ng/L	0.593	4.99	1	11/10/25 23:13	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**32.9**		ng/L	1.81	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.65**	J	ng/L	0.946	4.77	1	11/10/25 23:13	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.920	U	ng/L	0.920	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**75.5**		ng/L	1.26	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.520	U	ng/L	0.520	5.03	1	11/10/25 23:13	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.911	U	ng/L	0.911	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.745	U	ng/L	0.745	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.87**	J	ng/L	0.934	1.94	1	11/10/25 23:13	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**30.1**		ng/L	0.660	2.09	1	11/10/25 23:13	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.48**	J	ng/L	0.582	4.91	1	11/10/25 23:13	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**53.5**		ng/L	1.34	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.77	U	ng/L	2.77	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.24	1	11/10/25 23:13	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.24	1	11/10/25 23:13	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***96.3***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***99.4***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***54.7***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***90.8***		*%REC*		*27-134*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***68.7***		*%REC*		*41-142*	*1*	*11/10/25 23:13*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-10_103125 **Lab ID: HN2516560-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***74.4***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***77.2***		*%REC*		*42-141*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***74.5***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***69.7***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***58.0***		*%REC*		*43-138*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***69.6***		*%REC*		*30-122*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***69.6***		*%REC*		*50-150*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***71.6***		*%REC*		*35-136*	*1*	*11/10/25 23:13*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***78.9***		*%REC*		*34-142*	*1*	*11/10/25 23:13*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 11:05
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-143_110325 **Lab ID: HN2516560-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.486	U	ng/L	0.486	4.90	1	11/10/25 23:56	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	4.98	1	11/10/25 23:56	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.973	U	ng/L	0.973	4.86	1	11/10/25 23:56	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.00	U	ng/L	2.00	4.83	1	11/10/25 23:56	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.12	U	ng/L	1.12	5.20	1	11/10/25 23:56	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.14	U	ng/L	3.14	5.20	1	11/10/25 23:56	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.12**	J	ng/L	1.45	5.20	1	11/10/25 23:56	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.584	U	ng/L	0.584	4.90	1	11/10/25 23:56	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.466	U	ng/L	0.466	4.85	1	11/10/25 23:56	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.20	1	11/10/25 23:56	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.61	U	ng/L	1.61	5.20	1	11/10/25 23:56	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.670	U	ng/L	0.670	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.921	U	ng/L	0.921	4.79	1	11/10/25 23:56	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.26**	J	ng/L	0.365	4.60	1	11/10/25 23:56	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**9.76**		ng/L	2.70	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.06	U	ng/L	2.06	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	5.01	1	11/10/25 23:56	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 11:05
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-143_110325 **Lab ID: HN2516560-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.719	U	ng/L	0.719	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.589	U	ng/L	0.589	4.95	1	11/10/25 23:56	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**5.39**		ng/L	1.80	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.939	U	ng/L	0.939	4.73	1	11/10/25 23:56	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.913	U	ng/L	0.913	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**12.3**		ng/L	1.25	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.516	U	ng/L	0.516	4.99	1	11/10/25 23:56	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.905	U	ng/L	0.905	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.739	U	ng/L	0.739	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.928	U	ng/L	0.928	1.93	1	11/10/25 23:56	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**6.50**		ng/L	0.655	2.08	1	11/10/25 23:56	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.578	U	ng/L	0.578	4.88	1	11/10/25 23:56	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**10.3**		ng/L	1.33	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.75	U	ng/L	2.75	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.20	1	11/10/25 23:56	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.20	1	11/10/25 23:56	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***90.8***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***84.0***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***80.5***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***83.8***		*%REC*		*27-134*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.7***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***75.8***		*%REC*		*41-142*	*1*	*11/10/25 23:56*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 11:05
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-143_110325 **Lab ID: HN2516560-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***77.7***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***92.4***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***86.9***		*%REC*		*42-141*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.9***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***81.0***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***79.9***		*%REC*		*43-138*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***66.8***		*%REC*		*30-122*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.6***		*%REC*		*50-150*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.0***		*%REC*		*35-136*	*1*	*11/10/25 23:56*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***78.1***		*%REC*		*34-142*	*1*	*11/10/25 23:56*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-158_110325 **Lab ID: HN2516560-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.487	U	ng/L	0.487	4.91	1	11/11/25 00:11	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.18	U	ng/L	1.18	4.99	1	11/11/25 00:11	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.976	U	ng/L	0.976	4.87	1	11/11/25 00:11	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.00	U	ng/L	2.00	4.84	1	11/11/25 00:11	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.21	1	11/11/25 00:11	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.15	U	ng/L	3.15	5.21	1	11/11/25 00:11	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.45	U	ng/L	1.45	5.21	1	11/11/25 00:11	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.586	U	ng/L	0.586	4.91	1	11/11/25 00:11	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.467	U	ng/L	0.467	4.86	1	11/11/25 00:11	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.21	1	11/11/25 00:11	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.61	U	ng/L	1.61	5.21	1	11/11/25 00:11	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.671	U	ng/L	0.671	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.924	U	ng/L	0.924	4.81	1	11/11/25 00:11	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.71**	J	ng/L	0.366	4.61	1	11/11/25 00:11	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**4.46**	J	ng/L	2.71	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.43	U	ng/L	1.43	5.02	1	11/11/25 00:11	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-158_110325 **Lab ID: HN2516560-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.720	U	ng/L	0.720	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.590	U	ng/L	0.590	4.96	1	11/11/25 00:11	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.80	U	ng/L	1.80	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.941	U	ng/L	0.941	4.74	1	11/11/25 00:11	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.915	U	ng/L	0.915	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**1.96**	J	ng/L	1.25	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.517	U	ng/L	0.517	5.00	1	11/11/25 00:11	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.907	U	ng/L	0.907	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.741	U	ng/L	0.741	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.930	U	ng/L	0.930	1.93	1	11/11/25 00:11	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.941**	J	ng/L	0.657	2.08	1	11/11/25 00:11	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.580	U	ng/L	0.580	4.89	1	11/11/25 00:11	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.63**	J	ng/L	1.33	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.75	U	ng/L	2.75	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.21	1	11/11/25 00:11	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.21	1	11/11/25 00:11	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***86.2***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***78.1***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***83.2***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***82.8***		*%REC*		*27-134*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***77.2***		*%REC*		*41-142*	*1*	*11/11/25 00:11*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 12:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-158_110325 **Lab ID: HN2516560-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***73.3***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***87.5***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***80.0***		*%REC*		*42-141*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.4***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***76.0***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***74.3***		*%REC*		*43-138*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.9***		*%REC*		*30-122*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.6***		*%REC*		*50-150*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***71.5***		*%REC*		*35-136*	*1*	*11/11/25 00:11*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.2***		*%REC*		*34-142*	*1*	*11/11/25 00:11*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-144_110325 **Lab ID: HN2516560-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.482	U	ng/L	0.482	4.86	1	11/11/25 00:25	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.94	1	11/11/25 00:25	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.965	U	ng/L	0.965	4.82	1	11/11/25 00:25	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.98	U	ng/L	1.98	4.79	1	11/11/25 00:25	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.11	U	ng/L	1.11	5.16	1	11/11/25 00:25	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.12	U	ng/L	3.12	5.16	1	11/11/25 00:25	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.43	U	ng/L	1.43	5.16	1	11/11/25 00:25	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.580	U	ng/L	0.580	4.86	1	11/11/25 00:25	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.462	U	ng/L	0.462	4.81	1	11/11/25 00:25	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.21	U	ng/L	1.21	5.16	1	11/11/25 00:25	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.59	U	ng/L	1.59	5.16	1	11/11/25 00:25	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.664	U	ng/L	0.664	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.914	U	ng/L	0.914	4.76	1	11/11/25 00:25	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.72**	J	ng/L	0.362	4.56	1	11/11/25 00:25	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.71**		ng/L	2.68	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.05	U	ng/L	2.05	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.41	U	ng/L	1.41	4.97	1	11/11/25 00:25	11/10/25 17:34

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-144_110325 **Lab ID: HN2516560-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.28	U	ng/L	1.28	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.713	U	ng/L	0.713	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.584	U	ng/L	0.584	4.91	1	11/11/25 00:25	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**4.80**	J	ng/L	1.78	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**8.80**		ng/L	0.931	4.69	1	11/11/25 00:25	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.906	U	ng/L	0.906	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**9.87**		ng/L	1.24	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.512	U	ng/L	0.512	4.95	1	11/11/25 00:25	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.897	U	ng/L	0.897	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.733	U	ng/L	0.733	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.66**	J	ng/L	0.920	1.91	1	11/11/25 00:25	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**12.0**		ng/L	0.650	2.06	1	11/11/25 00:25	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.835**	J	ng/L	0.574	4.84	1	11/11/25 00:25	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**11.0**		ng/L	1.32	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.72	U	ng/L	2.72	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.16	1	11/11/25 00:25	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.00	U	ng/L	1.00	5.16	1	11/11/25 00:25	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.4***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***89.2***		*%REC*		*27-134*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***78.6***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***76.5***		*%REC*		*41-142*	*1*	*11/11/25 00:25*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-144_110325 **Lab ID: HN2516560-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***75.0***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***84.0***		*%REC*		*42-141*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***75.0***		*%REC*		*43-138*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***61.6***		*%REC*		*30-122*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.6***		*%REC*		*50-150*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.4***		*%REC*		*35-136*	*1*	*11/11/25 00:25*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.8***		*%REC*		*34-142*	*1*	*11/11/25 00:25*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-145_110325 **Lab ID: HN2516560-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.494	U	ng/L	0.494	4.98	1	11/11/25 00:40	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.20	U	ng/L	1.20	5.07	1	11/11/25 00:40	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.991	U	ng/L	0.991	4.94	1	11/11/25 00:40	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.03	U	ng/L	2.03	4.91	1	11/11/25 00:40	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.29	1	11/11/25 00:40	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.20	U	ng/L	3.20	5.29	1	11/11/25 00:40	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.47	U	ng/L	1.47	5.29	1	11/11/25 00:40	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.595	U	ng/L	0.595	4.98	1	11/11/25 00:40	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.474	U	ng/L	0.474	4.93	1	11/11/25 00:40	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.24	U	ng/L	1.24	5.29	1	11/11/25 00:40	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.29	1	11/11/25 00:40	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.682	U	ng/L	0.682	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.938	U	ng/L	0.938	4.88	1	11/11/25 00:40	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.70**	J	ng/L	0.371	4.68	1	11/11/25 00:40	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.70**		ng/L	2.75	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.10	U	ng/L	2.10	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.45	U	ng/L	1.45	5.10	1	11/11/25 00:40	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-145_110325 **Lab ID: HN2516560-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.731	U	ng/L	0.731	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.599	U	ng/L	0.599	5.04	1	11/11/25 00:40	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**5.95**		ng/L	1.83	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**5.85**		ng/L	0.956	4.82	1	11/11/25 00:40	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.929	U	ng/L	0.929	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**11.8**		ng/L	1.27	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.525	U	ng/L	0.525	5.08	1	11/11/25 00:40	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.921	U	ng/L	0.921	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.752	U	ng/L	0.752	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.05**	J	ng/L	0.944	1.96	1	11/11/25 00:40	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**11.8**		ng/L	0.667	2.12	1	11/11/25 00:40	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.588	U	ng/L	0.588	4.96	1	11/11/25 00:40	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**12.1**		ng/L	1.35	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.79	U	ng/L	2.79	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.29	1	11/11/25 00:40	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.29	1	11/11/25 00:40	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***85.2***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***73.9***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.9***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***70.9***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***85.4***		*%REC*		*27-134*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.1***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***80.8***		*%REC*		*41-142*	*1*	*11/11/25 00:40*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 14:15
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-145_110325 **Lab ID: HN2516560-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***72.5***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***81.7***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***87.0***		*%REC*		*42-141*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.6***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***66.1***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.0***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***72.4***		*%REC*		*43-138*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***64.8***		*%REC*		*30-122*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.7***		*%REC*		*50-150*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.9***		*%REC*		*35-136*	*1*	*11/11/25 00:40*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***76.5***		*%REC*		*34-142*	*1*	*11/11/25 00:40*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 15:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-160_110325 **Lab ID: HN2516560-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.95	1	11/11/25 00:54	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.04	1	11/11/25 00:54	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.984	U	ng/L	0.984	4.91	1	11/11/25 00:54	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.88	1	11/11/25 00:54	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.26	1	11/11/25 00:54	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.18	U	ng/L	3.18	5.26	1	11/11/25 00:54	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.26	1	11/11/25 00:54	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.591	U	ng/L	0.591	4.95	1	11/11/25 00:54	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.90	1	11/11/25 00:54	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.26	1	11/11/25 00:54	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.26	1	11/11/25 00:54	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.677	U	ng/L	0.677	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.932	U	ng/L	0.932	4.85	1	11/11/25 00:54	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.369	U	ng/L	0.369	4.65	1	11/11/25 00:54	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.73	U	ng/L	2.73	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.07	1	11/11/25 00:54	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 15:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-160_110325 **Lab ID: HN2516560-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.727	U	ng/L	0.727	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.595	U	ng/L	0.595	5.01	1	11/11/25 00:54	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.949	U	ng/L	0.949	4.78	1	11/11/25 00:54	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.923	U	ng/L	0.923	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.522	U	ng/L	0.522	5.05	1	11/11/25 00:54	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.915	U	ng/L	0.915	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.748	U	ng/L	0.748	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.938	U	ng/L	0.938	1.95	1	11/11/25 00:54	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.662	U	ng/L	0.662	2.10	1	11/11/25 00:54	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.585	U	ng/L	0.585	4.93	1	11/11/25 00:54	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.35	U	ng/L	1.35	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.78	U	ng/L	2.78	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.26	1	11/11/25 00:54	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.26	1	11/11/25 00:54	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***73.4***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***96.5***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***69.6***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***74.5***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***66.4***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***86.8***		*%REC*		*27-134*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***71.7***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***77.1***		*%REC*		*41-142*	*1*	*11/11/25 00:54*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/03/25 15:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-160_110325 **Lab ID: HN2516560-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***70.8***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***77.3***		*%REC*		*42-141*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***70.8***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***61.5***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***72.3***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***70.1***		*%REC*		*43-138*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.3***		*%REC*		*30-122*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***58.4***		*%REC*		*50-150*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***66.4***		*%REC*		*35-136*	*1*	*11/11/25 00:54*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.0***		*%REC*		*34-142*	*1*	*11/11/25 00:54*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-05(6)_110425 **Lab ID: HN2516560-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.405	U	ng/L	0.405	4.09	1	11/11/25 01:09	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<0.981	U	ng/L	0.981	4.16	1	11/11/25 01:09	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.813	U	ng/L	0.813	4.05	1	11/11/25 01:09	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.67	U	ng/L	1.67	4.03	1	11/11/25 01:09	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<0.938	U	ng/L	0.938	4.34	1	11/11/25 01:09	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.62	U	ng/L	2.62	4.34	1	11/11/25 01:09	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**15.1**		ng/L	1.21	4.34	1	11/11/25 01:09	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.488	U	ng/L	0.488	4.09	1	11/11/25 01:09	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.389	U	ng/L	0.389	4.05	1	11/11/25 01:09	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.02	U	ng/L	1.02	4.34	1	11/11/25 01:09	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.34	U	ng/L	1.34	4.34	1	11/11/25 01:09	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.559	U	ng/L	0.559	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**4.86**		ng/L	0.769	4.00	1	11/11/25 01:09	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.57**	J	ng/L	0.305	3.84	1	11/11/25 01:09	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**14.9**		ng/L	2.26	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.72	U	ng/L	1.72	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.19	U	ng/L	1.19	4.19	1	11/11/25 01:09	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-05(6)_110425 **Lab ID: HN2516560-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.08	U	ng/L	1.08	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.600	U	ng/L	0.600	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.13	1	11/11/25 01:09	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**18.1**		ng/L	1.50	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.04**	J	ng/L	0.784	3.95	1	11/11/25 01:09	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.762	U	ng/L	0.762	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**25.0**		ng/L	1.04	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.431	U	ng/L	0.431	4.17	1	11/11/25 01:09	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.03**	J	ng/L	0.755	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.617	U	ng/L	0.617	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.67**		ng/L	0.774	1.61	1	11/11/25 01:09	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**33.5**		ng/L	0.547	1.74	1	11/11/25 01:09	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.770**	J	ng/L	0.483	4.07	1	11/11/25 01:09	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**24.5**		ng/L	1.11	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.29	U	ng/L	2.29	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.68	U	ng/L	1.68	4.34	1	11/11/25 01:09	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.846	U	ng/L	0.846	4.34	1	11/11/25 01:09	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***133***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.9***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***80.1***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***68.9***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***86.7***		*%REC*		*27-134*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***76.5***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***73.7***		*%REC*		*41-142*	*1*	*11/11/25 01:09*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-05(6)_110425 **Lab ID: HN2516560-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***75.0***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***93.7***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.9***		*%REC*		*42-141*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***77.8***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***78.9***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***83.9***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***71.8***		*%REC*		*43-138*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***69.6***		*%REC*		*30-122*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.5***		*%REC*		*50-150*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.9***		*%REC*		*35-136*	*1*	*11/11/25 01:09*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.7***		*%REC*		*34-142*	*1*	*11/11/25 01:09*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-06R_110425 **Lab ID: HN2516560-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<2.35	U	ng/L	2.35	23.7	1	11/11/25 01:23	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<5.69	U	ng/L	5.69	24.1	1	11/11/25 01:23	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<4.71	U	ng/L	4.71	23.5	1	11/11/25 01:23	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<9.66	U	ng/L	9.66	23.3	1	11/11/25 01:23	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<5.43	U	ng/L	5.43	25.2	1	11/11/25 01:23	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<15.2	U	ng/L	15.2	25.2	1	11/11/25 01:23	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<6.99	U	ng/L	6.99	25.2	1	11/11/25 01:23	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<2.83	U	ng/L	2.83	23.7	1	11/11/25 01:23	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<2.25	U	ng/L	2.25	23.5	1	11/11/25 01:23	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<5.89	U	ng/L	5.89	25.2	1	11/11/25 01:23	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<7.77	U	ng/L	7.77	25.2	1	11/11/25 01:23	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<3.24	U	ng/L	3.24	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<4.46	U	ng/L	4.46	23.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<1.77	U	ng/L	1.77	22.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<13.1	U	ng/L	13.1	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<9.99	U	ng/L	9.99	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<6.89	U	ng/L	6.89	24.3	1	11/11/25 01:23	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-06R_110425 **Lab ID: HN2516560-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<6.24	U	ng/L	6.24	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<3.48	U	ng/L	3.48	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<2.85	U	ng/L	2.85	24.0	1	11/11/25 01:23	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<8.71	U	ng/L	8.71	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<4.54	U	ng/L	4.54	22.9	1	11/11/25 01:23	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<4.42	U	ng/L	4.42	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<6.04	U	ng/L	6.04	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<2.50	U	ng/L	2.50	24.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<4.38	U	ng/L	4.38	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<3.58	U	ng/L	3.58	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<4.49	U	ng/L	4.49	9.34	1	11/11/25 01:23	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<3.17	U	ng/L	3.17	10.1	1	11/11/25 01:23	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<2.80	U	ng/L	2.80	23.6	1	11/11/25 01:23	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<6.44	U	ng/L	6.44	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<13.3	U	ng/L	13.3	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<9.72	U	ng/L	9.72	25.2	1	11/11/25 01:23	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<4.90	U	ng/L	4.90	25.2	1	11/11/25 01:23	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***80.6***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.8***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***81.7***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***85.3***		*%REC*		*27-134*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***78.0***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***87.1***		*%REC*		*41-142*	*1*	*11/11/25 01:23*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-06R_110425 **Lab ID: HN2516560-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.9***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***91.5***		*%REC*		*42-141*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***74.5***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***78.7***		*%REC*		*43-138*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***71.1***		*%REC*		*30-122*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***73.5***		*%REC*		*50-150*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***73.4***		*%REC*		*35-136*	*1*	*11/11/25 01:23*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***83.3***		*%REC*		*34-142*	*1*	*11/11/25 01:23*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-04R_110425 **Lab ID: HN2516560-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.410	U	ng/L	0.410	4.14	1	11/11/25 01:38	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<0.992	U	ng/L	0.992	4.21	1	11/11/25 01:38	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.822	U	ng/L	0.822	4.10	1	11/11/25 01:38	11/10/25 17:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.69	U	ng/L	1.69	4.07	1	11/11/25 01:38	11/10/25 17:34
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<0.948	U	ng/L	0.948	4.39	1	11/11/25 01:38	11/10/25 17:34
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.65	U	ng/L	2.65	4.39	1	11/11/25 01:38	11/10/25 17:34
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.39	1	11/11/25 01:38	11/10/25 17:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.493	U	ng/L	0.493	4.14	1	11/11/25 01:38	11/10/25 17:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.393	U	ng/L	0.393	4.09	1	11/11/25 01:38	11/10/25 17:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.03	U	ng/L	1.03	4.39	1	11/11/25 01:38	11/10/25 17:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.39	1	11/11/25 01:38	11/10/25 17:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.565	U	ng/L	0.565	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.778	U	ng/L	0.778	4.05	1	11/11/25 01:38	11/10/25 17:34
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.308	U	ng/L	0.308	3.88	1	11/11/25 01:38	11/10/25 17:34
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.28	U	ng/L	2.28	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.74	U	ng/L	1.74	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.20	U	ng/L	1.20	4.23	1	11/11/25 01:38	11/10/25 17:34

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-04R_110425 **Lab ID: HN2516560-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.09	U	ng/L	1.09	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.607	U	ng/L	0.607	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.497	U	ng/L	0.497	4.18	1	11/11/25 01:38	11/10/25 17:34
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.793	U	ng/L	0.793	4.00	1	11/11/25 01:38	11/10/25 17:34
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.771	U	ng/L	0.771	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.436	U	ng/L	0.436	4.21	1	11/11/25 01:38	11/10/25 17:34
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.764	U	ng/L	0.764	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.624	U	ng/L	0.624	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.783	U	ng/L	0.783	1.63	1	11/11/25 01:38	11/10/25 17:34
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.553	U	ng/L	0.553	1.76	1	11/11/25 01:38	11/10/25 17:34
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.488	U	ng/L	0.488	4.12	1	11/11/25 01:38	11/10/25 17:34
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.12	U	ng/L	1.12	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.32	U	ng/L	2.32	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.70	U	ng/L	1.70	4.39	1	11/11/25 01:38	11/10/25 17:34
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.855	U	ng/L	0.855	4.39	1	11/11/25 01:38	11/10/25 17:34
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***87.3***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-PFDA	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-PFDoA	*EPA 537Mod*	***66.2***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-PFHxA	*EPA 537Mod*	***78.4***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-PFTeA	*EPA 537Mod*	***69.2***		*%REC*		*27-134*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C2-PFUnA	*EPA 537Mod*	***68.9***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***87.8***		*%REC*		*41-142*	*1*	*11/11/25 01:38*	*11/10/25 17:34*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:35
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-04-04R_110425 **Lab ID: HN2516560-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C4-PFBA	*EPA 537Mod*	***84.2***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C4-PFHpA	*EPA 537Mod*	***93.5***		*%REC*		*42-141*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.4***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C4-PFOS	*EPA 537Mod*	***65.0***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C5-PFNA	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C5-PFPeA	*EPA 537Mod*	***77.4***		*%REC*		*43-138*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 13C8-FOSA	*EPA 537Mod*	***53.5***		*%REC*		*30-122*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: 18O2-PFHxS	*EPA 537Mod*	***69.5***		*%REC*		*50-150*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.4***		*%REC*		*35-136*	*1*	*11/11/25 01:38*	*11/10/25 17:34*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.6***		*%REC*		*34-142*	*1*	*11/11/25 01:38*	*11/10/25 17:34*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-12_110425 **Lab ID: HN2516560-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.80	1	11/13/25 18:12	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.88	1	11/13/25 18:12	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.954	U	ng/L	0.954	4.76	1	11/13/25 18:12	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.96	U	ng/L	1.96	4.73	1	11/13/25 18:12	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.09	1	11/13/25 18:12	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.08	U	ng/L	3.08	5.09	1	11/13/25 18:12	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.42	U	ng/L	1.42	5.09	1	11/13/25 18:12	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.573	U	ng/L	0.573	4.80	1	11/13/25 18:12	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.456	U	ng/L	0.456	4.75	1	11/13/25 18:12	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.09	1	11/13/25 18:12	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.09	1	11/13/25 18:12	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.656	U	ng/L	0.656	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.903	U	ng/L	0.903	4.70	1	11/13/25 18:12	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.358	U	ng/L	0.358	4.50	1	11/13/25 18:12	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.65	U	ng/L	2.65	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.40	U	ng/L	1.40	4.91	1	11/13/25 18:12	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-12_110425 **Lab ID: HN2516560-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.704	U	ng/L	0.704	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.577	U	ng/L	0.577	4.85	1	11/13/25 18:12	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.76	U	ng/L	1.76	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.920	U	ng/L	0.920	4.64	1	11/13/25 18:12	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.895	U	ng/L	0.895	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.22	U	ng/L	1.22	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.505	U	ng/L	0.505	4.89	1	11/13/25 18:12	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.886	U	ng/L	0.886	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.724	U	ng/L	0.724	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.909	U	ng/L	0.909	1.89	1	11/13/25 18:12	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.642	U	ng/L	0.642	2.04	1	11/13/25 18:12	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.566	U	ng/L	0.566	4.78	1	11/13/25 18:12	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.69	U	ng/L	2.69	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.97	U	ng/L	1.97	5.09	1	11/13/25 18:12	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.992	U	ng/L	0.992	5.09	1	11/13/25 18:12	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***65.2***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***74.1***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***88.3***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***75.6***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***72.6***		*%REC*		*27-134*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***74.5***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***71.4***		*%REC*		*41-142*	*1*	*11/13/25 18:12*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-12_110425 **Lab ID: HN2516560-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***70.4***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***86.9***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.5***		*%REC*		*42-141*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***71.1***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***78.7***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***74.3***		*%REC*		*43-138*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***59.8***		*%REC*		*30-122*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***72.1***		*%REC*		*50-150*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.9***		*%REC*		*35-136*	*1*	*11/13/25 18:12*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***69.6***		*%REC*		*34-142*	*1*	*11/13/25 18:12*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 09:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-148_110425 **Lab ID: HN2516560-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.503	U	ng/L	0.503	5.07	1	11/13/25 18:55	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.22	U	ng/L	1.22	5.16	1	11/13/25 18:55	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.01	U	ng/L	1.01	5.03	1	11/13/25 18:55	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.07	U	ng/L	2.07	4.99	1	11/13/25 18:55	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.16	U	ng/L	1.16	5.38	1	11/13/25 18:55	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.25	U	ng/L	3.25	5.38	1	11/13/25 18:55	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.50	U	ng/L	1.50	5.38	1	11/13/25 18:55	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.605	U	ng/L	0.605	5.07	1	11/13/25 18:55	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.482	U	ng/L	0.482	5.02	1	11/13/25 18:55	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.26	U	ng/L	1.26	5.38	1	11/13/25 18:55	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.66	U	ng/L	1.66	5.38	1	11/13/25 18:55	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.693	U	ng/L	0.693	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.954	U	ng/L	0.954	4.96	1	11/13/25 18:55	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**4.70**	J	ng/L	0.378	4.76	1	11/13/25 18:55	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**2.97**	J	ng/L	2.80	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.14	U	ng/L	2.14	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.47	U	ng/L	1.47	5.19	1	11/13/25 18:55	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 09:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-148_110425 **Lab ID: HN2516560-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.33	U	ng/L	1.33	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.744	U	ng/L	0.744	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.609	U	ng/L	0.609	5.12	1	11/13/25 18:55	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.86	U	ng/L	1.86	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.972	U	ng/L	0.972	4.90	1	11/13/25 18:55	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.945	U	ng/L	0.945	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.534	U	ng/L	0.534	5.17	1	11/13/25 18:55	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.936	U	ng/L	0.936	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.765	U	ng/L	0.765	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.960	U	ng/L	0.960	2.00	1	11/13/25 18:55	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.678	U	ng/L	0.678	2.15	1	11/13/25 18:55	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.598	U	ng/L	0.598	5.05	1	11/13/25 18:55	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.38	U	ng/L	1.38	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.84	U	ng/L	2.84	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.08	U	ng/L	2.08	5.38	1	11/13/25 18:55	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.05	U	ng/L	1.05	5.38	1	11/13/25 18:55	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***45.5***	*S*	*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***44.8***	*S*	*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***50.7***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***73.5***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***71.6***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.4***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***44.2***		*%REC*		*27-134*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***73.9***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***50.8***		*%REC*		*41-142*	*1*	*11/13/25 18:55*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 09:45
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-148_110425 **Lab ID: HN2516560-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***43.7***	*S*	*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***82.3***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***50.0***		*%REC*		*42-141*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***74.0***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***69.4***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***75.0***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***47.0***		*%REC*		*43-138*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***41.3***		*%REC*		*30-122*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.9***		*%REC*		*50-150*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***42.6***		*%REC*		*35-136*	*1*	*11/13/25 18:55*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***46.6***		*%REC*		*34-142*	*1*	*11/13/25 18:55*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-147_110425 **Lab ID: HN2516560-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.95	1	11/13/25 19:10	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.03	1	11/13/25 19:10	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.983	U	ng/L	0.983	4.91	1	11/13/25 19:10	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.87	1	11/13/25 19:10	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.25	1	11/13/25 19:10	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.17	U	ng/L	3.17	5.25	1	11/13/25 19:10	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.25	1	11/13/25 19:10	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.590	U	ng/L	0.590	4.95	1	11/13/25 19:10	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.90	1	11/13/25 19:10	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.25	1	11/13/25 19:10	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.25	1	11/13/25 19:10	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.677	U	ng/L	0.677	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.931	U	ng/L	0.931	4.84	1	11/13/25 19:10	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.33**	J	ng/L	0.369	4.64	1	11/13/25 19:10	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**6.58**		ng/L	2.73	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.06	1	11/13/25 19:10	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-147_110425 **Lab ID: HN2516560-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.726	U	ng/L	0.726	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.595	U	ng/L	0.595	5.00	1	11/13/25 19:10	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.95**	J	ng/L	0.949	4.78	1	11/13/25 19:10	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.922	U	ng/L	0.922	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**2.37**	J	ng/L	1.26	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.521	U	ng/L	0.521	5.04	1	11/13/25 19:10	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.914	U	ng/L	0.914	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.747	U	ng/L	0.747	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.78**		ng/L	0.937	1.95	1	11/13/25 19:10	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**5.02**		ng/L	0.662	2.10	1	11/13/25 19:10	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.584	U	ng/L	0.584	4.93	1	11/13/25 19:10	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.19**	J	ng/L	1.34	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.77	U	ng/L	2.77	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.25	1	11/13/25 19:10	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.25	1	11/13/25 19:10	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***131***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***94.8***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***94.8***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***87.5***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***94.6***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***96.0***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***84.4***		*%REC*		*27-134*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***91.8***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***81.1***		*%REC*		*41-142*	*1*	*11/13/25 19:10*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-147_110425 **Lab ID: HN2516560-020**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***75.7***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***99.5***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***94.6***		*%REC*		*42-141*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***87.4***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***97.1***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***81.4***		*%REC*		*43-138*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***72.9***		*%REC*		*30-122*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***90.7***		*%REC*		*50-150*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***80.3***		*%REC*		*35-136*	*1*	*11/13/25 19:10*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***85.2***		*%REC*		*34-142*	*1*	*11/13/25 19:10*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:33
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-149_110425 **Lab ID: HN2516560-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.94	1	11/13/25 11:25	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.03	1	11/13/25 11:25	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.982	U	ng/L	0.982	4.90	1	11/13/25 11:25	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.01	U	ng/L	2.01	4.87	1	11/13/25 11:25	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.25	1	11/13/25 11:25	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.17	U	ng/L	3.17	5.25	1	11/13/25 11:25	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.25	1	11/13/25 11:25	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.590	U	ng/L	0.590	4.94	1	11/13/25 11:25	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.470	U	ng/L	0.470	4.89	1	11/13/25 11:25	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.25	1	11/13/25 11:25	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.25	1	11/13/25 11:25	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.676	U	ng/L	0.676	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.930	U	ng/L	0.930	4.84	1	11/13/25 11:25	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.33**	J	ng/L	0.368	4.64	1	11/13/25 11:25	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.73	U	ng/L	2.73	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.08	U	ng/L	2.08	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.06	1	11/13/25 11:25	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:33
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-149_110425 **Lab ID: HN2516560-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.725	U	ng/L	0.725	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**3.74**	J	ng/L	0.594	4.99	1	11/13/25 11:25	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.947	U	ng/L	0.947	4.77	1	11/13/25 11:25	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.921	U	ng/L	0.921	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.520	U	ng/L	0.520	5.04	1	11/13/25 11:25	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.913	U	ng/L	0.913	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.746	U	ng/L	0.746	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.73**	J	ng/L	0.936	1.95	1	11/13/25 11:25	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**1.40**	J	ng/L	0.661	2.10	1	11/13/25 11:25	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.583	U	ng/L	0.583	4.92	1	11/13/25 11:25	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.34	U	ng/L	1.34	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.77	U	ng/L	2.77	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.25	1	11/13/25 11:25	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.25	1	11/13/25 11:25	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***67.3***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***75.9***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***75.7***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***77.0***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***71.3***		*%REC*		*27-134*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.7***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***70.6***		*%REC*		*41-142*	*1*	*11/13/25 11:25*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:33
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-149_110425 **Lab ID: HN2516560-021**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***68.2***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.2***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***79.1***		*%REC*		*42-141*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***75.7***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***77.7***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***71.5***		*%REC*		*43-138*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***58.6***		*%REC*		*30-122*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.5***		*%REC*		*50-150*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.7***		*%REC*		*35-136*	*1*	*11/13/25 11:25*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***71.8***		*%REC*		*34-142*	*1*	*11/13/25 11:25*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-150_110425 **Lab ID: HN2516560-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.501	U	ng/L	0.501	5.05	1	11/13/25 19:24	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.21	U	ng/L	1.21	5.14	1	11/13/25 19:24	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.00	U	ng/L	1.00	5.01	1	11/13/25 19:24	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.06	U	ng/L	2.06	4.97	1	11/13/25 19:24	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.16	U	ng/L	1.16	5.36	1	11/13/25 19:24	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.24	U	ng/L	3.24	5.36	1	11/13/25 19:24	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.49	U	ng/L	1.49	5.36	1	11/13/25 19:24	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.602	U	ng/L	0.602	5.05	1	11/13/25 19:24	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.480	U	ng/L	0.480	5.00	1	11/13/25 19:24	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.25	U	ng/L	1.25	5.36	1	11/13/25 19:24	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.66	U	ng/L	1.66	5.36	1	11/13/25 19:24	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.690	U	ng/L	0.690	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.950	U	ng/L	0.950	4.94	1	11/13/25 19:24	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.376	U	ng/L	0.376	4.74	1	11/13/25 19:24	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.79	U	ng/L	2.79	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.13	U	ng/L	2.13	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.47	U	ng/L	1.47	5.17	1	11/13/25 19:24	11/11/25 16:01

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-150_110425 **Lab ID: HN2516560-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.33	U	ng/L	1.33	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.741	U	ng/L	0.741	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.607	U	ng/L	0.607	5.10	1	11/13/25 19:24	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.85	U	ng/L	1.85	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.968	U	ng/L	0.968	4.88	1	11/13/25 19:24	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.941	U	ng/L	0.941	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.532	U	ng/L	0.532	5.15	1	11/13/25 19:24	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.933	U	ng/L	0.933	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.762	U	ng/L	0.762	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.956	U	ng/L	0.956	1.99	1	11/13/25 19:24	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.675	U	ng/L	0.675	2.14	1	11/13/25 19:24	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.596	U	ng/L	0.596	5.03	1	11/13/25 19:24	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.37	U	ng/L	1.37	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.83	U	ng/L	2.83	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.07	U	ng/L	2.07	5.36	1	11/13/25 19:24	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.04	U	ng/L	1.04	5.36	1	11/13/25 19:24	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***220***	*S*	*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***74.8***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***78.6***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***83.3***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***70.8***		*%REC*		*27-134*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***74.2***		*%REC*		*41-142*	*1*	*11/13/25 19:24*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-150_110425 **Lab ID: HN2516560-022**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***66.1***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***90.3***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***78.0***		*%REC*		*42-141*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.8***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***76.4***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***78.8***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***68.6***		*%REC*		*43-138*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***63.6***		*%REC*		*30-122*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***68.6***		*%REC*		*50-150*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.8***		*%REC*		*35-136*	*1*	*11/13/25 19:24*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***66.1***		*%REC*		*34-142*	*1*	*11/13/25 19:24*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 14:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-151_110425 **Lab ID: HN2516560-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.497	U	ng/L	0.497	5.01	1	11/13/25 19:39	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.20	U	ng/L	1.20	5.09	1	11/13/25 19:39	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.995	U	ng/L	0.995	4.97	1	11/13/25 19:39	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.04	U	ng/L	2.04	4.93	1	11/13/25 19:39	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.15	U	ng/L	1.15	5.32	1	11/13/25 19:39	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.21	U	ng/L	3.21	5.32	1	11/13/25 19:39	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.48	U	ng/L	1.48	5.32	1	11/13/25 19:39	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.598	U	ng/L	0.598	5.01	1	11/13/25 19:39	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.96	1	11/13/25 19:39	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.24	U	ng/L	1.24	5.32	1	11/13/25 19:39	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.64	U	ng/L	1.64	5.32	1	11/13/25 19:39	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.685	U	ng/L	0.685	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.942	U	ng/L	0.942	4.90	1	11/13/25 19:39	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**9.70**		ng/L	0.373	4.70	1	11/13/25 19:39	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**13.7**		ng/L	2.76	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.11	U	ng/L	2.11	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.46	U	ng/L	1.46	5.13	1	11/13/25 19:39	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 14:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-151_110425 **Lab ID: HN2516560-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.32	U	ng/L	1.32	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.735	U	ng/L	0.735	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.602	U	ng/L	0.602	5.06	1	11/13/25 19:39	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.81**	J	ng/L	1.84	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.64**	J	ng/L	0.960	4.84	1	11/13/25 19:39	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.934	U	ng/L	0.934	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**6.73**		ng/L	1.28	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.527	U	ng/L	0.527	5.10	1	11/13/25 19:39	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.925	U	ng/L	0.925	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.756	U	ng/L	0.756	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**5.26**		ng/L	0.949	1.97	1	11/13/25 19:39	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**9.21**		ng/L	0.670	2.13	1	11/13/25 19:39	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.591	U	ng/L	0.591	4.99	1	11/13/25 19:39	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**14.4**		ng/L	1.36	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.81	U	ng/L	2.81	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.05	U	ng/L	2.05	5.32	1	11/13/25 19:39	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.04	U	ng/L	1.04	5.32	1	11/13/25 19:39	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***277***	*S*	*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***160***	*S*	*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***70.4***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***72.8***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***76.5***		*%REC*		*27-134*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***71.3***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***78.6***		*%REC*		*41-142*	*1*	*11/13/25 19:39*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 14:40
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-151_110425 **Lab ID: HN2516560-023**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***71.2***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***81.3***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***85.5***		*%REC*		*42-141*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***71.8***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***70.9***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***71.0***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***71.0***		*%REC*		*43-138*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***69.5***		*%REC*		*30-122*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***69.9***		*%REC*		*50-150*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***63.5***		*%REC*		*35-136*	*1*	*11/13/25 19:39*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.0***		*%REC*		*34-142*	*1*	*11/13/25 19:39*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-152_110425 **Lab ID: HN2516560-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.95	1	11/13/25 19:53	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.04	1	11/13/25 19:53	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.985	U	ng/L	0.985	4.91	1	11/13/25 19:53	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.88	1	11/13/25 19:53	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.26	1	11/13/25 19:53	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.18	U	ng/L	3.18	5.26	1	11/13/25 19:53	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.26	1	11/13/25 19:53	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.591	U	ng/L	0.591	4.95	1	11/13/25 19:53	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.90	1	11/13/25 19:53	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.26	1	11/13/25 19:53	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.26	1	11/13/25 19:53	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.677	U	ng/L	0.677	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.932	U	ng/L	0.932	4.85	1	11/13/25 19:53	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**18.0**		ng/L	0.369	4.65	1	11/13/25 19:53	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.21**	J	ng/L	2.73	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.07	1	11/13/25 19:53	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-152_110425 **Lab ID: HN2516560-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.727	U	ng/L	0.727	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.595	U	ng/L	0.595	5.01	1	11/13/25 19:53	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.86**	J	ng/L	0.950	4.79	1	11/13/25 19:53	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.924	U	ng/L	0.924	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**2.65**	J	ng/L	1.26	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.522	U	ng/L	0.522	5.05	1	11/13/25 19:53	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.915	U	ng/L	0.915	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.748	U	ng/L	0.748	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**2.70**		ng/L	0.938	1.95	1	11/13/25 19:53	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**4.96**		ng/L	0.663	2.10	1	11/13/25 19:53	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.585	U	ng/L	0.585	4.93	1	11/13/25 19:53	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**3.50**	J	ng/L	1.35	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.78	U	ng/L	2.78	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.26	1	11/13/25 19:53	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.26	1	11/13/25 19:53	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***92.8***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***86.9***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.0***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***82.3***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***73.4***		*%REC*		*27-134*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***71.4***		*%REC*		*41-142*	*1*	*11/13/25 19:53*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-22-152_110425 **Lab ID: HN2516560-024**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***69.5***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***91.4***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.5***		*%REC*		*42-141*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***80.9***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.6***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***74.3***		*%REC*		*43-138*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***60.9***		*%REC*		*30-122*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***76.7***		*%REC*		*50-150*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***67.1***		*%REC*		*35-136*	*1*	*11/13/25 19:53*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***73.0***		*%REC*		*34-142*	*1*	*11/13/25 19:53*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-13_110425 **Lab ID: HN2516560-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.95	1	11/13/25 20:08	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.03	1	11/13/25 20:08	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.984	U	ng/L	0.984	4.91	1	11/13/25 20:08	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.88	1	11/13/25 20:08	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.13	U	ng/L	1.13	5.25	1	11/13/25 20:08	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.17	U	ng/L	3.17	5.25	1	11/13/25 20:08	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.25	1	11/13/25 20:08	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.591	U	ng/L	0.591	4.95	1	11/13/25 20:08	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.90	1	11/13/25 20:08	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.25	1	11/13/25 20:08	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.25	1	11/13/25 20:08	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.677	U	ng/L	0.677	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.931	U	ng/L	0.931	4.84	1	11/13/25 20:08	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.95**	J	ng/L	0.369	4.65	1	11/13/25 20:08	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.03**		ng/L	2.73	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.07	1	11/13/25 20:08	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-13_110425 **Lab ID: HN2516560-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.726	U	ng/L	0.726	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.595	U	ng/L	0.595	5.00	1	11/13/25 20:08	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.87**	J	ng/L	0.949	4.78	1	11/13/25 20:08	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.923	U	ng/L	0.923	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**2.26**	J	ng/L	1.26	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.521	U	ng/L	0.521	5.04	1	11/13/25 20:08	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.914	U	ng/L	0.914	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.747	U	ng/L	0.747	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.61**		ng/L	0.937	1.95	1	11/13/25 20:08	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**5.36**		ng/L	0.662	2.10	1	11/13/25 20:08	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.584	U	ng/L	0.584	4.93	1	11/13/25 20:08	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**1.83**	J	ng/L	1.35	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.77	U	ng/L	2.77	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.25	1	11/13/25 20:08	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.25	1	11/13/25 20:08	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***147***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***98.0***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***87.1***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***78.3***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***78.9***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***89.1***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***79.0***		*%REC*		*27-134*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.8***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***81.2***		*%REC*		*41-142*	*1*	*11/13/25 20:08*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: DUP-13_110425 **Lab ID: HN2516560-025**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***76.4***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***91.2***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***92.6***		*%REC*		*42-141*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***85.3***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***83.2***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.4***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***82.0***		*%REC*		*43-138*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***66.7***		*%REC*		*30-122*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***78.0***		*%REC*		*50-150*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***70.9***		*%REC*		*35-136*	*1*	*11/13/25 20:08*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***78.5***		*%REC*		*34-142*	*1*	*11/13/25 20:08*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-19-112_110425 **Lab ID: HN2516560-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<2.34	U	ng/L	2.34	23.6	1	11/13/25 20:22	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<5.66	U	ng/L	5.66	24.0	1	11/13/25 20:22	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<4.69	U	ng/L	4.69	23.4	1	11/13/25 20:22	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<9.61	U	ng/L	9.61	23.2	1	11/13/25 20:22	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<5.41	U	ng/L	5.41	25.0	1	11/13/25 20:22	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<15.1	U	ng/L	15.1	25.0	1	11/13/25 20:22	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<6.96	U	ng/L	6.96	25.0	1	11/13/25 20:22	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<2.81	U	ng/L	2.81	23.6	1	11/13/25 20:22	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<2.24	U	ng/L	2.24	23.3	1	11/13/25 20:22	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<5.86	U	ng/L	5.86	25.0	1	11/13/25 20:22	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<7.74	U	ng/L	7.74	25.0	1	11/13/25 20:22	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<3.22	U	ng/L	3.22	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<4.44	U	ng/L	4.44	23.1	1	11/13/25 20:22	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<1.76	U	ng/L	1.76	22.1	1	11/13/25 20:22	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<13.0	U	ng/L	13.0	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<9.94	U	ng/L	9.94	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<6.86	U	ng/L	6.86	24.1	1	11/13/25 20:22	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-19-112_110425 **Lab ID: HN2516560-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<6.21	U	ng/L	6.21	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<3.46	U	ng/L	3.46	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<2.83	U	ng/L	2.83	23.8	1	11/13/25 20:22	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<8.66	U	ng/L	8.66	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<4.52	U	ng/L	4.52	22.8	1	11/13/25 20:22	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<4.40	U	ng/L	4.40	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<6.01	U	ng/L	6.01	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<2.48	U	ng/L	2.48	24.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<4.36	U	ng/L	4.36	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<3.56	U	ng/L	3.56	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<4.47	U	ng/L	4.47	9.29	1	11/13/25 20:22	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<3.15	U	ng/L	3.15	10.0	1	11/13/25 20:22	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<2.78	U	ng/L	2.78	23.5	1	11/13/25 20:22	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**10.7**	J	ng/L	6.41	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<13.2	U	ng/L	13.2	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<9.67	U	ng/L	9.67	25.0	1	11/13/25 20:22	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<4.88	U	ng/L	4.88	25.0	1	11/13/25 20:22	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***82.5***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***51.0***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***50.8***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***73.2***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***79.6***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***41.6***		*%REC*		*27-134*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.3***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***41.4***		*%REC*		*41-142*	*1*	*11/13/25 20:22*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-19-112_110425 **Lab ID: HN2516560-026**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***39.1***	*S*	*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***87.7***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***45.3***		*%REC*		*42-141*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***84.3***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***75.7***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***78.9***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***43.9***		*%REC*		*43-138*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***34.1***		*%REC*		*30-122*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***69.6***		*%REC*		*50-150*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***33.8***	*S*	*%REC*		*35-136*	*1*	*11/13/25 20:22*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***38.3***		*%REC*		*34-142*	*1*	*11/13/25 20:22*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-98_110425 **Lab ID: HN2516560-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.479	U	ng/L	0.479	4.83	1	11/13/25 20:36	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.16	U	ng/L	1.16	4.92	1	11/13/25 20:36	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.961	U	ng/L	0.961	4.79	1	11/13/25 20:36	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.97	U	ng/L	1.97	4.76	1	11/13/25 20:36	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.11	U	ng/L	1.11	5.13	1	11/13/25 20:36	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.10	U	ng/L	3.10	5.13	1	11/13/25 20:36	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.43	U	ng/L	1.43	5.13	1	11/13/25 20:36	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.577	U	ng/L	0.577	4.83	1	11/13/25 20:36	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.460	U	ng/L	0.460	4.78	1	11/13/25 20:36	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.20	U	ng/L	1.20	5.13	1	11/13/25 20:36	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.59	U	ng/L	1.59	5.13	1	11/13/25 20:36	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.661	U	ng/L	0.661	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**18.6**		ng/L	0.909	4.73	1	11/13/25 20:36	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.706**	J	ng/L	0.360	4.54	1	11/13/25 20:36	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.42**		ng/L	2.67	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.41	U	ng/L	1.41	4.95	1	11/13/25 20:36	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-98_110425 **Lab ID: HN2516560-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.27	U	ng/L	1.27	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.709	U	ng/L	0.709	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.614**	J	ng/L	0.581	4.89	1	11/13/25 20:36	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.78	U	ng/L	1.78	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.927	U	ng/L	0.927	4.67	1	11/13/25 20:36	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.901	U	ng/L	0.901	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.23	U	ng/L	1.23	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.509	U	ng/L	0.509	4.93	1	11/13/25 20:36	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.03**	J	ng/L	0.893	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.730	U	ng/L	0.730	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**130**		ng/L	0.916	1.91	1	11/13/25 20:36	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**2.83**		ng/L	0.647	2.05	1	11/13/25 20:36	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.571	U	ng/L	0.571	4.81	1	11/13/25 20:36	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.71	U	ng/L	2.71	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.98	U	ng/L	1.98	5.13	1	11/13/25 20:36	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.000	U	ng/L	1.000	5.13	1	11/13/25 20:36	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***162***	*S*	*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***91.2***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***82.4***		*%REC*		*27-134*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.2***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***86.0***		*%REC*		*41-142*	*1*	*11/13/25 20:36*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 11:20
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-98_110425 **Lab ID: HN2516560-027**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***79.8***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***92.8***		*%REC*		*42-141*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.7***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***91.5***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***96.7***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***86.0***		*%REC*		*43-138*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***70.1***		*%REC*		*30-122*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***83.8***		*%REC*		*50-150*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***77.0***		*%REC*		*35-136*	*1*	*11/13/25 20:36*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***81.0***		*%REC*		*34-142*	*1*	*11/13/25 20:36*	*11/11/25 16:01*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 12:48
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-99_110425 **Lab ID: HN2516560-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.492	U	ng/L	0.492	4.96	1	11/13/25 20:51	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.05	1	11/13/25 20:51	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.986	U	ng/L	0.986	4.92	1	11/13/25 20:51	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.89	1	11/13/25 20:51	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.27	1	11/13/25 20:51	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.18	U	ng/L	3.18	5.27	1	11/13/25 20:51	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.46	U	ng/L	1.46	5.27	1	11/13/25 20:51	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.592	U	ng/L	0.592	4.96	1	11/13/25 20:51	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.472	U	ng/L	0.472	4.91	1	11/13/25 20:51	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.27	1	11/13/25 20:51	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.27	1	11/13/25 20:51	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.679	U	ng/L	0.679	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**77.2**		ng/L	0.934	4.86	1	11/13/25 20:51	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.799**	J	ng/L	0.370	4.66	1	11/13/25 20:51	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**11.7**		ng/L	2.74	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.08	1	11/13/25 20:51	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 12:48
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-99_110425 **Lab ID: HN2516560-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.31	U	ng/L	1.31	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.728	U	ng/L	0.728	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**1.04**	J	ng/L	0.596	5.02	1	11/13/25 20:51	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.82	U	ng/L	1.82	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.05**	J	ng/L	0.952	4.80	1	11/13/25 20:51	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.925	U	ng/L	0.925	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**3.19**	J	ng/L	1.26	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.523	U	ng/L	0.523	5.06	1	11/13/25 20:51	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.917	U	ng/L	0.917	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.749	U	ng/L	0.749	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**61.8**		ng/L	0.940	1.96	1	11/13/25 20:51	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**4.34**		ng/L	0.664	2.11	1	11/13/25 20:51	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.586	U	ng/L	0.586	4.94	1	11/13/25 20:51	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**3.67**	J	ng/L	1.35	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.78	U	ng/L	2.78	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.27	1	11/13/25 20:51	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.27	1	11/13/25 20:51	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***251***	*S*	*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***149***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***133***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***97.3***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***99.5***		*%REC*		*27-134*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***96.4***		*%REC*		*41-142*	*1*	*11/13/25 20:51*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 12:48
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-99_110425 **Lab ID: HN2516560-028**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***92.5***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***115***		*%REC*		*42-141*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***100.0***		*%REC*		*43-138*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***77.4***		*%REC*		*30-122*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***99.5***		*%REC*		*50-150*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***83.8***		*%REC*		*35-136*	*1*	*11/13/25 20:51*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***94.8***		*%REC*		*34-142*	*1*	*11/13/25 20:51*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:58
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-100_110425 **Lab ID: HN2516560-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.477	U	ng/L	0.477	4.81	1	11/13/25 21:05	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.89	1	11/13/25 21:05	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.956	U	ng/L	0.956	4.77	1	11/13/25 21:05	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.96	U	ng/L	1.96	4.74	1	11/13/25 21:05	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.11	1	11/13/25 21:05	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.08	U	ng/L	3.08	5.11	1	11/13/25 21:05	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.42	U	ng/L	1.42	5.11	1	11/13/25 21:05	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.574	U	ng/L	0.574	4.81	1	11/13/25 21:05	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.458	U	ng/L	0.458	4.76	1	11/13/25 21:05	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.11	1	11/13/25 21:05	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.58	U	ng/L	1.58	5.11	1	11/13/25 21:05	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.658	U	ng/L	0.658	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**29.1**		ng/L	0.905	4.71	1	11/13/25 21:05	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.38**	J	ng/L	0.358	4.51	1	11/13/25 21:05	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**12.1**		ng/L	2.66	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.03	U	ng/L	2.03	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.40	U	ng/L	1.40	4.92	1	11/13/25 21:05	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:58
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-100_110425 **Lab ID: HN2516560-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.27	U	ng/L	1.27	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.706	U	ng/L	0.706	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.578	U	ng/L	0.578	4.86	1	11/13/25 21:05	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.68**	J	ng/L	1.77	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**3.57**	J	ng/L	0.922	4.65	1	11/13/25 21:05	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.897	U	ng/L	0.897	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**8.03**		ng/L	1.23	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.507	U	ng/L	0.507	4.90	1	11/13/25 21:05	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.889	U	ng/L	0.889	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.726	U	ng/L	0.726	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.31**	J	ng/L	0.911	1.90	1	11/13/25 21:05	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**4.71**		ng/L	0.643	2.04	1	11/13/25 21:05	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.568	U	ng/L	0.568	4.79	1	11/13/25 21:05	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**3.55**	J	ng/L	1.31	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.70	U	ng/L	2.70	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.97	U	ng/L	1.97	5.11	1	11/13/25 21:05	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.995	U	ng/L	0.995	5.11	1	11/13/25 21:05	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***88.6***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***96.2***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***94.6***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***100***		*%REC*		*27-134*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***100***		*%REC*		*41-142*	*1*	*11/13/25 21:05*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 13:58
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: MW-18-100_110425 **Lab ID: HN2516560-029**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***99.8***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***113***		*%REC*		*42-141*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***99.0***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***94.2***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***97.6***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***103***		*%REC*		*43-138*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***83.0***		*%REC*		*30-122*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***92.9***		*%REC*		*50-150*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***96.6***		*%REC*		*35-136*	*1*	*11/13/25 21:05*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***103***		*%REC*		*34-142*	*1*	*11/13/25 21:05*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: UNK-15_110425 **Lab ID: HN2516560-030**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.89	1	11/13/25 21:49	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.97	1	11/13/25 21:49	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.972	U	ng/L	0.972	4.85	1	11/13/25 21:49	11/11/25 16:01
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.99	U	ng/L	1.99	4.82	1	11/13/25 21:49	11/11/25 16:01
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.12	U	ng/L	1.12	5.19	1	11/13/25 21:49	11/11/25 16:01
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.14	U	ng/L	3.14	5.19	1	11/13/25 21:49	11/11/25 16:01
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.44	U	ng/L	1.44	5.19	1	11/13/25 21:49	11/11/25 16:01
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.584	U	ng/L	0.584	4.89	1	11/13/25 21:49	11/11/25 16:01
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.84	1	11/13/25 21:49	11/11/25 16:01
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.19	1	11/13/25 21:49	11/11/25 16:01
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.60	U	ng/L	1.60	5.19	1	11/13/25 21:49	11/11/25 16:01
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.669	U	ng/L	0.669	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**757**		ng/L	4.60	23.9	5	11/15/25 05:54	11/11/25 16:01
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.35**	J	ng/L	0.365	4.59	1	11/13/25 21:49	11/11/25 16:01
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**16.6**		ng/L	2.70	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.06	U	ng/L	2.06	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	5.01	1	11/13/25 21:49	11/11/25 16:01

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: UNK-15_110425 **Lab ID: HN2516560-030**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**4.74**	J	ng/L	1.29	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.718	U	ng/L	0.718	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**10.3**		ng/L	0.588	4.94	1	11/13/25 21:49	11/11/25 16:01
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.93**	J	ng/L	1.80	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**14.6**		ng/L	0.938	4.73	1	11/13/25 21:49	11/11/25 16:01
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.912	U	ng/L	0.912	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**4.85**	J	ng/L	1.25	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	**3.80**	J	ng/L	0.515	4.99	1	11/13/25 21:49	11/11/25 16:01
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.78**	J	ng/L	0.904	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**0.784**	J	ng/L	0.738	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1210**		ng/L	4.63	9.64	5	11/15/25 05:54	11/11/25 16:01
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**21.0**		ng/L	0.654	2.08	1	11/13/25 21:49	11/11/25 16:01
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.53**	J	ng/L	0.577	4.87	1	11/13/25 21:49	11/11/25 16:01
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.41**	J	ng/L	1.33	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.74	U	ng/L	2.74	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.19	1	11/13/25 21:49	11/11/25 16:01
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.19	1	11/13/25 21:49	11/11/25 16:01
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***267***	*S*	*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***184***	*S*	*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***133***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-PFDA	*EPA 537Mod*	***79.0***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.6***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-PFTeA	*EPA 537Mod*	***73.8***		*%REC*		*27-134*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.4***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***72.5***		*%REC*		*41-142*	*1*	*11/13/25 21:49*	*11/11/25 16:01*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	11/04/25 15:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45

CLIENT ID: UNK-15_110425 **Lab ID: HN2516560-030**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***71.7***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C4-PFBA	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.9***		*%REC*		*42-141*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C4-PFOA	*EPA 537Mod*	***71.4***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C4-PFOS	*EPA 537Mod*	***73.9***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C5-PFNA	*EPA 537Mod*	***74.7***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C5-PFPeA	*EPA 537Mod*	***73.1***		*%REC*		*43-138*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 13C8-FOSA	*EPA 537Mod*	***65.1***		*%REC*		*30-122*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: 18O2-PFHxS	*EPA 537Mod*	***71.5***		*%REC*		*50-150*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.9***		*%REC*		*35-136*	*1*	*11/13/25 21:49*	*11/11/25 16:01*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***79.6***		*%REC*		*34-142*	*1*	*11/13/25 21:49*	*11/11/25 16:01*

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2328225	**Run ID:**	3676733

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2328225-001

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/10/25 19:22

Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2328225

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3676733

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2328225-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/10/25 19:22 | **Prep Date:** 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***198***	*ng/L*			149.44		132	*50-150*			
Surr: 13C2-PFDA	***178***	*ng/L*			160		111	*50-150*			
Surr: 13C2-PFDoA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C2-PFHxA	***187***	*ng/L*			160		117	*50-150*			
Surr: 13C2-PFTeA	***146***	*ng/L*			160		91.0	*27-134*			
Surr: 13C2-PFUnA	***180***	*ng/L*			160		112	*50-150*			
Surr: 13C3-HFPO-DA	***182***	*ng/L*			160		114	*41-142*			
Surr: 13C3-PFBS	***154***	*ng/L*			148.8		103	*50-150*			
Surr: 13C4-PFBA	***192***	*ng/L*			160		120	*50-150*			
Surr: 13C4-PFHpA	***199***	*ng/L*			160		124	*42-141*			
Surr: 13C4-PFOA	***197***	*ng/L*			160		123	*50-150*			
Surr: 13C4-PFOS	***143***	*ng/L*			152.8		93.5	*50-150*			
Surr: 13C5-PFNA	***194***	*ng/L*			160		121	*50-150*			
Surr: 13C5-PFPeA	***169***	*ng/L*			160		105	*43-138*			
Surr: 13C8-FOSA	***148***	*ng/L*			160		92.3	*30-122*			
Surr: 18O2-PFHxS	***156***	*ng/L*			151.2		103	*50-150*			
Surr: d3-N-MeFOSAA	***150***	*ng/L*			160		93.5	*35-136*			
Surr: d5-N-EtFOSAA	***167***	*ng/L*			160		104	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2328225-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/10/25 19:37 | **Prep Date:** 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.1	ng/L	0.467	4.71	30.1		90.0	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.5	ng/L	1.13	4.79	30.7		112	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.2	ng/L	0.936	4.67	29.9		101	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	32.6	ng/L	1.92	4.74	30.3		108	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	30.6	ng/L	1.08	5.00	32		95.5	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.1	ng/L	3.02	5.00	32		110	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.2	ng/L	1.39	5.00	32		110	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	26.4	ng/L	0.562	4.71	30.1		87.6	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	28.3	ng/L	0.448	4.66	29.8		95.0	69-133			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2328225	**Run ID:**	3676733

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2328225-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/10/25 19:37

Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	32.3	ng/L	1.17	5.00	32		101	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	34.7	ng/L	1.54	5.00	32		109	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	26.4	ng/L	0.644	5.00	32		82.4	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	33.0	ng/L	0.886	4.61	28.8		114	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.5	ng/L	0.351	4.42	28.3		104	69-131			
Perfluorobutanoic acid (PFBA)	31.5	ng/L	2.60	5.00	32		98.3	73-139			
Perfluorobutylsulfonamide (PFBSA)	36.3	ng/L	1.98	5.00	32		113	68-164			
Perfluorodecane sulfonic acid (PFDS)	25.1	ng/L	1.37	4.82	30.8		81.5	64-128			
Perfluorodecanoic acid (PFDA)	32.6	ng/L	1.24	5.00	32		102	77-135			
Perfluorododecanoic acid (PFDOA)	32.9	ng/L	0.691	5.00	32		103	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.0	ng/L	0.566	4.76	30.5		101	70-137			
Perfluoroheptanoic acid (PFHpA)	31.6	ng/L	1.73	5.00	32		98.7	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.4	ng/L	0.903	4.55	29.1		97.6	68-131			
Perfluorohexanesulfonamide (PFHxSA)	25.2	ng/L	0.878	5.00	32		78.8	69-135			
Perfluorohexanoic acid (PFHxA)	31.5	ng/L	1.20	5.00	32		98.3	72-129			
Perfluorononane sulfonic acid (PFNS)	28.5	ng/L	0.496	4.80	30.7		92.9	70-132			
Perfluorononanoic acid (PFNA)	32.3	ng/L	0.870	5.00	32		101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	31.5	ng/L	0.711	5.00	32		98.6	66-140			
Perfluorooctane sulfonic acid (PFOS)	29.0	ng/L	0.892	1.86	29.7		97.7	72-133			
Perfluorooctanoic acid (PFOA)	31.6	ng/L	0.630	2.00	32		98.9	71-133			
Perfluoropentane sulfonic acid (PFPeS)	31.3	ng/L	0.556	4.69	30		104	73-137			
Perfluoropentanoic acid (PFPeA)	33.3	ng/L	1.28	5.00	32		104	72-129			
Perfluorotetradecanoic acid (PFTDA)	31.2	ng/L	2.64	5.00	32		97.6	62-139			
Perfluorotridecanoic acid (PFTrDA)	32.0	ng/L	1.93	5.00	32		99.9	47-147			
Perfluoroundecanoic acid (PFUnDA)	32.9	ng/L	0.974	5.00	32		103	80-135			
Surr: 13C2-FtS 4:2	***147***	*ng/L*			149.44		98.5	*50-150*			
Surr: 13C2-FtS 6:2	***178***	*ng/L*			152		117	*50-150*			
Surr: 13C2-FtS 8:2	***184***	*ng/L*			153.28		120	*50-150*			
Surr: 13C2-PFDA	***130***	*ng/L*			160		81.0	*50-150*			
Surr: 13C2-PFDoA	***149***	*ng/L*			160		93.4	*50-150*			
Surr: 13C2-PFHxA	***140***	*ng/L*			160		87.3	*50-150*			
Surr: 13C2-PFTeA	***113***	*ng/L*			160		70.9	*27-134*			
Surr: 13C2-PFUnA	***131***	*ng/L*			160		81.6	*50-150*			
Surr: 13C3-HFPO-DA	***137***	*ng/L*			160		85.5	*41-142*			
Surr: 13C3-PFBS	***115***	*ng/L*			148.8		77.2	*50-150*			
Surr: 13C4-PFBA	***149***	*ng/L*			160		93.3	*50-150*			
Surr: 13C4-PFHpA	***148***	*ng/L*			160		92.2	*42-141*			
Surr: 13C4-PFOA	***150***	*ng/L*			160		93.5	*50-150*			
Surr: 13C4-PFOS	***113***	*ng/L*			152.8		73.7	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2328225	**Run ID:**	3676733

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2328225-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/10/25 19:37 | **Prep Date:** 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C5-PFNA	***149***	*ng/L*			160		92.9	*50-150*			
Surr: 13C5-PFPeA	***126***	*ng/L*			160		78.4	*43-138*			
Surr: 13C8-FOSA	***104***	*ng/L*			160		65.0	*30-122*			
Surr: 18O2-PFHxS	***110***	*ng/L*			151.2		72.9	*50-150*			
Surr: d3-N-MeFOSAA	***109***	*ng/L*			160		68.1	*35-136*			
Surr: d5-N-EtFOSAA	***114***	*ng/L*			160		71.4	*34-142*			

MS | **CLIENT ID: MW-12-10R_103125** | **Lab ID: QC-2328225-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/10/25 20:49 | **Prep Date:** 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	28.9	ng/L	0.452	4.55	29.102	<0.452	99.2	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	36.5	ng/L	1.09	4.63	29.682	<1.09	123	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.9	ng/L	0.905	4.52	28.909	<0.905	106	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	32.8	ng/L	1.86	4.49	29.296	<1.86	110	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	30.5	ng/L	1.04	4.83	30.939	<1.04	98.1	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	33.2	ng/L	2.92	4.83	30.939	<2.92	106	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	32.7	ng/L	1.34	4.83	30.939	1.61	101	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.1	ng/L	0.543	4.55	29.102	<0.543	100.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.5	ng/L	0.433	4.51	28.812	<0.433	102	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.4	ng/L	1.13	4.83	30.939	<1.13	98.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.2	ng/L	1.49	4.83	30.939	<1.49	100	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	27.6	ng/L	0.623	4.83	30.939	<0.623	89.0	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	35.8	ng/L	0.857	4.46	27.845	1.41	123	74-131			
Perfluorobutane sulfonic acid (PFBS)	32.7	ng/L	0.339	4.27	27.362	3.24	108	69-141			
Perfluorobutanoic acid (PFBA)	36.8	ng/L	2.51	4.83	30.939	5.90	99.9	73-139			
Perfluorobutylsulfonamide (PFBSA)	32.9	ng/L	1.92	4.83	30.939	<1.92	106	68-164			
Perfluorodecane sulfonic acid (PFDS)	26.0	ng/L	1.32	4.66	29.779	<1.32	87.2	64-128			
Perfluorodecanoic acid (PFDA)	30.8	ng/L	1.20	4.83	30.939	<1.20	98.8	77-135			
Perfluorododecanoic acid (PFDOA)	30.0	ng/L	0.668	4.83	30.939	<0.668	96.6	77-137			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2328225

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3676733

MS **CLIENT ID: MW-12-10R_103125** **Lab ID: QC-2328225-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/10/25 20:49
Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptane sulfonic acid (PFHpS)	29.9	ng/L	0.547	4.60	29.489	<0.547	101	70-137			
Perfluoroheptanoic acid (PFHpA)	34.0	ng/L	1.67	4.83	30.939	2.74	101	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.1	ng/L	0.873	4.40	28.136	1.73	93.7	68-131			
Perfluorohexanesulfonamide (PFHxSA)	23.1	ng/L	0.849	4.83	30.939	<0.849	74.7	69-135			
Perfluorohexanoic acid (PFHxA)	34.4	ng/L	1.16	4.83	30.939	2.61	103	72-129			
Perfluorononane sulfonic acid (PFNS)	29.4	ng/L	0.480	4.64	29.682	<0.480	98.1	70-132			
Perfluorononanoic acid (PFNA)	32.0	ng/L	0.841	4.83	30.939	<0.841	101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	32.5	ng/L	0.687	4.83	30.939	<0.687	104	66-140			
Perfluorooctane sulfonic acid (PFOS)	36.1	ng/L	0.862	1.79	28.716	7.29	100	72-133			
Perfluorooctanoic acid (PFOA)	37.0	ng/L	0.609	1.93	30.939	4.60	105	71-133			
Perfluoropentane sulfonic acid (PFPeS)	28.9	ng/L	0.538	4.53	29.006	<0.538	98.2	73-137			
Perfluoropentanoic acid (PFPeA)	38.2	ng/L	1.24	4.83	30.939	4.43	109	72-129			
Perfluorotetradecanoic acid (PFTDA)	30.4	ng/L	2.55	4.83	30.939	<2.55	97.5	62-139			
Perfluorotridecanoic acid (PFTrDA)	30.4	ng/L	1.87	4.83	30.939	<1.87	97.6	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.2	ng/L	0.942	4.83	30.939	<0.942	101	80-135			
Surr: 13C2-FtS 4:2	***182***	*ng/L*			144.49		126	*50-150*			
Surr: 13C2-FtS 6:2	***168***	*ng/L*			146.96		114	*50-150*			
Surr: 13C2-FtS 8:2	***163***	*ng/L*			148.2		110	*50-150*			
Surr: 13C2-PFDA	***130***	*ng/L*			154.7		83.8	*50-150*			
Surr: 13C2-PFDoA	***131***	*ng/L*			154.7		84.4	*50-150*			
Surr: 13C2-PFHxA	***116***	*ng/L*			154.7		75.2	*50-150*			
Surr: 13C2-PFTeA	***133***	*ng/L*			154.7		86.2	*27-134*			
Surr: 13C2-PFUnA	***134***	*ng/L*			154.7		86.7	*50-150*			
Surr: 13C3-HFPO-DA	***125***	*ng/L*			154.7		80.8	*41-142*			
Surr: 13C3-PFBS	***123***	*ng/L*			143.87		85.5	*50-150*			
Surr: 13C4-PFBA	***141***	*ng/L*			154.7		91.0	*50-150*			
Surr: 13C4-PFHpA	***134***	*ng/L*			154.7		86.3	*42-141*			
Surr: 13C4-PFOA	***134***	*ng/L*			154.7		86.4	*50-150*			
Surr: 13C4-PFOS	***132***	*ng/L*			147.74		89.6	*50-150*			
Surr: 13C5-PFNA	***133***	*ng/L*			154.7		86.2	*50-150*			
Surr: 13C5-PFPeA	***112***	*ng/L*			154.7		72.1	*43-138*			
Surr: 13C8-FOSA	***92.0***	*ng/L*			154.7		59.5	*30-122*			
Surr: 18O2-PFHxS	***131***	*ng/L*			146.19		89.6	*50-150*			
Surr: d3-N-MeFOSAA	***102***	*ng/L*			154.7		66.0	*35-136*			
Surr: d5-N-EtFOSAA	***116***	*ng/L*			154.7		75.0	*34-142*			

DUP **CLIENT ID: P6-SB-07_103125** **Lab ID: QC-2328225-007**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/10/25 21:18
Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2328225

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3676733

DUP | **CLIENT ID: P6-SB-07_103125** | **Lab ID: QC-2328225-007**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/10/25 21:18 | **Prep Date:** 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.473	ng/L	0.473	4.77		<0.471					U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.14	ng/L	1.14	4.85		<1.14					U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.947	ng/L	0.947	4.73		<0.943					U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.94	ng/L	1.94	4.70		<1.93					U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	30.1	ng/L	1.09	5.06		34.9			14.6	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	5.79	ng/L	3.06	5.06		7.16			21.2	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	196	ng/L	1.41	5.06		208			5.69	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.569	ng/L	0.569	4.77		<0.566					U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.453	ng/L	0.453	4.72		<0.451					U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.18	ng/L	1.18	5.06		<1.18			NC		U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.56	ng/L	1.56	5.06		<1.56			NC		U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.652	ng/L	0.652	5.06		<0.649			NC		U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.18	ng/L	0.897	4.67		3.34					J
Perfluorobutane sulfonic acid (PFBS)	5.00	ng/L	0.355	4.47		5.23			4.36	30	
Perfluorobutanoic acid (PFBA)	258	ng/L	2.63	5.06		257			0.206	30	
Perfluorobutylsulfonamide (PFBSA)	<2.01	ng/L	2.01	5.06		<2.00			NC		U
Perfluorodecane sulfonic acid (PFDS)	<1.39	ng/L	1.39	4.88		<1.38					U
Perfluorodecanoic acid (PFDA)	28.5	ng/L	1.26	5.06		29.2			2.41	30	
Perfluorododecanoic acid (PFDOA)	<0.699	ng/L	0.699	5.06		<0.696			NC		U
Perfluoroheptane sulfonic acid (PFHpS)	0.738	ng/L	0.573	4.82		0.667					J
Perfluorohexane sulfonic acid (PFHxS)	4.27	ng/L	0.914	4.61		5.10			NC		J
Perfluorohexanesulfonamide (PFHxSA)	<0.889	ng/L	0.889	5.06		<0.885			NC		U
Perfluorononane sulfonic acid (PFNS)	<0.502	ng/L	0.502	4.86		<0.500					U
Perfluorononanoic acid (PFNA)	135	ng/L	0.881	5.06		133			1.67	30	
Perfluorooctane sulfonamide (PFOSAm)	1.65	ng/L	0.720	5.06		1.35			NC		J
Perfluorooctane sulfonic acid (PFOS)	53.8	ng/L	0.903	1.88		53.8			0.152	30	
Perfluoropentane sulfonic acid (PFPeS)	1.85	ng/L	0.563	4.75		1.52					J
Perfluorotetradecanoic acid (PFTDA)	<2.67	ng/L	2.67	5.06		<2.66			NC		U
Perfluorotridecanoic acid (PFTrDA)	<1.95	ng/L	1.95	5.06		<1.95			NC		U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2328225	**Run ID:**	3676733

DUP	**CLIENT ID: P6-SB-07_103125**	**Lab ID: QC-2328225-007**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/10/25 21:18

Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroundecanoic acid (PFUnDA)	<0.986	ng/L	0.986	5.06		<0.981			NC		U
Surr: 13C2-FtS 4:2	***179***	*ng/L*			149.44		118	*50-150*	0.00	30	
Surr: 13C2-FtS 6:2	***140***	*ng/L*			152		91.3	*50-150*	1.88	30	
Surr: 13C2-FtS 8:2	***161***	*ng/L*			153.28		104	*50-150*	1.90	30	
Surr: 13C2-PFDA	***126***	*ng/L*			160		77.5	*50-150*	3.15	30	
Surr: 13C2-PFDoA	***139***	*ng/L*			160		85.9	*50-150*	1.41	30	
Surr: 13C2-PFHxA	***100***	*ng/L*			160		62.0	*50-150*	3.11	30	
Surr: 13C2-PFTeA	***140***	*ng/L*			160		86.3	*27-134*	3.53	30	
Surr: 13C2-PFUnA	***131***	*ng/L*			160		80.8	*50-150*	0.124	30	
Surr: 13C3-HFPO-DA	***116***	*ng/L*			160		71.8	*41-142*	3.96	30	
Surr: 13C3-PFBS	***116***	*ng/L*			148.8		77.2	*50-150*	0.519	30	
Surr: 13C4-PFBA	***150***	*ng/L*			160		92.3	*50-150*	6.37	30	
Surr: 13C4-PFHpA	***113***	*ng/L*			160		69.5	*42-141*	0.00	30	
Surr: 13C4-PFOA	***102***	*ng/L*			160		63.0	*50-150*	8.44	30	
Surr: 13C4-PFOS	***127***	*ng/L*			152.8		82.2	*50-150*	2.09	30	
Surr: 13C5-PFNA	***130***	*ng/L*			160		80.1	*50-150*	0.00	30	
Surr: 13C5-PFPeA	***106***	*ng/L*			160		65.6	*43-138*	0.612	30	
Surr: 13C8-FOSA	***91.0***	*ng/L*			160		56.2	*30-122*	5.54	30	
Surr: 18O2-PFHxS	***108***	*ng/L*			151.2		70.6	*50-150*	3.02	30	
Surr: d3-N-MeFOSAA	***110***	*ng/L*			160		67.8	*35-136*	0.592	30	
Surr: d5-N-EtFOSAA	***121***	*ng/L*			160		74.6	*34-142*	0.403	30	

The following samples were analyzed in this batch: HN2516560-001, HN2516560-002, HN2516560-003, HN2516560-004, HN2516560-005, HN2516560-006, HN2516560-007, HN2516560-008, HN2516560-009, HN2516560-010, HN2516560-011, HN2516560-012, HN2516560-013, HN2516560-014, HN2516560-015, HN2516560-016, HN2516560-017

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2328225	**Run ID:**	3677835

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2328225-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/11/25 13:56

Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
Surr: 13C2-FtS 6:2	***215***	*ng/L*			152		142	*50-150*			
Surr: 13C2-FtS 8:2	***203***	*ng/L*			153.28		132	*50-150*			

The following samples were analyzed in this batch: HN2516560-001, HN2516560-002, HN2516560-003, HN2516560-004, HN2516560-005, HN2516560-006, HN2516560-007, HN2516560-008, HN2516560-009, HN2516560-010, HN2516560-011, HN2516560-012, HN2516560-013, HN2516560-014, HN2516560-015, HN2516560-016, HN2516560-017

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/31/25 12:00
Matrix:	GROUNDWATER	**Date Received:**	11/05/25 10:45
QC Lot:	2328225	**Run ID:**	3677839

Per- and Polyfluorinated Alkyl Substances by LC-MS

DUP | **CLIENT ID: P6-SB-07_103125** | **Lab ID: QC-2328225-007**

Method: EPA 537Mod **Dilution:** 5 **Analysis Date:** 11/11/25 12:59

Prep Date: 11/10/25 17:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptanoic acid (PFHpA)	651	ng/L	8.75	25.3		645			0.882	30	
Perfluorohexanoic acid (PFHxA)	708	ng/L	6.07	25.3		776			9.14	30	
Perfluorooctanoic acid (PFOA)	861	ng/L	3.19	10.1		924			7.13	30	
Perfluoropentanoic acid (PFPeA)	703	ng/L	6.48	25.3		737			4.66	30	

The following samples were analyzed in this batch: HN2516560-001, HN2516560-002, HN2516560-003, HN2516560-004, HN2516560-005, HN2516560-006, HN2516560-007, HN2516560-008, HN2516560-009, HN2516560-010, HN2516560-011, HN2516560-012, HN2516560-013, HN2516560-014, HN2516560-015, HN2516560-016, HN2516560-017

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2330888

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3687867

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2330888-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:29 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2330888

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3687867

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2330888-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:29 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***136***	*ng/L*			149.44		91.0	*50-150*			
Surr: 13C2-FtS 6:2	***172***	*ng/L*			152		113	*50-150*			
Surr: 13C2-FtS 8:2	***163***	*ng/L*			153.28		107	*50-150*			
Surr: 13C2-PFDA	***156***	*ng/L*			160		97.8	*50-150*			
Surr: 13C2-PFDoA	***169***	*ng/L*			160		105	*50-150*			
Surr: 13C2-PFHxA	***178***	*ng/L*			160		111	*50-150*			
Surr: 13C2-PFTeA	***87.8***	*ng/L*			160		54.9	*27-134*			
Surr: 13C2-PFUnA	***168***	*ng/L*			160		105	*50-150*			
Surr: 13C3-HFPO-DA	***156***	*ng/L*			160		97.4	*41-142*			
Surr: 13C3-PFBS	***138***	*ng/L*			148.8		92.8	*50-150*			
Surr: 13C4-PFBA	***196***	*ng/L*			160		123	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		97.1	*42-141*			
Surr: 13C4-PFOA	***182***	*ng/L*			160		114	*50-150*			
Surr: 13C4-PFOS	***149***	*ng/L*			152.8		97.2	*50-150*			
Surr: 13C5-PFNA	***182***	*ng/L*			160		114	*50-150*			
Surr: 13C5-PFPeA	***157***	*ng/L*			160		97.9	*43-138*			
Surr: 13C8-FOSA	***141***	*ng/L*			160		87.9	*30-122*			
Surr: 18O2-PFHxS	***158***	*ng/L*			151.2		104	*50-150*			
Surr: d3-N-MeFOSAA	***146***	*ng/L*			160		90.9	*35-136*			
Surr: d5-N-EtFOSAA	***151***	*ng/L*			160		94.3	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2330888-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:44 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.7	ng/L	0.467	4.71	30.1		92.1	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	28.1	ng/L	1.13	4.79	30.7		91.6	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.0	ng/L	0.936	4.67	29.9		97.1	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.4	ng/L	1.92	4.74	30.3		104	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	30.7	ng/L	1.08	5.00	32		95.9	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330888	**Run ID:**	3687867

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2330888-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:44

Prep Date: 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.4	ng/L	3.02	5.00	32		111	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	32.4	ng/L	1.39	5.00	32		101	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.2	ng/L	0.562	4.71	30.1		97.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.2	ng/L	0.448	4.66	29.8		91.3	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	29.6	ng/L	1.17	5.00	32		92.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.5	ng/L	1.54	5.00	32		92.1	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	29.8	ng/L	0.644	5.00	32		93.3	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	31.0	ng/L	0.886	4.61	28.8		108	74-131			
Perfluorobutane sulfonic acid (PFBS)	27.7	ng/L	0.351	4.42	28.3		97.7	69-131			
Perfluorobutanoic acid (PFBA)	30.6	ng/L	2.60	5.00	32		95.7	73-139			
Perfluorobutylsulfonamide (PFBSA)	34.0	ng/L	1.98	5.00	32		106	68-164			
Perfluorodecane sulfonic acid (PFDS)	26.9	ng/L	1.37	4.82	30.8		87.5	64-128			
Perfluorodecanoic acid (PFDA)	33.3	ng/L	1.24	5.00	32		104	77-135			
Perfluorododecanoic acid (PFDOA)	33.7	ng/L	0.691	5.00	32		105	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.4	ng/L	0.566	4.76	30.5		96.2	70-137			
Perfluoroheptanoic acid (PFHpA)	30.1	ng/L	1.73	5.00	32		94.1	67-130			
Perfluorohexane sulfonic acid (PFHxS)	27.8	ng/L	0.903	4.55	29.1		95.7	68-131			
Perfluorohexanesulfonamide (PFHxSA)	30.2	ng/L	0.878	5.00	32		94.4	69-135			
Perfluorohexanoic acid (PFHxA)	31.3	ng/L	1.20	5.00	32		97.9	72-129			
Perfluorononane sulfonic acid (PFNS)	29.2	ng/L	0.496	4.80	30.7		95.2	70-132			
Perfluorononanoic acid (PFNA)	33.9	ng/L	0.870	5.00	32		106	75-131			
Perfluorooctane sulfonamide (PFOSAm)	31.8	ng/L	0.711	5.00	32		99.4	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.5	ng/L	0.892	1.86	29.7		92.7	72-133			
Perfluorooctanoic acid (PFOA)	34.3	ng/L	0.630	2.00	32		107	71-133			
Perfluoropentane sulfonic acid (PFPeS)	28.7	ng/L	0.556	4.69	30		95.7	73-137			
Perfluoropentanoic acid (PFPeA)	32.1	ng/L	1.28	5.00	32		100	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.9	ng/L	2.64	5.00	32		93.4	62-139			
Perfluorotridecanoic acid (PFTrDA)	33.3	ng/L	1.93	5.00	32		104	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.4	ng/L	0.974	5.00	32		98.2	80-135			
Surr: 13C2-FtS 4:2	***136***	*ng/L*			149.44		91.3	*50-150*			
Surr: 13C2-FtS 6:2	***163***	*ng/L*			152		107	*50-150*			
Surr: 13C2-FtS 8:2	***159***	*ng/L*			153.28		104	*50-150*			
Surr: 13C2-PFDA	***143***	*ng/L*			160		89.2	*50-150*			
Surr: 13C2-PFDoA	***141***	*ng/L*			160		88.3	*50-150*			
Surr: 13C2-PFHxA	***147***	*ng/L*			160		91.6	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330888	**Run ID:**	3687867

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2330888-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 08:44 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***131***	*ng/L*			160		82.1	*27-134*			
Surr: 13C2-PFUnA	***143***	*ng/L*			160		89.1	*50-150*			
Surr: 13C3-HFPO-DA	***142***	*ng/L*			160		89.0	*41-142*			
Surr: 13C3-PFBS	***131***	*ng/L*			148.8		87.9	*50-150*			
Surr: 13C4-PFBA	***169***	*ng/L*			160		106	*50-150*			
Surr: 13C4-PFHpA	***152***	*ng/L*			160		95.3	*42-141*			
Surr: 13C4-PFOA	***146***	*ng/L*			160		91.0	*50-150*			
Surr: 13C4-PFOS	***135***	*ng/L*			152.8		88.5	*50-150*			
Surr: 13C5-PFNA	***144***	*ng/L*			160		89.8	*50-150*			
Surr: 13C5-PFPeA	***149***	*ng/L*			160		93.1	*43-138*			
Surr: 13C8-FOSA	***128***	*ng/L*			160		80.2	*30-122*			
Surr: 18O2-PFHxS	***127***	*ng/L*			151.2		84.0	*50-150*			
Surr: d3-N-MeFOSAA	***136***	*ng/L*			160		85.2	*35-136*			
Surr: d5-N-EtFOSAA	***139***	*ng/L*			160		87.1	*34-142*			

MS | **CLIENT ID: MW-22-149_110425** | **Lab ID: QC-2330888-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 10:56 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.7	ng/L	0.494	4.98	31.818	<0.494	87.0	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	28.8	ng/L	1.19	5.06	32.452	<1.19	88.7	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.5	ng/L	0.989	4.94	31.607	<0.989	89.7	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.8	ng/L	2.03	4.90	32.03	<2.03	105	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	32.2	ng/L	1.14	5.29	33.827	<1.14	95.0	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	32.0	ng/L	3.19	5.29	33.827	<3.19	94.7	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	30.5	ng/L	1.47	5.29	33.827	<1.47	89.9	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.2	ng/L	0.594	4.98	31.818	<0.594	85.5	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.7	ng/L	0.474	4.93	31.501	<0.474	88.1	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	28.6	ng/L	1.24	5.29	33.827	<1.24	84.5	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	28.0	ng/L	1.63	5.29	33.827	<1.63	82.7	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	30.1	ng/L	0.681	5.29	33.827	<0.681	88.7	67-133			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330888	**Run ID:**	3687867

MS	**CLIENT ID: MW-22-149_110425**	**Lab ID: QC-2330888-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 10:56

Prep Date: 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	30.7	ng/L	0.937	4.87	30.444	<0.937	99.8	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.8	ng/L	0.371	4.67	29.915	1.33	95.3	69-141			
Perfluorobutanoic acid (PFBA)	30.3	ng/L	2.75	5.29	33.827	<2.75	86.6	73-139			
Perfluorobutylsulfonamide (PFBSA)	31.9	ng/L	2.10	5.29	33.827	<2.10	94.4	68-164			
Perfluorodecane sulfonic acid (PFDS)	27.5	ng/L	1.45	5.10	32.558	<1.45	84.5	64-128			
Perfluorodecanoic acid (PFDA)	32.4	ng/L	1.31	5.29	33.827	<1.31	95.7	77-135			
Perfluorododecanoic acid (PFDOA)	32.8	ng/L	0.730	5.29	33.827	<0.730	96.7	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	34.6	ng/L	0.598	5.03	32.241	3.74	95.8	70-137			
Perfluoroheptanoic acid (PFHpA)	31.2	ng/L	1.83	5.29	33.827	<1.83	92.7	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.7	ng/L	0.955	4.81	30.761	<0.955	91.2	68-131			
Perfluorohexanesulfonamide (PFHxSA)	25.5	ng/L	0.928	5.29	33.827	<0.928	75.5	69-135			
Perfluorohexanoic acid (PFHxA)	30.8	ng/L	1.27	5.29	33.827	<1.27	93.0	72-129			
Perfluorononane sulfonic acid (PFNS)	30.3	ng/L	0.524	5.07	32.452	<0.524	93.3	70-132			
Perfluorononanoic acid (PFNA)	33.8	ng/L	0.920	5.29	33.827	<0.920	99.6	75-131			
Perfluorooctane sulfonamide (PFOSAm)	32.9	ng/L	0.752	5.29	33.827	<0.752	96.9	66-140			
Perfluorooctane sulfonic acid (PFOS)	28.4	ng/L	0.943	1.96	31.395	1.73	85.1	72-133			
Perfluorooctanoic acid (PFOA)	33.1	ng/L	0.666	2.11	33.827	1.40	93.8	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.2	ng/L	0.588	4.96	31.712	<0.588	91.7	73-137			
Perfluoropentanoic acid (PFPeA)	31.1	ng/L	1.35	5.29	33.827	<1.35	95.5	72-129			
Perfluorotetradecanoic acid (PFTDA)	30.1	ng/L	2.79	5.29	33.827	<2.79	88.7	62-139			
Perfluorotridecanoic acid (PFTrDA)	30.8	ng/L	2.04	5.29	33.827	<2.04	90.9	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.6	ng/L	1.03	5.29	33.827	<1.03	93.3	80-135			
Surr: 13C2-FtS 4:2	***143***	*ng/L*			157.97		90.8	*50-150*			
Surr: 13C2-FtS 6:2	***164***	*ng/L*			160.68		102	*50-150*			
Surr: 13C2-FtS 8:2	***178***	*ng/L*			162.03		110	*50-150*			
Surr: 13C2-PFDA	***157***	*ng/L*			169.13		92.6	*50-150*			
Surr: 13C2-PFDoA	***156***	*ng/L*			169.13		92.4	*50-150*			
Surr: 13C2-PFHxA	***154***	*ng/L*			169.13		91.0	*50-150*			
Surr: 13C2-PFTeA	***159***	*ng/L*			169.13		93.8	*27-134*			
Surr: 13C2-PFUnA	***158***	*ng/L*			169.13		93.7	*50-150*			
Surr: 13C3-HFPO-DA	***150***	*ng/L*			169.13		88.6	*41-142*			
Surr: 13C3-PFBS	***135***	*ng/L*			157.29		85.6	*50-150*			
Surr: 13C4-PFBA	***175***	*ng/L*			169.13		103	*50-150*			
Surr: 13C4-PFHpA	***160***	*ng/L*			169.13		94.8	*42-141*			
Surr: 13C4-PFOA	***161***	*ng/L*			169.13		95.2	*50-150*			
Surr: 13C4-PFOS	***148***	*ng/L*			161.52		91.5	*50-150*			
Surr: 13C5-PFNA	***163***	*ng/L*			169.13		96.1	*50-150*			
Surr: 13C5-PFPeA	***154***	*ng/L*			169.13		91.0	*43-138*			
Surr: 13C8-FOSA	***128***	*ng/L*			169.13		75.4	*30-122*			
Surr: 18O2-PFHxS	***136***	*ng/L*			159.83		85.2	*50-150*			
Surr: d3-N-MeFOSAA	***147***	*ng/L*			169.13		87.1	*35-136*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2330888

Work Order: HN2516560
Date Collected: NA
Date Received: NA
Run ID: 3687867

MS | **CLIENT ID: MW-22-149_110425** | **Lab ID: QC-2330888-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 10:56 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: d5-N-EtFOSAA	***157***	*ng/L*			169.13		93.1	*34-142*			

MSD | **CLIENT ID: MW-22-149_110425** | **Lab ID: QC-2330888-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/13/25 11:11 | **Prep Date:** 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	28.4	ng/L	0.496	5.00	31.978	<0.496	88.7	61-128	2.44	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	27.2	ng/L	1.20	5.09	32.615	<1.20	83.4	61-148	5.63	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.8	ng/L	0.994	4.96	31.765	<0.994	90.3	67-143	1.18	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.6	ng/L	2.04	4.93	32.19	<2.04	104	66-151	0.538	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	31.9	ng/L	1.15	5.31	33.996	<1.15	93.5	39-117	1.11	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.3	ng/L	3.21	5.31	33.996	<3.21	101	71-138	6.80	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.7	ng/L	1.48	5.31	33.996	<1.48	99.1	64-134	10.2	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.9	ng/L	0.597	5.00	31.978	<0.597	90.4	74-135	6.10	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	28.1	ng/L	0.476	4.95	31.659	<0.476	88.9	69-133	1.39	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	25.6	ng/L	1.24	5.31	33.996	<1.24	75.3	65-139	11.0	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	27.0	ng/L	1.64	5.31	33.996	<1.64	79.1	67-140	3.87	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	31.0	ng/L	0.684	5.31	33.996	<0.684	91.0	67-133	3.09	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	33.8	ng/L	0.941	4.90	30.597	<0.941	109	74-131	9.53	30	
Perfluorobutane sulfonic acid (PFBS)	28.9	ng/L	0.373	4.70	30.065	1.33	91.6	69-141	3.34	30	
Perfluorobutanoic acid (PFBA)	29.5	ng/L	2.76	5.31	33.996	<2.76	84.1	73-139	2.43	30	
Perfluorobutylsulfonamide (PFBSA)	34.3	ng/L	2.11	5.31	33.996	<2.11	101	68-164	7.12	30	
Perfluorodecane sulfonic acid (PFDS)	27.1	ng/L	1.46	5.12	32.721	<1.46	83.0	64-128	1.39	30	
Perfluorodecanoic acid (PFDA)	29.9	ng/L	1.32	5.31	33.996	<1.32	87.7	77-135	8.22	30	
Perfluorododecanoic acid (PFDOA)	30.8	ng/L	0.734	5.31	33.996	<0.734	90.4	77-137	6.16	30	
Perfluoroheptane sulfonic acid (PFHpS)	33.2	ng/L	0.601	5.06	32.403	3.74	90.8	70-137	4.33	30	
Perfluoroheptanoic acid (PFHpA)	30.8	ng/L	1.84	5.31	33.996	<1.84	91.2	67-130	1.11	30	
Perfluorohexane sulfonic acid (PFHxS)	29.0	ng/L	0.959	4.83	30.915	<0.959	91.7	68-131	1.02	30	
Perfluorohexanesulfonamide (PFHxSA)	28.9	ng/L	0.933	5.31	33.996	<0.933	84.9	69-135	12.3	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516560
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2330888	**Run ID:**	3687867

MSD	**CLIENT ID: MW-22-149_110425**	**Lab ID: QC-2330888-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/13/25 11:11

Prep Date: 11/11/25 16:02

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexanoic acid (PFHxA)	30.1	ng/L	1.27	5.31	33.996	<1.27	90.7	72-129	2.12	30	
Perfluorononane sulfonic acid (PFNS)	29.6	ng/L	0.527	5.10	32.615	<0.527	90.8	70-132	2.24	30	
Perfluorononanoic acid (PFNA)	32.1	ng/L	0.924	5.31	33.996	<0.924	93.9	75-131	5.31	30	
Perfluorooctane sulfonamide (PFOSAm)	32.9	ng/L	0.755	5.31	33.996	<0.755	96.4	66-140	0.0466	30	
Perfluorooctane sulfonic acid (PFOS)	29.0	ng/L	0.948	1.97	31.553	1.73	86.5	72-133	1.94	30	
Perfluorooctanoic acid (PFOA)	32.5	ng/L	0.669	2.12	33.996	1.40	91.6	71-133	1.82	30	
Perfluoropentane sulfonic acid (PFPeS)	27.9	ng/L	0.591	4.98	31.871	<0.591	87.2	73-137	4.53	30	
Perfluoropentanoic acid (PFPeA)	30.2	ng/L	1.36	5.31	33.996	<1.36	92.6	72-129	2.78	30	
Perfluorotetradecanoic acid (PFTDA)	28.8	ng/L	2.80	5.31	33.996	<2.80	84.4	62-139	4.49	30	
Perfluorotridecanoic acid (PFTrDA)	30.0	ng/L	2.05	5.31	33.996	<2.05	88.2	47-147	2.50	30	
Perfluoroundecanoic acid (PFUnDA)	30.4	ng/L	1.03	5.31	33.996	<1.03	89.3	80-135	3.83	30	
Surr: 13C2-FtS 4:2	***167***	*ng/L*			158.76		105	*50-150*	15.3	30	
Surr: 13C2-FtS 6:2	***200***	*ng/L*			161.48		124	*50-150*	20.0	30	
Surr: 13C2-FtS 8:2	***206***	*ng/L*			162.84		127	*50-150*	14.8	30	
Surr: 13C2-PFDA	***184***	*ng/L*			169.98		108	*50-150*	16.1	30	
Surr: 13C2-PFDoA	***177***	*ng/L*			169.98		104	*50-150*	12.6	30	
Surr: 13C2-PFHxA	***182***	*ng/L*			169.98		107	*50-150*	16.7	30	
Surr: 13C2-PFTeA	***180***	*ng/L*			169.98		106	*27-134*	12.5	30	
Surr: 13C2-PFUnA	***179***	*ng/L*			169.98		105	*50-150*	12.3	30	
Surr: 13C3-HFPO-DA	***189***	*ng/L*			169.98		111	*41-142*	23.0	30	
Surr: 13C3-PFBS	***159***	*ng/L*			158.08		101	*50-150*	16.7	30	
Surr: 13C4-PFBA	***210***	*ng/L*			169.98		124	*50-150*	18.5	30	
Surr: 13C4-PFHpA	***189***	*ng/L*			169.98		111	*42-141*	16.5	30	
Surr: 13C4-PFOA	***182***	*ng/L*			169.98		107	*50-150*	12.2	30	
Surr: 13C4-PFOS	***159***	*ng/L*			162.33		97.7	*50-150*	7.12	30	
Surr: 13C5-PFNA	***183***	*ng/L*			169.98		107	*50-150*	11.6	30	
Surr: 13C5-PFPeA	***179***	*ng/L*			169.98		105	*43-138*	14.8	30	
Surr: 13C8-FOSA	***151***	*ng/L*			169.98		88.6	*30-122*	16.6	30	
Surr: 18O2-PFHxS	***163***	*ng/L*			160.63		102	*50-150*	17.9	30	
Surr: d3-N-MeFOSAA	***164***	*ng/L*			169.98		96.5	*35-136*	10.7	30	
Surr: d5-N-EtFOSAA	***178***	*ng/L*			169.98		105	*34-142*	12.2	30	

The following samples were analyzed in this batch: HN2516560-018, HN2516560-019, HN2516560-020, HN2516560-021, HN2516560-022, HN2516560-023, HN2516560-024, HN2516560-025, HN2516560-026, HN2516560-027, HN2516560-028, HN2516560-029, HN2516560-030

November 11, 2025

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Re: **RACER Lansing GWS 30267725.0370A**

Date Received: **10/31/2025**
Work Order: **HN2516320**
Revision: **1**

Dear Tiffany,
Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda
/S/ ALEX CSASZAR on behalf of PM listed above

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2516320
Project: RACER Lansing GWS 30267725.0370A **Date Received:** 31-Oct-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

A REVISED Report has been issued to correct the sample ID MW-21-138_103025.

5 groundwater samples were received for analysis at ALS Environmental on 31-Oct-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Run ID: 3673741

HN2516320-005: Perfluorohexanesulfonamide (PFHxSA) - The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s):
HN2516320-005: Perfluorohexanesulfonamide (PFHxSA) - The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte:

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-21-133_103025			Lab ID: HN2516320-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.64	J	1.34	4.83	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	2.03	J	0.856	4.45	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.25	J	0.339	4.27	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	20.2		2.51	4.83	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	18.0		1.67	4.83	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	3.11	J	0.873	4.40	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	18.8		1.16	4.83	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.26	J	0.841	4.83	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	7.25		0.862	1.79	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	50.0		0.609	1.93	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.990	J	0.537	4.53	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	11.9		1.24	4.83	ng/L	EPA 537Mod

CLIENT ID: MW-21-134_103025			Lab ID: HN2516320-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	1.68	J	1.36	4.88	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	1.82	J	0.864	4.50	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.53	J	0.342	4.31	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	22.1		2.54	4.88	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.843	J	0.552	4.64	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	24.7		1.69	4.88	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	3.21	J	0.881	4.44	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	25.3		1.17	4.88	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.25	J	0.849	4.88	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	6.90		0.870	1.81	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	54.2		0.615	1.95	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.961	J	0.542	4.57	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	25.2		1.25	4.88	ng/L	EPA 537Mod

CLIENT ID: MW-21-136_103025			Lab ID: HN2516320-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	0.979	J	0.348	4.38	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	2.63	J	2.58	4.95	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.834	J	0.624	1.98	ng/L	EPA 537Mod

CLIENT ID: MW-21-138_103025			Lab ID: HN2516320-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorooctane sulfonamide (PFOSAm)	0.887	J	0.722	5.08	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Workorder: HN2516320

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516320-001	MW-21-133_103025	GROUNDWATER	10/30/25 16:00	10/31/25 08:10
HN2516320-002	MW-21-134_103025	GROUNDWATER	10/30/25 14:30	10/31/25 08:10
HN2516320-003	MW-21-136_103025	GROUNDWATER	10/30/25 09:55	10/31/25 08:10
HN2516320-004	MW-21-137_103025	GROUNDWATER	10/30/25 12:35	10/31/25 08:10
HN2516320-005	MW-21-138_103025	GROUNDWATER	10/30/25 10:55	10/31/25 08:10

Chain of Custody Form

Page 1 of 1

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US34600275880	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

Environmental Division
Holland
Work Order Reference
HN2516320

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G
1	MW-21-133_103025	10/30/25	1600	GW	None	3	X						
2	MW-21-134_103025	10/30/25	1430	GW	None	3	X						
3	~~MW-21-135_103025~~	~~10/30/25~~		GW		3	X						
4	MW-21-136_103025	10/30/25	0955	GW	None	3	X						
5	MW-21-137_103025	10/30/25	1235	GW	None	3	X						
6	MW-21-138_103025 MS/MSD	10/30/25	1055	GW	None	9	X						
7													
8													
9													
10													

EG 10/30/25

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Sampler(s): Please Print & Sign	Shipment Method:	Turnaround Time: (Business Days)	Results Due Date:
Emma Giem Emma		☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard	11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
Emma	10/30/25	1630		10/30/25	1630	MW-21-138, Run MS/MSD
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
	10/31/25			10/31/25	7:40	
~~Logged by (Laboratory):~~ RELINQUISHED BY:	Date:	Time:	Checked by (Laboratory):			
	10/31/25	8:10	DC 10/31/25 08:10			

Cooler Temp °C	pH Verified	QC Package: (Check Box Below)	
4.0°C		☑ Level II: Standard QC	☐ Level III: Raw Data
ERL		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by:	BC
Date/Time:	10/31/25
Carrier Name:	~~FedEx~~ ALS
Shipping container/cooler in good condition?	Yes / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / Not Present
Custody seals intact on sample bottles?	Yes / No / Not Present
Chain of Custody present?	Yes / No
COC signed when relinquished and received?	Yes / No
COC agrees with sample labels?	Yes / No
Samples in proper container/bottle?	Yes / No
Sample containers intact?	Yes / No
Sufficient sample volume for indicated test?	Yes / No
All samples received within holding time?	Yes / No
Container/Temp Blank temperature in compliance?	Yes / No
Temperature(s) (°C):	4.0°C
Thermometer(s):	IR#2
Sample(s) received on ice?	Yes / No
Matrix/Matrices:	water
Cooler(s)/Kit(s):	1
Date/Time sample(s) sent to storage:	10/31/25
Water – VOA vials have zero headspace?	Yes / No / No Vials
Water – pH acceptable upon receipt?	Yes / No / N/A
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / N/A
pH adjusted by:	

Login Notes:

HN-SHT-160-R01, Sample Receipt Checklist

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc. **Work Order:** HN2516320
Project: RACER Lansing GWS 30267725.0370A

Sample Name: MW-21-133_103025 **Date Collected:** 10/30/25
Laboratory Code: HN2516320-001 **Date Received:** 10/31/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	001-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: MW-21-134_103025 **Date Collected:** 10/30/25
Laboratory Code: HN2516320-002 **Date Received:** 10/31/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	002-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: MW-21-136_103025 **Date Collected:** 10/30/25
Laboratory Code: HN2516320-003 **Date Received:** 10/31/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	003-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: MW-21-137_103025 **Date Collected:** 10/30/25
Laboratory Code: HN2516320-004 **Date Received:** 10/31/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	004-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	004-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

ANALYST SUMMARY

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A		

Sample Name:	MW-21-138_103025	**Date Collected:**	10/30/25
Laboratory Code:	HN2516320-005	**Date Received:**	10/31/25
Sample Matrix:	GROUNDWATER		

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	005-AA	2324196	Kaylin Aviles	3673741	Emily Schaaf

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 16:00
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-133_103025 **Lab ID: HN2516320-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.451	U	ng/L	0.451	4.55	1	11/06/25 10:35	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.63	1	11/06/25 10:35	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.905	U	ng/L	0.905	4.51	1	11/06/25 10:35	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.90	U	ng/L	1.90	4.59	1	11/07/25 00:29	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.83	1	11/06/25 10:35	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.92	U	ng/L	2.92	4.83	1	11/06/25 10:35	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.64**	J	ng/L	1.34	4.83	1	11/06/25 10:35	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.543	U	ng/L	0.543	4.55	1	11/06/25 10:35	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.433	U	ng/L	0.433	4.50	1	11/06/25 10:35	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.13	U	ng/L	1.13	4.83	1	11/06/25 10:35	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.83	1	11/06/25 10:35	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.622	U	ng/L	0.622	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**2.03**	J	ng/L	0.856	4.45	1	11/06/25 10:35	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.25**	J	ng/L	0.339	4.27	1	11/06/25 10:35	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**20.2**		ng/L	2.51	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.66	1	11/06/25 10:35	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 16:00
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-133_103025 **Lab ID: HN2516320-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.668	U	ng/L	0.668	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.547	U	ng/L	0.547	4.60	1	11/06/25 10:35	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**18.0**		ng/L	1.67	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**3.11**	J	ng/L	0.873	4.40	1	11/06/25 10:35	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.848	U	ng/L	0.848	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**18.8**		ng/L	1.16	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.479	U	ng/L	0.479	4.64	1	11/06/25 10:35	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.26**	J	ng/L	0.841	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.687	U	ng/L	0.687	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**7.25**		ng/L	0.862	1.79	1	11/06/25 10:35	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**50.0**		ng/L	0.609	1.93	1	11/06/25 10:35	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.990**	J	ng/L	0.537	4.53	1	11/06/25 10:35	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**11.9**		ng/L	1.24	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.87	U	ng/L	1.87	4.83	1	11/06/25 10:35	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.941	U	ng/L	0.941	4.83	1	11/06/25 10:35	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***96.4***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/07/25 00:29*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***75.1***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***72.0***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***95.3***		*%REC*		*27-134*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***83.4***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.4***		*%REC*		*41-142*	*1*	*11/06/25 10:35*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 16:00
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-133_103025 **Lab ID: HN2516320-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.8***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.1***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***82.8***		*%REC*		*42-141*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***73.2***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***77.2***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***82.2***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***89.4***		*%REC*		*43-138*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***74.7***		*%REC*		*30-122*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***73.2***		*%REC*		*35-136*	*1*	*11/06/25 10:35*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***82.4***		*%REC*		*34-142*	*1*	*11/06/25 10:35*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-134_103025 **Lab ID: HN2516320-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.456	U	ng/L	0.456	4.59	1	11/06/25 10:49	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.67	1	11/06/25 10:49	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.913	U	ng/L	0.913	4.56	1	11/06/25 10:49	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.86	U	ng/L	1.86	4.50	1	11/07/25 01:13	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.88	1	11/06/25 10:49	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.95	U	ng/L	2.95	4.88	1	11/06/25 10:49	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**1.68**	J	ng/L	1.36	4.88	1	11/06/25 10:49	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.548	U	ng/L	0.548	4.59	1	11/06/25 10:49	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.437	U	ng/L	0.437	4.55	1	11/06/25 10:49	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.88	1	11/06/25 10:49	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.88	1	11/06/25 10:49	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.628	U	ng/L	0.628	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**1.82**	J	ng/L	0.864	4.50	1	11/06/25 10:49	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.53**	J	ng/L	0.342	4.31	1	11/06/25 10:49	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**22.1**		ng/L	2.54	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.94	U	ng/L	1.94	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.70	1	11/06/25 10:49	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-134_103025 **Lab ID: HN2516320-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.674	U	ng/L	0.674	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.843**	J	ng/L	0.552	4.64	1	11/06/25 10:49	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**24.7**		ng/L	1.69	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**3.21**	J	ng/L	0.881	4.44	1	11/06/25 10:49	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.856	U	ng/L	0.856	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**25.3**		ng/L	1.17	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.484	U	ng/L	0.484	4.68	1	11/06/25 10:49	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.25**	J	ng/L	0.849	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.694	U	ng/L	0.694	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**6.90**		ng/L	0.870	1.81	1	11/06/25 10:49	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**54.2**		ng/L	0.615	1.95	1	11/06/25 10:49	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.961**	J	ng/L	0.542	4.57	1	11/06/25 10:49	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**25.2**		ng/L	1.25	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.58	U	ng/L	2.58	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.88	U	ng/L	1.88	4.88	1	11/06/25 10:49	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.950	U	ng/L	0.950	4.88	1	11/06/25 10:49	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***91.1***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/07/25 01:13*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***84.7***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.9***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***96.9***		*%REC*		*27-134*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***87.6***		*%REC*		*41-142*	*1*	*11/06/25 10:49*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 14:30
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-134_103025 **Lab ID: HN2516320-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***85.6***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.3***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.9***		*%REC*		*42-141*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.6***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***78.2***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***89.8***		*%REC*		*43-138*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***76.8***		*%REC*		*30-122*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.6***		*%REC*		*50-150*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***77.3***		*%REC*		*35-136*	*1*	*11/06/25 10:49*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***80.7***		*%REC*		*34-142*	*1*	*11/06/25 10:49*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 09:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-136_103025 **Lab ID: HN2516320-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.463	U	ng/L	0.463	4.67	1	11/06/25 11:04	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.74	1	11/06/25 11:04	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.927	U	ng/L	0.927	4.63	1	11/06/25 11:04	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.83	U	ng/L	1.83	4.41	1	11/07/25 01:27	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.95	1	11/06/25 11:04	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.99	U	ng/L	2.99	4.95	1	11/06/25 11:04	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.38	U	ng/L	1.38	4.95	1	11/06/25 11:04	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.557	U	ng/L	0.557	4.67	1	11/06/25 11:04	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.444	U	ng/L	0.444	4.62	1	11/06/25 11:04	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.95	1	11/06/25 11:04	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.95	1	11/06/25 11:04	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.638	U	ng/L	0.638	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.878	U	ng/L	0.878	4.57	1	11/06/25 11:04	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.979**	J	ng/L	0.348	4.38	1	11/06/25 11:04	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**2.63**	J	ng/L	2.58	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.97	U	ng/L	1.97	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.77	1	11/06/25 11:04	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 09:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-136_103025 **Lab ID: HN2516320-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.684	U	ng/L	0.684	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.561	U	ng/L	0.561	4.71	1	11/06/25 11:04	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.71	U	ng/L	1.71	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.894	U	ng/L	0.894	4.51	1	11/06/25 11:04	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.870	U	ng/L	0.870	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.491	U	ng/L	0.491	4.75	1	11/06/25 11:04	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.862	U	ng/L	0.862	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.704	U	ng/L	0.704	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.884	U	ng/L	0.884	1.84	1	11/06/25 11:04	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.834**	J	ng/L	0.624	1.98	1	11/06/25 11:04	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.551	U	ng/L	0.551	4.65	1	11/06/25 11:04	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.27	U	ng/L	1.27	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.95	1	11/06/25 11:04	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.965	U	ng/L	0.965	4.95	1	11/06/25 11:04	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*11/07/25 01:27*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***71.4***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***78.8***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***69.7***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***88.4***		*%REC*		*27-134*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***72.8***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***78.7***		*%REC*		*41-142*	*1*	*11/06/25 11:04*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 09:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-136_103025 **Lab ID: HN2516320-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***82.0***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***85.2***		*%REC*		*42-141*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***67.5***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***75.4***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***76.2***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***80.8***		*%REC*		*43-138*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***67.7***		*%REC*		*30-122*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***70.6***		*%REC*		*50-150*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.3***		*%REC*		*35-136*	*1*	*11/06/25 11:04*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***73.4***		*%REC*		*34-142*	*1*	*11/06/25 11:04*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 12:35
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-137_103025 **Lab ID: HN2516320-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.449	U	ng/L	0.449	4.52	1	11/06/25 11:18	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.60	1	11/06/25 11:18	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.899	U	ng/L	0.899	4.49	1	11/06/25 11:18	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.89	U	ng/L	1.89	4.56	1	11/07/25 01:42	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.80	1	11/06/25 11:18	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.90	U	ng/L	2.90	4.80	1	11/06/25 11:18	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.34	U	ng/L	1.34	4.80	1	11/06/25 11:18	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.540	U	ng/L	0.540	4.52	1	11/06/25 11:18	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.430	U	ng/L	0.430	4.48	1	11/06/25 11:18	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.80	1	11/06/25 11:18	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.80	1	11/06/25 11:18	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.619	U	ng/L	0.619	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.851	U	ng/L	0.851	4.43	1	11/06/25 11:18	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.337	U	ng/L	0.337	4.25	1	11/06/25 11:18	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.50	U	ng/L	2.50	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.63	1	11/06/25 11:18	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 12:35
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-137_103025 **Lab ID: HN2516320-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.664	U	ng/L	0.664	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.544	U	ng/L	0.544	4.57	1	11/06/25 11:18	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.66	U	ng/L	1.66	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.867	U	ng/L	0.867	4.37	1	11/06/25 11:18	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.843	U	ng/L	0.843	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.15	U	ng/L	1.15	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.476	U	ng/L	0.476	4.61	1	11/06/25 11:18	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.836	U	ng/L	0.836	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.683	U	ng/L	0.683	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.857	U	ng/L	0.857	1.78	1	11/06/25 11:18	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.605	U	ng/L	0.605	1.92	1	11/06/25 11:18	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.534	U	ng/L	0.534	4.51	1	11/06/25 11:18	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.80	1	11/06/25 11:18	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.936	U	ng/L	0.936	4.80	1	11/06/25 11:18	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***90.3***		*%REC*		*50-150*	*1*	*11/07/25 01:42*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***76.0***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***79.0***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***72.6***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***84.0***		*%REC*		*27-134*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***76.6***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***78.8***		*%REC*		*41-142*	*1*	*11/06/25 11:18*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 12:35
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-137_103025 **Lab ID: HN2516320-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***76.0***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***90.4***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.4***		*%REC*		*42-141*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***76.6***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***76.4***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***84.3***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***81.8***		*%REC*		*43-138*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***65.2***		*%REC*		*30-122*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***82.5***		*%REC*		*50-150*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.5***		*%REC*		*35-136*	*1*	*11/06/25 11:18*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.2***		*%REC*		*34-142*	*1*	*11/06/25 11:18*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 10:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-138_103025 **Lab ID: HN2516320-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.474	U	ng/L	0.474	4.78	1	11/08/25 04:48	11/07/25 15:30
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.86	1	11/08/25 04:48	11/07/25 15:30
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.950	U	ng/L	0.950	4.74	1	11/08/25 04:48	11/07/25 15:30
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.95	U	ng/L	1.95	4.71	1	11/08/25 04:48	11/07/25 15:30
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.08	1	11/08/25 04:48	11/07/25 15:30
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.07	U	ng/L	3.07	5.08	1	11/08/25 04:48	11/07/25 15:30
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.41	U	ng/L	1.41	5.08	1	11/08/25 04:48	11/07/25 15:30
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.570	U	ng/L	0.570	4.78	1	11/08/25 04:48	11/07/25 15:30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.455	U	ng/L	0.455	4.73	1	11/08/25 04:48	11/07/25 15:30
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.08	1	11/08/25 04:48	11/07/25 15:30
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.08	1	11/08/25 04:48	11/07/25 15:30
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.654	U	ng/L	0.654	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.899	U	ng/L	0.899	4.68	1	11/08/25 04:48	11/07/25 15:30
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.356	U	ng/L	0.356	4.49	1	11/08/25 04:48	11/07/25 15:30
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.64	U	ng/L	2.64	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.89	1	11/08/25 04:48	11/07/25 15:30

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 10:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-138_103025 **Lab ID: HN2516320-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.701	U	ng/L	0.701	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.575	U	ng/L	0.575	4.83	1	11/08/25 04:48	11/07/25 15:30
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.76	U	ng/L	1.76	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.917	U	ng/L	0.917	4.62	1	11/08/25 04:48	11/07/25 15:30
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.891	SU	ng/L	0.891	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.22	U	ng/L	1.22	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.503	U	ng/L	0.503	4.87	1	11/08/25 04:48	11/07/25 15:30
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.883	U	ng/L	0.883	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**0.887**	J	ng/L	0.722	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.905	U	ng/L	0.905	1.88	1	11/08/25 04:48	11/07/25 15:30
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.639	U	ng/L	0.639	2.03	1	11/08/25 04:48	11/07/25 15:30
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.564	U	ng/L	0.564	4.76	1	11/08/25 04:48	11/07/25 15:30
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.30	U	ng/L	1.30	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.68	U	ng/L	2.68	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.96	U	ng/L	1.96	5.08	1	11/08/25 04:48	11/07/25 15:30
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.989	U	ng/L	0.989	5.08	1	11/08/25 04:48	11/07/25 15:30
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***75.7***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***93.7***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-PFDA	*EPA 537Mod*	***91.6***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-PFDoA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-PFHxA	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-PFTeA	*EPA 537Mod*	***82.2***		*%REC*		*27-134*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C2-PFUnA	*EPA 537Mod*	***94.0***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***69.6***		*%REC*		*41-142*	*1*	*11/08/25 04:48*	*11/07/25 15:30*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/30/25 10:55
Matrix:	GROUNDWATER	**Date Received:**	10/31/25 08:10

CLIENT ID: MW-21-138_103025 **Lab ID: HN2516320-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***62.9***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C4-PFBA	*EPA 537Mod*	***88.4***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C4-PFHpA	*EPA 537Mod*	***75.8***		*%REC*		*42-141*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C4-PFOS	*EPA 537Mod*	***81.8***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.8***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C5-PFPeA	*EPA 537Mod*	***66.8***		*%REC*		*43-138*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 13C8-FOSA	*EPA 537Mod*	***37.4***		*%REC*		*30-122*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.2***		*%REC*		*50-150*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.8***		*%REC*		*35-136*	*1*	*11/08/25 04:48*	*11/07/25 15:30*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***71.5***		*%REC*		*34-142*	*1*	*11/08/25 04:48*	*11/07/25 15:30*

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3664587

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2318809-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:55 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	25.5	ng/L	1.92	4.74							B
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MB **CLIENT ID: Method Blank** **Lab ID: QC-2318809-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 01:55

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***151***	*ng/L*			149.44		101	*50-150*			
Surr: 13C2-FtS 6:2	***150***	*ng/L*			152		98.8	*50-150*			
Surr: 13C2-FtS 8:2	***158***	*ng/L*			153.28		103	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			160		80.4	*50-150*			
Surr: 13C2-PFDoA	***134***	*ng/L*			160		84.0	*50-150*			
Surr: 13C2-PFHxA	***148***	*ng/L*			160		92.8	*50-150*			
Surr: 13C2-PFTeA	***62.9***	*ng/L*			160		39.3	*27-134*			
Surr: 13C2-PFUnA	***139***	*ng/L*			160		87.1	*50-150*			
Surr: 13C3-HFPO-DA	***141***	*ng/L*			160		88.4	*41-142*			
Surr: 13C3-PFBS	***134***	*ng/L*			148.8		90.1	*50-150*			
Surr: 13C4-PFBA	***162***	*ng/L*			160		102	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.6	*42-141*			
Surr: 13C4-PFOA	***145***	*ng/L*			160		90.4	*50-150*			
Surr: 13C4-PFOS	***130***	*ng/L*			152.8		85.1	*50-150*			
Surr: 13C5-PFNA	***152***	*ng/L*			160		95.3	*50-150*			
Surr: 13C5-PFPeA	***148***	*ng/L*			160		92.5	*43-138*			
Surr: 13C8-FOSA	***116***	*ng/L*			160		72.6	*30-122*			
Surr: 18O2-PFHxS	***128***	*ng/L*			151.2		84.6	*50-150*			
Surr: d3-N-MeFOSAA	***122***	*ng/L*			160		76.2	*35-136*			
Surr: d5-N-EtFOSAA	***133***	*ng/L*			160		82.9	*34-142*			

LCS **CLIENT ID: Laboratory Control Sample** **Lab ID: QC-2318809-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 02:09

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	32.2	ng/L	0.467	4.71	30.1		107	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.6	ng/L	1.13	4.79	30.7		103	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	31.8	ng/L	0.936	4.67	29.9		106	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	71.0	ng/L	1.92	4.74	30.3		234	66-151			S
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.5	ng/L	1.08	5.00	32		86.0	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

LCS	**CLIENT ID: Laboratory Control Sample**	**Lab ID: QC-2318809-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 02:09

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	36.0	ng/L	3.02	5.00	32		113	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36.0	ng/L	1.39	5.00	32		112	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.8	ng/L	0.562	4.71	30.1		99.1	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	32.2	ng/L	0.448	4.66	29.8		108	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	33.1	ng/L	1.17	5.00	32		104	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	35.1	ng/L	1.54	5.00	32		110	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	37.6	ng/L	0.886	4.61	28.8		130	74-131			
Perfluorobutane sulfonic acid (PFBS)	30.5	ng/L	0.351	4.42	28.3		108	69-131			
Perfluorobutanoic acid (PFBA)	34.9	ng/L	2.60	5.00	32		109	73-139			
Perfluorobutylsulfonamide (PFBSA)	40.3	ng/L	1.98	5.00	32		126	68-164			
Perfluorodecane sulfonic acid (PFDS)	30.7	ng/L	1.37	4.82	30.8		99.6	64-128			
Perfluorodecanoic acid (PFDA)	35.5	ng/L	1.24	5.00	32		111	77-135			
Perfluorododecanoic acid (PFDOA)	36.0	ng/L	0.691	5.00	32		112	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.5	ng/L	0.566	4.76	30.5		103	70-137			
Perfluoroheptanoic acid (PFHpA)	32.4	ng/L	1.73	5.00	32		101	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.0	ng/L	0.903	4.55	29.1		99.7	68-131			
Perfluorohexanesulfonamide (PFHxSA)	31.0	ng/L	0.878	5.00	32		97.0	69-135			
Perfluorohexanoic acid (PFHxA)	34.0	ng/L	1.20	5.00	32		106	72-129			
Perfluorononane sulfonic acid (PFNS)	31.8	ng/L	0.496	4.80	30.7		104	70-132			
Perfluorononanoic acid (PFNA)	36.4	ng/L	0.870	5.00	32		114	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.9	ng/L	0.711	5.00	32		109	66-140			
Perfluorooctane sulfonic acid (PFOS)	32.5	ng/L	0.892	1.86	29.7		110	72-133			
Perfluorooctanoic acid (PFOA)	34.6	ng/L	0.630	2.00	32		108	71-133			
Perfluoropentane sulfonic acid (PFPeS)	33.2	ng/L	0.556	4.69	30		111	73-137			
Perfluoropentanoic acid (PFPeA)	33.9	ng/L	1.28	5.00	32		106	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.1	ng/L	2.64	5.00	32		91.0	62-139			
Perfluorotridecanoic acid (PFTrDA)	44.4	ng/L	1.93	5.00	32		139	47-147			
Perfluoroundecanoic acid (PFUnDA)	37.4	ng/L	0.974	5.00	32		117	80-135			
Surr: 13C2-FtS 4:2	***124***	*ng/L*			149.44		83.0	*50-150*			
Surr: 13C2-FtS 6:2	***147***	*ng/L*			152		96.8	*50-150*			
Surr: 13C2-FtS 8:2	***148***	*ng/L*			153.28		96.6	*50-150*			
Surr: 13C2-PFDA	***119***	*ng/L*			160		74.3	*50-150*			
Surr: 13C2-PFDoA	***120***	*ng/L*			160		75.3	*50-150*			
Surr: 13C2-PFHxA	***122***	*ng/L*			160		76.0	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3664587

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***80.5***	*ng/L*			160		50.3	*27-134*			
Surr: 13C2-PFUnA	***115***	*ng/L*			160		72.2	*50-150*			
Surr: 13C3-HFPO-DA	***125***	*ng/L*			160		78.4	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			148.8		74.5	*50-150*			
Surr: 13C4-PFBA	***131***	*ng/L*			160		82.1	*50-150*			
Surr: 13C4-PFHpA	***128***	*ng/L*			160		79.7	*42-141*			
Surr: 13C4-PFOA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C4-PFOS	***105***	*ng/L*			152.8		68.9	*50-150*			
Surr: 13C5-PFNA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C5-PFPeA	***127***	*ng/L*			160		79.3	*43-138*			
Surr: 13C8-FOSA	***102***	*ng/L*			160		63.9	*30-122*			
Surr: 18O2-PFHxS	***112***	*ng/L*			151.2		74.2	*50-150*			
Surr: d3-N-MeFOSAA	***113***	*ng/L*			160		70.7	*35-136*			
Surr: d5-N-EtFOSAA	***112***	*ng/L*			160		70.1	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 07:13 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25.7	ng/L	0.461	4.65	29.722	<0.461	86.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.8	ng/L	1.12	4.73	30.314	<1.12	113	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.8	ng/L	0.924	4.61	29.524	<0.924	104	67-143			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	32.8	ng/L	1.07	4.94	31.598	<1.07	103	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	2.98	4.94	31.598	<2.98	114	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.1	ng/L	1.37	4.94	31.598	2.07	101	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.5	ng/L	0.555	4.65	29.722	<0.555	96.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.6	ng/L	0.442	4.60	29.426	<0.442	93.7	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	34.9	ng/L	1.16	4.94	31.598	<1.16	110	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.4	ng/L	1.53	4.94	31.598	<1.53	93.0	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.636	4.94	31.598	<0.636	108	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	33.6	ng/L	0.875	4.55	28.438	3.00	107	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.9	ng/L	0.347	4.36	27.945	0.811	104	69-141			
Perfluorobutanoic acid (PFBA)	40.7	ng/L	2.57	4.94	31.598	8.82	101	73-139			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3664587

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-005**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 07:13
Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutylsulfonamide (PFBSA)	36.2	ng/L	1.96	4.94	31.598	<1.96	113	68-164			
Perfluorodecane sulfonic acid (PFDS)	25.6	ng/L	1.35	4.76	30.413	<1.35	84.1	64-128			
Perfluorodecanoic acid (PFDA)	33.5	ng/L	1.22	4.94	31.598	<1.22	105	77-135			
Perfluorododecanoic acid (PFDOA)	33.8	ng/L	0.682	4.94	31.598	<0.682	107	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.7	ng/L	0.559	4.70	30.117	<0.559	98.5	70-137			
Perfluoroheptanoic acid (PFHpA)	34.5	ng/L	1.71	4.94	31.598	3.71	97.5	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.5	ng/L	0.892	4.49	28.734	1.41	97.8	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.7	ng/L	0.867	4.94	31.598	<0.867	107	69-135			
Perfluorohexanoic acid (PFHxA)	35.1	ng/L	1.18	4.94	31.598	5.06	95.1	72-129			
Perfluorononane sulfonic acid (PFNS)	25.7	ng/L	0.490	4.74	30.314	<0.490	84.6	70-132			
Perfluorononanoic acid (PFNA)	32.4	ng/L	0.859	4.94	31.598	<0.859	101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	33.1	ng/L	0.702	4.94	31.598	<0.702	104	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.0	ng/L	0.881	1.83	29.327	<0.881	91.2	72-133			
Perfluorooctanoic acid (PFOA)	32.5	ng/L	0.622	1.97	31.598	3.89	90.4	71-133			
Perfluoropentane sulfonic acid (PFPeS)	32.2	ng/L	0.549	4.63	29.623	<0.549	107	73-137			
Perfluoropentanoic acid (PFPeA)	40.1	ng/L	1.26	4.94	31.598	6.92	105	72-129			
Perfluorotetradecanoic acid (PFTDA)	34.1	ng/L	2.61	4.94	31.598	<2.61	107	62-139			
Perfluorotridecanoic acid (PFTrDA)	34.8	ng/L	1.91	4.94	31.598	<1.91	108	47-147			
Perfluoroundecanoic acid (PFUnDA)	33.7	ng/L	0.962	4.94	31.598	<0.962	105	80-135			
Surr: 13C2-FtS 4:2	***123***	*ng/L*			147.56		83.2	*50-150*			
Surr: 13C2-FtS 8:2	***137***	*ng/L*			151.35		90.8	*50-150*			
Surr: 13C2-PFDA	***122***	*ng/L*			157.99		77.2	*50-150*			
Surr: 13C2-PFDoA	***113***	*ng/L*			157.99		71.8	*50-150*			
Surr: 13C2-PFHxA	***118***	*ng/L*			157.99		74.6	*50-150*			
Surr: 13C2-PFTeA	***103***	*ng/L*			157.99		65.0	*27-134*			
Surr: 13C2-PFUnA	***119***	*ng/L*			157.99		75.2	*50-150*			
Surr: 13C3-HFPO-DA	***118***	*ng/L*			157.99		74.6	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			146.93		75.7	*50-150*			
Surr: 13C4-PFBA	***144***	*ng/L*			157.99		91.0	*50-150*			
Surr: 13C4-PFHpA	***117***	*ng/L*			157.99		73.8	*42-141*			
Surr: 13C4-PFOA	***126***	*ng/L*			157.99		79.5	*50-150*			
Surr: 13C4-PFOS	***125***	*ng/L*			150.88		82.9	*50-150*			
Surr: 13C5-PFNA	***121***	*ng/L*			157.99		76.7	*50-150*			
Surr: 13C5-PFPeA	***129***	*ng/L*			157.99		81.5	*43-138*			
Surr: 13C8-FOSA	***106***	*ng/L*			157.99		66.9	*30-122*			
Surr: 18O2-PFHxS	***109***	*ng/L*			149.3		73.1	*50-150*			
Surr: d3-N-MeFOSAA	***103***	*ng/L*			157.99		65.0	*35-136*			
Surr: d5-N-EtFOSAA	***109***	*ng/L*			157.99		69.1	*34-142*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3664587

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-006**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 07:27
Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.9	ng/L	0.467	4.71	29.484	<0.467	94.5	61-128	8.27	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	32.1	ng/L	1.13	4.79	30.072	<1.13	105	61-148	8.02	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.2	ng/L	0.936	4.67	29.288	<0.936	103	67-143	1.86	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.7	ng/L	1.08	5.00	31.346	<1.08	107	39-117	2.70	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.0	ng/L	3.02	5.00	31.346	<3.02	108	71-138	5.62	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.7	ng/L	1.39	5.00	31.346	2.07	104	64-134	1.65	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.8	ng/L	0.562	4.71	29.484	<0.562	97.5	74-135	0.747	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.3	ng/L	0.448	4.66	29.191	<0.448	93.4	69-133	1.15	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.9	ng/L	1.17	5.00	31.346	<1.17	101	65-139	8.86	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.2	ng/L	1.54	5.00	31.346	<1.54	99.3	67-140	5.80	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.5	ng/L	0.644	5.00	31.346	<0.644	113	67-133	3.43	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	36.0	ng/L	0.886	4.61	28.211	3.00	117	74-131	7.07	30	
Perfluorobutane sulfonic acid (PFBS)	30.4	ng/L	0.351	4.42	27.721	0.811	107	69-141	1.55	30	
Perfluorobutanoic acid (PFBA)	41.4	ng/L	2.60	5.00	31.346	8.82	104	73-139	1.61	30	
Perfluorobutylsulfonamide (PFBSA)	36.4	ng/L	1.98	5.00	31.346	<1.98	115	68-164	0.776	30	
Perfluorodecane sulfonic acid (PFDS)	29.6	ng/L	1.37	4.82	30.17	<1.37	98.0	64-128	14.4	30	
Perfluorodecanoic acid (PFDA)	32.9	ng/L	1.24	5.00	31.346	<1.24	104	77-135	1.65	30	
Perfluorododecanoic acid (PFDOA)	32.6	ng/L	0.691	5.00	31.346	<0.691	104	77-137	3.56	30	
Perfluoroheptane sulfonic acid (PFHpS)	29.8	ng/L	0.566	4.76	29.876	<0.566	99.7	70-137	0.414	30	
Perfluoroheptanoic acid (PFHpA)	34.9	ng/L	1.73	5.00	31.346	3.71	99.6	67-130	1.15	30	
Perfluorohexane sulfonic acid (PFHxS)	31.2	ng/L	0.903	4.55	28.505	1.41	104	68-131	5.51	30	
Perfluorohexanesulfonamide (PFHxSA)	30.0	ng/L	0.878	5.00	31.346	<0.878	95.7	69-135	11.6	30	
Perfluorohexanoic acid (PFHxA)	35.7	ng/L	1.20	5.00	31.346	5.06	97.8	72-129	1.74	30	
Perfluorononane sulfonic acid (PFNS)	31.5	ng/L	0.496	4.80	30.072	<0.496	105	70-132	20.5	30	
Perfluorononanoic acid (PFNA)	32.6	ng/L	0.870	5.00	31.346	<0.870	103	75-131	0.613	30	
Perfluorooctane sulfonamide (PFOSAm)	35.5	ng/L	0.711	5.00	31.346	<0.711	113	66-140	7.13	30	
Perfluorooctane sulfonic acid (PFOS)	28.4	ng/L	0.892	1.86	29.093	<0.892	97.0	72-133	5.30	30	
Perfluorooctanoic acid (PFOA)	37.0	ng/L	0.630	2.00	31.346	3.89	106	71-133	13.0	30	
Perfluoropentane sulfonic acid (PFPeS)	33.0	ng/L	0.556	4.69	29.386	<0.556	111	73-137	2.58	30	
Perfluoropentanoic acid (PFPeA)	38.9	ng/L	1.28	5.00	31.346	6.92	102	72-129	2.95	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 07:27

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorotetradecanoic acid (PFTDA)	35.3	ng/L	2.64	5.00	31.346	<2.64	112	62-139	3.31	30	
Perfluorotridecanoic acid (PFTrDA)	31.3	ng/L	1.93	5.00	31.346	<1.93	97.7	47-147	10.7	30	
Perfluoroundecanoic acid (PFUnDA)	33.2	ng/L	0.974	5.00	31.346	<0.974	104	80-135	1.65	30	
Surr: 13C2-FtS 4:2	***128***	*ng/L*			146.38		87.1	*50-150*	3.79	30	
Surr: 13C2-FtS 8:2	***148***	*ng/L*			150.14		98.9	*50-150*	7.76	30	
Surr: 13C2-PFDA	***123***	*ng/L*			156.73		78.3	*50-150*	0.582	30	
Surr: 13C2-PFDoA	***123***	*ng/L*			156.73		78.6	*50-150*	8.24	30	
Surr: 13C2-PFHxA	***123***	*ng/L*			156.73		78.5	*50-150*	4.32	30	
Surr: 13C2-PFTeA	***117***	*ng/L*			156.73		74.5	*27-134*	12.7	30	
Surr: 13C2-PFUnA	***126***	*ng/L*			156.73		80.4	*50-150*	5.93	30	
Surr: 13C3-HFPO-DA	***129***	*ng/L*			156.73		82.6	*41-142*	9.34	30	
Surr: 13C3-PFBS	***112***	*ng/L*			145.76		76.9	*50-150*	0.787	30	
Surr: 13C4-PFBA	***145***	*ng/L*			156.73		92.6	*50-150*	0.966	30	
Surr: 13C4-PFHpA	***127***	*ng/L*			156.73		80.9	*42-141*	8.35	30	
Surr: 13C4-PFOA	***119***	*ng/L*			156.73		75.8	*50-150*	5.52	30	
Surr: 13C4-PFOS	***125***	*ng/L*			149.67		83.7	*50-150*	0.228	30	
Surr: 13C5-PFNA	***130***	*ng/L*			156.73		83.1	*50-150*	7.24	30	
Surr: 13C5-PFPeA	***134***	*ng/L*			156.73		85.3	*43-138*	3.75	30	
Surr: 13C8-FOSA	***107***	*ng/L*			156.73		68.1	*30-122*	1.00	30	
Surr: 18O2-PFHxS	***115***	*ng/L*			148.11		77.6	*50-150*	5.15	30	
Surr: d3-N-MeFOSAA	***110***	*ng/L*			156.73		70.1	*35-136*	6.77	30	
Surr: d5-N-EtFOSAA	***115***	*ng/L*			156.73		73.5	*34-142*	5.42	30	

The following samples were analyzed in this batch: HN2516320-001, HN2516320-002, HN2516320-003, HN2516320-004

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323513-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:40 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323513

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3668241

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323513-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:40 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***189***	*ng/L*			149.44		126	*50-150*			
Surr: 13C2-FtS 6:2	***205***	*ng/L*			152		135	*50-150*			
Surr: 13C2-FtS 8:2	***210***	*ng/L*			153.28		137	*50-150*			
Surr: 13C2-PFDA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C2-PFDoA	***145***	*ng/L*			160		90.6	*50-150*			
Surr: 13C2-PFHxA	***176***	*ng/L*			160		110	*50-150*			
Surr: 13C2-PFTeA	***99.2***	*ng/L*			160		62.0	*27-134*			
Surr: 13C2-PFUnA	***164***	*ng/L*			160		103	*50-150*			
Surr: 13C3-HFPO-DA	***174***	*ng/L*			160		109	*41-142*			
Surr: 13C3-PFBS	***149***	*ng/L*			148.8		100	*50-150*			
Surr: 13C4-PFBA	***184***	*ng/L*			160		115	*50-150*			
Surr: 13C4-PFHpA	***187***	*ng/L*			160		117	*42-141*			
Surr: 13C4-PFOA	***179***	*ng/L*			160		112	*50-150*			
Surr: 13C4-PFOS	***144***	*ng/L*			152.8		93.9	*50-150*			
Surr: 13C5-PFNA	***191***	*ng/L*			160		120	*50-150*			
Surr: 13C5-PFPeA	***178***	*ng/L*			160		111	*43-138*			
Surr: 13C8-FOSA	***156***	*ng/L*			160		97.6	*30-122*			
Surr: 18O2-PFHxS	***141***	*ng/L*			151.2		93.1	*50-150*			
Surr: d3-N-MeFOSAA	***149***	*ng/L*			160		93.3	*35-136*			
Surr: d5-N-EtFOSAA	***154***	*ng/L*			160		96.3	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:55 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	18.3	ng/L	0.467	4.71	30.1		60.7	61-128			S
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.2	ng/L	1.13	4.79	30.7		108	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.1	ng/L	0.936	4.67	29.9		93.9	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.5	ng/L	1.92	4.74	30.3		101	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	25.6	ng/L	1.08	5.00	32		80.1	39-117			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323513

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 19:55
Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	3.02	5.00	32		112	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	26.2	ng/L	1.39	5.00	32		82.0	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.0	ng/L	0.562	4.71	30.1		89.8	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25.6	ng/L	0.448	4.66	29.8		85.8	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.6	ng/L	1.17	5.00	32		95.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	27.7	ng/L	1.54	5.00	32		86.6	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.2	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.3	ng/L	0.886	4.61	28.8		112	74-131			
Perfluorobutane sulfonic acid (PFBS)	26.7	ng/L	0.351	4.42	28.3		94.4	69-131			
Perfluorobutanoic acid (PFBA)	29.8	ng/L	2.60	5.00	32		93.1	73-139			
Perfluorobutylsulfonamide (PFBSA)	32.1	ng/L	1.98	5.00	32		100	68-164			
Perfluorodecane sulfonic acid (PFDS)	16.5	ng/L	1.37	4.82	30.8		53.6	64-128			S
Perfluorodecanoic acid (PFDA)	30.6	ng/L	1.24	5.00	32		95.7	77-135			
Perfluorododecanoic acid (PFDOA)	28.6	ng/L	0.691	5.00	32		89.4	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	26.4	ng/L	0.566	4.76	30.5		86.5	70-137			
Perfluoroheptanoic acid (PFHpA)	30.8	ng/L	1.73	5.00	32		96.1	67-130			
Perfluorohexane sulfonic acid (PFHxS)	26.5	ng/L	0.903	4.55	29.1		91.0	68-131			
Perfluorohexanesulfonamide (PFHxSA)	19.6	ng/L	0.878	5.00	32		61.2	69-135			S
Perfluorohexanoic acid (PFHxA)	28.8	ng/L	1.20	5.00	32		90.0	72-129			
Perfluorononane sulfonic acid (PFNS)	26.7	ng/L	0.496	4.80	30.7		87.0	70-132			
Perfluorononanoic acid (PFNA)	30.2	ng/L	0.870	5.00	32		94.4	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.5	ng/L	0.711	5.00	32		108	66-140			
Perfluorooctane sulfonic acid (PFOS)	26.8	ng/L	0.892	1.86	29.7		90.2	72-133			
Perfluorooctanoic acid (PFOA)	32.8	ng/L	0.630	2.00	32		102	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.6	ng/L	0.556	4.69	30		98.6	73-137			
Perfluoropentanoic acid (PFPeA)	30.6	ng/L	1.28	5.00	32		95.6	72-129			
Perfluorotetradecanoic acid (PFTDA)	33.1	ng/L	2.64	5.00	32		103	62-139			
Perfluorotridecanoic acid (PFTrDA)	39.2	ng/L	1.93	5.00	32		122	47-147			
Perfluoroundecanoic acid (PFUnDA)	29.7	ng/L	0.974	5.00	32		92.8	80-135			
Surr: 13C2-FtS 4:2	***154***	*ng/L*			149.44		103	*50-150*			
Surr: 13C2-FtS 6:2	***178***	*ng/L*			152		117	*50-150*			
Surr: 13C2-FtS 8:2	***181***	*ng/L*			153.28		118	*50-150*			
Surr: 13C2-PFDA	***147***	*ng/L*			160		92.1	*50-150*			
Surr: 13C2-PFDoA	***124***	*ng/L*			160		77.7	*50-150*			
Surr: 13C2-PFHxA	***155***	*ng/L*			160		97.1	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:55 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***60.5***	*ng/L*			160		37.8	*27-134*			
Surr: 13C2-PFUnA	***145***	*ng/L*			160		90.5	*50-150*			
Surr: 13C3-HFPO-DA	***155***	*ng/L*			160		96.6	*41-142*			
Surr: 13C3-PFBS	***125***	*ng/L*			148.8		84.1	*50-150*			
Surr: 13C4-PFBA	***156***	*ng/L*			160		97.8	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.8	*42-141*			
Surr: 13C4-PFOA	***155***	*ng/L*			160		96.7	*50-150*			
Surr: 13C4-PFOS	***127***	*ng/L*			152.8		82.8	*50-150*			
Surr: 13C5-PFNA	***163***	*ng/L*			160		102	*50-150*			
Surr: 13C5-PFPeA	***144***	*ng/L*			160		89.8	*43-138*			
Surr: 13C8-FOSA	***95.9***	*ng/L*			160		59.9	*30-122*			
Surr: 18O2-PFHxS	***129***	*ng/L*			151.2		85.3	*50-150*			
Surr: d3-N-MeFOSAA	***124***	*ng/L*			160		77.6	*35-136*			
Surr: d5-N-EtFOSAA	***132***	*ng/L*			160		82.4	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:05 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.6	ng/L	1.89	4.57	29.857	<1.89	105	66-151			
Perfluorotetradecanoic acid (PFTDA)	31.5	ng/L	2.60	4.93	31.532	<2.60	99.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	32.4	ng/L	1.90	4.93	31.532	<1.90	102	47-147			
Surr: 13C2-FtS 6:2	***160***	*ng/L*			149.78		107	*50-150*			
Surr: 13C2-PFTeA	***139***	*ng/L*			157.66		88.0	*27-134*			

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:19 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	28.7	ng/L	1.92	4.74	30.136	<1.92	94.2	66-151	9.46	30	
Perfluorotetradecanoic acid (PFTDA)	31.8	ng/L	2.64	5.00	31.827	<2.64	99.3	62-139	0.961	30	
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.93	5.00	31.827	<1.93	104	47-147	2.40	30	
Surr: 13C2-FtS 6:2	***159***	*ng/L*			151.18		105	*50-150*	0.795	30	
Surr: 13C2-PFTeA	***134***	*ng/L*			159.13		84.1	*27-134*	3.57	30	

The following samples were analyzed in this batch: HN2516320-001, HN2516320-002, HN2516320-003, HN2516320-004

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2324196	**Run ID:**	3673741

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2324196-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 20:22 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2324196

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3673741

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2324196-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 20:22 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***202***	*ng/L*			149.44		135	*50-150*			
Surr: 13C2-FtS 6:2	***205***	*ng/L*			152		135	*50-150*			
Surr: 13C2-FtS 8:2	***205***	*ng/L*			153.28		134	*50-150*			
Surr: 13C2-PFDA	***166***	*ng/L*			160		104	*50-150*			
Surr: 13C2-PFDoA	***161***	*ng/L*			160		101	*50-150*			
Surr: 13C2-PFHxA	***181***	*ng/L*			160		113	*50-150*			
Surr: 13C2-PFTeA	***122***	*ng/L*			160		76.2	*27-134*			
Surr: 13C2-PFUnA	***172***	*ng/L*			160		107	*50-150*			
Surr: 13C3-HFPO-DA	***219***	*ng/L*			160		137	*41-142*			
Surr: 13C3-PFBS	***151***	*ng/L*			148.8		102	*50-150*			
Surr: 13C4-PFBA	***194***	*ng/L*			160		121	*50-150*			
Surr: 13C4-PFHpA	***195***	*ng/L*			160		122	*42-141*			
Surr: 13C4-PFOA	***180***	*ng/L*			160		113	*50-150*			
Surr: 13C4-PFOS	***141***	*ng/L*			152.8		92.1	*50-150*			
Surr: 13C5-PFNA	***184***	*ng/L*			160		115	*50-150*			
Surr: 13C5-PFPeA	***177***	*ng/L*			160		110	*43-138*			
Surr: 13C8-FOSA	***143***	*ng/L*			160		89.5	*30-122*			
Surr: 18O2-PFHxS	***142***	*ng/L*			151.2		93.7	*50-150*			
Surr: d3-N-MeFOSAA	***153***	*ng/L*			160		95.8	*35-136*			
Surr: d5-N-EtFOSAA	***161***	*ng/L*			160		101	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2324196-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 20:37 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	26.6	ng/L	0.467	4.71	30.1		88.4	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	36.2	ng/L	1.13	4.79	30.7		118	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.0	ng/L	0.936	4.67	29.9		100	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	33.4	ng/L	1.92	4.74	30.3		110	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	24.9	ng/L	1.08	5.00	32		77.7	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2324196	**Run ID:**	3673741

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2324196-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 20:37 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	40.5	ng/L	3.02	5.00	32		126	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.7	ng/L	1.39	5.00	32		111	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.3	ng/L	0.562	4.71	30.1		97.4	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.2	ng/L	0.448	4.66	29.8		98.0	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	32.2	ng/L	1.17	5.00	32		101	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	32.6	ng/L	1.54	5.00	32		102	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.1	ng/L	0.644	5.00	32		110	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	34.7	ng/L	0.886	4.61	28.8		121	74-131			
Perfluorobutane sulfonic acid (PFBS)	28.8	ng/L	0.351	4.42	28.3		102	69-131			
Perfluorobutanoic acid (PFBA)	33.6	ng/L	2.60	5.00	32		105	73-139			
Perfluorobutylsulfonamide (PFBSA)	38.1	ng/L	1.98	5.00	32		119	68-164			
Perfluorodecane sulfonic acid (PFDS)	26.2	ng/L	1.37	4.82	30.8		85.0	64-128			
Perfluorodecanoic acid (PFDA)	33.2	ng/L	1.24	5.00	32		104	77-135			
Perfluorododecanoic acid (PFDOA)	33.5	ng/L	0.691	5.00	32		105	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	34.4	ng/L	0.566	4.76	30.5		113	70-137			
Perfluoroheptanoic acid (PFHpA)	30.5	ng/L	1.73	5.00	32		95.3	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.1	ng/L	0.903	4.55	29.1		99.9	68-131			
Perfluorohexanesulfonamide (PFHxSA)	23.8	ng/L	0.878	5.00	32		74.5	69-135			
Perfluorohexanoic acid (PFHxA)	31.5	ng/L	1.20	5.00	32		98.5	72-129			
Perfluorononane sulfonic acid (PFNS)	29.8	ng/L	0.496	4.80	30.7		97.1	70-132			
Perfluorononanoic acid (PFNA)	31.9	ng/L	0.870	5.00	32		99.8	75-131			
Perfluorooctane sulfonamide (PFOSAm)	35.5	ng/L	0.711	5.00	32		111	66-140			
Perfluorooctane sulfonic acid (PFOS)	31.0	ng/L	0.892	1.86	29.7		105	72-133			
Perfluorooctanoic acid (PFOA)	29.6	ng/L	0.630	2.00	32		92.6	71-133			
Perfluoropentane sulfonic acid (PFPeS)	35.4	ng/L	0.556	4.69	30		118	73-137			
Perfluoropentanoic acid (PFPeA)	32.4	ng/L	1.28	5.00	32		101	72-129			
Perfluorotetradecanoic acid (PFTDA)	32.2	ng/L	2.64	5.00	32		101	62-139			
Perfluorotridecanoic acid (PFTrDA)	39.6	ng/L	1.93	5.00	32		124	47-147			
Perfluoroundecanoic acid (PFUnDA)	34.8	ng/L	0.974	5.00	32		109	80-135			
Surr: 13C2-FtS 4:2	***167***	*ng/L*			149.44		111	*50-150*			
Surr: 13C2-FtS 6:2	***157***	*ng/L*			152		103	*50-150*			
Surr: 13C2-FtS 8:2	***172***	*ng/L*			153.28		112	*50-150*			
Surr: 13C2-PFDA	***137***	*ng/L*			160		85.7	*50-150*			
Surr: 13C2-PFDoA	***133***	*ng/L*			160		82.9	*50-150*			
Surr: 13C2-PFHxA	***149***	*ng/L*			160		92.9	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2324196

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3673741

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2324196-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 20:37 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***81.9***	*ng/L*			160		51.2	*27-134*			
Surr: 13C2-PFUnA	***125***	*ng/L*			160		78.3	*50-150*			
Surr: 13C3-HFPO-DA	***148***	*ng/L*			160		92.5	*41-142*			
Surr: 13C3-PFBS	***124***	*ng/L*			148.8		83.0	*50-150*			
Surr: 13C4-PFBA	***152***	*ng/L*			160		95.2	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.9	*42-141*			
Surr: 13C4-PFOA	***156***	*ng/L*			160		97.6	*50-150*			
Surr: 13C4-PFOS	***117***	*ng/L*			152.8		76.5	*50-150*			
Surr: 13C5-PFNA	***141***	*ng/L*			160		88.4	*50-150*			
Surr: 13C5-PFPeA	***137***	*ng/L*			160		85.4	*43-138*			
Surr: 13C8-FOSA	***91.1***	*ng/L*			160		57.0	*30-122*			
Surr: 18O2-PFHxS	***111***	*ng/L*			151.2		73.2	*50-150*			
Surr: d3-N-MeFOSAA	***115***	*ng/L*			160		72.2	*35-136*			
Surr: d5-N-EtFOSAA	***117***	*ng/L*			160		73.4	*34-142*			

MS | **CLIENT ID: MW-21-138_103025** | **Lab ID: QC-2324196-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/08/25 04:19 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	32.6	ng/L	0.492	4.96	31.726	<0.492	103	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	36.2	ng/L	1.19	5.05	32.358	<1.19	112	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	33.7	ng/L	0.987	4.92	31.515	<0.987	107	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	34.8	ng/L	2.02	4.89	31.936	<2.02	108	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	31.3	ng/L	1.14	5.27	33.728	<1.14	92.6	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	26.5	ng/L	3.18	5.27	33.728	<3.18	78.6	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	32.1	ng/L	1.47	5.27	33.728	<1.47	95.0	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	30.2	ng/L	0.592	4.96	31.726	<0.592	95.3	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	31.7	ng/L	0.472	4.91	31.409	<0.472	101	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	35.3	ng/L	1.23	5.27	33.728	<1.23	103	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	33.2	ng/L	1.63	5.27	33.728	<1.63	98.1	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	40.7	ng/L	0.679	5.27	33.728	<0.679	120	67-133			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2324196	**Run ID:**	3673741

MS	**CLIENT ID: MW-21-138_103025**	**Lab ID: QC-2324196-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/08/25 04:19

Prep Date: 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	35.8	ng/L	0.934	4.86	30.355	<0.934	118	74-131			
Perfluorobutane sulfonic acid (PFBS)	33.3	ng/L	0.370	4.66	29.828	<0.370	111	69-141			
Perfluorobutanoic acid (PFBA)	34.5	ng/L	2.74	5.27	33.728	<2.74	100	73-139			
Perfluorobutylsulfonamide (PFBSA)	31.9	ng/L	2.09	5.27	33.728	<2.09	94.5	68-164			
Perfluorodecane sulfonic acid (PFDS)	32.3	ng/L	1.44	5.08	32.463	<1.44	99.4	64-128			
Perfluorodecanoic acid (PFDA)	35.7	ng/L	1.31	5.27	33.728	<1.31	106	77-135			
Perfluorododecanoic acid (PFDOA)	34.6	ng/L	0.728	5.27	33.728	<0.728	102	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	34.4	ng/L	0.597	5.02	32.147	<0.597	107	70-137			
Perfluoroheptanoic acid (PFHpA)	35.9	ng/L	1.82	5.27	33.728	<1.82	106	67-130			
Perfluorohexane sulfonic acid (PFHxS)	30.8	ng/L	0.952	4.80	30.672	<0.952	98.1	68-131			
Perfluorohexanesulfonamide (PFHxSA)	18.5	ng/L	0.925	5.27	33.728	<0.925	54.9	69-135			S
Perfluorohexanoic acid (PFHxA)	34.0	ng/L	1.26	5.27	33.728	<1.26	99.7	72-129			
Perfluorononane sulfonic acid (PFNS)	33.5	ng/L	0.523	5.06	32.358	<0.523	104	70-132			
Perfluorononanoic acid (PFNA)	34.8	ng/L	0.917	5.27	33.728	<0.917	103	75-131			
Perfluorooctane sulfonamide (PFOSAm)	38.2	ng/L	0.749	5.27	33.728	0.887	111	66-140			
Perfluorooctane sulfonic acid (PFOS)	32.2	ng/L	0.940	1.96	31.304	<0.940	102	72-133			
Perfluorooctanoic acid (PFOA)	33.2	ng/L	0.664	2.11	33.728	<0.664	97.1	71-133			
Perfluoropentane sulfonic acid (PFPeS)	34.1	ng/L	0.586	4.94	31.62	<0.586	108	73-137			
Perfluoropentanoic acid (PFPeA)	37.5	ng/L	1.35	5.27	33.728	<1.35	110	72-129			
Perfluorotetradecanoic acid (PFTDA)	35.5	ng/L	2.78	5.27	33.728	<2.78	105	62-139			
Perfluorotridecanoic acid (PFTrDA)	35.4	ng/L	2.04	5.27	33.728	<2.04	104	47-147			
Perfluoroundecanoic acid (PFUnDA)	35.5	ng/L	1.03	5.27	33.728	<1.03	105	80-135			
Surr: 13C2-FtS 4:2	***140***	*ng/L*			157.51		89.1	*50-150*			
Surr: 13C2-FtS 6:2	***160***	*ng/L*			160.21		99.8	*50-150*			
Surr: 13C2-FtS 8:2	***182***	*ng/L*			161.56		113	*50-150*			
Surr: 13C2-PFDA	***151***	*ng/L*			168.64		89.6	*50-150*			
Surr: 13C2-PFDoA	***156***	*ng/L*			168.64		92.8	*50-150*			
Surr: 13C2-PFHxA	***136***	*ng/L*			168.64		80.4	*50-150*			
Surr: 13C2-PFTeA	***149***	*ng/L*			168.64		88.5	*27-134*			
Surr: 13C2-PFUnA	***148***	*ng/L*			168.64		87.5	*50-150*			
Surr: 13C3-HFPO-DA	***127***	*ng/L*			168.64		75.2	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			156.84		71.1	*50-150*			
Surr: 13C4-PFBA	***147***	*ng/L*			168.64		87.3	*50-150*			
Surr: 13C4-PFHpA	***129***	*ng/L*			168.64		76.6	*42-141*			
Surr: 13C4-PFOA	***140***	*ng/L*			168.64		82.9	*50-150*			
Surr: 13C4-PFOS	***125***	*ng/L*			161.05		77.5	*50-150*			
Surr: 13C5-PFNA	***141***	*ng/L*			168.64		83.4	*50-150*			
Surr: 13C5-PFPeA	***129***	*ng/L*			168.64		76.5	*43-138*			
Surr: 13C8-FOSA	***78.0***	*ng/L*			168.64		46.2	*30-122*			
Surr: 18O2-PFHxS	***114***	*ng/L*			159.37		71.3	*50-150*			
Surr: d3-N-MeFOSAA	***114***	*ng/L*			168.64		67.4	*35-136*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2324196

Work Order: HN2516320
Date Collected: NA
Date Received: NA
Run ID: 3673741

MS | **CLIENT ID: MW-21-138_103025** | **Lab ID: QC-2324196-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/08/25 04:19 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: d5-N-EtFOSAA	***130***	*ng/L*			168.64		76.9	*34-142*			

MSD | **CLIENT ID: MW-21-138_103025** | **Lab ID: QC-2324196-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/08/25 04:33 | **Prep Date:** 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	33.1	ng/L	0.488	4.92	31.446	<0.488	105	61-128	1.27	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	38.3	ng/L	1.18	5.00	32.073	<1.18	119	61-148	5.63	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	37.7	ng/L	0.978	4.88	31.237	<0.978	120	67-143	11.1	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	38.9	ng/L	2.01	4.85	31.655	<2.01	122	66-151	11.2	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	32.2	ng/L	1.13	5.22	33.431	<1.13	96.0	39-117	2.69	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	31.4	ng/L	3.16	5.22	33.431	<3.16	94.0	71-138	17.0	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	27.1	ng/L	1.45	5.22	33.431	<1.45	80.8	64-134	17.0	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.0	ng/L	0.587	4.92	31.446	<0.587	98.4	74-135	2.36	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	31.6	ng/L	0.468	4.87	31.132	<0.468	101	69-133	0.408	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	34.7	ng/L	1.22	5.22	33.431	<1.22	102	65-139	1.55	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	37.6	ng/L	1.61	5.22	33.431	<1.61	112	67-140	12.4	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	42.8	ng/L	0.673	5.22	33.431	<0.673	128	67-133	5.07	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	37.2	ng/L	0.926	4.82	30.088	<0.926	124	74-131	4.00	30	
Perfluorobutane sulfonic acid (PFBS)	35.1	ng/L	0.367	4.62	29.565	<0.367	118	69-141	5.34	30	
Perfluorobutanoic acid (PFBA)	34.9	ng/L	2.72	5.22	33.431	<2.72	103	73-139	1.22	30	
Perfluorobutylsulfonamide (PFBSA)	34.1	ng/L	2.07	5.22	33.431	<2.07	102	68-164	6.70	30	
Perfluorodecane sulfonic acid (PFDS)	32.8	ng/L	1.43	5.04	32.177	<1.43	102	64-128	1.53	30	
Perfluorodecanoic acid (PFDA)	35.9	ng/L	1.30	5.22	33.431	<1.30	107	77-135	0.409	30	
Perfluorododecanoic acid (PFDOA)	34.7	ng/L	0.722	5.22	33.431	<0.722	104	77-137	0.336	30	
Perfluoroheptane sulfonic acid (PFHpS)	30.0	ng/L	0.591	4.97	31.864	<0.591	94.2	70-137	13.6	30	
Perfluoroheptanoic acid (PFHpA)	37.9	ng/L	1.81	5.22	33.431	<1.81	113	67-130	5.27	30	
Perfluorohexane sulfonic acid (PFHxS)	28.6	ng/L	0.943	4.75	30.401	<0.943	91.5	68-131	7.60	30	
Perfluorohexanesulfonamide (PFHxSA)	16.3	ng/L	0.917	5.22	33.431	<0.917	48.8	69-135	12.6	30	S

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516320
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2324196	**Run ID:**	3673741

MSD	**CLIENT ID: MW-21-138_103025**	**Lab ID: QC-2324196-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/08/25 04:33

Prep Date: 11/07/25 15:31

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexanoic acid (PFHxA)	33.5	ng/L	1.25	5.22	33.431	<1.25	99.3	72-129	1.27	30	
Perfluorononane sulfonic acid (PFNS)	34.4	ng/L	0.518	5.01	32.073	<0.518	107	70-132	2.62	30	
Perfluorononanoic acid (PFNA)	35.5	ng/L	0.909	5.22	33.431	<0.909	106	75-131	1.99	30	
Perfluorooctane sulfonamide (PFOSAm)	38.8	ng/L	0.743	5.22	33.431	0.887	113	66-140	1.52	30	
Perfluorooctane sulfonic acid (PFOS)	30.4	ng/L	0.932	1.94	31.028	<0.932	97.6	72-133	5.65	30	
Perfluorooctanoic acid (PFOA)	38.7	ng/L	0.658	2.09	33.431	<0.658	114	71-133	15.1	30	
Perfluoropentane sulfonic acid (PFPeS)	32.3	ng/L	0.581	4.90	31.341	<0.581	103	73-137	5.45	30	
Perfluoropentanoic acid (PFPeA)	39.7	ng/L	1.34	5.22	33.431	<1.34	118	72-129	5.67	30	
Perfluorotetradecanoic acid (PFTDA)	37.6	ng/L	2.76	5.22	33.431	<2.76	112	62-139	5.88	30	
Perfluorotridecanoic acid (PFTrDA)	36.4	ng/L	2.02	5.22	33.431	<2.02	109	47-147	2.95	30	
Perfluoroundecanoic acid (PFUnDA)	35.9	ng/L	1.02	5.22	33.431	<1.02	107	80-135	1.08	30	
Surr: 13C2-FtS 4:2	***136***	*ng/L*			156.12		87.3	*50-150*	3.01	30	
Surr: 13C2-FtS 6:2	***170***	*ng/L*			158.8		107	*50-150*	6.08	30	
Surr: 13C2-FtS 8:2	***190***	*ng/L*			160.13		119	*50-150*	4.35	30	
Surr: 13C2-PFDA	***156***	*ng/L*			167.15		93.0	*50-150*	2.92	30	
Surr: 13C2-PFDoA	***178***	*ng/L*			167.15		106	*50-150*	12.8	30	
Surr: 13C2-PFHxA	***150***	*ng/L*			167.15		89.8	*50-150*	10.2	30	
Surr: 13C2-PFTeA	***163***	*ng/L*			167.15		97.2	*27-134*	8.55	30	
Surr: 13C2-PFUnA	***176***	*ng/L*			167.15		105	*50-150*	17.6	30	
Surr: 13C3-HFPO-DA	***141***	*ng/L*			167.15		84.1	*41-142*	10.3	30	
Surr: 13C3-PFBS	***120***	*ng/L*			155.45		77.0	*50-150*	7.18	30	
Surr: 13C4-PFBA	***163***	*ng/L*			167.15		97.4	*50-150*	10.1	30	
Surr: 13C4-PFHpA	***152***	*ng/L*			167.15		90.8	*42-141*	16.2	30	
Surr: 13C4-PFOA	***149***	*ng/L*			167.15		89.3	*50-150*	6.54	30	
Surr: 13C4-PFOS	***143***	*ng/L*			159.63		89.4	*50-150*	13.5	30	
Surr: 13C5-PFNA	***169***	*ng/L*			167.15		101	*50-150*	18.6	30	
Surr: 13C5-PFPeA	***136***	*ng/L*			167.15		81.6	*43-138*	5.57	30	
Surr: 13C8-FOSA	***79.6***	*ng/L*			167.15		47.6	*30-122*	2.07	30	
Surr: 18O2-PFHxS	***146***	*ng/L*			157.96		92.2	*50-150*	24.7	30	
Surr: d3-N-MeFOSAA	***120***	*ng/L*			167.15		71.6	*35-136*	5.18	30	
Surr: d5-N-EtFOSAA	***135***	*ng/L*			167.15		80.5	*34-142*	3.66	30	

The following samples were analyzed in this batch: HN2516320-005

November 10, 2025

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Date Received: **10/30/2025**
Work Order: **HN2516257**

Re: **RACER Lansing GWS 30267725.0370A**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda
/S/ ALEX CSASZAR on behalf of PM listed above

Project Manager

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Received:**	30-Oct-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

19 groundwater, water samples were received for analysis at ALS Environmental on 30-Oct-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Run ID: 3664587

HN2516257-007: Perfluorooctadecanoic acid [PFODA] - The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:
HN2516257-018: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-14-61_102925	Lab ID: HN2516257-001					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	5.71		2.50	4.81	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.877	J	0.606	1.92	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	2.98	J	1.23	4.81	ng/L	EPA 537Mod

CLIENT ID: MW-15-72_102925	Lab ID: HN2516257-002					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.88	J	2.78	9.99	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	1.55	J	0.701	8.83	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.89	J	5.20	9.99	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	5.64	J	2.56	9.99	ng/L	EPA 537Mod

CLIENT ID: MW-16-81_102925	Lab ID: HN2516257-003					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	1.59	J	1.37	4.92	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.589	J	0.346	4.35	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.97		2.56	4.92	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	3.45	J	1.70	4.92	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	7.20		1.18	4.92	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	2.50		0.621	1.97	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	12.4		1.26	4.92	ng/L	EPA 537Mod

CLIENT ID: MW-14-56_102925	Lab ID: HN2516257-004					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	6.26	J	5.20	9.99	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	2.49	J	2.40	9.99	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	8.84	J	2.56	9.99	ng/L	EPA 537Mod

CLIENT ID: MW-20-130_102925	Lab ID: HN2516257-005					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	15.9		0.356	4.48	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	13.1		2.64	5.07	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	8.51		1.75	5.07	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	4.35	J	0.916	4.62	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	35.6		1.22	5.07	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	5.13		0.639	2.03	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	4.32	J	0.564	4.76	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	23.6		1.30	5.07	ng/L	EPA 537Mod

CLIENT ID: MW-12-09_102925	Lab ID: HN2516257-006					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	4.19	J	0.859	4.47	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.02	J	0.340	4.28	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-12-09_102925	Lab ID: HN2516257-006					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	10.3		2.52	4.85	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	8.97		1.68	4.85	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	5.01		0.875	4.41	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	10.7		1.16	4.85	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.17	J	0.843	4.85	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	7.20		0.865	1.80	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	20.7		0.611	1.94	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.713	J	0.539	4.55	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	10.3		1.24	4.85	ng/L	EPA 537Mod

CLIENT ID: MW-12-18_102925	Lab ID: HN2516257-007					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.07	J	1.44	5.19	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.00	J	0.920	4.79	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	0.811	J	0.365	4.59	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.82		2.70	5.19	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	3.71	J	1.80	5.19	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.41	J	0.938	4.73	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	5.06	J	1.25	5.19	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	3.89		0.654	2.08	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	6.92		1.33	5.19	ng/L	EPA 537Mod

CLIENT ID: MW-14-58R_102925	Lab ID: HN2516257-008					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.13	J	1.77	9.22	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	12.4		5.20	10.00	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	6.54	J	3.46	10.00	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.88	J	1.81	9.10	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	10.5		2.40	10.00	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.80	J	1.74	10.00	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	10.4		1.78	3.71	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	17.8		1.26	4.00	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	9.64	J	2.56	10.00	ng/L	EPA 537Mod

CLIENT ID: Dup-03_102925	Lab ID: HN2516257-010					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutanoic acid (PFBA)	6.86	J	5.20	9.99	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	9.22	J	2.56	9.99	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-14-62_102925	Lab ID: HN2516257-011					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	2.92	J	1.18	5.01	ng/L	EPA 537Mod
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	12.9		2.01	4.85	ng/L	EPA 537Mod
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	1.40	J	1.13	5.23	ng/L	EPA 537Mod
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	0.967	J	0.673	5.23	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.02	J	0.367	4.62	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	19.5		2.72	5.23	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	1.96	J	1.30	5.23	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	18.8		1.81	5.23	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	6.72		0.944	4.76	ng/L	EPA 537Mod
Perfluorohexanesulfonamide (PFHxSA)	1.36	J	0.918	5.23	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	22.7		1.25	5.23	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	6.68		0.910	5.23	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	5.73		0.743	5.23	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	42.8		0.933	1.94	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	51.8		0.659	2.09	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	21.7		1.34	5.23	ng/L	EPA 537Mod

CLIENT ID: MW-21-139_102925	Lab ID: HN2516257-012					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	49.8		1.15	4.87	ng/L	EPA 537Mod
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	46.1		1.90	4.60	ng/L	EPA 537Mod
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.48	J	1.41	5.08	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	5.37		0.901	4.69	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	14.0		0.357	4.49	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	35.2		2.64	5.08	ng/L	EPA 537Mod
Perfluorobutylsulfonamide (PFBSA)	16.2		2.02	5.08	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	5.89		1.26	5.08	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	38.6		0.575	4.84	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	53.9		1.76	5.08	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	272		0.918	4.63	ng/L	EPA 537Mod
Perfluorohexanesulfonamide (PFHxSA)	56.1		0.893	5.08	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	61.4		1.22	5.08	ng/L	EPA 537Mod
Perfluorononane sulfonic acid (PFNS)	5.98		0.504	4.88	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	14.8		0.884	5.08	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	2.18	J	0.723	5.08	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1760		9.07	18.9	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	88.3		0.640	2.03	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-21-139_102925	Lab ID: HN2516257-012					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoropentane sulfonic acid (PFPeS)	19.9		0.565	4.77	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	68.7		1.30	5.08	ng/L	EPA 537Mod

CLIENT ID: P2-MW-04_102925	Lab ID: HN2516257-013					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.68	J	1.46	5.27	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	1.73	J	0.933	4.86	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.32	J	0.370	4.66	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	15.8		2.74	5.27	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	1.61	J	1.31	5.27	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	1.65	J	0.596	5.01	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	11.6		1.82	5.27	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	3.97	J	0.951	4.79	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	14.3		1.26	5.27	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	2.98	J	0.917	5.27	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	27.8		0.940	1.96	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	22.8		0.664	2.11	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.01	J	0.586	4.94	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	19.7		1.35	5.27	ng/L	EPA 537Mod

CLIENT ID: P2-MW-02_102925	Lab ID: HN2516257-014					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorooctane sulfonic acid (PFOS)	1.55	J	0.890	1.85	ng/L	EPA 537Mod

CLIENT ID: Dup-02_102925	Lab ID: HN2516257-015					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	0.395	J	0.347	4.37	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.83	J	0.881	1.83	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	0.911	J	0.623	1.98	ng/L	EPA 537Mod

CLIENT ID: MW-14-59_102925	Lab ID: HN2516257-017					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoroheptanoic acid (PFHpA)	19.5	J	17.3	50.0	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	14.1	J	9.03	45.5	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	27.8	J	12.0	50.0	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	26.3		8.92	18.6	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	42.5		6.30	20.0	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	23.4	J	12.8	50.0	ng/L	EPA 537Mod

CLIENT ID: MW-14-60_102925	Lab ID: HN2516257-018					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	1.96	J	1.40	5.05	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-14-60_102925			Lab ID: HN2516257-018			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	2.40	J	0.894	4.65	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.30	J	0.354	4.46	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	29.2		2.62	5.05	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	2.89	J	1.25	5.05	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	1.00	J	0.571	4.80	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	10.2		1.75	5.05	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	8.41		0.911	4.59	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	14.0		1.21	5.05	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	5.55		0.878	5.05	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	52.0		0.900	1.87	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	31.2		0.636	2.02	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.39	J	0.561	4.73	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	13.4		1.29	5.05	ng/L	EPA 537Mod

CLIENT ID: EB-02_102925			Lab ID: HN2516257-019			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	1.58	J	1.06	4.93	ng/L	EPA 537Mod
Perfluorooctane sulfonamide (PFOSAm)	1.37	J	0.701	4.93	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Workorder: HN2516257

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516257-001	MW-14-61_102925	GROUNDWATER	10/29/25 09:50	10/30/25 09:15
HN2516257-002	MW-15-72_102925	GROUNDWATER	10/29/25 11:35	10/30/25 09:15
HN2516257-003	MW-16-81_102925	GROUNDWATER	10/29/25 13:05	10/30/25 09:15
HN2516257-004	MW-14-56_102925	GROUNDWATER	10/29/25 14:45	10/30/25 09:15
HN2516257-005	MW-20-130_102925	GROUNDWATER	10/29/25 16:30	10/30/25 09:15
HN2516257-006	MW-12-09_102925	GROUNDWATER	10/29/25 10:25	10/30/25 09:15
HN2516257-007	MW-12-18_102925	GROUNDWATER	10/29/25 11:50	10/30/25 09:15
HN2516257-008	MW-14-58R_102925	GROUNDWATER	10/29/25 13:10	10/30/25 09:15
HN2516257-009	EB-01_102925	WATER	10/29/25 15:50	10/30/25 09:15
HN2516257-010	Dup-03_102925	GROUNDWATER	10/29/25	10/30/25 09:15
HN2516257-011	MW-14-62_102925	GROUNDWATER	10/29/25 10:00	10/30/25 09:15
HN2516257-012	MW-21-139_102925	GROUNDWATER	10/29/25 11:45	10/30/25 09:15
HN2516257-013	P2-MW-04_102925	GROUNDWATER	10/29/25 12:55	10/30/25 09:15
HN2516257-014	P2-MW-02_102925	GROUNDWATER	10/29/25 14:52	10/30/25 09:15
HN2516257-015	Dup-02_102925	GROUNDWATER	10/29/25	10/30/25 09:15
HN2516257-016	EB-03_102925	WATER	10/29/25 16:45	10/30/25 09:15
HN2516257-017	MW-14-59_102925	GROUNDWATER	10/29/25 14:10	10/30/25 09:15
HN2516257-018	MW-14-60_102925	GROUNDWATER	10/29/25 15:45	10/30/25 09:15
HN2516257-019	EB-02_102925	WATER	10/29/25 10:35	10/30/25 09:15

Chain of Custody Form

Page 1 of 2

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 2

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	US34600275 88	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

Environmental Division
Holland
Work Order Reference
HN2516257

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	Hold
1	MW-14-61_102925	10/29/25	0950	GW	None	3	X					
2	MW-15-72_102925	10/29/25	1135	GW	None	3	X					
3	MW-16-81_102925	10/29/25	1305	GW	None	3	X					
4	MW-14-56_102925	10/29/25	1445	GW	None	3	X					
5	MW-20-130_102925	10/29/25	1630	GW	None	3	X					
6	MW-12-09_102925	10/29/25	1025	GW	None	3	X					
7	MW-12-18_102925 MS/MSD	10/29/25	1150	GW	None	9	X					
8	MW-14-58R_102925	10/29/25	1310	GW	None	3	X					
9	~~Equipment Blank 10-29-25~~ EB-01=102923 also	10/29/25	1550	W	None	3	X					
10	DUP-03_102925	10/29/25	—	GW	None	3	X					

Sampler(s): Please Print & Sign	Shipment Method:	Turnaround Time: (Business Days)	Results Due Date:
Emma Giem and Karly Wegenstahl / Donald Richmond / Donald Richmond		☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard	11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
	10/30/25			10/30/25	8:45	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
	10/30/25	9:15		10/30/25	0915	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DFS	10/30/25	1000				

Cooler Temp °C	pH Verified	QC Package: (Check Box Below)	
IR6		☑ Level II: Standard QC	☐ Level III: Raw Data
4.9°C		☐ TRRP LRC	☐ TRRP Level IV
4.6°C		☐ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Chain of Custody Form

Page 2 of 2

☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 2

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-14-62_102925	10-29-25	1000	GW	None	3	X										
2	MW-21-139_102925	10-29-25	1145	GW	None	3	X										
3	P2-MW-04_102925	10-29-25	1255	GW	None	3	X										
4	P2-MW-02_102925	10-29-25	1452	GW	None	3	X										
5	DUP-02_102925	10-29-25	—	GW	None	3	X										
6	EB-03_102925	10-2925	1645	GW	None	3	X										
7	MW-14-59_102925	10/29/25	1410	GW	None	3	X										
8	MW-14-60_102925	10/29/25	1545	GW	None	3	X										
9	EB-02_102925	10/29/25	1035	GW	None	3	X										
10																	

Sampler(s): Please Print & Sign Emma Gizm and Donald Richmond
Karly Wogenstahl / [signature]

Shipment Method:

Turnaround Time: (Business Days) ☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date: 11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
[signature]	10-29-25	1700	[signature]	10/29/25	1700	
Relinquished by: [signature]	Date: 10/30/25	Time:	Received by (Laboratory): [signature]	Date: 10/30/25	Time: 8:45	
~~Logged by (Laboratory):~~ ELGE visited By: [signature]	Date: 10/30/25	Time: 9:15	Checked by (Laboratory): Rec'd [signature]			

Cooler Temp °C: 1R6 / 4.9°c / 4.6°c

pH Verified:

QC Package: (Check Box Below)
☑ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☐ Level IV: SW846 Methods/CLP like
☐ Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Holland Sample Receiving Checklist

Received by:	Diane F. Shaw
Date/Time:	10/30/25 0915
Carrier Name:	ALS
Shipping container/cooler in good condition?	(Yes) / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / (Not Present)
Custody seals intact on sample bottles?	Yes / No / (Not Present)
Chain of Custody present?	(Yes) / No
COC signed when relinquished and received?	(Yes) / No
COC agrees with sample labels?	(Yes) / No
Samples in proper container/bottle?	(Yes) / No
Sample containers intact?	(Yes) / No
Sufficient sample volume for indicated test?	(Yes) / No
All samples received within holding time?	(Yes) / No
Container/Temp Blank temperature in compliance?	(Yes) / No
Temperature(s) (°C):	4.9/4.9, 4.6/4.6 °C
Thermometer(s):	IR6
Sample(s) received on ice?	(Yes) / No
Matrix/Matrices:	GW, Water
Cooler(s)/Kit(s):	2
Date/Time sample(s) sent to storage:	10/30/25 1045
Water – VOA vials have zero headspace?	Yes / No / (No Vials)
Water – pH acceptable upon receipt?	Yes / No / (N/A)
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / (N/A)
pH adjusted by:	_____

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516257

Sample Name: MW-14-61_102925
Laboratory Code: HN2516257-001
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-15-72_102925
Laboratory Code: HN2516257-002
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-16-81_102925
Laboratory Code: HN2516257-003
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-14-56_102925
Laboratory Code: HN2516257-004
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	004-AA	2310258	Audrey	3650776	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc. **Work Order:** HN2516257
Project: RACER Lansing GWS 30267725.0370A

Sample Name: MW-20-130_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-005 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	005-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-12-09_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-006 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	006-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-12-18_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-007 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	007-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	007-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

Sample Name: MW-14-58R_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-008 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	008-AA	2310258	Audrey	3650776	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516257

Sample Name: EB-01_102925
Laboratory Code: HN2516257-009
Sample Matrix: WATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	009-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: Dup-03_102925
Laboratory Code: HN2516257-010
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	010-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-14-62_102925
Laboratory Code: HN2516257-011
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	011-AA	2310258	Audrey	3650776	Morgan Morehouse

Sample Name: MW-21-139_102925
Laboratory Code: HN2516257-012
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	012-AA	2314258	Gabe	3663886	Morgan Morehouse
EPA 537Mod	EPA 537Mod	012-AA	2314258	Gabe	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	012-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc. **Work Order:** HN2516257
Project: RACER Lansing GWS 30267725.0370A

Sample Name: P2-MW-04_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-013 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	013-AA	2314258	Gabe	3663886	Morgan Morehouse
EPA 537Mod	EPA 537Mod	013-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: P2-MW-02_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-014 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	014-AA	2314258	Gabe	3663886	Morgan Morehouse
EPA 537Mod	EPA 537Mod	014-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: Dup-02_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-015 **Date Received:** 10/30/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	015-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	015-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

Sample Name: EB-03_102925 **Date Collected:** 10/29/25
Laboratory Code: HN2516257-016 **Date Received:** 10/30/25
Sample Matrix: WATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	016-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	016-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516257

Sample Name: MW-14-59_102925
Laboratory Code: HN2516257-017
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	017-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

Sample Name: MW-14-60_102925
Laboratory Code: HN2516257-018
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	018-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	018-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

Sample Name: EB-02_102925
Laboratory Code: HN2516257-019
Sample Matrix: WATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	019-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	019-AA	2323203	Clayton Rzepka	3668512	Morgan Morehouse

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-61_102925 **Lab ID: HN2516257-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.449	U	ng/L	0.449	4.53	1	10/31/25 23:36	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.61	1	10/31/25 23:36	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.900	U	ng/L	0.900	4.49	1	10/31/25 23:36	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.85	U	ng/L	1.85	4.46	1	10/31/25 23:36	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.04	U	ng/L	1.04	4.81	1	10/31/25 23:36	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.90	U	ng/L	2.90	4.81	1	10/31/25 23:36	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.34	U	ng/L	1.34	4.81	1	10/31/25 23:36	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.540	U	ng/L	0.540	4.53	1	10/31/25 23:36	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.431	U	ng/L	0.431	4.48	1	10/31/25 23:36	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.81	1	10/31/25 23:36	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.81	1	10/31/25 23:36	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.619	U	ng/L	0.619	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.852	U	ng/L	0.852	4.43	1	10/31/25 23:36	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.338	U	ng/L	0.338	4.25	1	10/31/25 23:36	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.71**		ng/L	2.50	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.63	1	10/31/25 23:36	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-61_102925 **Lab ID: HN2516257-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.664	U	ng/L	0.664	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.544	U	ng/L	0.544	4.58	1	10/31/25 23:36	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.66	U	ng/L	1.66	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.868	U	ng/L	0.868	4.38	1	10/31/25 23:36	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.844	U	ng/L	0.844	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.15	U	ng/L	1.15	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.477	U	ng/L	0.477	4.62	1	10/31/25 23:36	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.837	U	ng/L	0.837	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.684	U	ng/L	0.684	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.858	U	ng/L	0.858	1.78	1	10/31/25 23:36	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.877**	J	ng/L	0.606	1.92	1	10/31/25 23:36	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.535	U	ng/L	0.535	4.51	1	10/31/25 23:36	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**2.98**	J	ng/L	1.23	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.81	1	10/31/25 23:36	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.937	U	ng/L	0.937	4.81	1	10/31/25 23:36	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***94.8***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***80.8***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***89.1***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***68.9***		*%REC*		*27-134*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.6***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***102***		*%REC*		*41-142*	*1*	*10/31/25 23:36*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 09:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-61_102925 **Lab ID: HN2516257-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.8***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***85.5***		*%REC*		*42-141*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***96.6***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***82.7***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***96.9***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***87.4***		*%REC*		*43-138*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***64.8***		*%REC*		*30-122*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***92.8***		*%REC*		*50-150*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***71.8***		*%REC*		*35-136*	*1*	*10/31/25 23:36*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.5***		*%REC*		*34-142*	*1*	*10/31/25 23:36*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-15-72_102925 **Lab ID: HN2516257-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.933	U	ng/L	0.933	9.41	1	10/31/25 23:50	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<2.26	U	ng/L	2.26	9.57	1	10/31/25 23:50	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	9.33	1	10/31/25 23:50	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<3.84	U	ng/L	3.84	9.27	1	10/31/25 23:50	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<2.16	U	ng/L	2.16	9.99	1	10/31/25 23:50	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<6.04	U	ng/L	6.04	9.99	1	10/31/25 23:50	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.88**	J	ng/L	2.78	9.99	1	10/31/25 23:50	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<1.12	U	ng/L	1.12	9.41	1	10/31/25 23:50	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.895	U	ng/L	0.895	9.31	1	10/31/25 23:50	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<2.34	U	ng/L	2.34	9.99	1	10/31/25 23:50	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<3.09	U	ng/L	3.09	9.99	1	10/31/25 23:50	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<1.29	U	ng/L	1.29	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<1.77	U	ng/L	1.77	9.21	1	10/31/25 23:50	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.55**	J	ng/L	0.701	8.83	1	10/31/25 23:50	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.89**	J	ng/L	5.20	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<3.97	U	ng/L	3.97	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<2.74	U	ng/L	2.74	9.63	1	10/31/25 23:50	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-15-72_102925 **Lab ID: HN2516257-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<2.48	U	ng/L	2.48	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<1.38	U	ng/L	1.38	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<1.13	U	ng/L	1.13	9.51	1	10/31/25 23:50	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<3.46	U	ng/L	3.46	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<1.80	U	ng/L	1.80	9.09	1	10/31/25 23:50	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<1.75	U	ng/L	1.75	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<2.40	U	ng/L	2.40	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.991	U	ng/L	0.991	9.59	1	10/31/25 23:50	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<1.74	U	ng/L	1.74	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<1.42	U	ng/L	1.42	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<1.78	U	ng/L	1.78	3.71	1	10/31/25 23:50	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.00	1	10/31/25 23:50	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<1.11	U	ng/L	1.11	9.37	1	10/31/25 23:50	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**5.64**	J	ng/L	2.56	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<5.28	U	ng/L	5.28	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<3.86	U	ng/L	3.86	9.99	1	10/31/25 23:50	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.95	U	ng/L	1.95	9.99	1	10/31/25 23:50	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***91.0***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***95.6***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***97.0***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.8***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***80.9***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***86.0***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***69.8***		*%REC*		*27-134*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***83.1***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***101***		*%REC*		*41-142*	*1*	*10/31/25 23:50*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-15-72_102925 **Lab ID: HN2516257-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***83.4***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.2***		*%REC*		*42-141*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***89.2***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***83.7***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***92.0***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***85.2***		*%REC*		*43-138*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.0***		*%REC*		*30-122*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.2***		*%REC*		*50-150*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.8***		*%REC*		*35-136*	*1*	*10/31/25 23:50*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***75.7***		*%REC*		*34-142*	*1*	*10/31/25 23:50*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:05
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-16-81_102925 **Lab ID: HN2516257-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.460	U	ng/L	0.460	4.64	1	11/01/25 00:05	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.72	1	11/01/25 00:05	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.922	U	ng/L	0.922	4.60	1	11/01/25 00:05	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.89	U	ng/L	1.89	4.57	1	11/01/25 00:05	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.06	U	ng/L	1.06	4.92	1	11/01/25 00:05	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.97	U	ng/L	2.97	4.92	1	11/01/25 00:05	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**1.59**	J	ng/L	1.37	4.92	1	11/01/25 00:05	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.554	U	ng/L	0.554	4.64	1	11/01/25 00:05	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.441	U	ng/L	0.441	4.59	1	11/01/25 00:05	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.92	1	11/01/25 00:05	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.92	1	11/01/25 00:05	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.634	U	ng/L	0.634	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.873	U	ng/L	0.873	4.54	1	11/01/25 00:05	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.589**	J	ng/L	0.346	4.35	1	11/01/25 00:05	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.97**		ng/L	2.56	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.75	1	11/01/25 00:05	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:05
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-16-81_102925 **Lab ID: HN2516257-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.681	U	ng/L	0.681	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.558	U	ng/L	0.558	4.69	1	11/01/25 00:05	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**3.45**	J	ng/L	1.70	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.889	U	ng/L	0.889	4.48	1	11/01/25 00:05	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.865	U	ng/L	0.865	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**7.20**		ng/L	1.18	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.489	U	ng/L	0.489	4.73	1	11/01/25 00:05	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.857	U	ng/L	0.857	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.700	U	ng/L	0.700	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.879	U	ng/L	0.879	1.83	1	11/01/25 00:05	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**2.50**		ng/L	0.621	1.97	1	11/01/25 00:05	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.548	U	ng/L	0.548	4.62	1	11/01/25 00:05	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**12.4**		ng/L	1.26	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.60	U	ng/L	2.60	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.92	1	11/01/25 00:05	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.959	U	ng/L	0.959	4.92	1	11/01/25 00:05	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***94.4***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***92.1***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.6***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***88.9***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***71.0***		*%REC*		*27-134*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***92.7***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***99.5***		*%REC*		*41-142*	*1*	*11/01/25 00:05*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:05
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-16-81_102925 **Lab ID: HN2516257-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***83.1***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***81.2***		*%REC*		*42-141*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***96.2***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***85.0***		*%REC*		*43-138*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***61.5***		*%REC*		*30-122*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***91.5***		*%REC*		*50-150*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.9***		*%REC*		*35-136*	*1*	*11/01/25 00:05*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***76.9***		*%REC*		*34-142*	*1*	*11/01/25 00:05*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-56_102925 **Lab ID: HN2516257-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.933	U	ng/L	0.933	9.41	1	11/01/25 00:19	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<2.26	U	ng/L	2.26	9.57	1	11/01/25 00:19	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	9.33	1	11/01/25 00:19	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<3.84	U	ng/L	3.84	9.27	1	11/01/25 00:19	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<2.16	U	ng/L	2.16	9.99	1	11/01/25 00:19	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<6.04	U	ng/L	6.04	9.99	1	11/01/25 00:19	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<2.78	U	ng/L	2.78	9.99	1	11/01/25 00:19	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<1.12	U	ng/L	1.12	9.41	1	11/01/25 00:19	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.895	U	ng/L	0.895	9.31	1	11/01/25 00:19	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<2.34	U	ng/L	2.34	9.99	1	11/01/25 00:19	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<3.09	U	ng/L	3.09	9.99	1	11/01/25 00:19	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<1.29	U	ng/L	1.29	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<1.77	U	ng/L	1.77	9.21	1	11/01/25 00:19	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.701	U	ng/L	0.701	8.83	1	11/01/25 00:19	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**6.26**	J	ng/L	5.20	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<3.97	U	ng/L	3.97	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<2.74	U	ng/L	2.74	9.63	1	11/01/25 00:19	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-56_102925 **Lab ID: HN2516257-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<2.48	U	ng/L	2.48	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<1.38	U	ng/L	1.38	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<1.13	U	ng/L	1.13	9.51	1	11/01/25 00:19	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<3.46	U	ng/L	3.46	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<1.80	U	ng/L	1.80	9.09	1	11/01/25 00:19	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<1.75	U	ng/L	1.75	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**2.49**	J	ng/L	2.40	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.991	U	ng/L	0.991	9.59	1	11/01/25 00:19	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<1.74	U	ng/L	1.74	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<1.42	U	ng/L	1.42	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<1.78	U	ng/L	1.78	3.71	1	11/01/25 00:19	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.00	1	11/01/25 00:19	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<1.11	U	ng/L	1.11	9.37	1	11/01/25 00:19	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**8.84**	J	ng/L	2.56	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<5.28	U	ng/L	5.28	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<3.86	U	ng/L	3.86	9.99	1	11/01/25 00:19	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.95	U	ng/L	1.95	9.99	1	11/01/25 00:19	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***79.8***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***82.0***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***79.9***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***90.1***		*%REC*		*27-134*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***82.0***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***118***		*%REC*		*41-142*	*1*	*11/01/25 00:19*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-56_102925 **Lab ID: HN2516257-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***97.2***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***93.3***		*%REC*		*42-141*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***85.4***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***80.2***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***91.8***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***96.6***		*%REC*		*43-138*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***75.3***		*%REC*		*30-122*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.1***		*%REC*		*50-150*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***87.5***		*%REC*		*35-136*	*1*	*11/01/25 00:19*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***93.3***		*%REC*		*34-142*	*1*	*11/01/25 00:19*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:30
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-130_102925 **Lab ID: HN2516257-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.474	U	ng/L	0.474	4.78	1	11/01/25 00:34	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.15	U	ng/L	1.15	4.86	1	11/01/25 00:34	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.950	U	ng/L	0.950	4.74	1	11/01/25 00:34	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.95	U	ng/L	1.95	4.71	1	11/01/25 00:34	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.07	1	11/01/25 00:34	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.06	U	ng/L	3.06	5.07	1	11/01/25 00:34	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.41	U	ng/L	1.41	5.07	1	11/01/25 00:34	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.570	U	ng/L	0.570	4.78	1	11/01/25 00:34	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.454	U	ng/L	0.454	4.73	1	11/01/25 00:34	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.07	1	11/01/25 00:34	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.07	1	11/01/25 00:34	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.653	U	ng/L	0.653	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.899	U	ng/L	0.899	4.68	1	11/01/25 00:34	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**15.9**		ng/L	0.356	4.48	1	11/01/25 00:34	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**13.1**		ng/L	2.64	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.89	1	11/01/25 00:34	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:30
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-130_102925 **Lab ID: HN2516257-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.26	U	ng/L	1.26	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.701	U	ng/L	0.701	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.574	U	ng/L	0.574	4.83	1	11/01/25 00:34	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**8.51**		ng/L	1.75	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**4.35**	J	ng/L	0.916	4.62	1	11/01/25 00:34	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.891	U	ng/L	0.891	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**35.6**		ng/L	1.22	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.503	U	ng/L	0.503	4.87	1	11/01/25 00:34	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.883	U	ng/L	0.883	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.721	U	ng/L	0.721	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.905	U	ng/L	0.905	1.88	1	11/01/25 00:34	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**5.13**		ng/L	0.639	2.03	1	11/01/25 00:34	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**4.32**	J	ng/L	0.564	4.76	1	11/01/25 00:34	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**23.6**		ng/L	1.30	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.68	U	ng/L	2.68	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.96	U	ng/L	1.96	5.07	1	11/01/25 00:34	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.988	U	ng/L	0.988	5.07	1	11/01/25 00:34	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***89.4***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.4***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***80.0***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***70.4***		*%REC*		*27-134*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***101***		*%REC*		*41-142*	*1*	*11/01/25 00:34*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:30
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-130_102925 **Lab ID: HN2516257-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***85.7***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***99.1***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***84.3***		*%REC*		*42-141*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***90.3***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***86.4***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***97.2***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***81.8***		*%REC*		*43-138*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***65.7***		*%REC*		*30-122*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***85.8***		*%REC*		*50-150*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***72.1***		*%REC*		*35-136*	*1*	*11/01/25 00:34*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***80.9***		*%REC*		*34-142*	*1*	*11/01/25 00:34*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-09_102925 **Lab ID: HN2516257-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.453	U	ng/L	0.453	4.56	1	11/01/25 00:48	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.64	1	11/01/25 00:48	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.907	U	ng/L	0.907	4.53	1	11/01/25 00:48	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.86	U	ng/L	1.86	4.50	1	11/01/25 00:48	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.85	1	11/01/25 00:48	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.93	U	ng/L	2.93	4.85	1	11/01/25 00:48	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.35	U	ng/L	1.35	4.85	1	11/01/25 00:48	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.545	U	ng/L	0.545	4.56	1	11/01/25 00:48	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.434	U	ng/L	0.434	4.52	1	11/01/25 00:48	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.13	U	ng/L	1.13	4.85	1	11/01/25 00:48	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.50	U	ng/L	1.50	4.85	1	11/01/25 00:48	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.624	U	ng/L	0.624	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**4.19**	J	ng/L	0.859	4.47	1	11/01/25 00:48	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.02**	J	ng/L	0.340	4.28	1	11/01/25 00:48	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**10.3**		ng/L	2.52	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.33	U	ng/L	1.33	4.67	1	11/01/25 00:48	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-09_102925 **Lab ID: HN2516257-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.670	U	ng/L	0.670	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.549	U	ng/L	0.549	4.61	1	11/01/25 00:48	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**8.97**		ng/L	1.68	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**5.01**		ng/L	0.875	4.41	1	11/01/25 00:48	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.851	U	ng/L	0.851	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**10.7**		ng/L	1.16	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.481	U	ng/L	0.481	4.65	1	11/01/25 00:48	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.17**	J	ng/L	0.843	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.689	U	ng/L	0.689	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**7.20**		ng/L	0.865	1.80	1	11/01/25 00:48	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**20.7**		ng/L	0.611	1.94	1	11/01/25 00:48	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.713**	J	ng/L	0.539	4.55	1	11/01/25 00:48	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**10.3**		ng/L	1.24	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.56	U	ng/L	2.56	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.87	U	ng/L	1.87	4.85	1	11/01/25 00:48	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.944	U	ng/L	0.944	4.85	1	11/01/25 00:48	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***82.3***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***99.7***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.2***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***83.2***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***66.7***		*%REC*		*27-134*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***80.3***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***101***		*%REC*		*41-142*	*1*	*11/01/25 00:48*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-09_102925 **Lab ID: HN2516257-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***86.4***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***78.5***		*%REC*		*42-141*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.2***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***95.7***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***89.4***		*%REC*		*43-138*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***66.6***		*%REC*		*30-122*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***87.7***		*%REC*		*50-150*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.2***		*%REC*		*35-136*	*1*	*11/01/25 00:48*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***69.3***		*%REC*		*34-142*	*1*	*11/01/25 00:48*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-18_102925 **Lab ID: HN2516257-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.89	1	11/06/25 07:42	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.98	1	11/06/25 07:42	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.972	U	ng/L	0.972	4.85	1	11/06/25 07:42	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.93	U	ng/L	1.93	4.67	1	11/07/25 04:49	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.12	U	ng/L	1.12	5.19	1	11/06/25 07:42	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.14	U	ng/L	3.14	5.19	1	11/06/25 07:42	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.07**	J	ng/L	1.44	5.19	1	11/06/25 07:42	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.584	U	ng/L	0.584	4.89	1	11/06/25 07:42	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.84	1	11/06/25 07:42	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.19	1	11/06/25 07:42	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.61	U	ng/L	1.61	5.19	1	11/06/25 07:42	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.669	U	ng/L	0.669	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**3.00**	J	ng/L	0.920	4.79	1	11/06/25 07:42	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.811**	J	ng/L	0.365	4.59	1	11/06/25 07:42	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.82**		ng/L	2.70	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.06	U	ng/L	2.06	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	5.01	1	11/06/25 07:42	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-18_102925 **Lab ID: HN2516257-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.718	U	ng/L	0.718	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.588	U	ng/L	0.588	4.94	1	11/06/25 07:42	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**3.71**	J	ng/L	1.80	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.41**	J	ng/L	0.938	4.73	1	11/06/25 07:42	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.912	U	ng/L	0.912	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**5.06**	J	ng/L	1.25	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.515	U	ng/L	0.515	4.99	1	11/06/25 07:42	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.904	U	ng/L	0.904	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.739	U	ng/L	0.739	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.927	U	ng/L	0.927	1.93	1	11/06/25 07:42	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**3.89**		ng/L	0.654	2.08	1	11/06/25 07:42	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.578	U	ng/L	0.578	4.87	1	11/06/25 07:42	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**6.92**		ng/L	1.33	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.74	U	ng/L	2.74	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.01	U	ng/L	2.01	5.19	1	11/06/25 07:42	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.19	1	11/06/25 07:42	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/07/25 04:49*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***78.8***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.6***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***75.8***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***75.3***		*%REC*		*27-134*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***78.7***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***66.5***		*%REC*		*41-142*	*1*	*11/06/25 07:42*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:50
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-12-18_102925 **Lab ID: HN2516257-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***74.6***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***78.2***		*%REC*		*42-141*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***75.3***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***80.4***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***80.2***		*%REC*		*43-138*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.0***		*%REC*		*30-122*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***74.0***		*%REC*		*50-150*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.4***		*%REC*		*35-136*	*1*	*11/06/25 07:42*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***66.0***		*%REC*		*34-142*	*1*	*11/06/25 07:42*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-58R_102925 **Lab ID: HN2516257-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.934	U	ng/L	0.934	9.42	1	11/01/25 01:03	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<2.26	U	ng/L	2.26	9.58	1	11/01/25 01:03	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	9.34	1	11/01/25 01:03	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<3.84	U	ng/L	3.84	9.28	1	11/01/25 01:03	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<2.16	U	ng/L	2.16	10.00	1	11/01/25 01:03	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<6.04	U	ng/L	6.04	10.00	1	11/01/25 01:03	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<2.78	U	ng/L	2.78	10.00	1	11/01/25 01:03	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<1.12	U	ng/L	1.12	9.42	1	11/01/25 01:03	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.896	U	ng/L	0.896	9.32	1	11/01/25 01:03	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<2.34	U	ng/L	2.34	10.00	1	11/01/25 01:03	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<3.09	U	ng/L	3.09	10.00	1	11/01/25 01:03	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<1.29	U	ng/L	1.29	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**3.13**	J	ng/L	1.77	9.22	1	11/01/25 01:03	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.702	U	ng/L	0.702	8.84	1	11/01/25 01:03	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**12.4**		ng/L	5.20	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<3.97	U	ng/L	3.97	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<2.74	U	ng/L	2.74	9.64	1	11/01/25 01:03	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-58R_102925 **Lab ID: HN2516257-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<2.48	U	ng/L	2.48	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<1.38	U	ng/L	1.38	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<1.13	U	ng/L	1.13	9.52	1	11/01/25 01:03	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**6.54**	J	ng/L	3.46	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.88**	J	ng/L	1.81	9.10	1	11/01/25 01:03	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<1.76	U	ng/L	1.76	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**10.5**		ng/L	2.40	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.992	U	ng/L	0.992	9.60	1	11/01/25 01:03	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.80**	J	ng/L	1.74	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<1.42	U	ng/L	1.42	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**10.4**		ng/L	1.78	3.71	1	11/01/25 01:03	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**17.8**		ng/L	1.26	4.00	1	11/01/25 01:03	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<1.11	U	ng/L	1.11	9.38	1	11/01/25 01:03	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**9.64**	J	ng/L	2.56	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<5.28	U	ng/L	5.28	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<3.86	U	ng/L	3.86	10.00	1	11/01/25 01:03	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.95	U	ng/L	1.95	10.00	1	11/01/25 01:03	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***149***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***95.1***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***83.7***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***87.3***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***76.8***		*%REC*		*27-134*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***109***		*%REC*		*41-142*	*1*	*11/01/25 01:03*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 13:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-58R_102925 **Lab ID: HN2516257-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***93.5***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.1***		*%REC*		*42-141*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.2***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***89.0***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***94.6***		*%REC*		*43-138*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***73.0***		*%REC*		*30-122*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***86.8***		*%REC*		*50-150*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.6***		*%REC*		*35-136*	*1*	*11/01/25 01:03*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***77.7***		*%REC*		*34-142*	*1*	*11/01/25 01:03*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:50
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-01_102925 **Lab ID: HN2516257-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.481	U	ng/L	0.481	4.85	1	11/01/25 01:17	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.16	U	ng/L	1.16	4.93	1	11/01/25 01:17	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.963	U	ng/L	0.963	4.81	1	11/01/25 01:17	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.98	U	ng/L	1.98	4.78	1	11/01/25 01:17	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.11	U	ng/L	1.11	5.15	1	11/01/25 01:17	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.11	U	ng/L	3.11	5.15	1	11/01/25 01:17	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.43	U	ng/L	1.43	5.15	1	11/01/25 01:17	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.578	U	ng/L	0.578	4.85	1	11/01/25 01:17	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.461	U	ng/L	0.461	4.80	1	11/01/25 01:17	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.20	U	ng/L	1.20	5.15	1	11/01/25 01:17	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.59	U	ng/L	1.59	5.15	1	11/01/25 01:17	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.663	U	ng/L	0.663	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.912	U	ng/L	0.912	4.74	1	11/01/25 01:17	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.361	U	ng/L	0.361	4.55	1	11/01/25 01:17	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.68	U	ng/L	2.68	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.04	U	ng/L	2.04	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.41	U	ng/L	1.41	4.96	1	11/01/25 01:17	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:50
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-01_102925 **Lab ID: HN2516257-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.28	U	ng/L	1.28	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.711	U	ng/L	0.711	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.583	U	ng/L	0.583	4.90	1	11/01/25 01:17	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.78	U	ng/L	1.78	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.929	U	ng/L	0.929	4.68	1	11/01/25 01:17	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.904	U	ng/L	0.904	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.511	U	ng/L	0.511	4.94	1	11/01/25 01:17	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.895	U	ng/L	0.895	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.732	U	ng/L	0.732	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.918	U	ng/L	0.918	1.91	1	11/01/25 01:17	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.648	U	ng/L	0.648	2.06	1	11/01/25 01:17	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.572	U	ng/L	0.572	4.83	1	11/01/25 01:17	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.32	U	ng/L	1.32	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.72	U	ng/L	2.72	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.15	1	11/01/25 01:17	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.00	U	ng/L	1.00	5.15	1	11/01/25 01:17	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***91.8***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***85.2***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***97.2***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***69.9***		*%REC*		*27-134*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***89.9***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***122***		*%REC*		*41-142*	*1*	*11/01/25 01:17*	*10/31/25 16:28*

Analytical Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:50
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-01_102925 **Lab ID: HN2516257-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***92.2***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***90.9***		*%REC*		*42-141*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.2***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***90.2***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***94.6***		*%REC*		*43-138*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***69.1***		*%REC*		*30-122*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***85.5***		*%REC*		*50-150*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***79.0***		*%REC*		*35-136*	*1*	*11/01/25 01:17*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***86.6***		*%REC*		*34-142*	*1*	*11/01/25 01:17*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-03_102925 **Lab ID: HN2516257-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.933	U	ng/L	0.933	9.41	1	11/01/25 01:32	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<2.26	U	ng/L	2.26	9.57	1	11/01/25 01:32	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	9.33	1	11/01/25 01:32	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<3.84	U	ng/L	3.84	9.27	1	11/01/25 01:32	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<2.16	U	ng/L	2.16	9.99	1	11/01/25 01:32	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<6.04	U	ng/L	6.04	9.99	1	11/01/25 01:32	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<2.78	U	ng/L	2.78	9.99	1	11/01/25 01:32	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<1.12	U	ng/L	1.12	9.41	1	11/01/25 01:32	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.895	U	ng/L	0.895	9.31	1	11/01/25 01:32	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<2.34	U	ng/L	2.34	9.99	1	11/01/25 01:32	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<3.09	U	ng/L	3.09	9.99	1	11/01/25 01:32	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<1.29	U	ng/L	1.29	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<1.77	U	ng/L	1.77	9.21	1	11/01/25 01:32	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.702	U	ng/L	0.702	8.84	1	11/01/25 01:32	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**6.86**	J	ng/L	5.20	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<3.97	U	ng/L	3.97	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<2.74	U	ng/L	2.74	9.63	1	11/01/25 01:32	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-03_102925 **Lab ID: HN2516257-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<2.48	U	ng/L	2.48	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<1.38	U	ng/L	1.38	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<1.13	U	ng/L	1.13	9.51	1	11/01/25 01:32	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<3.46	U	ng/L	3.46	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<1.80	U	ng/L	1.80	9.09	1	11/01/25 01:32	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<1.76	U	ng/L	1.76	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<2.40	U	ng/L	2.40	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.991	U	ng/L	0.991	9.59	1	11/01/25 01:32	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	<1.74	U	ng/L	1.74	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<1.42	U	ng/L	1.42	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<1.78	U	ng/L	1.78	3.71	1	11/01/25 01:32	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.00	1	11/01/25 01:32	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<1.11	U	ng/L	1.11	9.37	1	11/01/25 01:32	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**9.22**	J	ng/L	2.56	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<5.28	U	ng/L	5.28	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<3.86	U	ng/L	3.86	9.99	1	11/01/25 01:32	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.95	U	ng/L	1.95	9.99	1	11/01/25 01:32	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***100.0***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***82.4***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***80.1***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***90.8***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***73.5***		*%REC*		*27-134*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.7***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***112***		*%REC*		*41-142*	*1*	*11/01/25 01:32*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-03_102925 **Lab ID: HN2516257-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***90.6***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***85.2***		*%REC*		*42-141*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.2***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.3***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***90.4***		*%REC*		*43-138*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***68.4***		*%REC*		*30-122*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.9***		*%REC*		*50-150*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***71.4***		*%REC*		*35-136*	*1*	*11/01/25 01:32*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***79.6***		*%REC*		*34-142*	*1*	*11/01/25 01:32*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:00
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-62_102925 **Lab ID: HN2516257-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.488	U	ng/L	0.488	4.92	1	11/01/25 01:46	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	**2.92**	J	ng/L	1.18	5.01	1	11/01/25 01:46	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.979	U	ng/L	0.979	4.88	1	11/01/25 01:46	10/31/25 16:28
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	**12.9**		ng/L	2.01	4.85	1	11/01/25 01:46	10/31/25 16:28
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	**1.40**	J	ng/L	1.13	5.23	1	11/01/25 01:46	10/31/25 16:28
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.16	U	ng/L	3.16	5.23	1	11/01/25 01:46	10/31/25 16:28
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.45	U	ng/L	1.45	5.23	1	11/01/25 01:46	10/31/25 16:28
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.588	U	ng/L	0.588	4.92	1	11/01/25 01:46	10/31/25 16:28
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.468	U	ng/L	0.468	4.87	1	11/01/25 01:46	10/31/25 16:28
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.22	U	ng/L	1.22	5.23	1	11/01/25 01:46	10/31/25 16:28
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.62	U	ng/L	1.62	5.23	1	11/01/25 01:46	10/31/25 16:28
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	**0.967**	J	ng/L	0.673	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.926	U	ng/L	0.926	4.82	1	11/01/25 01:46	10/31/25 16:28
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.02**	J	ng/L	0.367	4.62	1	11/01/25 01:46	10/31/25 16:28
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**19.5**		ng/L	2.72	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.08	U	ng/L	2.08	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.43	U	ng/L	1.43	5.04	1	11/01/25 01:46	10/31/25 16:28

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:00
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-62_102925 **Lab ID: HN2516257-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**1.96**	J	ng/L	1.30	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.722	U	ng/L	0.722	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.592	U	ng/L	0.592	4.98	1	11/01/25 01:46	10/31/25 16:28
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**18.8**		ng/L	1.81	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**6.72**		ng/L	0.944	4.76	1	11/01/25 01:46	10/31/25 16:28
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	**1.36**	J	ng/L	0.918	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**22.7**		ng/L	1.25	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.519	U	ng/L	0.519	5.02	1	11/01/25 01:46	10/31/25 16:28
Perfluorononanoic acid (PFNA)	EPA 537Mod	**6.68**		ng/L	0.910	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**5.73**		ng/L	0.743	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**42.8**		ng/L	0.933	1.94	1	11/01/25 01:46	10/31/25 16:28
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**51.8**		ng/L	0.659	2.09	1	11/01/25 01:46	10/31/25 16:28
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.581	U	ng/L	0.581	4.90	1	11/01/25 01:46	10/31/25 16:28
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**21.7**		ng/L	1.34	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.76	U	ng/L	2.76	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.23	1	11/01/25 01:46	10/31/25 16:28
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.02	U	ng/L	1.02	5.23	1	11/01/25 01:46	10/31/25 16:28
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***139***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***120***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***122***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-PFDA	*EPA 537Mod*	***94.1***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-PFDoA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-PFHxA	*EPA 537Mod*	***82.4***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-PFTeA	*EPA 537Mod*	***75.7***		*%REC*		*27-134*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C2-PFUnA	*EPA 537Mod*	***96.7***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***117***		*%REC*		*41-142*	*1*	*11/01/25 01:46*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:00
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-62_102925 **Lab ID: HN2516257-011**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C4-PFBA	*EPA 537Mod*	***126***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C4-PFHpA	*EPA 537Mod*	***90.4***		*%REC*		*42-141*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C4-PFOA	*EPA 537Mod*	***83.0***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C4-PFOS	*EPA 537Mod*	***96.9***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C5-PFNA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C5-PFPeA	*EPA 537Mod*	***100***		*%REC*		*43-138*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 13C8-FOSA	*EPA 537Mod*	***80.2***		*%REC*		*30-122*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: 18O2-PFHxS	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***95.0***		*%REC*		*35-136*	*1*	*11/01/25 01:46*	*10/31/25 16:28*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***92.9***		*%REC*		*34-142*	*1*	*11/01/25 01:46*	*10/31/25 16:28*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-21-139_102925 **Lab ID: HN2516257-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.475	U	ng/L	0.475	4.79	1	11/06/25 04:19	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	**49.8**		ng/L	1.15	4.87	1	11/06/25 04:19	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.951	U	ng/L	0.951	4.75	1	11/06/25 04:19	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	**46.1**		ng/L	1.90	4.60	1	11/06/25 23:03	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.10	U	ng/L	1.10	5.08	1	11/06/25 04:19	11/03/25 16:05
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.07	U	ng/L	3.07	5.08	1	11/06/25 04:19	11/03/25 16:05
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.48**	J	ng/L	1.41	5.08	1	11/06/25 04:19	11/03/25 16:05
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.571	U	ng/L	0.571	4.79	1	11/06/25 04:19	11/03/25 16:05
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.455	U	ng/L	0.455	4.74	1	11/06/25 04:19	11/03/25 16:05
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.19	U	ng/L	1.19	5.08	1	11/06/25 04:19	11/03/25 16:05
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.57	U	ng/L	1.57	5.08	1	11/06/25 04:19	11/03/25 16:05
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.655	U	ng/L	0.655	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**5.37**		ng/L	0.901	4.69	1	11/06/25 04:19	11/03/25 16:05
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**14.0**		ng/L	0.357	4.49	1	11/06/25 04:19	11/03/25 16:05
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**35.2**		ng/L	2.64	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	**16.2**		ng/L	2.02	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.39	U	ng/L	1.39	4.90	1	11/06/25 04:19	11/03/25 16:05

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-21-139_102925 **Lab ID: HN2516257-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**5.89**		ng/L	1.26	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.702	U	ng/L	0.702	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**38.6**		ng/L	0.575	4.84	1	11/06/25 04:19	11/03/25 16:05
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**53.9**		ng/L	1.76	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**272**		ng/L	0.918	4.63	1	11/06/25 04:19	11/03/25 16:05
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	**56.1**		ng/L	0.893	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**61.4**		ng/L	1.22	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	**5.98**		ng/L	0.504	4.88	1	11/06/25 04:19	11/03/25 16:05
Perfluorononanoic acid (PFNA)	EPA 537Mod	**14.8**		ng/L	0.884	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**2.18**	J	ng/L	0.723	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1760**		ng/L	9.07	18.9	10	11/06/25 12:59	11/03/25 16:05
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**88.3**		ng/L	0.640	2.03	1	11/06/25 04:19	11/03/25 16:05
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**19.9**		ng/L	0.565	4.77	1	11/06/25 04:19	11/03/25 16:05
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**68.7**		ng/L	1.30	5.08	1	11/06/25 04:19	11/03/25 16:05
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.95	1	11/06/25 23:03	11/06/25 18:20
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.95	1	11/06/25 23:03	11/06/25 18:20
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.990	U	ng/L	0.990	5.08	1	11/06/25 04:19	11/03/25 16:05
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***138***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/06/25 23:03*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***113***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C2-PFDA	*EPA 537Mod*	***89.5***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C2-PFDoA	*EPA 537Mod*	***96.8***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C2-PFHxA	*EPA 537Mod*	***90.7***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C2-PFTeA	*EPA 537Mod*	***97.3***		*%REC*		*27-134*	*1*	*11/06/25 23:03*	*11/06/25 18:20*
Surr: 13C2-PFUnA	*EPA 537Mod*	***97.4***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***84.1***		*%REC*		*41-142*	*1*	*11/06/25 04:19*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 11:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-21-139_102925 **Lab ID: HN2516257-012**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C4-PFBA	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C4-PFHpA	*EPA 537Mod*	***80.2***		*%REC*		*42-141*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C4-PFOA	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C4-PFOS	*EPA 537Mod*	***82.4***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.3***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C5-PFPeA	*EPA 537Mod*	***90.6***		*%REC*		*43-138*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 13C8-FOSA	*EPA 537Mod*	***85.4***		*%REC*		*30-122*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: 18O2-PFHxS	*EPA 537Mod*	***86.6***		*%REC*		*50-150*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***73.4***		*%REC*		*35-136*	*1*	*11/06/25 04:19*	*11/03/25 16:05*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***83.3***		*%REC*		*34-142*	*1*	*11/06/25 04:19*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 12:55
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-04_102925 **Lab ID: HN2516257-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.492	U	ng/L	0.492	4.96	1	11/06/25 04:34	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.19	U	ng/L	1.19	5.05	1	11/06/25 04:34	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.986	U	ng/L	0.986	4.92	1	11/06/25 04:34	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.01	U	ng/L	2.01	4.85	1	11/06/25 23:17	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.14	U	ng/L	1.14	5.27	1	11/06/25 04:34	11/03/25 16:05
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.18	U	ng/L	3.18	5.27	1	11/06/25 04:34	11/03/25 16:05
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**2.68**	J	ng/L	1.46	5.27	1	11/06/25 04:34	11/03/25 16:05
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.592	U	ng/L	0.592	4.96	1	11/06/25 04:34	11/03/25 16:05
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.472	U	ng/L	0.472	4.91	1	11/06/25 04:34	11/03/25 16:05
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.23	U	ng/L	1.23	5.27	1	11/06/25 04:34	11/03/25 16:05
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.63	U	ng/L	1.63	5.27	1	11/06/25 04:34	11/03/25 16:05
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.678	U	ng/L	0.678	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**1.73**	J	ng/L	0.933	4.86	1	11/06/25 04:34	11/03/25 16:05
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.32**	J	ng/L	0.370	4.66	1	11/06/25 04:34	11/03/25 16:05
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**15.8**		ng/L	2.74	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.09	U	ng/L	2.09	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.44	U	ng/L	1.44	5.08	1	11/06/25 04:34	11/03/25 16:05

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 12:55
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-04_102925 **Lab ID: HN2516257-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**1.61**	J	ng/L	1.31	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.728	U	ng/L	0.728	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**1.65**	J	ng/L	0.596	5.01	1	11/06/25 04:34	11/03/25 16:05
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**11.6**		ng/L	1.82	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**3.97**	J	ng/L	0.951	4.79	1	11/06/25 04:34	11/03/25 16:05
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.925	U	ng/L	0.925	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**14.3**		ng/L	1.26	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.523	U	ng/L	0.523	5.06	1	11/06/25 04:34	11/03/25 16:05
Perfluorononanoic acid (PFNA)	EPA 537Mod	**2.98**	J	ng/L	0.917	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.749	U	ng/L	0.749	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**27.8**		ng/L	0.940	1.96	1	11/06/25 04:34	11/03/25 16:05
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**22.8**		ng/L	0.664	2.11	1	11/06/25 04:34	11/03/25 16:05
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.01**	J	ng/L	0.586	4.94	1	11/06/25 04:34	11/03/25 16:05
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**19.7**		ng/L	1.35	5.27	1	11/06/25 04:34	11/03/25 16:05
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.76	U	ng/L	2.76	5.23	1	11/06/25 23:17	11/06/25 18:20
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.02	U	ng/L	2.02	5.23	1	11/06/25 23:17	11/06/25 18:20
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.03	U	ng/L	1.03	5.27	1	11/06/25 04:34	11/03/25 16:05
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***131***		*%REC*		*50-150*	*1*	*11/06/25 23:17*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C2-PFDA	*EPA 537Mod*	***88.5***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C2-PFDoA	*EPA 537Mod*	***82.9***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C2-PFHxA	*EPA 537Mod*	***62.2***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C2-PFTeA	*EPA 537Mod*	***105***		*%REC*		*27-134*	*1*	*11/06/25 23:17*	*11/06/25 18:20*
Surr: 13C2-PFUnA	*EPA 537Mod*	***87.1***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***61.3***		*%REC*		*41-142*	*1*	*11/06/25 04:34*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 12:55
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-04_102925 **Lab ID: HN2516257-013**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***68.0***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C4-PFBA	*EPA 537Mod*	***93.0***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C4-PFHpA	*EPA 537Mod*	***62.4***		*%REC*		*42-141*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C4-PFOA	*EPA 537Mod*	***66.3***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C4-PFOS	*EPA 537Mod*	***81.3***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C5-PFNA	*EPA 537Mod*	***77.4***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C5-PFPeA	*EPA 537Mod*	***63.0***		*%REC*		*43-138*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 13C8-FOSA	*EPA 537Mod*	***67.3***		*%REC*		*30-122*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: 18O2-PFHxS	*EPA 537Mod*	***73.7***		*%REC*		*50-150*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.3***		*%REC*		*35-136*	*1*	*11/06/25 04:34*	*11/03/25 16:05*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.2***		*%REC*		*34-142*	*1*	*11/06/25 04:34*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:52
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-02_102925 **Lab ID: HN2516257-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.466	U	ng/L	0.466	4.70	1	11/06/25 04:48	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.78	1	11/06/25 04:48	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.934	U	ng/L	0.934	4.66	1	11/06/25 04:48	11/03/25 16:05
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.78	U	ng/L	1.78	4.30	1	11/06/25 23:32	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.08	U	ng/L	1.08	4.99	1	11/06/25 04:48	11/03/25 16:05
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.01	U	ng/L	3.01	4.99	1	11/06/25 04:48	11/03/25 16:05
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.39	U	ng/L	1.39	4.99	1	11/06/25 04:48	11/03/25 16:05
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.561	U	ng/L	0.561	4.70	1	11/06/25 04:48	11/03/25 16:05
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.447	U	ng/L	0.447	4.65	1	11/06/25 04:48	11/03/25 16:05
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	4.99	1	11/06/25 04:48	11/03/25 16:05
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.99	1	11/06/25 04:48	11/03/25 16:05
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.642	U	ng/L	0.642	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.884	U	ng/L	0.884	4.60	1	11/06/25 04:48	11/03/25 16:05
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.350	U	ng/L	0.350	4.41	1	11/06/25 04:48	11/03/25 16:05
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.98	U	ng/L	1.98	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.37	U	ng/L	1.37	4.81	1	11/06/25 04:48	11/03/25 16:05

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:52
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-02_102925 **Lab ID: HN2516257-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.24	U	ng/L	1.24	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.689	U	ng/L	0.689	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.565	U	ng/L	0.565	4.75	1	11/06/25 04:48	11/03/25 16:05
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.73	U	ng/L	1.73	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.901	U	ng/L	0.901	4.54	1	11/06/25 04:48	11/03/25 16:05
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.876	U	ng/L	0.876	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.495	U	ng/L	0.495	4.79	1	11/06/25 04:48	11/03/25 16:05
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.868	U	ng/L	0.868	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.709	U	ng/L	0.709	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.55**	J	ng/L	0.890	1.85	1	11/06/25 04:48	11/03/25 16:05
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.628	U	ng/L	0.628	2.00	1	11/06/25 04:48	11/03/25 16:05
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.555	U	ng/L	0.555	4.68	1	11/06/25 04:48	11/03/25 16:05
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.28	U	ng/L	1.28	4.99	1	11/06/25 04:48	11/03/25 16:05
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.45	U	ng/L	2.45	4.64	1	11/06/25 23:32	11/06/25 18:20
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.79	U	ng/L	1.79	4.64	1	11/06/25 23:32	11/06/25 18:20
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.972	U	ng/L	0.972	4.99	1	11/06/25 04:48	11/03/25 16:05
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/06/25 23:32*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***123***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C2-PFDA	*EPA 537Mod*	***97.8***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C2-PFDoA	*EPA 537Mod*	***93.8***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C2-PFHxA	*EPA 537Mod*	***98.4***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C2-PFTeA	*EPA 537Mod*	***98.8***		*%REC*		*27-134*	*1*	*11/06/25 23:32*	*11/06/25 18:20*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.8***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.6***		*%REC*		*41-142*	*1*	*11/06/25 04:48*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:52
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: P2-MW-02_102925 **Lab ID: HN2516257-014**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.5***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C4-PFBA	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C4-PFHpA	*EPA 537Mod*	***92.2***		*%REC*		*42-141*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C4-PFOA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C4-PFOS	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.7***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C5-PFPeA	*EPA 537Mod*	***95.2***		*%REC*		*43-138*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 13C8-FOSA	*EPA 537Mod*	***75.0***		*%REC*		*30-122*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: 18O2-PFHxS	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***82.1***		*%REC*		*35-136*	*1*	*11/06/25 04:48*	*11/03/25 16:05*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***85.0***		*%REC*		*34-142*	*1*	*11/06/25 04:48*	*11/03/25 16:05*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-02_102925 **Lab ID: HN2516257-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.461	U	ng/L	0.461	4.65	1	11/06/25 08:25	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.73	1	11/06/25 08:25	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.925	U	ng/L	0.925	4.61	1	11/06/25 08:25	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.92	U	ng/L	1.92	4.65	1	11/07/25 05:18	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.94	1	11/06/25 08:25	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.94	1	11/06/25 08:25	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.94	1	11/06/25 08:25	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.555	U	ng/L	0.555	4.65	1	11/06/25 08:25	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.443	U	ng/L	0.443	4.61	1	11/06/25 08:25	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.94	1	11/06/25 08:25	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.94	1	11/06/25 08:25	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.636	U	ng/L	0.636	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.876	U	ng/L	0.876	4.56	1	11/06/25 08:25	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.395**	J	ng/L	0.347	4.37	1	11/06/25 08:25	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.76	1	11/06/25 08:25	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-02_102925 **Lab ID: HN2516257-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.683	U	ng/L	0.683	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.559	U	ng/L	0.559	4.70	1	11/06/25 08:25	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.71	U	ng/L	1.71	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.892	U	ng/L	0.892	4.50	1	11/06/25 08:25	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.868	U	ng/L	0.868	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.74	1	11/06/25 08:25	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.860	U	ng/L	0.860	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.703	U	ng/L	0.703	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.83**	J	ng/L	0.881	1.83	1	11/06/25 08:25	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**0.911**	J	ng/L	0.623	1.98	1	11/06/25 08:25	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.549	U	ng/L	0.549	4.63	1	11/06/25 08:25	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.94	1	11/06/25 08:25	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.963	U	ng/L	0.963	4.94	1	11/06/25 08:25	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***91.8***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/07/25 05:18*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***72.9***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***82.3***		*%REC*		*27-134*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***74.7***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***80.1***		*%REC*		*41-142*	*1*	*11/06/25 08:25*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: Dup-02_102925 **Lab ID: HN2516257-015**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***80.0***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***86.5***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***83.0***		*%REC*		*42-141*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***78.5***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***77.4***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***86.9***		*%REC*		*43-138*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***63.7***		*%REC*		*30-122*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.5***		*%REC*		*50-150*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***64.2***		*%REC*		*35-136*	*1*	*11/06/25 08:25*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***72.3***		*%REC*		*34-142*	*1*	*11/06/25 08:25*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-03_102925 **Lab ID: HN2516257-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.455	U	ng/L	0.455	4.59	1	11/06/25 08:39	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.67	1	11/06/25 08:39	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.913	U	ng/L	0.913	4.55	1	11/06/25 08:39	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<2.02	U	ng/L	2.02	4.89	1	11/07/25 05:33	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.05	U	ng/L	1.05	4.87	1	11/06/25 08:39	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.94	U	ng/L	2.94	4.87	1	11/06/25 08:39	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.36	U	ng/L	1.36	4.87	1	11/06/25 08:39	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.548	U	ng/L	0.548	4.59	1	11/06/25 08:39	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.437	U	ng/L	0.437	4.54	1	11/06/25 08:39	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.87	1	11/06/25 08:39	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.51	U	ng/L	1.51	4.87	1	11/06/25 08:39	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.628	U	ng/L	0.628	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.864	U	ng/L	0.864	4.49	1	11/06/25 08:39	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.342	U	ng/L	0.342	4.31	1	11/06/25 08:39	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.94	U	ng/L	1.94	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.70	1	11/06/25 08:39	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-03_102925 **Lab ID: HN2516257-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.674	U	ng/L	0.674	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.552	U	ng/L	0.552	4.64	1	11/06/25 08:39	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.69	U	ng/L	1.69	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.880	U	ng/L	0.880	4.44	1	11/06/25 08:39	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.856	U	ng/L	0.856	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.484	U	ng/L	0.484	4.68	1	11/06/25 08:39	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.848	U	ng/L	0.848	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.693	U	ng/L	0.693	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.870	U	ng/L	0.870	1.81	1	11/06/25 08:39	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.614	U	ng/L	0.614	1.95	1	11/06/25 08:39	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.542	U	ng/L	0.542	4.57	1	11/06/25 08:39	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.25	U	ng/L	1.25	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.88	U	ng/L	1.88	4.87	1	11/06/25 08:39	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.950	U	ng/L	0.950	4.87	1	11/06/25 08:39	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***81.5***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*11/07/25 05:33*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***96.8***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***80.6***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***85.2***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***81.1***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***77.9***		*%REC*		*27-134*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.9***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***78.9***		*%REC*		*41-142*	*1*	*11/06/25 08:39*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-03_102925 **Lab ID: HN2516257-016**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***77.3***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***89.3***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***77.5***		*%REC*		*42-141*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.3***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.3***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***76.7***		*%REC*		*43-138*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***63.2***		*%REC*		*30-122*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***81.3***		*%REC*		*50-150*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***64.7***		*%REC*		*35-136*	*1*	*11/06/25 08:39*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.7***		*%REC*		*34-142*	*1*	*11/06/25 08:39*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-59_102925 **Lab ID: HN2516257-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<4.67	U	ng/L	4.67	47.1	1	11/07/25 05:47	11/06/25 17:12
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<11.3	U	ng/L	11.3	47.9	1	11/07/25 05:47	11/06/25 17:12
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<9.36	U	ng/L	9.36	46.7	1	11/07/25 05:47	11/06/25 17:12
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<19.2	U	ng/L	19.2	46.4	1	11/07/25 05:47	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<10.8	U	ng/L	10.8	50.0	1	11/07/25 05:47	11/06/25 17:12
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<30.2	U	ng/L	30.2	50.0	1	11/07/25 05:47	11/06/25 17:12
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<13.9	U	ng/L	13.9	50.0	1	11/07/25 05:47	11/06/25 17:12
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<5.62	U	ng/L	5.62	47.1	1	11/07/25 05:47	11/06/25 17:12
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<4.48	U	ng/L	4.48	46.6	1	11/07/25 05:47	11/06/25 17:12
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<11.7	U	ng/L	11.7	50.0	1	11/07/25 05:47	11/06/25 17:12
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<15.5	U	ng/L	15.5	50.0	1	11/07/25 05:47	11/06/25 17:12
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<6.44	U	ng/L	6.44	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<8.86	U	ng/L	8.86	46.1	1	11/07/25 05:47	11/06/25 17:12
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<3.51	U	ng/L	3.51	44.2	1	11/07/25 05:47	11/06/25 17:12
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<26.0	U	ng/L	26.0	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<19.9	U	ng/L	19.9	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<13.7	U	ng/L	13.7	48.2	1	11/07/25 05:47	11/06/25 17:12

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-59_102925 **Lab ID: HN2516257-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<12.4	U	ng/L	12.4	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<6.91	U	ng/L	6.91	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<5.66	U	ng/L	5.66	47.6	1	11/07/25 05:47	11/06/25 17:12
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**19.5**	J	ng/L	17.3	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**14.1**	J	ng/L	9.03	45.5	1	11/07/25 05:47	11/06/25 17:12
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<8.78	U	ng/L	8.78	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**27.8**	J	ng/L	12.0	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<4.96	U	ng/L	4.96	48.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorononanoic acid (PFNA)	EPA 537Mod	<8.70	U	ng/L	8.70	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<7.11	U	ng/L	7.11	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**26.3**		ng/L	8.92	18.6	1	11/07/25 05:47	11/06/25 17:12
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**42.5**		ng/L	6.30	20.0	1	11/07/25 05:47	11/06/25 17:12
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<5.56	U	ng/L	5.56	46.9	1	11/07/25 05:47	11/06/25 17:12
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**23.4**	J	ng/L	12.8	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<26.4	U	ng/L	26.4	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<19.3	U	ng/L	19.3	50.0	1	11/07/25 05:47	11/06/25 17:12
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<9.74	U	ng/L	9.74	50.0	1	11/07/25 05:47	11/06/25 17:12
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***98.6***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-PFDA	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-PFDoA	*EPA 537Mod*	***90.0***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-PFHxA	*EPA 537Mod*	***85.5***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-PFTeA	*EPA 537Mod*	***91.6***		*%REC*		*27-134*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.2***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***92.1***		*%REC*		*41-142*	*1*	*11/07/25 05:47*	*11/06/25 17:12*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 14:10
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-59_102925 **Lab ID: HN2516257-017**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C4-PFBA	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C4-PFHpA	*EPA 537Mod*	***95.3***		*%REC*		*42-141*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C4-PFOA	*EPA 537Mod*	***88.7***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C4-PFOS	*EPA 537Mod*	***79.1***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.5***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C5-PFPeA	*EPA 537Mod*	***86.2***		*%REC*		*43-138*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 13C8-FOSA	*EPA 537Mod*	***70.3***		*%REC*		*30-122*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: 18O2-PFHxS	*EPA 537Mod*	***75.5***		*%REC*		*50-150*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***72.8***		*%REC*		*35-136*	*1*	*11/07/25 05:47*	*11/06/25 17:12*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***81.0***		*%REC*		*34-142*	*1*	*11/07/25 05:47*	*11/06/25 17:12*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-60_102925 **Lab ID: HN2516257-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.471	U	ng/L	0.471	4.75	1	11/06/25 08:54	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.83	1	11/06/25 08:54	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.945	U	ng/L	0.945	4.71	1	11/06/25 08:54	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.90	U	ng/L	1.90	4.59	1	11/07/25 06:02	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.09	U	ng/L	1.09	5.05	1	11/06/25 08:54	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.05	U	ng/L	3.05	5.05	1	11/06/25 08:54	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**1.96**	J	ng/L	1.40	5.05	1	11/06/25 08:54	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.567	U	ng/L	0.567	4.75	1	11/06/25 08:54	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.452	U	ng/L	0.452	4.70	1	11/06/25 08:54	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.18	U	ng/L	1.18	5.05	1	11/06/25 08:54	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.56	U	ng/L	1.56	5.05	1	11/06/25 08:54	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.650	U	ng/L	0.650	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**2.40**	J	ng/L	0.894	4.65	1	11/06/25 08:54	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.30**	J	ng/L	0.354	4.46	1	11/06/25 08:54	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**29.2**		ng/L	2.62	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<2.00	U	ng/L	2.00	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.38	U	ng/L	1.38	4.87	1	11/06/25 08:54	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-60_102925 **Lab ID: HN2516257-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**2.89**	J	ng/L	1.25	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.697	U	ng/L	0.697	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**1.00**	J	ng/L	0.571	4.80	1	11/06/25 08:54	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**10.2**		ng/L	1.75	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**8.41**		ng/L	0.911	4.59	1	11/06/25 08:54	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.886	U	ng/L	0.886	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**14.0**		ng/L	1.21	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.501	U	ng/L	0.501	4.84	1	11/06/25 08:54	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	**5.55**		ng/L	0.878	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.718	U	ng/L	0.718	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**52.0**		ng/L	0.900	1.87	1	11/06/25 08:54	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**31.2**		ng/L	0.636	2.02	1	11/06/25 08:54	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.39**	J	ng/L	0.561	4.73	1	11/06/25 08:54	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**13.4**		ng/L	1.29	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.66	U	ng/L	2.66	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.95	U	ng/L	1.95	5.05	1	11/06/25 08:54	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.983	U	ng/L	0.983	5.05	1	11/06/25 08:54	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***176***	*S*	*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***132***		*%REC*		*50-150*	*1*	*11/07/25 06:02*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***81.6***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***78.7***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***119***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***107***		*%REC*		*27-134*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.7***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***104***		*%REC*		*41-142*	*1*	*11/06/25 08:54*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 15:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-14-60_102925 **Lab ID: HN2516257-018**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***130***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***114***		*%REC*		*42-141*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***123***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***115***		*%REC*		*43-138*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***81.0***		*%REC*		*30-122*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***55.6***		*%REC*		*35-136*	*1*	*11/06/25 08:54*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***68.5***		*%REC*		*34-142*	*1*	*11/06/25 08:54*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:35
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-02_102925 **Lab ID: HN2516257-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.460	U	ng/L	0.460	4.64	1	11/06/25 09:08	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.72	1	11/06/25 09:08	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.922	U	ng/L	0.922	4.60	1	11/06/25 09:08	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	4.53	1	11/07/25 06:16	11/06/25 17:12
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	**1.58**	J	ng/L	1.06	4.93	1	11/06/25 09:08	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.93	1	11/06/25 09:08	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.93	1	11/06/25 09:08	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.554	U	ng/L	0.554	4.64	1	11/06/25 09:08	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.441	U	ng/L	0.441	4.59	1	11/06/25 09:08	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.93	1	11/06/25 09:08	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.93	1	11/06/25 09:08	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.635	U	ng/L	0.635	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.873	U	ng/L	0.873	4.54	1	11/06/25 09:08	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.346	U	ng/L	0.346	4.36	1	11/06/25 09:08	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.56	U	ng/L	2.56	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.75	1	11/06/25 09:08	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:35
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-02_102925 **Lab ID: HN2516257-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.681	U	ng/L	0.681	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.558	U	ng/L	0.558	4.69	1	11/06/25 09:08	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.70	U	ng/L	1.70	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.890	U	ng/L	0.890	4.48	1	11/06/25 09:08	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.865	U	ng/L	0.865	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.489	U	ng/L	0.489	4.73	1	11/06/25 09:08	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.857	U	ng/L	0.857	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	**1.37**	J	ng/L	0.701	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.879	U	ng/L	0.879	1.83	1	11/06/25 09:08	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.621	U	ng/L	0.621	1.97	1	11/06/25 09:08	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.548	U	ng/L	0.548	4.62	1	11/06/25 09:08	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.60	U	ng/L	2.60	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.93	1	11/06/25 09:08	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.960	U	ng/L	0.960	4.93	1	11/06/25 09:08	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***73.1***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/07/25 06:16*	*11/06/25 17:12*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***91.1***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***75.8***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***72.9***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***70.5***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***75.8***		*%REC*		*27-134*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***74.7***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***67.1***		*%REC*		*41-142*	*1*	*11/06/25 09:08*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 10:35
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-02_102925 **Lab ID: HN2516257-019**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***70.5***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***78.3***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***70.2***		*%REC*		*42-141*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***73.6***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***71.4***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***71.9***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***71.5***		*%REC*		*43-138*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***60.5***		*%REC*		*30-122*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***67.9***		*%REC*		*50-150*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***62.3***		*%REC*		*35-136*	*1*	*11/06/25 09:08*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***65.8***		*%REC*		*34-142*	*1*	*11/06/25 09:08*	*11/05/25 15:24*

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2310258

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3650674

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2310258-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/02/25 01:10 | **Prep Date:** 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2310258

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3650674

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2310258-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/02/25 01:10 | **Prep Date:** 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***175***	*ng/L*			149.44		117	*50-150*			
Surr: 13C2-FtS 6:2	***185***	*ng/L*			152		122	*50-150*			
Surr: 13C2-FtS 8:2	***172***	*ng/L*			153.28		113	*50-150*			
Surr: 13C2-PFDA	***141***	*ng/L*			160		88.4	*50-150*			
Surr: 13C2-PFDoA	***111***	*ng/L*			160		69.3	*50-150*			
Surr: 13C2-PFHxA	***153***	*ng/L*			160		95.9	*50-150*			
Surr: 13C2-PFTeA	***66.6***	*ng/L*			160		41.6	*27-134*			
Surr: 13C2-PFUnA	***134***	*ng/L*			160		83.7	*50-150*			
Surr: 13C3-HFPO-DA	***169***	*ng/L*			160		106	*41-142*			
Surr: 13C3-PFBS	***154***	*ng/L*			148.8		104	*50-150*			
Surr: 13C4-PFBA	***159***	*ng/L*			160		99.5	*50-150*			
Surr: 13C4-PFHpA	***181***	*ng/L*			160		113	*42-141*			
Surr: 13C4-PFOA	***162***	*ng/L*			160		101	*50-150*			
Surr: 13C4-PFOS	***128***	*ng/L*			152.8		83.9	*50-150*			
Surr: 13C5-PFNA	***165***	*ng/L*			160		103	*50-150*			
Surr: 13C5-PFPeA	***174***	*ng/L*			160		109	*43-138*			
Surr: 13C8-FOSA	***137***	*ng/L*			160		85.4	*30-122*			
Surr: 18O2-PFHxS	***134***	*ng/L*			151.2		88.6	*50-150*			
Surr: d3-N-MeFOSAA	***137***	*ng/L*			160		85.6	*35-136*			
Surr: d5-N-EtFOSAA	***136***	*ng/L*			160		85.0	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2310258-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/02/25 01:24 | **Prep Date:** 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	24.2	ng/L	0.467	4.71	30.1		80.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	28.5	ng/L	1.13	4.79	30.7		93.0	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	26.8	ng/L	0.936	4.67	29.9		89.6	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	27.9	ng/L	1.92	4.74	30.3		92.0	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	26.6	ng/L	1.08	5.00	32		83.1	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2310258	**Run ID:**	3650674

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2310258-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/02/25 01:24

Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	32.3	ng/L	3.02	5.00	32		101	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.3	ng/L	1.39	5.00	32		104	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	23.9	ng/L	0.562	4.71	30.1		79.3	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.1	ng/L	0.448	4.66	29.8		91.0	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	28.0	ng/L	1.17	5.00	32		87.4	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	30.7	ng/L	1.54	5.00	32		96.0	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	27.7	ng/L	0.644	5.00	32		86.5	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.6	ng/L	0.886	4.61	28.8		113	74-131			
Perfluorobutane sulfonic acid (PFBS)	26.8	ng/L	0.351	4.42	28.3		94.6	69-131			
Perfluorobutanoic acid (PFBA)	32.0	ng/L	2.60	5.00	32		99.8	73-139			
Perfluorobutylsulfonamide (PFBSA)	36.4	ng/L	1.98	5.00	32		114	68-164			
Perfluorodecane sulfonic acid (PFDS)	23.8	ng/L	1.37	4.82	30.8		77.2	64-128			
Perfluorodecanoic acid (PFDA)	30.6	ng/L	1.24	5.00	32		95.6	77-135			
Perfluorododecanoic acid (PFDOA)	30.9	ng/L	0.691	5.00	32		96.6	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	28.8	ng/L	0.566	4.76	30.5		94.4	70-137			
Perfluoroheptanoic acid (PFHpA)	27.7	ng/L	1.73	5.00	32		86.5	67-130			
Perfluorohexane sulfonic acid (PFHxS)	25.8	ng/L	0.903	4.55	29.1		88.6	68-131			
Perfluorohexanesulfonamide (PFHxSA)	26.7	ng/L	0.878	5.00	32		83.3	69-135			
Perfluorohexanoic acid (PFHxA)	30.1	ng/L	1.20	5.00	32		93.9	72-129			
Perfluorononane sulfonic acid (PFNS)	29.4	ng/L	0.496	4.80	30.7		95.7	70-132			
Perfluorononanoic acid (PFNA)	30.3	ng/L	0.870	5.00	32		94.7	75-131			
Perfluorooctane sulfonamide (PFOSAm)	29.2	ng/L	0.711	5.00	32		91.3	66-140			
Perfluorooctane sulfonic acid (PFOS)	28.7	ng/L	0.892	1.86	29.7		96.7	72-133			
Perfluorooctanoic acid (PFOA)	27.6	ng/L	0.630	2.00	32		86.2	71-133			
Perfluoropentane sulfonic acid (PFPeS)	28.3	ng/L	0.556	4.69	30		94.3	73-137			
Perfluoropentanoic acid (PFPeA)	29.3	ng/L	1.28	5.00	32		91.7	72-129			
Perfluorotetradecanoic acid (PFTDA)	26.9	ng/L	2.64	5.00	32		84.0	62-139			
Perfluorotridecanoic acid (PFTrDA)	40.0	ng/L	1.93	5.00	32		125	47-147			
Perfluoroundecanoic acid (PFUnDA)	29.7	ng/L	0.974	5.00	32		92.7	80-135			
Surr: 13C2-FtS 4:2	***147***	*ng/L*			149.44		98.7	*50-150*			
Surr: 13C2-FtS 6:2	***164***	*ng/L*			152		108	*50-150*			
Surr: 13C2-FtS 8:2	***182***	*ng/L*			153.28		119	*50-150*			
Surr: 13C2-PFDA	***138***	*ng/L*			160		86.3	*50-150*			
Surr: 13C2-PFDoA	***116***	*ng/L*			160		72.7	*50-150*			
Surr: 13C2-PFHxA	***134***	*ng/L*			160		83.7	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2310258	**Run ID:**	3650674

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2310258-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/02/25 01:24

Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***64.8***	*ng/L*			160		40.5	*27-134*			
Surr: 13C2-PFUnA	***134***	*ng/L*			160		83.7	*50-150*			
Surr: 13C3-HFPO-DA	***136***	*ng/L*			160		84.9	*41-142*			
Surr: 13C3-PFBS	***126***	*ng/L*			148.8		84.6	*50-150*			
Surr: 13C4-PFBA	***138***	*ng/L*			160		86.4	*50-150*			
Surr: 13C4-PFHpA	***154***	*ng/L*			160		96.2	*42-141*			
Surr: 13C4-PFOA	***147***	*ng/L*			160		91.9	*50-150*			
Surr: 13C4-PFOS	***119***	*ng/L*			152.8		78.2	*50-150*			
Surr: 13C5-PFNA	***150***	*ng/L*			160		93.6	*50-150*			
Surr: 13C5-PFPeA	***144***	*ng/L*			160		90.2	*43-138*			
Surr: 13C8-FOSA	***116***	*ng/L*			160		72.7	*30-122*			
Surr: 18O2-PFHxS	***125***	*ng/L*			151.2		82.9	*50-150*			
Surr: d3-N-MeFOSAA	***142***	*ng/L*			160		88.8	*35-136*			
Surr: d5-N-EtFOSAA	***126***	*ng/L*			160		79.0	*34-142*			

The following samples were analyzed in this batch: HN2516257-001, HN2516257-002, HN2516257-003, HN2516257-004, HN2516257-005, HN2516257-006, HN2516257-008, HN2516257-009, HN2516257-010, HN2516257-011

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/17/25 10:40
Matrix:	WATER	**Date Received:**	10/28/25 10:00
QC Lot:	2310258	**Run ID:**	3650776

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2310258-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/31/25 20:14 | **Prep Date:** 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	28.8	ng/L	0.456	4.60	29.372	<0.456	98.1	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.1	ng/L	1.10	4.67	29.957	<1.10	110	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.8	ng/L	0.913	4.56	29.176	<0.913	105	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.0	ng/L	1.87	4.53	29.567	<1.87	104	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.2	ng/L	1.05	4.88	31.226	<1.05	85.2	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	39.8	ng/L	2.95	4.88	31.226	<2.95	127	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.7	ng/L	1.36	4.88	31.226	<1.36	108	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.9	ng/L	0.548	4.60	29.372	<0.548	109	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.8	ng/L	0.437	4.55	29.079	<0.437	103	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.4	ng/L	1.14	4.88	31.226	<1.14	100	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	30.8	ng/L	1.51	4.88	31.226	<1.51	98.4	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	41.0	ng/L	0.628	4.88	31.226	<0.628	131	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	39.1	ng/L	0.865	4.50	28.103	<0.865	139	74-131			S
Perfluorobutane sulfonic acid (PFBS)	29.8	ng/L	0.343	4.31	27.615	<0.343	108	69-141			
Perfluorobutanoic acid (PFBA)	29.6	ng/L	2.54	4.88	31.226	<2.54	92.4	73-139			
Perfluorobutylsulfonamide (PFBSA)	43.4	ng/L	1.94	4.88	31.226	<1.94	139	68-164			
Perfluorodecane sulfonic acid (PFDS)	28.9	ng/L	1.34	4.70	30.055	<1.34	96.0	64-128			
Perfluorodecanoic acid (PFDA)	32.0	ng/L	1.21	4.88	31.226	<1.21	103	77-135			
Perfluorododecanoic acid (PFDOA)	32.0	ng/L	0.674	4.88	31.226	<0.674	102	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.8	ng/L	0.552	4.64	29.762	<0.552	99.9	70-137			
Perfluoroheptanoic acid (PFHpA)	31.9	ng/L	1.69	4.88	31.226	<1.69	102	67-130			
Perfluorohexane sulfonic acid (PFHxS)	31.3	ng/L	0.881	4.44	28.396	<0.881	110	68-131			
Perfluorohexanesulfonamide (PFHxSA)	30.7	ng/L	0.857	4.88	31.226	<0.857	98.4	69-135			
Perfluorohexanoic acid (PFHxA)	30.3	ng/L	1.17	4.88	31.226	<1.17	96.2	72-129			
Perfluorononane sulfonic acid (PFNS)	29.9	ng/L	0.484	4.68	29.957	<0.484	99.7	70-132			
Perfluorononanoic acid (PFNA)	30.7	ng/L	0.849	4.88	31.226	<0.849	98.0	75-131			
Perfluorooctane sulfonamide (PFOSAm)	36.5	ng/L	0.694	4.88	31.226	<0.694	116	66-140			
Perfluorooctane sulfonic acid (PFOS)	28.7	ng/L	0.870	1.81	28.981	<0.870	98.6	72-133			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/17/25 10:40
Matrix:	WATER	**Date Received:**	10/28/25 10:00
QC Lot:	2310258	**Run ID:**	3650776

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2310258-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/31/25 20:14

Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	30.5	ng/L	0.615	1.95	31.226	<0.615	96.9	71-133			
Perfluoropentane sulfonic acid (PFPeS)	31.8	ng/L	0.543	4.58	29.274	<0.543	108	73-137			
Perfluoropentanoic acid (PFPeA)	34.5	ng/L	1.25	4.88	31.226	<1.25	109	72-129			
Perfluorotetradecanoic acid (PFTDA)	34.2	ng/L	2.58	4.88	31.226	<2.58	110	62-139			
Perfluorotridecanoic acid (PFTrDA)	38.3	ng/L	1.88	4.88	31.226	<1.88	123	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.9	ng/L	0.950	4.88	31.226	<0.950	102	80-135			
Surr: 13C2-FtS 4:2	***153***	*ng/L*			145.82		105	*50-150*			
Surr: 13C2-FtS 6:2	***149***	*ng/L*			148.32		101	*50-150*			
Surr: 13C2-FtS 8:2	***137***	*ng/L*			149.57		91.3	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			156.13		82.8	*50-150*			
Surr: 13C2-PFDoA	***125***	*ng/L*			156.13		80.3	*50-150*			
Surr: 13C2-PFHxA	***146***	*ng/L*			156.13		93.5	*50-150*			
Surr: 13C2-PFTeA	***110***	*ng/L*			156.13		70.8	*27-134*			
Surr: 13C2-PFUnA	***132***	*ng/L*			156.13		84.7	*50-150*			
Surr: 13C3-HFPO-DA	***172***	*ng/L*			156.13		110	*41-142*			
Surr: 13C3-PFBS	***126***	*ng/L*			145.2		86.9	*50-150*			
Surr: 13C4-PFBA	***169***	*ng/L*			156.13		108	*50-150*			
Surr: 13C4-PFHpA	***148***	*ng/L*			156.13		94.8	*42-141*			
Surr: 13C4-PFOA	***149***	*ng/L*			156.13		95.2	*50-150*			
Surr: 13C4-PFOS	***117***	*ng/L*			149.1		78.1	*50-150*			
Surr: 13C5-PFNA	***153***	*ng/L*			156.13		98.0	*50-150*			
Surr: 13C5-PFPeA	***137***	*ng/L*			156.13		87.5	*43-138*			
Surr: 13C8-FOSA	***102***	*ng/L*			156.13		65.1	*30-122*			
Surr: 18O2-PFHxS	***123***	*ng/L*			147.54		83.5	*50-150*			
Surr: d3-N-MeFOSAA	***118***	*ng/L*			156.13		75.7	*35-136*			
Surr: d5-N-EtFOSAA	***122***	*ng/L*			156.13		78.3	*34-142*			

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2310258-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/31/25 20:28

Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	29.3	ng/L	0.467	4.71	29.79	<0.467	98.4	61-128	1.79	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.7	ng/L	1.13	4.79	30.384	<1.13	114	61-148	4.88	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.5	ng/L	0.936	4.67	29.592	<0.936	99.1	67-143	4.58	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	32.5	ng/L	1.92	4.74	29.988	<1.92	108	66-151	4.73	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	29.7	ng/L	1.08	5.00	31.671	<1.08	92.1	39-117	8.99	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/17/25 10:40
Matrix:	WATER	**Date Received:**	10/28/25 10:00
QC Lot:	2310258	**Run ID:**	3650776

MSD	**CLIENT ID: Batch QC**	**Lab ID: QC-2310258-006**
Method: EPA 537Mod	**Dilution:** 1	**Analysis Date:** 10/31/25 20:28
		Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	37.9	ng/L	3.02	5.00	31.671	<3.02	120	71-138	4.74	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.3	ng/L	1.39	5.00	31.671	<1.39	111	64-134	4.63	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.9	ng/L	0.562	4.71	29.79	<0.562	107	74-135	0.0344	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.1	ng/L	0.448	4.66	29.493	<0.448	98.6	69-133	2.61	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.1	ng/L	1.17	5.00	31.671	<1.17	98.0	65-139	0.992	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	28.8	ng/L	1.54	5.00	31.671	<1.54	90.8	67-140	6.55	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	44.7	ng/L	0.644	5.00	31.671	<0.644	141	67-133	8.58	30	S
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	40.6	ng/L	0.886	4.61	28.504	<0.886	142	74-131	3.53	30	S
Perfluorobutane sulfonic acid (PFBS)	29.1	ng/L	0.351	4.42	28.009	<0.351	104	69-141	2.28	30	
Perfluorobutanoic acid (PFBA)	29.7	ng/L	2.60	5.00	31.671	<2.60	91.2	73-139	0.0684	30	
Perfluorobutylsulfonamide (PFBSA)	43.7	ng/L	1.98	5.00	31.671	<1.98	138	68-164	0.643	30	
Perfluorodecane sulfonic acid (PFDS)	27.3	ng/L	1.37	4.82	30.483	<1.37	89.4	64-128	5.72	30	
Perfluorodecanoic acid (PFDA)	31.1	ng/L	1.24	5.00	31.671	<1.24	98.3	77-135	2.87	30	
Perfluorododecanoic acid (PFDOA)	32.5	ng/L	0.691	5.00	31.671	<0.691	102	77-137	1.44	30	
Perfluoroheptane sulfonic acid (PFHpS)	31.5	ng/L	0.566	4.76	30.186	<0.566	104	70-137	5.66	30	
Perfluoroheptanoic acid (PFHpA)	29.9	ng/L	1.73	5.00	31.671	<1.73	94.4	67-130	6.43	30	
Perfluorohexane sulfonic acid (PFHxS)	30.4	ng/L	0.903	4.55	28.8	<0.903	106	68-131	2.92	30	
Perfluorohexanesulfonamide (PFHxSA)	31.5	ng/L	0.878	5.00	31.671	<0.878	99.4	69-135	2.40	30	
Perfluorohexanoic acid (PFHxA)	31.2	ng/L	1.20	5.00	31.671	<1.20	97.9	72-129	3.07	30	
Perfluorononane sulfonic acid (PFNS)	29.1	ng/L	0.496	4.80	30.384	<0.496	95.9	70-132	2.52	30	
Perfluorononanoic acid (PFNA)	32.6	ng/L	0.870	5.00	31.671	<0.870	103	75-131	6.06	30	
Perfluorooctane sulfonamide (PFOSAm)	37.7	ng/L	0.711	5.00	31.671	<0.711	118	66-140	3.33	30	
Perfluorooctane sulfonic acid (PFOS)	31.6	ng/L	0.892	1.86	29.394	<0.892	107	72-133	9.89	30	
Perfluorooctanoic acid (PFOA)	30.8	ng/L	0.630	2.00	31.671	<0.630	96.5	71-133	0.954	30	
Perfluoropentane sulfonic acid (PFPeS)	31.9	ng/L	0.556	4.69	29.691	<0.556	108	73-137	0.566	30	
Perfluoropentanoic acid (PFPeA)	33.1	ng/L	1.28	5.00	31.671	<1.28	103	72-129	4.10	30	
Perfluorotetradecanoic acid (PFTDA)	31.5	ng/L	2.64	5.00	31.671	<2.64	99.3	62-139	8.39	30	
Perfluorotridecanoic acid (PFTrDA)	33.7	ng/L	1.93	5.00	31.671	<1.93	106	47-147	12.9	30	
Perfluoroundecanoic acid (PFUnDA)	32.8	ng/L	0.974	5.00	31.671	<0.974	103	80-135	2.78	30	
Surr: 13C2-FtS 4:2	***156***	*ng/L*			147.9		105	*50-150*	2.07	30	
Surr: 13C2-FtS 6:2	***153***	*ng/L*			150.44		101	*50-150*	2.33	30	
Surr: 13C2-FtS 8:2	***151***	*ng/L*			151.7		99.2	*50-150*	9.68	30	
Surr: 13C2-PFDA	***134***	*ng/L*			158.35		84.8	*50-150*	3.87	30	
Surr: 13C2-PFDoA	***121***	*ng/L*			158.35		76.6	*50-150*	3.30	30	
Surr: 13C2-PFHxA	***138***	*ng/L*			158.35		87.2	*50-150*	5.61	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/17/25 10:40
Matrix:	WATER	**Date Received:**	10/28/25 10:00
QC Lot:	2310258	**Run ID:**	3650776

MSD	**CLIENT ID: Batch QC**	**Lab ID: QC-2310258-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/31/25 20:28

Prep Date: 10/31/25 16:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***117***	*ng/L*			158.35		73.7	*27-134*	5.51	30	
Surr: 13C2-PFUnA	***132***	*ng/L*			158.35		83.4	*50-150*	0.167	30	
Surr: 13C3-HFPO-DA	***164***	*ng/L*			158.35		104	*41-142*	4.71	30	
Surr: 13C3-PFBS	***131***	*ng/L*			147.27		88.7	*50-150*	3.56	30	
Surr: 13C4-PFBA	***174***	*ng/L*			158.35		110	*50-150*	2.56	30	
Surr: 13C4-PFHpA	***150***	*ng/L*			158.35		94.8	*42-141*	1.32	30	
Surr: 13C4-PFOA	***148***	*ng/L*			158.35		93.8	*50-150*	0.124	30	
Surr: 13C4-PFOS	***110***	*ng/L*			151.23		73.0	*50-150*	5.36	30	
Surr: 13C5-PFNA	***153***	*ng/L*			158.35		96.3	*50-150*	0.271	30	
Surr: 13C5-PFPeA	***143***	*ng/L*			158.35		90.4	*43-138*	4.69	30	
Surr: 13C8-FOSA	***105***	*ng/L*			158.35		66.4	*30-122*	3.31	30	
Surr: 18O2-PFHxS	***125***	*ng/L*			149.64		83.3	*50-150*	1.29	30	
Surr: d3-N-MeFOSAA	***122***	*ng/L*			158.35		76.8	*35-136*	2.82	30	
Surr: d5-N-EtFOSAA	***130***	*ng/L*			158.35		82.2	*34-142*	6.22	30	

The following samples were analyzed in this batch: HN2516257-001, HN2516257-002, HN2516257-003, HN2516257-004, HN2516257-005, HN2516257-006, HN2516257-008, HN2516257-009, HN2516257-010, HN2516257-011

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2314258	**Run ID:**	3663886

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2314258-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 00:57 | **Prep Date:** 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	12.2	ng/L	1.92	4.74							B
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2314258	**Run ID:**	3663886

MB **CLIENT ID: Method Blank** **Lab ID: QC-2314258-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 00:57

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***136***	*ng/L*			149.44		91.2	*50-150*			
Surr: 13C2-FtS 6:2	***146***	*ng/L*			152		95.8	*50-150*			
Surr: 13C2-FtS 8:2	***145***	*ng/L*			153.28		94.6	*50-150*			
Surr: 13C2-PFDA	***150***	*ng/L*			160		93.6	*50-150*			
Surr: 13C2-PFDoA	***149***	*ng/L*			160		92.9	*50-150*			
Surr: 13C2-PFHxA	***163***	*ng/L*			160		102	*50-150*			
Surr: 13C2-PFTeA	***76.6***	*ng/L*			160		47.9	*27-134*			
Surr: 13C2-PFUnA	***152***	*ng/L*			160		95.2	*50-150*			
Surr: 13C3-HFPO-DA	***134***	*ng/L*			160		84.0	*41-142*			
Surr: 13C3-PFBS	***122***	*ng/L*			148.8		81.9	*50-150*			
Surr: 13C4-PFBA	***168***	*ng/L*			160		105	*50-150*			
Surr: 13C4-PFHpA	***148***	*ng/L*			160		92.8	*42-141*			
Surr: 13C4-PFOA	***166***	*ng/L*			160		104	*50-150*			
Surr: 13C4-PFOS	***146***	*ng/L*			152.8		95.9	*50-150*			
Surr: 13C5-PFNA	***157***	*ng/L*			160		98.2	*50-150*			
Surr: 13C5-PFPeA	***142***	*ng/L*			160		89.0	*43-138*			
Surr: 13C8-FOSA	***116***	*ng/L*			160		72.4	*30-122*			
Surr: 18O2-PFHxS	***134***	*ng/L*			151.2		88.8	*50-150*			
Surr: d3-N-MeFOSAA	***122***	*ng/L*			160		76.2	*35-136*			
Surr: d5-N-EtFOSAA	***121***	*ng/L*			160		75.6	*34-142*			

LCS **CLIENT ID: Laboratory Control Sample** **Lab ID: QC-2314258-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 01:12

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	28.7	ng/L	0.467	4.71	30.1		95.5	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39.9	ng/L	1.13	4.79	30.7		130	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	31.1	ng/L	0.936	4.67	29.9		104	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	70.7	ng/L	1.92	4.74	30.3		233	66-151			S
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	31.6	ng/L	1.08	5.00	32		98.8	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2314258	**Run ID:**	3663886

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2314258-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 01:12

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.8	ng/L	3.02	5.00	32		112	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38.0	ng/L	1.39	5.00	32		119	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	30.4	ng/L	0.562	4.71	30.1		101	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	30.4	ng/L	0.448	4.66	29.8		102	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.9	ng/L	1.17	5.00	32		99.7	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	30.6	ng/L	1.54	5.00	32		95.5	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	32.3	ng/L	0.644	5.00	32		101	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	34.0	ng/L	0.886	4.61	28.8		118	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.1	ng/L	0.351	4.42	28.3		103	69-131			
Perfluorobutanoic acid (PFBA)	33.1	ng/L	2.60	5.00	32		103	73-139			
Perfluorobutylsulfonamide (PFBSA)	37.8	ng/L	1.98	5.00	32		118	68-164			
Perfluorodecane sulfonic acid (PFDS)	27.9	ng/L	1.37	4.82	30.8		90.6	64-128			
Perfluorodecanoic acid (PFDA)	33.2	ng/L	1.24	5.00	32		104	77-135			
Perfluorododecanoic acid (PFDOA)	34.1	ng/L	0.691	5.00	32		107	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	34.2	ng/L	0.566	4.76	30.5		112	70-137			
Perfluoroheptanoic acid (PFHpA)	32.2	ng/L	1.73	5.00	32		101	67-130			
Perfluorohexane sulfonic acid (PFHxS)	30.3	ng/L	0.903	4.55	29.1		104	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.4	ng/L	0.878	5.00	32		104	69-135			
Perfluorohexanoic acid (PFHxA)	33.3	ng/L	1.20	5.00	32		104	72-129			
Perfluorononane sulfonic acid (PFNS)	31.1	ng/L	0.496	4.80	30.7		101	70-132			
Perfluorononanoic acid (PFNA)	35.0	ng/L	0.870	5.00	32		109	75-131			
Perfluorooctane sulfonamide (PFOSAm)	36.9	ng/L	0.711	5.00	32		115	66-140			
Perfluorooctane sulfonic acid (PFOS)	29.3	ng/L	0.892	1.86	29.7		98.5	72-133			
Perfluorooctanoic acid (PFOA)	32.7	ng/L	0.630	2.00	32		102	71-133			
Perfluoropentane sulfonic acid (PFPeS)	33.4	ng/L	0.556	4.69	30		111	73-137			
Perfluoropentanoic acid (PFPeA)	33.1	ng/L	1.28	5.00	32		104	72-129			
Perfluorotetradecanoic acid (PFTDA)	31.1	ng/L	2.64	5.00	32		97.1	62-139			
Perfluorotridecanoic acid (PFTrDA)	48.3	ng/L	1.93	5.00	32		151	47-147			S
Perfluoroundecanoic acid (PFUnDA)	34.0	ng/L	0.974	5.00	32		106	80-135			
Surr: 13C2-FtS 4:2	***129***	*ng/L*			149.44		86.2	*50-150*			
Surr: 13C2-FtS 6:2	***142***	*ng/L*			152		93.1	*50-150*			
Surr: 13C2-FtS 8:2	***144***	*ng/L*			153.28		93.9	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			160		80.8	*50-150*			
Surr: 13C2-PFDoA	***148***	*ng/L*			160		92.3	*50-150*			
Surr: 13C2-PFHxA	***131***	*ng/L*			160		81.9	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2314258

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3663886

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2314258-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:12 | **Prep Date:** 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***68.7***	*ng/L*			160		43.0	*27-134*			
Surr: 13C2-PFUnA	***134***	*ng/L*			160		83.9	*50-150*			
Surr: 13C3-HFPO-DA	***128***	*ng/L*			160		80.0	*41-142*			
Surr: 13C3-PFBS	***121***	*ng/L*			148.8		81.1	*50-150*			
Surr: 13C4-PFBA	***145***	*ng/L*			160		90.5	*50-150*			
Surr: 13C4-PFHpA	***133***	*ng/L*			160		82.9	*42-141*			
Surr: 13C4-PFOA	***132***	*ng/L*			160		82.3	*50-150*			
Surr: 13C4-PFOS	***122***	*ng/L*			152.8		79.8	*50-150*			
Surr: 13C5-PFNA	***129***	*ng/L*			160		80.6	*50-150*			
Surr: 13C5-PFPeA	***134***	*ng/L*			160		83.8	*43-138*			
Surr: 13C8-FOSA	***115***	*ng/L*			160		71.7	*30-122*			
Surr: 18O2-PFHxS	***110***	*ng/L*			151.2		73.0	*50-150*			
Surr: d3-N-MeFOSAA	***115***	*ng/L*			160		71.8	*35-136*			
Surr: d5-N-EtFOSAA	***131***	*ng/L*			160		81.9	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2314258-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:53 | **Prep Date:** 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	24.6	ng/L	0.464	4.68	29.932	<0.464	82.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	39.3	ng/L	1.12	4.76	30.529	<1.12	128	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	32.3	ng/L	0.931	4.64	29.733	<0.931	108	67-143			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	29.0	ng/L	1.07	4.97	31.822	<1.07	90.8	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	38.0	ng/L	3.00	4.97	31.822	<3.00	119	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	30.8	ng/L	1.38	4.97	31.822	<1.38	95.7	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.1	ng/L	0.559	4.68	29.932	<0.559	90.4	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25.1	ng/L	0.446	4.63	29.634	<0.446	84.5	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.5	ng/L	1.16	4.97	31.822	<1.16	95.7	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	35.2	ng/L	1.54	4.97	31.822	<1.54	111	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	31.4	ng/L	0.640	4.97	31.822	<0.640	98.3	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	28.3	ng/L	0.881	4.58	28.64	<0.881	98.8	74-131			
Perfluorobutane sulfonic acid (PFBS)	31.0	ng/L	0.349	4.40	28.142	<0.349	110	69-141			
Perfluorobutanoic acid (PFBA)	29.2	ng/L	2.59	4.97	31.822	<2.59	91.1	73-139			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2314258	**Run ID:**	3663886

MS **CLIENT ID: Batch QC** **Lab ID: QC-2314258-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 02:53

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutylsulfonamide (PFBSA)	40.2	ng/L	1.97	4.97	31.822	<1.97	126	68-164			
Perfluorodecane sulfonic acid (PFDS)	23.9	ng/L	1.36	4.79	30.628	<1.36	78.1	64-128			
Perfluorodecanoic acid (PFDA)	30.4	ng/L	1.23	4.97	31.822	<1.23	95.0	77-135			
Perfluorododecanoic acid (PFDOA)	29.8	ng/L	0.687	4.97	31.822	<0.687	93.3	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	30.1	ng/L	0.563	4.73	30.33	<0.563	99.1	70-137			
Perfluoroheptanoic acid (PFHpA)	34.9	ng/L	1.72	4.97	31.822	<1.72	109	67-130			
Perfluorohexane sulfonic acid (PFHxS)	26.2	ng/L	0.898	4.52	28.938	<0.898	88.6	68-131			
Perfluorohexanesulfonamide (PFHxSA)	27.4	ng/L	0.873	4.97	31.822	<0.873	86.0	69-135			
Perfluorohexanoic acid (PFHxA)	28.4	ng/L	1.19	4.97	31.822	<1.19	88.4	72-129			
Perfluorononane sulfonic acid (PFNS)	26.1	ng/L	0.493	4.77	30.529	<0.493	85.4	70-132			
Perfluorononanoic acid (PFNA)	30.5	ng/L	0.865	4.97	31.822	<0.865	94.5	75-131			
Perfluorooctane sulfonamide (PFOSAm)	37.4	ng/L	0.707	4.97	31.822	<0.707	116	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.0	ng/L	0.887	1.85	29.535	<0.887	90.4	72-133			
Perfluorooctanoic acid (PFOA)	26.4	ng/L	0.626	1.99	31.822	<0.626	81.9	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.6	ng/L	0.553	4.66	29.833	<0.553	99.2	73-137			
Perfluoropentanoic acid (PFPeA)	35.6	ng/L	1.27	4.97	31.822	<1.27	111	72-129			
Perfluoroundecanoic acid (PFUnDA)	30.4	ng/L	0.969	4.97	31.822	<0.969	94.1	80-135			
Surr: 13C2-FtS 4:2	***131***	*ng/L*			148.61		88.1	*50-150*			
Surr: 13C2-FtS 8:2	***143***	*ng/L*			152.43		93.6	*50-150*			
Surr: 13C2-PFDA	***145***	*ng/L*			159.11		91.2	*50-150*			
Surr: 13C2-PFDoA	***153***	*ng/L*			159.11		96.5	*50-150*			
Surr: 13C2-PFHxA	***154***	*ng/L*			159.11		97.1	*50-150*			
Surr: 13C2-PFUnA	***153***	*ng/L*			159.11		96.3	*50-150*			
Surr: 13C3-HFPO-DA	***133***	*ng/L*			159.11		83.5	*41-142*			
Surr: 13C3-PFBS	***116***	*ng/L*			147.97		78.6	*50-150*			
Surr: 13C4-PFBA	***171***	*ng/L*			159.11		107	*50-150*			
Surr: 13C4-PFHpA	***130***	*ng/L*			159.11		81.5	*42-141*			
Surr: 13C4-PFOA	***159***	*ng/L*			159.11		100	*50-150*			
Surr: 13C4-PFOS	***146***	*ng/L*			151.95		96.1	*50-150*			
Surr: 13C5-PFNA	***153***	*ng/L*			159.11		96.4	*50-150*			
Surr: 13C5-PFPeA	***128***	*ng/L*			159.11		80.3	*43-138*			
Surr: 13C8-FOSA	***105***	*ng/L*			159.11		66.3	*30-122*			
Surr: 18O2-PFHxS	***129***	*ng/L*			150.36		86.0	*50-150*			
Surr: d3-N-MeFOSAA	***117***	*ng/L*			159.11		73.5	*35-136*			
Surr: d5-N-EtFOSAA	***123***	*ng/L*			159.11		77.3	*34-142*			

MSD **CLIENT ID: Batch QC** **Lab ID: QC-2314258-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 03:07

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2314258

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3663886

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2314258-006**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 03:07
Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25.8	ng/L	0.467	4.71	29.614	<0.467	87.1	61-128	4.62	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.7	ng/L	1.13	4.79	30.205	<1.13	104	61-148	21.3	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.7	ng/L	0.936	4.67	29.418	<0.936	100	67-143	8.24	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	30.1	ng/L	1.08	5.00	31.484	<1.08	95.4	39-117	3.89	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.0	ng/L	3.02	5.00	31.484	<3.02	108	71-138	11.2	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	32.5	ng/L	1.39	5.00	31.484	<1.39	102	64-134	5.49	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	30.3	ng/L	0.562	4.71	29.614	<0.562	102	74-135	11.3	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	26.4	ng/L	0.448	4.66	29.319	<0.448	90.1	69-133	5.39	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	32.5	ng/L	1.17	5.00	31.484	<1.17	103	65-139	6.26	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.3	ng/L	1.54	5.00	31.484	<1.54	99.3	67-140	11.8	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	36.6	ng/L	0.644	5.00	31.484	<0.644	116	67-133	15.3	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	31.6	ng/L	0.886	4.61	28.335	<0.886	111	74-131	11.0	30	
Perfluorobutane sulfonic acid (PFBS)	28.3	ng/L	0.351	4.42	27.843	<0.351	102	69-141	8.94	30	
Perfluorobutanoic acid (PFBA)	29.6	ng/L	2.60	5.00	31.484	<2.60	93.4	73-139	1.39	30	
Perfluorobutylsulfonamide (PFBSA)	35.5	ng/L	1.98	5.00	31.484	<1.98	113	68-164	12.2	30	
Perfluorodecane sulfonic acid (PFDS)	25.1	ng/L	1.37	4.82	30.303	<1.37	82.8	64-128	4.78	30	
Perfluorodecanoic acid (PFDA)	30.9	ng/L	1.24	5.00	31.484	<1.24	97.6	77-135	1.56	30	
Perfluorododecanoic acid (PFDOA)	29.4	ng/L	0.691	5.00	31.484	<0.691	93.0	77-137	1.45	30	
Perfluoroheptane sulfonic acid (PFHpS)	25.3	ng/L	0.566	4.76	30.008	<0.566	84.3	70-137	17.1	30	
Perfluoroheptanoic acid (PFHpA)	31.9	ng/L	1.73	5.00	31.484	<1.73	101	67-130	9.26	30	
Perfluorohexane sulfonic acid (PFHxS)	26.3	ng/L	0.903	4.55	28.63	<0.903	89.6	68-131	0.102	30	
Perfluorohexanesulfonamide (PFHxSA)	27.0	ng/L	0.878	5.00	31.484	<0.878	85.6	69-135	1.51	30	
Perfluorohexanoic acid (PFHxA)	29.9	ng/L	1.20	5.00	31.484	<1.20	94.2	72-129	5.16	30	
Perfluorononane sulfonic acid (PFNS)	28.8	ng/L	0.496	4.80	30.205	<0.496	95.4	70-132	9.95	30	
Perfluorononanoic acid (PFNA)	31.5	ng/L	0.870	5.00	31.484	<0.870	98.5	75-131	3.06	30	
Perfluorooctane sulfonamide (PFOSAm)	33.3	ng/L	0.711	5.00	31.484	<0.711	104	66-140	11.6	30	
Perfluorooctane sulfonic acid (PFOS)	26.0	ng/L	0.892	1.86	29.221	<0.892	88.1	72-133	3.67	30	
Perfluorooctanoic acid (PFOA)	31.5	ng/L	0.630	2.00	31.484	<0.630	99.0	71-133	17.6	30	
Perfluoropentane sulfonic acid (PFPeS)	30.5	ng/L	0.556	4.69	29.516	<0.556	103	73-137	2.89	30	
Perfluoropentanoic acid (PFPeA)	32.3	ng/L	1.28	5.00	31.484	<1.28	102	72-129	9.83	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2314258	**Run ID:**	3663886

MSD	**CLIENT ID: Batch QC**	**Lab ID: QC-2314258-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 03:07

Prep Date: 11/03/25 16:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroundecanoic acid (PFUnDA)	30.3	ng/L	0.974	5.00	31.484	<0.974	94.6	80-135	0.557	30	
Surr: 13C2-FtS 4:2	***146***	*ng/L*			147.03		99.5	*50-150*	11.1	30	
Surr: 13C2-FtS 8:2	***175***	*ng/L*			150.81		116	*50-150*	20.5	30	
Surr: 13C2-PFDA	***147***	*ng/L*			157.42		93.1	*50-150*	0.984	30	
Surr: 13C2-PFDoA	***161***	*ng/L*			157.42		102	*50-150*	4.74	30	
Surr: 13C2-PFHxA	***154***	*ng/L*			157.42		97.8	*50-150*	0.366	30	
Surr: 13C2-PFUnA	***160***	*ng/L*			157.42		101	*50-150*	4.11	30	
Surr: 13C3-HFPO-DA	***158***	*ng/L*			157.42		100	*41-142*	17.4	30	
Surr: 13C3-PFBS	***131***	*ng/L*			146.4		89.4	*50-150*	11.8	30	
Surr: 13C4-PFBA	***179***	*ng/L*			157.42		114	*50-150*	4.42	30	
Surr: 13C4-PFHpA	***155***	*ng/L*			157.42		98.5	*42-141*	17.7	30	
Surr: 13C4-PFOA	***154***	*ng/L*			157.42		98.1	*50-150*	3.10	30	
Surr: 13C4-PFOS	***151***	*ng/L*			150.33		100	*50-150*	3.01	30	
Surr: 13C5-PFNA	***162***	*ng/L*			157.42		103	*50-150*	5.67	30	
Surr: 13C5-PFPeA	***149***	*ng/L*			157.42		94.8	*43-138*	15.5	30	
Surr: 13C8-FOSA	***127***	*ng/L*			157.42		80.5	*30-122*	18.4	30	
Surr: 18O2-PFHxS	***144***	*ng/L*			148.76		96.5	*50-150*	10.5	30	
Surr: d3-N-MeFOSAA	***133***	*ng/L*			157.42		84.8	*35-136*	13.2	30	
Surr: d5-N-EtFOSAA	***142***	*ng/L*			157.42		90.1	*34-142*	14.2	30	

The following samples were analyzed in this batch: HN2516257-012, HN2516257-013, HN2516257-014

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2318809-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:55 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	25.5	ng/L	1.92	4.74							B
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3664587

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2318809-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:55 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***151***	*ng/L*			149.44		101	*50-150*			
Surr: 13C2-FtS 6:2	***150***	*ng/L*			152		98.8	*50-150*			
Surr: 13C2-FtS 8:2	***158***	*ng/L*			153.28		103	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			160		80.4	*50-150*			
Surr: 13C2-PFDoA	***134***	*ng/L*			160		84.0	*50-150*			
Surr: 13C2-PFHxA	***148***	*ng/L*			160		92.8	*50-150*			
Surr: 13C2-PFTeA	***62.9***	*ng/L*			160		39.3	*27-134*			
Surr: 13C2-PFUnA	***139***	*ng/L*			160		87.1	*50-150*			
Surr: 13C3-HFPO-DA	***141***	*ng/L*			160		88.4	*41-142*			
Surr: 13C3-PFBS	***134***	*ng/L*			148.8		90.1	*50-150*			
Surr: 13C4-PFBA	***162***	*ng/L*			160		102	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.6	*42-141*			
Surr: 13C4-PFOA	***145***	*ng/L*			160		90.4	*50-150*			
Surr: 13C4-PFOS	***130***	*ng/L*			152.8		85.1	*50-150*			
Surr: 13C5-PFNA	***152***	*ng/L*			160		95.3	*50-150*			
Surr: 13C5-PFPeA	***148***	*ng/L*			160		92.5	*43-138*			
Surr: 13C8-FOSA	***116***	*ng/L*			160		72.6	*30-122*			
Surr: 18O2-PFHxS	***128***	*ng/L*			151.2		84.6	*50-150*			
Surr: d3-N-MeFOSAA	***122***	*ng/L*			160		76.2	*35-136*			
Surr: d5-N-EtFOSAA	***133***	*ng/L*			160		82.9	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	32.2	ng/L	0.467	4.71	30.1		107	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.6	ng/L	1.13	4.79	30.7		103	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	31.8	ng/L	0.936	4.67	29.9		106	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	71.0	ng/L	1.92	4.74	30.3		234	66-151			S
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.5	ng/L	1.08	5.00	32		86.0	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2318809-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 02:09

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	36.0	ng/L	3.02	5.00	32		113	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36.0	ng/L	1.39	5.00	32		112	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.8	ng/L	0.562	4.71	30.1		99.1	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	32.2	ng/L	0.448	4.66	29.8		108	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	33.1	ng/L	1.17	5.00	32		104	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	35.1	ng/L	1.54	5.00	32		110	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	37.6	ng/L	0.886	4.61	28.8		130	74-131			
Perfluorobutane sulfonic acid (PFBS)	30.5	ng/L	0.351	4.42	28.3		108	69-131			
Perfluorobutanoic acid (PFBA)	34.9	ng/L	2.60	5.00	32		109	73-139			
Perfluorobutylsulfonamide (PFBSA)	40.3	ng/L	1.98	5.00	32		126	68-164			
Perfluorodecane sulfonic acid (PFDS)	30.7	ng/L	1.37	4.82	30.8		99.6	64-128			
Perfluorodecanoic acid (PFDA)	35.5	ng/L	1.24	5.00	32		111	77-135			
Perfluorododecanoic acid (PFDOA)	36.0	ng/L	0.691	5.00	32		112	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.5	ng/L	0.566	4.76	30.5		103	70-137			
Perfluoroheptanoic acid (PFHpA)	32.4	ng/L	1.73	5.00	32		101	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.0	ng/L	0.903	4.55	29.1		99.7	68-131			
Perfluorohexanesulfonamide (PFHxSA)	31.0	ng/L	0.878	5.00	32		97.0	69-135			
Perfluorohexanoic acid (PFHxA)	34.0	ng/L	1.20	5.00	32		106	72-129			
Perfluorononane sulfonic acid (PFNS)	31.8	ng/L	0.496	4.80	30.7		104	70-132			
Perfluorononanoic acid (PFNA)	36.4	ng/L	0.870	5.00	32		114	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.9	ng/L	0.711	5.00	32		109	66-140			
Perfluorooctane sulfonic acid (PFOS)	32.5	ng/L	0.892	1.86	29.7		110	72-133			
Perfluorooctanoic acid (PFOA)	34.6	ng/L	0.630	2.00	32		108	71-133			
Perfluoropentane sulfonic acid (PFPeS)	33.2	ng/L	0.556	4.69	30		111	73-137			
Perfluoropentanoic acid (PFPeA)	33.9	ng/L	1.28	5.00	32		106	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.1	ng/L	2.64	5.00	32		91.0	62-139			
Perfluorotridecanoic acid (PFTrDA)	44.4	ng/L	1.93	5.00	32		139	47-147			
Perfluoroundecanoic acid (PFUnDA)	37.4	ng/L	0.974	5.00	32		117	80-135			
Surr: 13C2-FtS 4:2	***124***	*ng/L*			149.44		83.0	*50-150*			
Surr: 13C2-FtS 6:2	***147***	*ng/L*			152		96.8	*50-150*			
Surr: 13C2-FtS 8:2	***148***	*ng/L*			153.28		96.6	*50-150*			
Surr: 13C2-PFDA	***119***	*ng/L*			160		74.3	*50-150*			
Surr: 13C2-PFDoA	***120***	*ng/L*			160		75.3	*50-150*			
Surr: 13C2-PFHxA	***122***	*ng/L*			160		76.0	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3664587

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***80.5***	*ng/L*			160		50.3	*27-134*			
Surr: 13C2-PFUnA	***115***	*ng/L*			160		72.2	*50-150*			
Surr: 13C3-HFPO-DA	***125***	*ng/L*			160		78.4	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			148.8		74.5	*50-150*			
Surr: 13C4-PFBA	***131***	*ng/L*			160		82.1	*50-150*			
Surr: 13C4-PFHpA	***128***	*ng/L*			160		79.7	*42-141*			
Surr: 13C4-PFOA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C4-PFOS	***105***	*ng/L*			152.8		68.9	*50-150*			
Surr: 13C5-PFNA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C5-PFPeA	***127***	*ng/L*			160		79.3	*43-138*			
Surr: 13C8-FOSA	***102***	*ng/L*			160		63.9	*30-122*			
Surr: 18O2-PFHxS	***112***	*ng/L*			151.2		74.2	*50-150*			
Surr: d3-N-MeFOSAA	***113***	*ng/L*			160		70.7	*35-136*			
Surr: d5-N-EtFOSAA	***112***	*ng/L*			160		70.1	*34-142*			

MS | **CLIENT ID: MW-12-18_102925** | **Lab ID: QC-2318809-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 07:13 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25.7	ng/L	0.461	4.65	29.722	<0.461	86.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.8	ng/L	1.12	4.73	30.314	<1.12	113	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.8	ng/L	0.924	4.61	29.524	<0.924	104	67-143			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	32.8	ng/L	1.07	4.94	31.598	<1.07	103	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	2.98	4.94	31.598	<2.98	114	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.1	ng/L	1.37	4.94	31.598	2.07	101	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.5	ng/L	0.555	4.65	29.722	<0.555	96.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.6	ng/L	0.442	4.60	29.426	<0.442	93.7	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	34.9	ng/L	1.16	4.94	31.598	<1.16	110	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.4	ng/L	1.53	4.94	31.598	<1.53	93.0	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.636	4.94	31.598	<0.636	108	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	33.6	ng/L	0.875	4.55	28.438	3.00	107	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.9	ng/L	0.347	4.36	27.945	0.811	104	69-141			
Perfluorobutanoic acid (PFBA)	40.7	ng/L	2.57	4.94	31.598	8.82	101	73-139			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MS	**CLIENT ID: MW-12-18_102925**	**Lab ID: QC-2318809-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 07:13

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutylsulfonamide (PFBSA)	36.2	ng/L	1.96	4.94	31.598	<1.96	113	68-164			
Perfluorodecane sulfonic acid (PFDS)	25.6	ng/L	1.35	4.76	30.413	<1.35	84.1	64-128			
Perfluorodecanoic acid (PFDA)	33.5	ng/L	1.22	4.94	31.598	<1.22	105	77-135			
Perfluorododecanoic acid (PFDOA)	33.8	ng/L	0.682	4.94	31.598	<0.682	107	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.7	ng/L	0.559	4.70	30.117	<0.559	98.5	70-137			
Perfluoroheptanoic acid (PFHpA)	34.5	ng/L	1.71	4.94	31.598	3.71	97.5	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.5	ng/L	0.892	4.49	28.734	1.41	97.8	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.7	ng/L	0.867	4.94	31.598	<0.867	107	69-135			
Perfluorohexanoic acid (PFHxA)	35.1	ng/L	1.18	4.94	31.598	5.06	95.1	72-129			
Perfluorononane sulfonic acid (PFNS)	25.7	ng/L	0.490	4.74	30.314	<0.490	84.6	70-132			
Perfluorononanoic acid (PFNA)	32.4	ng/L	0.859	4.94	31.598	<0.859	101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	33.1	ng/L	0.702	4.94	31.598	<0.702	104	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.0	ng/L	0.881	1.83	29.327	<0.881	91.2	72-133			
Perfluorooctanoic acid (PFOA)	32.5	ng/L	0.622	1.97	31.598	3.89	90.4	71-133			
Perfluoropentane sulfonic acid (PFPeS)	32.2	ng/L	0.549	4.63	29.623	<0.549	107	73-137			
Perfluoropentanoic acid (PFPeA)	40.1	ng/L	1.26	4.94	31.598	6.92	105	72-129			
Perfluorotetradecanoic acid (PFTDA)	34.1	ng/L	2.61	4.94	31.598	<2.61	107	62-139			
Perfluorotridecanoic acid (PFTrDA)	34.8	ng/L	1.91	4.94	31.598	<1.91	108	47-147			
Perfluoroundecanoic acid (PFUnDA)	33.7	ng/L	0.962	4.94	31.598	<0.962	105	80-135			
Surr: 13C2-FtS 4:2	***123***	*ng/L*			147.56		83.2	*50-150*			
Surr: 13C2-FtS 8:2	***137***	*ng/L*			151.35		90.8	*50-150*			
Surr: 13C2-PFDA	***122***	*ng/L*			157.99		77.2	*50-150*			
Surr: 13C2-PFDoA	***113***	*ng/L*			157.99		71.8	*50-150*			
Surr: 13C2-PFHxA	***118***	*ng/L*			157.99		74.6	*50-150*			
Surr: 13C2-PFTeA	***103***	*ng/L*			157.99		65.0	*27-134*			
Surr: 13C2-PFUnA	***119***	*ng/L*			157.99		75.2	*50-150*			
Surr: 13C3-HFPO-DA	***118***	*ng/L*			157.99		74.6	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			146.93		75.7	*50-150*			
Surr: 13C4-PFBA	***144***	*ng/L*			157.99		91.0	*50-150*			
Surr: 13C4-PFHpA	***117***	*ng/L*			157.99		73.8	*42-141*			
Surr: 13C4-PFOA	***126***	*ng/L*			157.99		79.5	*50-150*			
Surr: 13C4-PFOS	***125***	*ng/L*			150.88		82.9	*50-150*			
Surr: 13C5-PFNA	***121***	*ng/L*			157.99		76.7	*50-150*			
Surr: 13C5-PFPeA	***129***	*ng/L*			157.99		81.5	*43-138*			
Surr: 13C8-FOSA	***106***	*ng/L*			157.99		66.9	*30-122*			
Surr: 18O2-PFHxS	***109***	*ng/L*			149.3		73.1	*50-150*			
Surr: d3-N-MeFOSAA	***103***	*ng/L*			157.99		65.0	*35-136*			
Surr: d5-N-EtFOSAA	***109***	*ng/L*			157.99		69.1	*34-142*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3664587

MSD | **CLIENT ID: MW-12-18_102925** | **Lab ID: QC-2318809-006**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 07:27
Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.9	ng/L	0.467	4.71	29.484	<0.467	94.5	61-128	8.27	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	32.1	ng/L	1.13	4.79	30.072	<1.13	105	61-148	8.02	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.2	ng/L	0.936	4.67	29.288	<0.936	103	67-143	1.86	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.7	ng/L	1.08	5.00	31.346	<1.08	107	39-117	2.70	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.0	ng/L	3.02	5.00	31.346	<3.02	108	71-138	5.62	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.7	ng/L	1.39	5.00	31.346	2.07	104	64-134	1.65	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.8	ng/L	0.562	4.71	29.484	<0.562	97.5	74-135	0.747	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.3	ng/L	0.448	4.66	29.191	<0.448	93.4	69-133	1.15	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.9	ng/L	1.17	5.00	31.346	<1.17	101	65-139	8.86	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.2	ng/L	1.54	5.00	31.346	<1.54	99.3	67-140	5.80	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.5	ng/L	0.644	5.00	31.346	<0.644	113	67-133	3.43	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	36.0	ng/L	0.886	4.61	28.211	3.00	117	74-131	7.07	30	
Perfluorobutane sulfonic acid (PFBS)	30.4	ng/L	0.351	4.42	27.721	0.811	107	69-141	1.55	30	
Perfluorobutanoic acid (PFBA)	41.4	ng/L	2.60	5.00	31.346	8.82	104	73-139	1.61	30	
Perfluorobutylsulfonamide (PFBSA)	36.4	ng/L	1.98	5.00	31.346	<1.98	115	68-164	0.776	30	
Perfluorodecane sulfonic acid (PFDS)	29.6	ng/L	1.37	4.82	30.17	<1.37	98.0	64-128	14.4	30	
Perfluorodecanoic acid (PFDA)	32.9	ng/L	1.24	5.00	31.346	<1.24	104	77-135	1.65	30	
Perfluorododecanoic acid (PFDOA)	32.6	ng/L	0.691	5.00	31.346	<0.691	104	77-137	3.56	30	
Perfluoroheptane sulfonic acid (PFHpS)	29.8	ng/L	0.566	4.76	29.876	<0.566	99.7	70-137	0.414	30	
Perfluoroheptanoic acid (PFHpA)	34.9	ng/L	1.73	5.00	31.346	3.71	99.6	67-130	1.15	30	
Perfluorohexane sulfonic acid (PFHxS)	31.2	ng/L	0.903	4.55	28.505	1.41	104	68-131	5.51	30	
Perfluorohexanesulfonamide (PFHxSA)	30.0	ng/L	0.878	5.00	31.346	<0.878	95.7	69-135	11.6	30	
Perfluorohexanoic acid (PFHxA)	35.7	ng/L	1.20	5.00	31.346	5.06	97.8	72-129	1.74	30	
Perfluorononane sulfonic acid (PFNS)	31.5	ng/L	0.496	4.80	30.072	<0.496	105	70-132	20.5	30	
Perfluorononanoic acid (PFNA)	32.6	ng/L	0.870	5.00	31.346	<0.870	103	75-131	0.613	30	
Perfluorooctane sulfonamide (PFOSAm)	35.5	ng/L	0.711	5.00	31.346	<0.711	113	66-140	7.13	30	
Perfluorooctane sulfonic acid (PFOS)	28.4	ng/L	0.892	1.86	29.093	<0.892	97.0	72-133	5.30	30	
Perfluorooctanoic acid (PFOA)	37.0	ng/L	0.630	2.00	31.346	3.89	106	71-133	13.0	30	
Perfluoropentane sulfonic acid (PFPeS)	33.0	ng/L	0.556	4.69	29.386	<0.556	111	73-137	2.58	30	
Perfluoropentanoic acid (PFPeA)	38.9	ng/L	1.28	5.00	31.346	6.92	102	72-129	2.95	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MSD	**CLIENT ID: MW-12-18_102925**	**Lab ID: QC-2318809-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 07:27

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorotetradecanoic acid (PFTDA)	35.3	ng/L	2.64	5.00	31.346	<2.64	112	62-139	3.31	30	
Perfluorotridecanoic acid (PFTrDA)	31.3	ng/L	1.93	5.00	31.346	<1.93	97.7	47-147	10.7	30	
Perfluoroundecanoic acid (PFUnDA)	33.2	ng/L	0.974	5.00	31.346	<0.974	104	80-135	1.65	30	
Surr: 13C2-FtS 4:2	***128***	*ng/L*			146.38		87.1	*50-150*	3.79	30	
Surr: 13C2-FtS 8:2	***148***	*ng/L*			150.14		98.9	*50-150*	7.76	30	
Surr: 13C2-PFDA	***123***	*ng/L*			156.73		78.3	*50-150*	0.582	30	
Surr: 13C2-PFDoA	***123***	*ng/L*			156.73		78.6	*50-150*	8.24	30	
Surr: 13C2-PFHxA	***123***	*ng/L*			156.73		78.5	*50-150*	4.32	30	
Surr: 13C2-PFTeA	***117***	*ng/L*			156.73		74.5	*27-134*	12.7	30	
Surr: 13C2-PFUnA	***126***	*ng/L*			156.73		80.4	*50-150*	5.93	30	
Surr: 13C3-HFPO-DA	***129***	*ng/L*			156.73		82.6	*41-142*	9.34	30	
Surr: 13C3-PFBS	***112***	*ng/L*			145.76		76.9	*50-150*	0.787	30	
Surr: 13C4-PFBA	***145***	*ng/L*			156.73		92.6	*50-150*	0.966	30	
Surr: 13C4-PFHpA	***127***	*ng/L*			156.73		80.9	*42-141*	8.35	30	
Surr: 13C4-PFOA	***119***	*ng/L*			156.73		75.8	*50-150*	5.52	30	
Surr: 13C4-PFOS	***125***	*ng/L*			149.67		83.7	*50-150*	0.228	30	
Surr: 13C5-PFNA	***130***	*ng/L*			156.73		83.1	*50-150*	7.24	30	
Surr: 13C5-PFPeA	***134***	*ng/L*			156.73		85.3	*43-138*	3.75	30	
Surr: 13C8-FOSA	***107***	*ng/L*			156.73		68.1	*30-122*	1.00	30	
Surr: 18O2-PFHxS	***115***	*ng/L*			148.11		77.6	*50-150*	5.15	30	
Surr: d3-N-MeFOSAA	***110***	*ng/L*			156.73		70.1	*35-136*	6.77	30	
Surr: d5-N-EtFOSAA	***115***	*ng/L*			156.73		73.5	*34-142*	5.42	30	

The following samples were analyzed in this batch: HN2516257-007, HN2516257-012, HN2516257-015, HN2516257-016, HN2516257-018, HN2516257-019

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323203

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3668512

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323203-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 20:38 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323203

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3668512

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323203-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 20:38 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***151***	*ng/L*			149.44		101	*50-150*			
Surr: 13C2-FtS 6:2	***163***	*ng/L*			152		107	*50-150*			
Surr: 13C2-FtS 8:2	***162***	*ng/L*			153.28		106	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			160		80.5	*50-150*			
Surr: 13C2-PFDoA	***129***	*ng/L*			160		80.7	*50-150*			
Surr: 13C2-PFHxA	***141***	*ng/L*			160		88.4	*50-150*			
Surr: 13C2-PFTeA	***85.5***	*ng/L*			160		53.4	*27-134*			
Surr: 13C2-PFUnA	***135***	*ng/L*			160		84.3	*50-150*			
Surr: 13C3-HFPO-DA	***141***	*ng/L*			160		87.9	*41-142*			
Surr: 13C3-PFBS	***118***	*ng/L*			148.8		79.3	*50-150*			
Surr: 13C4-PFBA	***138***	*ng/L*			160		86.3	*50-150*			
Surr: 13C4-PFHpA	***154***	*ng/L*			160		96.2	*42-141*			
Surr: 13C4-PFOA	***141***	*ng/L*			160		88.1	*50-150*			
Surr: 13C4-PFOS	***116***	*ng/L*			152.8		75.8	*50-150*			
Surr: 13C5-PFNA	***148***	*ng/L*			160		92.5	*50-150*			
Surr: 13C5-PFPeA	***134***	*ng/L*			160		83.8	*43-138*			
Surr: 13C8-FOSA	***117***	*ng/L*			160		73.3	*30-122*			
Surr: 18O2-PFHxS	***114***	*ng/L*			151.2		75.6	*50-150*			
Surr: d3-N-MeFOSAA	***130***	*ng/L*			160		81.2	*35-136*			
Surr: d5-N-EtFOSAA	***124***	*ng/L*			160		77.6	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323203-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 12:31 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	21.8	ng/L	0.467	4.71	30.1		72.4	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.2	ng/L	1.13	4.79	30.7		108	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.1	ng/L	0.936	4.67	29.9		101	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.3	ng/L	1.92	4.74	30.3		99.9	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.1	ng/L	1.08	5.00	32		84.8	39-117			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323203	**Run ID:**	3668512

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2323203-002

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/07/25 12:31

Prep Date: 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	37.4	ng/L	3.02	5.00	32		117	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38.4	ng/L	1.39	5.00	32		120	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	31.7	ng/L	0.562	4.71	30.1		105	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	29.4	ng/L	0.448	4.66	29.8		98.5	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	34.8	ng/L	1.17	5.00	32		109	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	42.2	ng/L	1.54	5.00	32		132	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	36.6	ng/L	0.644	5.00	32		114	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	36.7	ng/L	0.886	4.61	28.8		128	74-131			
Perfluorobutane sulfonic acid (PFBS)	27.0	ng/L	0.351	4.42	28.3		95.3	69-131			
Perfluorobutanoic acid (PFBA)	33.1	ng/L	2.60	5.00	32		104	73-139			
Perfluorobutylsulfonamide (PFBSA)	33.7	ng/L	1.98	5.00	32		105	68-164			
Perfluorodecane sulfonic acid (PFDS)	20.1	ng/L	1.37	4.82	30.8		65.1	64-128			
Perfluorodecanoic acid (PFDA)	33.4	ng/L	1.24	5.00	32		104	77-135			
Perfluorododecanoic acid (PFDOA)	31.7	ng/L	0.691	5.00	32		99.0	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	35.4	ng/L	0.566	4.76	30.5		116	70-137			
Perfluoroheptanoic acid (PFHpA)	30.2	ng/L	1.73	5.00	32		94.3	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.5	ng/L	0.903	4.55	29.1		101	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.0	ng/L	0.878	5.00	32		103	69-135			
Perfluorohexanoic acid (PFHxA)	31.4	ng/L	1.20	5.00	32		98.3	72-129			
Perfluorononane sulfonic acid (PFNS)	25.4	ng/L	0.496	4.80	30.7		82.9	70-132			
Perfluorononanoic acid (PFNA)	35.8	ng/L	0.870	5.00	32		112	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.2	ng/L	0.711	5.00	32		107	66-140			
Perfluorooctane sulfonic acid (PFOS)	30.1	ng/L	0.892	1.86	29.7		101	72-133			
Perfluorooctanoic acid (PFOA)	31.7	ng/L	0.630	2.00	32		99.1	71-133			
Perfluoropentane sulfonic acid (PFPeS)	35.1	ng/L	0.556	4.69	30		117	73-137			
Perfluoropentanoic acid (PFPeA)	30.4	ng/L	1.28	5.00	32		94.9	72-129			
Perfluorotetradecanoic acid (PFTDA)	28.9	ng/L	2.64	5.00	32		90.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.93	5.00	32		104	47-147			
Perfluoroundecanoic acid (PFUnDA)	36.4	ng/L	0.974	5.00	32		114	80-135			
Surr: 13C2-FtS 4:2	***166***	*ng/L*			149.44		111	*50-150*			
Surr: 13C2-FtS 6:2	***159***	*ng/L*			152		105	*50-150*			
Surr: 13C2-FtS 8:2	***169***	*ng/L*			153.28		110	*50-150*			
Surr: 13C2-PFDA	***137***	*ng/L*			160		85.5	*50-150*			
Surr: 13C2-PFDoA	***106***	*ng/L*			160		66.4	*50-150*			
Surr: 13C2-PFHxA	***151***	*ng/L*			160		94.6	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323203	**Run ID:**	3668512

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323203-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 12:31 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***81.4***	*ng/L*			160		50.9	*27-134*			
Surr: 13C2-PFUnA	***126***	*ng/L*			160		78.8	*50-150*			
Surr: 13C3-HFPO-DA	***146***	*ng/L*			160		91.2	*41-142*			
Surr: 13C3-PFBS	***125***	*ng/L*			148.8		83.7	*50-150*			
Surr: 13C4-PFBA	***160***	*ng/L*			160		100	*50-150*			
Surr: 13C4-PFHpA	***154***	*ng/L*			160		96.0	*42-141*			
Surr: 13C4-PFOA	***158***	*ng/L*			160		98.6	*50-150*			
Surr: 13C4-PFOS	***114***	*ng/L*			152.8		74.3	*50-150*			
Surr: 13C5-PFNA	***133***	*ng/L*			160		83.0	*50-150*			
Surr: 13C5-PFPeA	***148***	*ng/L*			160		92.4	*43-138*			
Surr: 13C8-FOSA	***124***	*ng/L*			160		77.8	*30-122*			
Surr: 18O2-PFHxS	***109***	*ng/L*			151.2		72.0	*50-150*			
Surr: d3-N-MeFOSAA	***114***	*ng/L*			160		71.3	*35-136*			
Surr: d5-N-EtFOSAA	***105***	*ng/L*			160		65.6	*34-142*			

MS | **CLIENT ID: MW-12-18_102925** | **Lab ID: QC-2323203-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 04:20 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.8	ng/L	1.93	4.67	30.49	<1.93	103	66-151			
Surr: 13C2-FtS 6:2	***172***	*ng/L*			152.95		112	*50-150*			

MSD | **CLIENT ID: MW-12-18_102925** | **Lab ID: QC-2323203-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/07/25 04:35 | **Prep Date:** 11/06/25 17:13

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.5	ng/L	1.92	4.74	29.477	<1.92	102	66-151	4.24	30	
Surr: 13C2-FtS 6:2	***165***	*ng/L*			147.87		111	*50-150*	4.26	30	

The following samples were analyzed in this batch: HN2516257-007, HN2516257-015, HN2516257-016, HN2516257-017, HN2516257-018, HN2516257-019

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323513-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:40 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323513-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:40 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***189***	*ng/L*			149.44		126	*50-150*			
Surr: 13C2-FtS 6:2	***205***	*ng/L*			152		135	*50-150*			
Surr: 13C2-FtS 8:2	***210***	*ng/L*			153.28		137	*50-150*			
Surr: 13C2-PFDA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C2-PFDoA	***145***	*ng/L*			160		90.6	*50-150*			
Surr: 13C2-PFHxA	***176***	*ng/L*			160		110	*50-150*			
Surr: 13C2-PFTeA	***99.2***	*ng/L*			160		62.0	*27-134*			
Surr: 13C2-PFUnA	***164***	*ng/L*			160		103	*50-150*			
Surr: 13C3-HFPO-DA	***174***	*ng/L*			160		109	*41-142*			
Surr: 13C3-PFBS	***149***	*ng/L*			148.8		100	*50-150*			
Surr: 13C4-PFBA	***184***	*ng/L*			160		115	*50-150*			
Surr: 13C4-PFHpA	***187***	*ng/L*			160		117	*42-141*			
Surr: 13C4-PFOA	***179***	*ng/L*			160		112	*50-150*			
Surr: 13C4-PFOS	***144***	*ng/L*			152.8		93.9	*50-150*			
Surr: 13C5-PFNA	***191***	*ng/L*			160		120	*50-150*			
Surr: 13C5-PFPeA	***178***	*ng/L*			160		111	*43-138*			
Surr: 13C8-FOSA	***156***	*ng/L*			160		97.6	*30-122*			
Surr: 18O2-PFHxS	***141***	*ng/L*			151.2		93.1	*50-150*			
Surr: d3-N-MeFOSAA	***149***	*ng/L*			160		93.3	*35-136*			
Surr: d5-N-EtFOSAA	***154***	*ng/L*			160		96.3	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:55 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	18.3	ng/L	0.467	4.71	30.1		60.7	61-128			S
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.2	ng/L	1.13	4.79	30.7		108	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.1	ng/L	0.936	4.67	29.9		93.9	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.5	ng/L	1.92	4.74	30.3		101	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	25.6	ng/L	1.08	5.00	32		80.1	39-117			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323513

Work Order: HN2516257
Date Collected: NA
Date Received: NA
Run ID: 3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 19:55
Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	3.02	5.00	32		112	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	26.2	ng/L	1.39	5.00	32		82.0	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.0	ng/L	0.562	4.71	30.1		89.8	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25.6	ng/L	0.448	4.66	29.8		85.8	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.6	ng/L	1.17	5.00	32		95.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	27.7	ng/L	1.54	5.00	32		86.6	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.2	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.3	ng/L	0.886	4.61	28.8		112	74-131			
Perfluorobutane sulfonic acid (PFBS)	26.7	ng/L	0.351	4.42	28.3		94.4	69-131			
Perfluorobutanoic acid (PFBA)	29.8	ng/L	2.60	5.00	32		93.1	73-139			
Perfluorobutylsulfonamide (PFBSA)	32.1	ng/L	1.98	5.00	32		100	68-164			
Perfluorodecane sulfonic acid (PFDS)	16.5	ng/L	1.37	4.82	30.8		53.6	64-128			S
Perfluorodecanoic acid (PFDA)	30.6	ng/L	1.24	5.00	32		95.7	77-135			
Perfluorododecanoic acid (PFDOA)	28.6	ng/L	0.691	5.00	32		89.4	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	26.4	ng/L	0.566	4.76	30.5		86.5	70-137			
Perfluoroheptanoic acid (PFHpA)	30.8	ng/L	1.73	5.00	32		96.1	67-130			
Perfluorohexane sulfonic acid (PFHxS)	26.5	ng/L	0.903	4.55	29.1		91.0	68-131			
Perfluorohexanesulfonamide (PFHxSA)	19.6	ng/L	0.878	5.00	32		61.2	69-135			S
Perfluorohexanoic acid (PFHxA)	28.8	ng/L	1.20	5.00	32		90.0	72-129			
Perfluorononane sulfonic acid (PFNS)	26.7	ng/L	0.496	4.80	30.7		87.0	70-132			
Perfluorononanoic acid (PFNA)	30.2	ng/L	0.870	5.00	32		94.4	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.5	ng/L	0.711	5.00	32		108	66-140			
Perfluorooctane sulfonic acid (PFOS)	26.8	ng/L	0.892	1.86	29.7		90.2	72-133			
Perfluorooctanoic acid (PFOA)	32.8	ng/L	0.630	2.00	32		102	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.6	ng/L	0.556	4.69	30		98.6	73-137			
Perfluoropentanoic acid (PFPeA)	30.6	ng/L	1.28	5.00	32		95.6	72-129			
Perfluorotetradecanoic acid (PFTDA)	33.1	ng/L	2.64	5.00	32		103	62-139			
Perfluorotridecanoic acid (PFTrDA)	39.2	ng/L	1.93	5.00	32		122	47-147			
Perfluoroundecanoic acid (PFUnDA)	29.7	ng/L	0.974	5.00	32		92.8	80-135			
Surr: 13C2-FtS 4:2	***154***	*ng/L*			149.44		103	*50-150*			
Surr: 13C2-FtS 6:2	***178***	*ng/L*			152		117	*50-150*			
Surr: 13C2-FtS 8:2	***181***	*ng/L*			153.28		118	*50-150*			
Surr: 13C2-PFDA	***147***	*ng/L*			160		92.1	*50-150*			
Surr: 13C2-PFDoA	***124***	*ng/L*			160		77.7	*50-150*			
Surr: 13C2-PFHxA	***155***	*ng/L*			160		97.1	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516257
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:55 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***60.5***	*ng/L*			160		37.8	*27-134*			
Surr: 13C2-PFUnA	***145***	*ng/L*			160		90.5	*50-150*			
Surr: 13C3-HFPO-DA	***155***	*ng/L*			160		96.6	*41-142*			
Surr: 13C3-PFBS	***125***	*ng/L*			148.8		84.1	*50-150*			
Surr: 13C4-PFBA	***156***	*ng/L*			160		97.8	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.8	*42-141*			
Surr: 13C4-PFOA	***155***	*ng/L*			160		96.7	*50-150*			
Surr: 13C4-PFOS	***127***	*ng/L*			152.8		82.8	*50-150*			
Surr: 13C5-PFNA	***163***	*ng/L*			160		102	*50-150*			
Surr: 13C5-PFPeA	***144***	*ng/L*			160		89.8	*43-138*			
Surr: 13C8-FOSA	***95.9***	*ng/L*			160		59.9	*30-122*			
Surr: 18O2-PFHxS	***129***	*ng/L*			151.2		85.3	*50-150*			
Surr: d3-N-MeFOSAA	***124***	*ng/L*			160		77.6	*35-136*			
Surr: d5-N-EtFOSAA	***132***	*ng/L*			160		82.4	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:05 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.6	ng/L	1.89	4.57	29.857	<1.89	105	66-151			
Perfluorotetradecanoic acid (PFTDA)	31.5	ng/L	2.60	4.93	31.532	<2.60	99.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	32.4	ng/L	1.90	4.93	31.532	<1.90	102	47-147			
Surr: 13C2-FtS 6:2	***160***	*ng/L*			149.78		107	*50-150*			
Surr: 13C2-PFTeA	***139***	*ng/L*			157.66		88.0	*27-134*			

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:19 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	28.7	ng/L	1.92	4.74	30.136	<1.92	94.2	66-151	9.46	30	
Perfluorotetradecanoic acid (PFTDA)	31.8	ng/L	2.64	5.00	31.827	<2.64	99.3	62-139	0.961	30	
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.93	5.00	31.827	<1.93	104	47-147	2.40	30	
Surr: 13C2-FtS 6:2	***159***	*ng/L*			151.18		105	*50-150*	0.795	30	
Surr: 13C2-PFTeA	***134***	*ng/L*			159.13		84.1	*27-134*	3.57	30	

The following samples were analyzed in this batch: HN2516257-012, HN2516257-013, HN2516257-014

November 10, 2025

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Date Received: **10/30/2025**
Work Order: **HN2516271**

Re: **RACER Lansing GWS 30267725.0370A**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda
/S/ ALEX CSASZAR on behalf of PM listed above

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2516271

Project: RACER Lansing GWS 30267725.0370A **Date Received:** 30-Oct-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

3 groundwater, water samples were received for analysis at ALS Environmental on 30-Oct-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-20-131_102925			Lab ID: HN2516271-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	5.91		1.38	4.97	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	8.21		0.881	4.59	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.11	J	0.349	4.40	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	20.0		2.59	4.97	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	22.8		1.72	4.97	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.61	J	0.898	4.53	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	23.3		1.19	4.97	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.88	J	0.865	4.97	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	7.55		0.887	1.85	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	32.3		0.627	1.99	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	32.7		1.27	4.97	ng/L	EPA 537Mod

CLIENT ID: MW-20-132_102925			Lab ID: HN2516271-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	4.21	J	1.38	4.98	ng/L	EPA 537Mod
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	11.8		0.883	4.59	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	2.02	J	0.350	4.40	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	19.5		2.59	4.98	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	4.44	J	1.24	4.98	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	18.7		1.72	4.98	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.60	J	0.900	4.53	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	22.6		1.20	4.98	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	7.20		0.867	4.98	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	20.9		0.889	1.85	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	35.7		0.628	1.99	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.755	J	0.554	4.67	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	27.0		1.28	4.98	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Workorder: HN2516271

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516271-001	MW-20-131_102925	GROUNDWATER	10/29/25 16:45	10/30/25 09:15
HN2516271-002	MW-20-132_102925	GROUNDWATER	10/29/25 17:35	10/30/25 09:15
HN2516271-003	EB-04_102925	WATER	10/29/25 17:45	10/30/25 09:15

Chain of Custody Form

Page 1 of 1

☑ ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

Plant 6

ALS Project Manager:		ALS Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	4534600027589	Project Name	RACER Lansing GWS	A	PFAS - Method 537 mod. with isotope dilution per QSM 5.1 (Report ELGE 34 compounds)
Quote #		Project Number	30267725.0370A	B	
Company Name	Arcadis	Bill To Company	Arcadis of MI, LLC	C	
Send Report To	Tiffany.Linder@arcadis.com; Kara.Donahue@arcadis.com	Invoice Attn.	Tiffany.Linder@arcadis.com	D	
Address	28550 Cabot Dr Ste 500	Address	2801 West Saginaw St.	E	
				F	
City/State/Zip	Novi, MI 48377	City/State/Zip	Lansing, MI 48915	G	
Phone	947-465-3086	Phone		H	
Fax		Fax		I	
e-Mail Address	Kara.Donahue@arcadis.com			J	

Environmental Division
Holland
Work Order Reference
HN2516271

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F
1	MW-20-131_102925	10/29/25	1645	GW		3	X					
2	MW-20-132_102925	10/29/25	1735	GW		3	X					
3	EB-04_102925	10/29/25	1745	GW		3	X					
4												
5												
6												
7												
8												
9												
10												

Sampler(s): Please Print & Sign
Austin Westhuis/

Shipment Method:

Turnaround Time: (Business Days)
☐ 10 BD ☐ 5 BD ☐ 3 BD ☐ 2 BD ☐ 1 BD ☑ Other Standard

Results Due Date:
11/30/2025

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
	10/30/25			10/30/25	8:45	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
	10/30/25	9:15		10/30/25	0915	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DFS	10/30/25	1045				

Cooler Temp °C	pH Verified	QC Package: (Check Box Below)	
IR6		☑ Level II: Standard QC	☐ Level III: Raw Data
4.6 c		☐ TRRP LRC	☐ TRRP Level IV
		☐ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035A

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Holland Sample Receiving Checklist

Received by:	Diana F. Shaw
Date/Time:	10/30/25 0915
Carrier Name:	ALS
Shipping container/cooler in good condition?	(Yes) / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / (Not Present)
Custody seals intact on sample bottles?	Yes / No / (Not Present)
Chain of Custody present?	(Yes) / No
COC signed when relinquished and received?	(Yes) / No
COC agrees with sample labels?	(Yes) / No
Samples in proper container/bottle?	(Yes) / No
Sample containers intact?	(Yes) / No
Sufficient sample volume for indicated test?	(Yes) / No
All samples received within holding time?	(Yes) / No
Container/Temp Blank temperature in compliance?	(Yes) / No
Temperature(s) (°C):	4.6/4.6 c
Thermometer(s):	IR6
Sample(s) received on ice?	(Yes) / No
Matrix/Matrices:	GW
Cooler(s)/Kit(s):	1
Date/Time sample(s) sent to storage:	10/30/25 1100
Water – VOA vials have zero headspace?	Yes / No / (No Vials)
Water – pH acceptable upon receipt?	Yes / No / (N/A)
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / (N/A)
pH adjusted by:	_____

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Work Order: HN2516271

Sample Name: MW-20-131_102925
Laboratory Code: HN2516271-001
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	001-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: MW-20-132_102925
Laboratory Code: HN2516271-002
Sample Matrix: GROUNDWATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	002-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Sample Name: EB-04_102925
Laboratory Code: HN2516271-003
Sample Matrix: WATER
Date Collected: 10/29/25
Date Received: 10/30/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2318809	Audrey	3664587	Morgan Morehouse
EPA 537Mod	EPA 537Mod	003-AA	2323513	Clayton Rzepka	3668241	Morgan Morehouse

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-131_102925 **Lab ID: HN2516271-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.69	1	11/06/25 09:23	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.77	1	11/06/25 09:23	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.931	U	ng/L	0.931	4.65	1	11/06/25 09:23	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.69	U	ng/L	1.69	4.10	1	11/06/25 23:46	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.97	1	11/06/25 09:23	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.00	U	ng/L	3.00	4.97	1	11/06/25 09:23	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**5.91**		ng/L	1.38	4.97	1	11/06/25 09:23	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.559	U	ng/L	0.559	4.69	1	11/06/25 09:23	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.446	U	ng/L	0.446	4.64	1	11/06/25 09:23	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.97	1	11/06/25 09:23	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.97	1	11/06/25 09:23	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.641	U	ng/L	0.641	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**8.21**		ng/L	0.881	4.59	1	11/06/25 09:23	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.11**	J	ng/L	0.349	4.40	1	11/06/25 09:23	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**20.0**		ng/L	2.59	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.97	U	ng/L	1.97	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.80	1	11/06/25 09:23	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-131_102925 **Lab ID: HN2516271-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.687	U	ng/L	0.687	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.563	U	ng/L	0.563	4.74	1	11/06/25 09:23	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**22.8**		ng/L	1.72	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.61**	J	ng/L	0.898	4.53	1	11/06/25 09:23	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.873	U	ng/L	0.873	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**23.3**		ng/L	1.19	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.493	U	ng/L	0.493	4.78	1	11/06/25 09:23	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.88**	J	ng/L	0.865	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.707	U	ng/L	0.707	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**7.55**		ng/L	0.887	1.85	1	11/06/25 09:23	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**32.3**		ng/L	0.627	1.99	1	11/06/25 09:23	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.67	1	11/06/25 09:23	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**32.7**		ng/L	1.27	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.63	U	ng/L	2.63	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.97	1	11/06/25 09:23	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.969	U	ng/L	0.969	4.97	1	11/06/25 09:23	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*11/06/25 23:46*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***94.4***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***80.2***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***73.3***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***80.9***		*%REC*		*27-134*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***84.8***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***74.2***		*%REC*		*41-142*	*1*	*11/06/25 09:23*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 16:45
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-131_102925 **Lab ID: HN2516271-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***74.8***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***92.3***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***74.4***		*%REC*		*42-141*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***81.4***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***93.1***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***84.1***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***73.9***		*%REC*		*43-138*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***62.0***		*%REC*		*30-122*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***82.1***		*%REC*		*50-150*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***61.4***		*%REC*		*35-136*	*1*	*11/06/25 09:23*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***69.3***		*%REC*		*34-142*	*1*	*11/06/25 09:23*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-132_102925 **Lab ID: HN2516271-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.69	1	11/06/25 09:37	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.77	1	11/06/25 09:37	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.932	U	ng/L	0.932	4.65	1	11/06/25 09:37	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.68	U	ng/L	1.68	4.06	1	11/07/25 00:00	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.08	U	ng/L	1.08	4.98	1	11/06/25 09:37	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<3.01	U	ng/L	3.01	4.98	1	11/06/25 09:37	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	**4.21**	J	ng/L	1.38	4.98	1	11/06/25 09:37	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.560	U	ng/L	0.560	4.69	1	11/06/25 09:37	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.446	U	ng/L	0.446	4.64	1	11/06/25 09:37	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	4.98	1	11/06/25 09:37	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.98	1	11/06/25 09:37	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.642	U	ng/L	0.642	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	**11.8**		ng/L	0.883	4.59	1	11/06/25 09:37	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.02**	J	ng/L	0.350	4.40	1	11/06/25 09:37	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**19.5**		ng/L	2.59	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.98	U	ng/L	1.98	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.80	1	11/06/25 09:37	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-132_102925 **Lab ID: HN2516271-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**4.44**	J	ng/L	1.24	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.688	U	ng/L	0.688	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.564	U	ng/L	0.564	4.74	1	11/06/25 09:37	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**18.7**		ng/L	1.72	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.60**	J	ng/L	0.900	4.53	1	11/06/25 09:37	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.875	U	ng/L	0.875	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**22.6**		ng/L	1.20	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.494	U	ng/L	0.494	4.78	1	11/06/25 09:37	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	**7.20**		ng/L	0.867	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.708	U	ng/L	0.708	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**20.9**		ng/L	0.889	1.85	1	11/06/25 09:37	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**35.7**		ng/L	0.628	1.99	1	11/06/25 09:37	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.755**	J	ng/L	0.554	4.67	1	11/06/25 09:37	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**27.0**		ng/L	1.28	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.63	U	ng/L	2.63	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.98	1	11/06/25 09:37	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.970	U	ng/L	0.970	4.98	1	11/06/25 09:37	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***130***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*11/07/25 00:00*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.6***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***83.6***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***74.9***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***87.4***		*%REC*		*27-134*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***79.7***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***78.2***		*%REC*		*41-142*	*1*	*11/06/25 09:37*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:35
Matrix:	GROUNDWATER	**Date Received:**	10/30/25 09:15

CLIENT ID: MW-20-132_102925 **Lab ID: HN2516271-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***84.0***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***90.1***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***87.4***		*%REC*		*42-141*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***78.7***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***88.7***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***84.1***		*%REC*		*43-138*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***73.0***		*%REC*		*30-122*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.3***		*%REC*		*50-150*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***68.1***		*%REC*		*35-136*	*1*	*11/06/25 09:37*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***80.1***		*%REC*		*34-142*	*1*	*11/06/25 09:37*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-04_102925 **Lab ID: HN2516271-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.462	U	ng/L	0.462	4.65	1	11/06/25 10:21	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.73	1	11/06/25 10:21	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.925	U	ng/L	0.925	4.62	1	11/06/25 10:21	11/05/25 15:24
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.68	U	ng/L	1.68	4.06	1	11/07/25 00:15	11/06/25 18:20
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	<1.07	U	ng/L	1.07	4.94	1	11/06/25 10:21	11/05/25 15:24
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	<2.98	U	ng/L	2.98	4.94	1	11/06/25 10:21	11/05/25 15:24
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	<1.37	U	ng/L	1.37	4.94	1	11/06/25 10:21	11/05/25 15:24
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.555	U	ng/L	0.555	4.65	1	11/06/25 10:21	11/05/25 15:24
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.443	U	ng/L	0.443	4.61	1	11/06/25 10:21	11/05/25 15:24
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.94	1	11/06/25 10:21	11/05/25 15:24
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.53	U	ng/L	1.53	4.94	1	11/06/25 10:21	11/05/25 15:24
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.636	U	ng/L	0.636	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	<0.876	U	ng/L	0.876	4.56	1	11/06/25 10:21	11/05/25 15:24
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.347	U	ng/L	0.347	4.37	1	11/06/25 10:21	11/05/25 15:24
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	<1.96	U	ng/L	1.96	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.76	1	11/06/25 10:21	11/05/25 15:24

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-04_102925 **Lab ID: HN2516271-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.683	U	ng/L	0.683	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.559	U	ng/L	0.559	4.70	1	11/06/25 10:21	11/05/25 15:24
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.71	U	ng/L	1.71	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.892	U	ng/L	0.892	4.50	1	11/06/25 10:21	11/05/25 15:24
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	<0.868	U	ng/L	0.868	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.490	U	ng/L	0.490	4.74	1	11/06/25 10:21	11/05/25 15:24
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.860	U	ng/L	0.860	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.703	U	ng/L	0.703	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.882	U	ng/L	0.882	1.83	1	11/06/25 10:21	11/05/25 15:24
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.623	U	ng/L	0.623	1.98	1	11/06/25 10:21	11/05/25 15:24
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.549	U	ng/L	0.549	4.63	1	11/06/25 10:21	11/05/25 15:24
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.61	U	ng/L	2.61	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.91	U	ng/L	1.91	4.94	1	11/06/25 10:21	11/05/25 15:24
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.963	U	ng/L	0.963	4.94	1	11/06/25 10:21	11/05/25 15:24
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***86.0***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***124***		*%REC*		*50-150*	*1*	*11/07/25 00:15*	*11/06/25 18:20*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-PFDA	*EPA 537Mod*	***89.0***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-PFDoA	*EPA 537Mod*	***84.6***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-PFHxA	*EPA 537Mod*	***87.8***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-PFTeA	*EPA 537Mod*	***81.7***		*%REC*		*27-134*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C2-PFUnA	*EPA 537Mod*	***83.7***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***73.8***		*%REC*		*41-142*	*1*	*11/06/25 10:21*	*11/05/25 15:24*

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	10/29/25 17:45
Matrix:	WATER	**Date Received:**	10/30/25 09:15

CLIENT ID: EB-04_102925 **Lab ID: HN2516271-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: 13C3-PFBS	*EPA 537Mod*	***74.8***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C4-PFBA	*EPA 537Mod*	***91.5***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C4-PFHpA	*EPA 537Mod*	***88.4***		*%REC*		*42-141*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C4-PFOA	*EPA 537Mod*	***92.2***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C4-PFOS	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C5-PFNA	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C5-PFPeA	*EPA 537Mod*	***78.6***		*%REC*		*43-138*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 13C8-FOSA	*EPA 537Mod*	***67.8***		*%REC*		*30-122*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***69.5***		*%REC*		*35-136*	*1*	*11/06/25 10:21*	*11/05/25 15:24*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.8***		*%REC*		*34-142*	*1*	*11/06/25 10:21*	*11/05/25 15:24*

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516271
Date Collected: NA
Date Received: NA
Run ID: 3664587

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2318809-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:55 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	25.5	ng/L	1.92	4.74							B
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2318809-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 01:55 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***151***	*ng/L*			149.44		101	*50-150*			
Surr: 13C2-FtS 6:2	***150***	*ng/L*			152		98.8	*50-150*			
Surr: 13C2-FtS 8:2	***158***	*ng/L*			153.28		103	*50-150*			
Surr: 13C2-PFDA	***129***	*ng/L*			160		80.4	*50-150*			
Surr: 13C2-PFDoA	***134***	*ng/L*			160		84.0	*50-150*			
Surr: 13C2-PFHxA	***148***	*ng/L*			160		92.8	*50-150*			
Surr: 13C2-PFTeA	***62.9***	*ng/L*			160		39.3	*27-134*			
Surr: 13C2-PFUnA	***139***	*ng/L*			160		87.1	*50-150*			
Surr: 13C3-HFPO-DA	***141***	*ng/L*			160		88.4	*41-142*			
Surr: 13C3-PFBS	***134***	*ng/L*			148.8		90.1	*50-150*			
Surr: 13C4-PFBA	***162***	*ng/L*			160		102	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.6	*42-141*			
Surr: 13C4-PFOA	***145***	*ng/L*			160		90.4	*50-150*			
Surr: 13C4-PFOS	***130***	*ng/L*			152.8		85.1	*50-150*			
Surr: 13C5-PFNA	***152***	*ng/L*			160		95.3	*50-150*			
Surr: 13C5-PFPeA	***148***	*ng/L*			160		92.5	*43-138*			
Surr: 13C8-FOSA	***116***	*ng/L*			160		72.6	*30-122*			
Surr: 18O2-PFHxS	***128***	*ng/L*			151.2		84.6	*50-150*			
Surr: d3-N-MeFOSAA	***122***	*ng/L*			160		76.2	*35-136*			
Surr: d5-N-EtFOSAA	***133***	*ng/L*			160		82.9	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	32.2	ng/L	0.467	4.71	30.1		107	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.6	ng/L	1.13	4.79	30.7		103	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	31.8	ng/L	0.936	4.67	29.9		106	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	71.0	ng/L	1.92	4.74	30.3		234	66-151			S
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	27.5	ng/L	1.08	5.00	32		86.0	39-117			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516271
Date Collected: NA
Date Received: NA
Run ID: 3664587

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	36.0	ng/L	3.02	5.00	32		113	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36.0	ng/L	1.39	5.00	32		112	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.8	ng/L	0.562	4.71	30.1		99.1	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	32.2	ng/L	0.448	4.66	29.8		108	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	33.1	ng/L	1.17	5.00	32		104	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	35.1	ng/L	1.54	5.00	32		110	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	37.6	ng/L	0.886	4.61	28.8		130	74-131			
Perfluorobutane sulfonic acid (PFBS)	30.5	ng/L	0.351	4.42	28.3		108	69-131			
Perfluorobutanoic acid (PFBA)	34.9	ng/L	2.60	5.00	32		109	73-139			
Perfluorobutylsulfonamide (PFBSA)	40.3	ng/L	1.98	5.00	32		126	68-164			
Perfluorodecane sulfonic acid (PFDS)	30.7	ng/L	1.37	4.82	30.8		99.6	64-128			
Perfluorodecanoic acid (PFDA)	35.5	ng/L	1.24	5.00	32		111	77-135			
Perfluorododecanoic acid (PFDOA)	36.0	ng/L	0.691	5.00	32		112	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.5	ng/L	0.566	4.76	30.5		103	70-137			
Perfluoroheptanoic acid (PFHpA)	32.4	ng/L	1.73	5.00	32		101	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.0	ng/L	0.903	4.55	29.1		99.7	68-131			
Perfluorohexanesulfonamide (PFHxSA)	31.0	ng/L	0.878	5.00	32		97.0	69-135			
Perfluorohexanoic acid (PFHxA)	34.0	ng/L	1.20	5.00	32		106	72-129			
Perfluorononane sulfonic acid (PFNS)	31.8	ng/L	0.496	4.80	30.7		104	70-132			
Perfluorononanoic acid (PFNA)	36.4	ng/L	0.870	5.00	32		114	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.9	ng/L	0.711	5.00	32		109	66-140			
Perfluorooctane sulfonic acid (PFOS)	32.5	ng/L	0.892	1.86	29.7		110	72-133			
Perfluorooctanoic acid (PFOA)	34.6	ng/L	0.630	2.00	32		108	71-133			
Perfluoropentane sulfonic acid (PFPeS)	33.2	ng/L	0.556	4.69	30		111	73-137			
Perfluoropentanoic acid (PFPeA)	33.9	ng/L	1.28	5.00	32		106	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.1	ng/L	2.64	5.00	32		91.0	62-139			
Perfluorotridecanoic acid (PFTrDA)	44.4	ng/L	1.93	5.00	32		139	47-147			
Perfluoroundecanoic acid (PFUnDA)	37.4	ng/L	0.974	5.00	32		117	80-135			
Surr: 13C2-FtS 4:2	***124***	*ng/L*			149.44		83.0	*50-150*			
Surr: 13C2-FtS 6:2	***147***	*ng/L*			152		96.8	*50-150*			
Surr: 13C2-FtS 8:2	***148***	*ng/L*			153.28		96.6	*50-150*			
Surr: 13C2-PFDA	***119***	*ng/L*			160		74.3	*50-150*			
Surr: 13C2-PFDoA	***120***	*ng/L*			160		75.3	*50-150*			
Surr: 13C2-PFHxA	***122***	*ng/L*			160		76.0	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2318809

Work Order: HN2516271
Date Collected: NA
Date Received: NA
Run ID: 3664587

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2318809-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 02:09 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***80.5***	*ng/L*			160		50.3	*27-134*			
Surr: 13C2-PFUnA	***115***	*ng/L*			160		72.2	*50-150*			
Surr: 13C3-HFPO-DA	***125***	*ng/L*			160		78.4	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			148.8		74.5	*50-150*			
Surr: 13C4-PFBA	***131***	*ng/L*			160		82.1	*50-150*			
Surr: 13C4-PFHpA	***128***	*ng/L*			160		79.7	*42-141*			
Surr: 13C4-PFOA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C4-PFOS	***105***	*ng/L*			152.8		68.9	*50-150*			
Surr: 13C5-PFNA	***128***	*ng/L*			160		79.8	*50-150*			
Surr: 13C5-PFPeA	***127***	*ng/L*			160		79.3	*43-138*			
Surr: 13C8-FOSA	***102***	*ng/L*			160		63.9	*30-122*			
Surr: 18O2-PFHxS	***112***	*ng/L*			151.2		74.2	*50-150*			
Surr: d3-N-MeFOSAA	***113***	*ng/L*			160		70.7	*35-136*			
Surr: d5-N-EtFOSAA	***112***	*ng/L*			160		70.1	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 07:13 | **Prep Date:** 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25.7	ng/L	0.461	4.65	29.722	<0.461	86.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	34.8	ng/L	1.12	4.73	30.314	<1.12	113	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.8	ng/L	0.924	4.61	29.524	<0.924	104	67-143			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	32.8	ng/L	1.07	4.94	31.598	<1.07	103	39-117			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	2.98	4.94	31.598	<2.98	114	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.1	ng/L	1.37	4.94	31.598	2.07	101	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.5	ng/L	0.555	4.65	29.722	<0.555	96.0	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.6	ng/L	0.442	4.60	29.426	<0.442	93.7	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	34.9	ng/L	1.16	4.94	31.598	<1.16	110	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	29.4	ng/L	1.53	4.94	31.598	<1.53	93.0	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.3	ng/L	0.636	4.94	31.598	<0.636	108	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	33.6	ng/L	0.875	4.55	28.438	3.00	107	74-131			
Perfluorobutane sulfonic acid (PFBS)	29.9	ng/L	0.347	4.36	27.945	0.811	104	69-141			
Perfluorobutanoic acid (PFBA)	40.7	ng/L	2.57	4.94	31.598	8.82	101	73-139			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MS	**CLIENT ID: Batch QC**	**Lab ID: QC-2318809-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 07:13

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutylsulfonamide (PFBSA)	36.2	ng/L	1.96	4.94	31.598	<1.96	113	68-164			
Perfluorodecane sulfonic acid (PFDS)	25.6	ng/L	1.35	4.76	30.413	<1.35	84.1	64-128			
Perfluorodecanoic acid (PFDA)	33.5	ng/L	1.22	4.94	31.598	<1.22	105	77-135			
Perfluorododecanoic acid (PFDOA)	33.8	ng/L	0.682	4.94	31.598	<0.682	107	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.7	ng/L	0.559	4.70	30.117	<0.559	98.5	70-137			
Perfluoroheptanoic acid (PFHpA)	34.5	ng/L	1.71	4.94	31.598	3.71	97.5	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.5	ng/L	0.892	4.49	28.734	1.41	97.8	68-131			
Perfluorohexanesulfonamide (PFHxSA)	33.7	ng/L	0.867	4.94	31.598	<0.867	107	69-135			
Perfluorohexanoic acid (PFHxA)	35.1	ng/L	1.18	4.94	31.598	5.06	95.1	72-129			
Perfluorononane sulfonic acid (PFNS)	25.7	ng/L	0.490	4.74	30.314	<0.490	84.6	70-132			
Perfluorononanoic acid (PFNA)	32.4	ng/L	0.859	4.94	31.598	<0.859	101	75-131			
Perfluorooctane sulfonamide (PFOSAm)	33.1	ng/L	0.702	4.94	31.598	<0.702	104	66-140			
Perfluorooctane sulfonic acid (PFOS)	27.0	ng/L	0.881	1.83	29.327	<0.881	91.2	72-133			
Perfluorooctanoic acid (PFOA)	32.5	ng/L	0.622	1.97	31.598	3.89	90.4	71-133			
Perfluoropentane sulfonic acid (PFPeS)	32.2	ng/L	0.549	4.63	29.623	<0.549	107	73-137			
Perfluoropentanoic acid (PFPeA)	40.1	ng/L	1.26	4.94	31.598	6.92	105	72-129			
Perfluorotetradecanoic acid (PFTDA)	34.1	ng/L	2.61	4.94	31.598	<2.61	107	62-139			
Perfluorotridecanoic acid (PFTrDA)	34.8	ng/L	1.91	4.94	31.598	<1.91	108	47-147			
Perfluoroundecanoic acid (PFUnDA)	33.7	ng/L	0.962	4.94	31.598	<0.962	105	80-135			
Surr: 13C2-FtS 4:2	***123***	*ng/L*			147.56		83.2	*50-150*			
Surr: 13C2-FtS 8:2	***137***	*ng/L*			151.35		90.8	*50-150*			
Surr: 13C2-PFDA	***122***	*ng/L*			157.99		77.2	*50-150*			
Surr: 13C2-PFDoA	***113***	*ng/L*			157.99		71.8	*50-150*			
Surr: 13C2-PFHxA	***118***	*ng/L*			157.99		74.6	*50-150*			
Surr: 13C2-PFTeA	***103***	*ng/L*			157.99		65.0	*27-134*			
Surr: 13C2-PFUnA	***119***	*ng/L*			157.99		75.2	*50-150*			
Surr: 13C3-HFPO-DA	***118***	*ng/L*			157.99		74.6	*41-142*			
Surr: 13C3-PFBS	***111***	*ng/L*			146.93		75.7	*50-150*			
Surr: 13C4-PFBA	***144***	*ng/L*			157.99		91.0	*50-150*			
Surr: 13C4-PFHpA	***117***	*ng/L*			157.99		73.8	*42-141*			
Surr: 13C4-PFOA	***126***	*ng/L*			157.99		79.5	*50-150*			
Surr: 13C4-PFOS	***125***	*ng/L*			150.88		82.9	*50-150*			
Surr: 13C5-PFNA	***121***	*ng/L*			157.99		76.7	*50-150*			
Surr: 13C5-PFPeA	***129***	*ng/L*			157.99		81.5	*43-138*			
Surr: 13C8-FOSA	***106***	*ng/L*			157.99		66.9	*30-122*			
Surr: 18O2-PFHxS	***109***	*ng/L*			149.3		73.1	*50-150*			
Surr: d3-N-MeFOSAA	***103***	*ng/L*			157.99		65.0	*35-136*			
Surr: d5-N-EtFOSAA	***109***	*ng/L*			157.99		69.1	*34-142*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MSD	**CLIENT ID: Batch QC**	**Lab ID: QC-2318809-006**
Method: EPA 537Mod	**Dilution:** 1	**Analysis Date:** 11/06/25 07:27
		Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	27.9	ng/L	0.467	4.71	29.484	<0.467	94.5	61-128	8.27	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	32.1	ng/L	1.13	4.79	30.072	<1.13	105	61-148	8.02	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	30.2	ng/L	0.936	4.67	29.288	<0.936	103	67-143	1.86	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.7	ng/L	1.08	5.00	31.346	<1.08	107	39-117	2.70	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	34.0	ng/L	3.02	5.00	31.346	<3.02	108	71-138	5.62	30	
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.7	ng/L	1.39	5.00	31.346	2.07	104	64-134	1.65	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.8	ng/L	0.562	4.71	29.484	<0.562	97.5	74-135	0.747	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.3	ng/L	0.448	4.66	29.191	<0.448	93.4	69-133	1.15	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	31.9	ng/L	1.17	5.00	31.346	<1.17	101	65-139	8.86	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	31.2	ng/L	1.54	5.00	31.346	<1.54	99.3	67-140	5.80	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.5	ng/L	0.644	5.00	31.346	<0.644	113	67-133	3.43	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	36.0	ng/L	0.886	4.61	28.211	3.00	117	74-131	7.07	30	
Perfluorobutane sulfonic acid (PFBS)	30.4	ng/L	0.351	4.42	27.721	0.811	107	69-141	1.55	30	
Perfluorobutanoic acid (PFBA)	41.4	ng/L	2.60	5.00	31.346	8.82	104	73-139	1.61	30	
Perfluorobutylsulfonamide (PFBSA)	36.4	ng/L	1.98	5.00	31.346	<1.98	115	68-164	0.776	30	
Perfluorodecane sulfonic acid (PFDS)	29.6	ng/L	1.37	4.82	30.17	<1.37	98.0	64-128	14.4	30	
Perfluorodecanoic acid (PFDA)	32.9	ng/L	1.24	5.00	31.346	<1.24	104	77-135	1.65	30	
Perfluorododecanoic acid (PFDOA)	32.6	ng/L	0.691	5.00	31.346	<0.691	104	77-137	3.56	30	
Perfluoroheptane sulfonic acid (PFHpS)	29.8	ng/L	0.566	4.76	29.876	<0.566	99.7	70-137	0.414	30	
Perfluoroheptanoic acid (PFHpA)	34.9	ng/L	1.73	5.00	31.346	3.71	99.6	67-130	1.15	30	
Perfluorohexane sulfonic acid (PFHxS)	31.2	ng/L	0.903	4.55	28.505	1.41	104	68-131	5.51	30	
Perfluorohexanesulfonamide (PFHxSA)	30.0	ng/L	0.878	5.00	31.346	<0.878	95.7	69-135	11.6	30	
Perfluorohexanoic acid (PFHxA)	35.7	ng/L	1.20	5.00	31.346	5.06	97.8	72-129	1.74	30	
Perfluorononane sulfonic acid (PFNS)	31.5	ng/L	0.496	4.80	30.072	<0.496	105	70-132	20.5	30	
Perfluorononanoic acid (PFNA)	32.6	ng/L	0.870	5.00	31.346	<0.870	103	75-131	0.613	30	
Perfluorooctane sulfonamide (PFOSAm)	35.5	ng/L	0.711	5.00	31.346	<0.711	113	66-140	7.13	30	
Perfluorooctane sulfonic acid (PFOS)	28.4	ng/L	0.892	1.86	29.093	<0.892	97.0	72-133	5.30	30	
Perfluorooctanoic acid (PFOA)	37.0	ng/L	0.630	2.00	31.346	3.89	106	71-133	13.0	30	
Perfluoropentane sulfonic acid (PFPeS)	33.0	ng/L	0.556	4.69	29.386	<0.556	111	73-137	2.58	30	
Perfluoropentanoic acid (PFPeA)	38.9	ng/L	1.28	5.00	31.346	6.92	102	72-129	2.95	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2318809	**Run ID:**	3664587

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2318809-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 07:27

Prep Date: 11/05/25 15:25

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorotetradecanoic acid (PFTDA)	35.3	ng/L	2.64	5.00	31.346	<2.64	112	62-139	3.31	30	
Perfluorotridecanoic acid (PFTrDA)	31.3	ng/L	1.93	5.00	31.346	<1.93	97.7	47-147	10.7	30	
Perfluoroundecanoic acid (PFUnDA)	33.2	ng/L	0.974	5.00	31.346	<0.974	104	80-135	1.65	30	
Surr: 13C2-FtS 4:2	***128***	*ng/L*			146.38		87.1	*50-150*	3.79	30	
Surr: 13C2-FtS 8:2	***148***	*ng/L*			150.14		98.9	*50-150*	7.76	30	
Surr: 13C2-PFDA	***123***	*ng/L*			156.73		78.3	*50-150*	0.582	30	
Surr: 13C2-PFDoA	***123***	*ng/L*			156.73		78.6	*50-150*	8.24	30	
Surr: 13C2-PFHxA	***123***	*ng/L*			156.73		78.5	*50-150*	4.32	30	
Surr: 13C2-PFTeA	***117***	*ng/L*			156.73		74.5	*27-134*	12.7	30	
Surr: 13C2-PFUnA	***126***	*ng/L*			156.73		80.4	*50-150*	5.93	30	
Surr: 13C3-HFPO-DA	***129***	*ng/L*			156.73		82.6	*41-142*	9.34	30	
Surr: 13C3-PFBS	***112***	*ng/L*			145.76		76.9	*50-150*	0.787	30	
Surr: 13C4-PFBA	***145***	*ng/L*			156.73		92.6	*50-150*	0.966	30	
Surr: 13C4-PFHpA	***127***	*ng/L*			156.73		80.9	*42-141*	8.35	30	
Surr: 13C4-PFOA	***119***	*ng/L*			156.73		75.8	*50-150*	5.52	30	
Surr: 13C4-PFOS	***125***	*ng/L*			149.67		83.7	*50-150*	0.228	30	
Surr: 13C5-PFNA	***130***	*ng/L*			156.73		83.1	*50-150*	7.24	30	
Surr: 13C5-PFPeA	***134***	*ng/L*			156.73		85.3	*43-138*	3.75	30	
Surr: 13C8-FOSA	***107***	*ng/L*			156.73		68.1	*30-122*	1.00	30	
Surr: 18O2-PFHxS	***115***	*ng/L*			148.11		77.6	*50-150*	5.15	30	
Surr: d3-N-MeFOSAA	***110***	*ng/L*			156.73		70.1	*35-136*	6.77	30	
Surr: d5-N-EtFOSAA	***115***	*ng/L*			156.73		73.5	*34-142*	5.42	30	

The following samples were analyzed in this batch: HN2516271-001, HN2516271-002, HN2516271-003

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323513

Work Order: HN2516271
Date Collected: NA
Date Received: NA
Run ID: 3668241

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2323513-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 19:40
Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	<1.08	ng/L	1.08	5.00							U
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	<3.02	ng/L	3.02	5.00							U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	<1.39	ng/L	1.39	5.00							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	<0.886	ng/L	0.886	4.61							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorobutylsulfonamide (PFBSA)	<1.98	ng/L	1.98	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanesulfonamide (PFHxSA)	<0.878	ng/L	0.878	5.00							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

MB **CLIENT ID: Method Blank** **Lab ID: QC-2323513-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 19:40

Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***189***	*ng/L*			149.44		126	*50-150*			
Surr: 13C2-FtS 6:2	***205***	*ng/L*			152		135	*50-150*			
Surr: 13C2-FtS 8:2	***210***	*ng/L*			153.28		137	*50-150*			
Surr: 13C2-PFDA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C2-PFDoA	***145***	*ng/L*			160		90.6	*50-150*			
Surr: 13C2-PFHxA	***176***	*ng/L*			160		110	*50-150*			
Surr: 13C2-PFTeA	***99.2***	*ng/L*			160		62.0	*27-134*			
Surr: 13C2-PFUnA	***164***	*ng/L*			160		103	*50-150*			
Surr: 13C3-HFPO-DA	***174***	*ng/L*			160		109	*41-142*			
Surr: 13C3-PFBS	***149***	*ng/L*			148.8		100	*50-150*			
Surr: 13C4-PFBA	***184***	*ng/L*			160		115	*50-150*			
Surr: 13C4-PFHpA	***187***	*ng/L*			160		117	*42-141*			
Surr: 13C4-PFOA	***179***	*ng/L*			160		112	*50-150*			
Surr: 13C4-PFOS	***144***	*ng/L*			152.8		93.9	*50-150*			
Surr: 13C5-PFNA	***191***	*ng/L*			160		120	*50-150*			
Surr: 13C5-PFPeA	***178***	*ng/L*			160		111	*43-138*			
Surr: 13C8-FOSA	***156***	*ng/L*			160		97.6	*30-122*			
Surr: 18O2-PFHxS	***141***	*ng/L*			151.2		93.1	*50-150*			
Surr: d3-N-MeFOSAA	***149***	*ng/L*			160		93.3	*35-136*			
Surr: d5-N-EtFOSAA	***154***	*ng/L*			160		96.3	*34-142*			

LCS **CLIENT ID: Laboratory Control Sample** **Lab ID: QC-2323513-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 11/06/25 19:55

Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	18.3	ng/L	0.467	4.71	30.1		60.7	61-128			S
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.2	ng/L	1.13	4.79	30.7		108	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.1	ng/L	0.936	4.67	29.9		93.9	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.5	ng/L	1.92	4.74	30.3		101	66-151			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	25.6	ng/L	1.08	5.00	32		80.1	39-117			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing GWS 30267725.0370A
Matrix: WATER
QC Lot: 2323513

Work Order: HN2516271
Date Collected: NA
Date Received: NA
Run ID: 3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 11/06/25 19:55
Prep Date: 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	35.9	ng/L	3.02	5.00	32		112	71-138			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	26.2	ng/L	1.39	5.00	32		82.0	64-134			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.0	ng/L	0.562	4.71	30.1		89.8	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	25.6	ng/L	0.448	4.66	29.8		85.8	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.6	ng/L	1.17	5.00	32		95.6	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	27.7	ng/L	1.54	5.00	32		86.6	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.2	ng/L	0.644	5.00	32		107	67-133			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	32.3	ng/L	0.886	4.61	28.8		112	74-131			
Perfluorobutane sulfonic acid (PFBS)	26.7	ng/L	0.351	4.42	28.3		94.4	69-131			
Perfluorobutanoic acid (PFBA)	29.8	ng/L	2.60	5.00	32		93.1	73-139			
Perfluorobutylsulfonamide (PFBSA)	32.1	ng/L	1.98	5.00	32		100	68-164			
Perfluorodecane sulfonic acid (PFDS)	16.5	ng/L	1.37	4.82	30.8		53.6	64-128			S
Perfluorodecanoic acid (PFDA)	30.6	ng/L	1.24	5.00	32		95.7	77-135			
Perfluorododecanoic acid (PFDOA)	28.6	ng/L	0.691	5.00	32		89.4	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	26.4	ng/L	0.566	4.76	30.5		86.5	70-137			
Perfluoroheptanoic acid (PFHpA)	30.8	ng/L	1.73	5.00	32		96.1	67-130			
Perfluorohexane sulfonic acid (PFHxS)	26.5	ng/L	0.903	4.55	29.1		91.0	68-131			
Perfluorohexanesulfonamide (PFHxSA)	19.6	ng/L	0.878	5.00	32		61.2	69-135			S
Perfluorohexanoic acid (PFHxA)	28.8	ng/L	1.20	5.00	32		90.0	72-129			
Perfluorononane sulfonic acid (PFNS)	26.7	ng/L	0.496	4.80	30.7		87.0	70-132			
Perfluorononanoic acid (PFNA)	30.2	ng/L	0.870	5.00	32		94.4	75-131			
Perfluorooctane sulfonamide (PFOSAm)	34.5	ng/L	0.711	5.00	32		108	66-140			
Perfluorooctane sulfonic acid (PFOS)	26.8	ng/L	0.892	1.86	29.7		90.2	72-133			
Perfluorooctanoic acid (PFOA)	32.8	ng/L	0.630	2.00	32		102	71-133			
Perfluoropentane sulfonic acid (PFPeS)	29.6	ng/L	0.556	4.69	30		98.6	73-137			
Perfluoropentanoic acid (PFPeA)	30.6	ng/L	1.28	5.00	32		95.6	72-129			
Perfluorotetradecanoic acid (PFTDA)	33.1	ng/L	2.64	5.00	32		103	62-139			
Perfluorotridecanoic acid (PFTrDA)	39.2	ng/L	1.93	5.00	32		122	47-147			
Perfluoroundecanoic acid (PFUnDA)	29.7	ng/L	0.974	5.00	32		92.8	80-135			
Surr: 13C2-FtS 4:2	***154***	*ng/L*			149.44		103	*50-150*			
Surr: 13C2-FtS 6:2	***178***	*ng/L*			152		117	*50-150*			
Surr: 13C2-FtS 8:2	***181***	*ng/L*			153.28		118	*50-150*			
Surr: 13C2-PFDA	***147***	*ng/L*			160		92.1	*50-150*			
Surr: 13C2-PFDoA	***124***	*ng/L*			160		77.7	*50-150*			
Surr: 13C2-PFHxA	***155***	*ng/L*			160		97.1	*50-150*			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2516271
Project:	RACER Lansing GWS 30267725.0370A	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2323513	**Run ID:**	3668241

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2323513-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 19:55 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeA	***60.5***	*ng/L*			160		37.8	*27-134*			
Surr: 13C2-PFUnA	***145***	*ng/L*			160		90.5	*50-150*			
Surr: 13C3-HFPO-DA	***155***	*ng/L*			160		96.6	*41-142*			
Surr: 13C3-PFBS	***125***	*ng/L*			148.8		84.1	*50-150*			
Surr: 13C4-PFBA	***156***	*ng/L*			160		97.8	*50-150*			
Surr: 13C4-PFHpA	***155***	*ng/L*			160		96.8	*42-141*			
Surr: 13C4-PFOA	***155***	*ng/L*			160		96.7	*50-150*			
Surr: 13C4-PFOS	***127***	*ng/L*			152.8		82.8	*50-150*			
Surr: 13C5-PFNA	***163***	*ng/L*			160		102	*50-150*			
Surr: 13C5-PFPeA	***144***	*ng/L*			160		89.8	*43-138*			
Surr: 13C8-FOSA	***95.9***	*ng/L*			160		59.9	*30-122*			
Surr: 18O2-PFHxS	***129***	*ng/L*			151.2		85.3	*50-150*			
Surr: d3-N-MeFOSAA	***124***	*ng/L*			160		77.6	*35-136*			
Surr: d5-N-EtFOSAA	***132***	*ng/L*			160		82.4	*34-142*			

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:05 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	31.6	ng/L	1.89	4.57	29.857	<1.89	105	66-151			
Perfluorotetradecanoic acid (PFTDA)	31.5	ng/L	2.60	4.93	31.532	<2.60	99.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	32.4	ng/L	1.90	4.93	31.532	<1.90	102	47-147			
Surr: 13C2-FtS 6:2	***160***	*ng/L*			149.78		107	*50-150*			
Surr: 13C2-PFTeA	***139***	*ng/L*			157.66		88.0	*27-134*			

MSD | **CLIENT ID: Batch QC** | **Lab ID: QC-2323513-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 11/06/25 22:19 | **Prep Date:** 11/06/25 18:21

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	28.7	ng/L	1.92	4.74	30.136	<1.92	94.2	66-151	9.46	30	
Perfluorotetradecanoic acid (PFTDA)	31.8	ng/L	2.64	5.00	31.827	<2.64	99.3	62-139	0.961	30	
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.93	5.00	31.827	<1.93	104	47-147	2.40	30	
Surr: 13C2-FtS 6:2	***159***	*ng/L*			151.18		105	*50-150*	0.795	30	
Surr: 13C2-PFTeA	***134***	*ng/L*			159.13		84.1	*27-134*	3.57	30	

The following samples were analyzed in this batch: HN2516271-001, HN2516271-002, HN2516271-003

Analytical Laboratory Report

Report ID: S80915.01(01)
Generated on 11/07/2025

Report to

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

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

Report produced by

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80915.01
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 11/06/2025
Submitted Date/Time: 11/06/2025 13:01
Sampled by: Unknown
P.O. #: US3460027593

Table of Contents

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80915.01	MW-19-117_110625	Groundwater	11/06/25 10:00

Analytical Laboratory Report

Lab Sample ID: S80915.01
Sample Tag: MW-19-117_110625
Collected Date/Time: 11/06/2025 10:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/07/25 11:10	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/06/25 15:11, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80915
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/06/2025 13:01 Login User: MMC

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

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

	Selection			Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.6
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO | P.O. NO.: US3460027593
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO.

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS | SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	$MeOH$	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
809150.01	11/6/25	1000	MW-19-117_110625	GW	3		3						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Arcadis (Sampler) DATE 11/6/25 TIME
RECEIVED BY SIGNATURE/ORGANIZATION: [signature] / Arcadis DATE 11/6/25 TIME
RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Arcadis DATE 11/6/25 TIME 1301
RECEIVED BY SIGNATURE/ORGANIZATION: [signature] / Merit DATE 11/6/25 TIME 1321

RELINQUISHED BY SIGNATURE/ORGANIZATION | DATE | TIME
RECEIVED BY: SIGNATURE/ORGANIZATION | DATE | TIME

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP ON ARRIVAL: 5.6

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

Rev 5.18.12

Analytical Laboratory Report

Report ID: S80902.01(01)
Generated on 11/07/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80902.01-S80902.02
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 11/05/2025
Submitted Date/Time: 11/06/2025 08:15
Sampled by: Donald Richmond
P.O. #: US3460027593

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80902.01	AS-19-A05_110525	Groundwater	11/05/25 10:00
S80902.02	TW-15-11_110525	Groundwater	11/05/25 11:30

Analytical Laboratory Report

Lab Sample ID: S80902.01
Sample Tag: AS-19-A05_110525
Collected Date/Time: 11/05/2025 10:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/07/25 11:10	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/06/25 14:46, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80902.02
Sample Tag: TW-15-11_110525
Collected Date/Time: 11/05/2025 11:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/07/25 11:10	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/06/25 15:37, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	199	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80902
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/06/2025 08:15 Login User: MMC

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

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

	Selection			Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.1
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 3

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: US34600027593
QUOTE NO.:

INVOICE TO

CONTACT NAME:
☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Donald Richmond / Donald Richmond

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80902.01	11/5/25	1000	AS-19-A05_110525	GW	3		3						X	X
.02	11/5/25	1130	TW-15-11_110525	GW	3		3						X	X

RELINQUISHED BY SIGNATURE/ORGANIZATION: Arcadis Sampler	DATE: 11/5/25	TIME:	
RECEIVED BY: SIGNATURE/ORGANIZATION: Merit Drop Box	DATE: 11/5/25	TIME:	
RELINQUISHED BY: SIGNATURE/ORGANIZATION: MERIT DROP BOX	DATE: 11/6/25	TIME: 1411	
RECEIVED BY: SIGNATURE/ORGANIZATION: MERIT FRIDGE	DATE: 11/6/25	TIME: 1411	

RELINQUISHED BY SIGNATURE/ORGANIZATION: Merit Fridge	DATE: 11/6/25	TIME: 0815	
RECEIVED BY: SIGNATURE/ORGANIZATION: M Allcott	DATE: 11/6/25	TIME: 0815	
SEAL NO:	SEAL INTACT YES☐ NO☐	INITIALS:	NOTES: TEMP ON ARRIVAL: 5.1
SEAL NO:	SEAL INTACT YES☐ NO☐	INITIALS:	

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

Rev 5 18 12

Analytical Laboratory Report

Report ID: S80838.01(01)
Generated on 11/06/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80838.01-S80838.05
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 11/04/2025
Submitted Date/Time: 11/05/2025 08:15
Sampled by: Donald Richmond
P.O. #: US3460027593

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
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Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80838.01	PW-14-03R_110425	Groundwater	11/04/25 17:00
S80838.02	MW-13-25_110425	Groundwater	11/04/25 13:25
S80838.03	MW-13-25_110425 MS	Groundwater	11/04/25 13:25
S80838.04	MW-13-25_110425 MSD	Groundwater	11/04/25 13:25
S80838.05	MW-13-46_110425	Groundwater	11/04/25 15:15

Analytical Laboratory Report

Lab Sample ID: S80838.01
Sample Tag: PW-14-03R_110425
Collected Date/Time: 11/04/2025 17:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 15:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	20	1		ug/L	1	123-91-1	

Lab Sample ID: S80838.02
Sample Tag: MW-13-25_110425
Collected Date/Time: 11/04/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 18:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S80838.03
Sample Tag: MW-13-25_110425 MS
Collected Date/Time: 11/04/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 19:48, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	39	1		ug/L	1	123-91-1	1

1-Spiked at 50 ug/L

Analytical Laboratory Report

Lab Sample ID: S80838.04
Sample Tag: MW-13-25_110425 MSD
Collected Date/Time: 11/04/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 20:14, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	1

1-Spiked at 50 ug/L

Analytical Laboratory Report

Lab Sample ID: S80838.05
Sample Tag: MW-13-46_110425
Collected Date/Time: 11/04/2025 15:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 19:23, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80838
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/05/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 3

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-465-3086 | FAX NO:
P.O. NO.: US346002593
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Donald Richmond / Donald Richmond

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80838.01	11/4/25	1700	PW-14-03R_110425	GW	3		3						X	
.02/.03/.04	11/4/25	1325	mw-13-25_110425	GW	9		9						X	
.05	11/4/25	1515	mw-13-46_110425	GW	3		3						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION: Arcadis ☐ Sampler — DATE: 11/4/25 — TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: Merit Drop Box — DATE: 11/4/25 — TIME:
RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE: — TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: — DATE: — TIME:

RELINQUISHED BY SIGNATURE/ORGANIZATION: Merit Drop Box — DATE: 11/5/25 — TIME: 0815
RECEIVED BY: SIGNATURE/ORGANIZATION: M Dilcato — DATE: 11/5/25 — TIME: 0815

SEAL NO: — SEAL INTACT YES☐ NO☐ — INITIALS:
SEAL NO: — SEAL INTACT YES☐ NO☐ — INITIALS:

NOTES — TEMP ON ARRIVAL: 5.4

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

Rev 5 1812

Analytical Laboratory Report

Report ID: S80837.01(01)
Generated on 11/06/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80837.01-S80837.03
Project: 30267725.0470A / RACER Lansing GWS
Collected Date(s): 11/04/2025
Submitted Date/Time: 11/05/2025 08:15
Sampled by: AustinWesthuis/KarlyWogenstahl
P.O. #: US3460027590

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003

Analytical Laboratory Report

Sample Summary (3 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80837.01	MW-04-05(6)_110425	Groundwater	11/04/25 10:35
S80837.02	MW-22-152_110425	Groundwater	11/04/25 15:25
S80837.03	Trip Blank	Groundwater	11/04/25 00:01

Lab Sample ID: S80837.01
Sample Tag: MW-04-05(6)_110425
Collected Date/Time: 11/04/2025 10:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 18:47, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80837.01 (continued)
Sample Tag: MW-04-05(6)_110425

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 18:47, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80837.02
Sample Tag: MW-22-152_110425
Collected Date/Time: 11/04/2025 15:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 19:11, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80837.02 (continued)
Sample Tag: MW-22-152_110425

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 19:11, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80837.03
Sample Tag: Trip Blank
Collected Date/Time: 11/04/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 14:27, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80837.03 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 14:27, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Merit Laboratories Login Checklist

Lab Set ID: S80837
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A / RACER Lansing GWS
Submitted: 11/05/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 6

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: WS34600275900
QUOTE NO.:
PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kayla Wagenstahl / Austin Westhuis

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY | STATE | ZIP CODE:
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

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

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80837.01	11/4/25	1035	MW-04-05(6)_110425	GW	3		3							X
.02	11/4/25	1525	MW-22-152_110425	GW	3		3							X
.03	11/4/25	—	Trip Blank	GW	1		1							X

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis / Sampler	DATE 11/4/25	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Drop Box	11/5/25 DATE	0815 TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	M Allcot	11/5/25 DATE	0815 TIME
SEAL NO	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES
SEAL NO	SEAL INTACT YES ☐ NO ☐	INITIALS	TEMP ON ARRIVAL 5.4

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

Rev 5.18

Analytical Laboratory Report

Report ID: S80836.01(01)
Generated on 11/06/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80836.01
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 11/04/2025
Submitted Date/Time: 11/05/2025 08:15
Sampled by: Unknown
P.O. #: US3460027593

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Cover Page (Page 1)
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Sample Summary (Page 5)

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (1 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80836.01	MW-20-128_110425	Groundwater	11/04/25 17:15

Analytical Laboratory Report

Lab Sample ID: S80836.01
Sample Tag: MW-20-128_110425
Collected Date/Time: 11/04/2025 17:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 14:43, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	7	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80836
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/05/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-465-3086 | FAX NO:
P.O. NO.: US3460027593
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO.:

INVOICE TO

CONTACT NAME: | ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	$MeOH_2$	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80836.01	11/4/25	1715	MW-20-128 110425	GW	3		3						X	X

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Arcadis ☐ Sampler — DATE: 11/5/25 — TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: Merit Drop Box — DATE: 11/5/25 — TIME:
RELINQUISHED BY SIGNATURE/ORGANIZATION: — DATE: — TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: — DATE: — TIME:

RELINQUISHED BY SIGNATURE/ORGANIZATION: Merit Drop Box — DATE: 11/5/25 — TIME: 0815
RECEIVED BY SIGNATURE/ORGANIZATION: M Chilcote — DATE: 11/5/25 — TIME: 0815
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP ON ARRIVAL: 5.4

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

Rev. 5-18-12

Analytical Laboratory Report

Report ID: S80835.01(01)
Generated on 11/06/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80835.01-S80835.06
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 11/04/2025
Submitted Date/Time: 11/05/2025 08:15
Sampled by: Unknown
P.O. #: US3460027593

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
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Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (6 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80835.01	MW-13-29_110425	Groundwater	11/04/25 09:53
S80835.02	MW-13-22_110425	Groundwater	11/04/25 11:49
S80835.03	MW-12-21_110425	Groundwater	11/04/25 15:07
S80835.04	MW-13-48_110425	Groundwater	11/04/25 16:15
S80835.05	DUP-06_110425	Groundwater	11/04/25 00:01
S80835.06	MW-13-34_110425	Groundwater	11/04/25 17:04

Analytical Laboratory Report

Lab Sample ID: S80835.01
Sample Tag: MW-13-29_110425
Collected Date/Time: 11/04/2025 09:53
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 15:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.02
Sample Tag: MW-13-22_110425
Collected Date/Time: 11/04/2025 11:49
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	83	1		ug/L	1	123-91-1	

Lab Sample ID: S80835.03
Sample Tag: MW-12-21_110425
Collected Date/Time: 11/04/2025 15:07
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 17:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	145	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.04
Sample Tag: MW-13-48_110425
Collected Date/Time: 11/04/2025 16:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	74	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.05
Sample Tag: DUP-06_110425
Collected Date/Time: 11/04/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 18:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	73	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.06
Sample Tag: MW-13-34_110425
Collected Date/Time: 11/04/2025 17:04
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	92	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80835
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/05/2025 08:15 Login User: MMC

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[X] Yes	[ ] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[X] Yes	[ ] No	[ ] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 3

Merit Laboratories, Inc

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C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO: US3460027593
QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	$MeOH$	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80835.01	11/4/25	9.53	MW-13 29-110425	GW	3		3						X	
.02	11/4/25	11.49	MW-13-22-110425	GW	3		3						X	
.03	11/4/25	1507	MW-12-21_110425	GW	3		3						X	
.04	11/4/25	1615	MW-13-48_110425	GW	3		3						X	
.05	11/4/25	—	DUP-06_110425	GW	3		3						X	
.06	11/4/25	1704	MW-13-34_110425	GW	3		3						X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Arcadis ☐ Sampler	DATE 11/4/25	TIME	RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop Box 11/5/25 0815
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 11/4/25	TIME	RECEIVED BY: SIGNATURE/ORGANIZATION	M Dilcolo 11/5/25 0815
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS	NOTES / TEMP ON ARRIVAL 5.4
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS	

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

Rev. 1 10 12

Analytical Laboratory Report

Report ID: S80787.01(01)
Generated on 11/05/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80787.01-S80787.08
Project: 30267725.0470A / RACER Lansing GWS
Collected Date(s): 11/03/2025
Submitted Date/Time: 11/04/2025 08:15
Sampled by: Austin Westhuis
P.O. #: US3460027590

Table of Contents

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80787.01	MW-02-02(6)_110325	Groundwater	11/03/25 13:25
S80787.02	MW-02-02(6)_110325 MS	Groundwater	11/03/25 13:25
S80787.03	MW-02-02(6)_110325 MSD	Groundwater	11/03/25 13:25
S80787.04	MW-03-05_110325	Groundwater	11/03/25 15:05
S80787.05	DUP-09_110325	Groundwater	11/03/25 00:01
S80787.06	MW-03-06_110325	Groundwater	11/03/25 16:15
S80787.07	MW-21-141_110325	Groundwater	11/03/25 16:40
S80787.08	DUP-11_110325	Groundwater	11/03/25 00:01

Analytical Laboratory Report

Lab Sample ID: S80787.01
Sample Tag: MW-02-02(6)_110325
Collected Date/Time: 11/03/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 02:03, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	25	1		ug/L	1	123-91-1	

Lab Sample ID: S80787.02
Sample Tag: MW-02-02(6)_110325 MS
Collected Date/Time: 11/03/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 04:35, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	67	1		ug/L	1	123-91-1	1

1-Spiked at 50 ug/L

Lab Sample ID: S80787.03
Sample Tag: MW-02-02(6)_110325 MSD
Collected Date/Time: 11/03/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 05:01, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	64	1		ug/L	1	123-91-1	1

1-Spiked at 50 ug/L

Analytical Laboratory Report

Lab Sample ID: S80787.04
Sample Tag: MW-03-05_110325
Collected Date/Time: 11/03/2025 15:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 02:28, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80787.05
Sample Tag: DUP-09_110325
Collected Date/Time: 11/03/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 02:54, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80787.06
Sample Tag: MW-03-06_110325
Collected Date/Time: 11/03/2025 16:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 03:19, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80787.07
Sample Tag: MW-21-141_110325
Collected Date/Time: 11/03/2025 16:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 03:45, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80787.08
Sample Tag: DUP-11_110325
Collected Date/Time: 11/03/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 04:10, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80787
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470A / RACER Lansing GWS
Submitted: 11/04/2025 08:15 Login User: MMC

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

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

	Selection			Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.7
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☒ No	☐ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 6

Merit Laboratories, Inc

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C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-465-3086 FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: US3460027590
QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS	Special Instructions
01/.02/.03	11/3/25	1325	MW-02-02(6)_110325	GW	9		9						X		MS/MSD
80787.04	11/3/25	1505	MW-03-05_110325	GW	3		3						X		
.05	11/3/25	—	DUP-09_110325	GW	3		3						X		
.06	11/3/25	1615	MW-03-06_110325	GW	3		3						X		
.07	11/3/25	1640	MW-21-141_110325	GW	3		3						X		
.08	11/3/25	—	DUP-11_110325	GW	3		3						X		

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis (Sampler)	DATE 11/3/25	TIME	RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Fridge 11/4/25 0815
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 11/3/25	TIME	RECEIVED BY: SIGNATURE/ORGANIZATION	M Chilcott 11/4/25 0815
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	DATE 11/3/25	TIME 1820	SEAL NO:	SEAL INTACT YES ☐ NO ☐ INITIALS
RECEIVED BY SIGNATURE/ORGANIZATION	MERIT FRIDGE	DATE 11/3/25	TIME 1820	SEAL NO	SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP ON ARRIVAL 6.7

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

Rev 5.18

Analytical Laboratory Report

Report ID: S80786.01(01)
Generated on 11/05/2025

Report to

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

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

Report produced by

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Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80786.01-S80786.18
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 10/31/2025 - 11/03/2025
Submitted Date/Time: 11/04/2025 08:15
Sampled by: Richmond / Fillipiak / Prigge
P.O. #: US3460027593

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Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Sample Summary (18 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80786.01	MW-16-77_103125	Groundwater	10/31/25 10:25
S80786.02	MW-16-78_103125	Groundwater	10/31/25 11:50
S80786.03	MW-16-82_103125	Groundwater	10/31/25 12:45
S80786.04	MW-17-86_103125	Groundwater	10/31/25 10:20
S80786.05	MW-19-116_103125	Groundwater	10/31/25 11:42
S80786.06	MW-19-115_103125	Groundwater	10/31/25 13:00
S80786.07	MW-19-122_103125	Groundwater	10/31/25 10:45
S80786.08	MW-19-121_103125	Groundwater	10/31/25 12:05
S80786.09	MW-16-84_103125	Groundwater	10/31/25 13:50
S80786.10	MW-16-84_103125 MS	Groundwater	10/31/25 13:50
S80786.11	MW-16-84_103125 MSD	Groundwater	10/31/25 13:50
S80786.12	Trip Blank	Groundwater	10/31/25 00:01
S80786.13	MW-19-123_110325	Groundwater	11/03/25 10:10
S80786.14	MW-19-124_110325	Groundwater	11/03/25 11:45
S80786.15	MW-20-127_110325	Groundwater	11/03/25 12:55
S80786.16	MW-20-126_110325	Groundwater	11/03/25 14:55
S80786.17	MW-20-129_110325	Groundwater	11/03/25 14:42
S80786.18	MW-21-142_110325	Groundwater	11/03/25 17:28

Lab Sample ID: S80786.01
Sample Tag: MW-16-77_103125
Collected Date/Time: 10/31/2025 10:25
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 14:35, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.02
Sample Tag: MW-16-78_103125
Collected Date/Time: 10/31/2025 11:50
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 15:01, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.03
Sample Tag: MW-16-82_103125
Collected Date/Time: 10/31/2025 12:45
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 17:33, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	11	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.04
Sample Tag: MW-17-86_103125
Collected Date/Time: 10/31/2025 10:20
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 17:08, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	10	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.05
Sample Tag: MW-19-116_103125
Collected Date/Time: 10/31/2025 11:42
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 19:41, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	93	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.06
Sample Tag: MW-19-115_103125
Collected Date/Time: 10/31/2025 13:00
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 16:17, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	6	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.07
Sample Tag: MW-19-122_103125
Collected Date/Time: 10/31/2025 10:45
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 15:26, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.08
Sample Tag: MW-19-121_103125
Collected Date/Time: 10/31/2025 12:05
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 15:52, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.09
Sample Tag: MW-16-84_103125
Collected Date/Time: 10/31/2025 13:50
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 17:58, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	27	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 15:45, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80786.09 (continued)
Sample Tag: MW-16-84_103125

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 15:45, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80786.10
Sample Tag: MW-16-84_103125 MS
Collected Date/Time: 10/31/2025 13:50
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 21:48, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	71	1		ug/L	1	123-91-1	1

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 17:44, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	47	10		ug/L	1	60-29-7	1
Acetone	Not detected	50		ug/L	1	67-64-1	1
Methyl iodide	48	1		ug/L	1	74-88-4	1
Carbon disulfide	41	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	54	5		ug/L	1	1634-04-4	1
Acrylonitrile	51	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	55	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	46	5		ug/L	1	75-71-8	1
Chloromethane	40	5		ug/L	1	74-87-3	1
Vinyl chloride	44	1		ug/L	1	75-01-4	1
Bromomethane	46	5		ug/L	1	74-83-9	1
Chloroethane	42	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	47	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	44	1		ug/L	1	75-35-4	1
Methylene chloride	49	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	47	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	48	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	52	1		ug/L	1	156-59-2	1
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	1
Chloroform	52	1		ug/L	1	67-66-3	1
Bromochloromethane	53	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	51	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	50	50		ug/L	1	108-10-1	1
2-Hexanone	51	50		ug/L	1	591-78-6	1
Carbon tetrachloride	50	1		ug/L	1	56-23-5	1
Benzene	47	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	47	1		ug/L	1	107-06-2	1
Trichloroethene	48	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	48	1		ug/L	1	78-87-5	1
Bromodichloromethane	50	1		ug/L	1	75-27-4	1
Dibromomethane	51	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	50	1		ug/L	1	10061-01-5	1

1-Spiked at 50 ug/L

Lab Sample ID: S80786.10 (continued)
Sample Tag: MW-16-84_103125 MS

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 17:44, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	48	1		ug/L	1	108-88-3	1
trans-1,3-Dichloropropene	51	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	51	1		ug/L	1	79-00-5	1
Tetrachloroethene	47	1		ug/L	1	127-18-4	1
trans-1,4-Dichloro-2-butene	46	1		ug/L	1	110-57-6	1
Dibromochloromethane	53	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	52	1		ug/L	1	106-93-4	1
Chlorobenzene	49	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	51	1		ug/L	1	630-20-6	1
Ethylbenzene	47	1		ug/L	1	100-41-4	1
p,m-Xylene	94	2		ug/L	1	179601-23-1	1
o-Xylene	47	1		ug/L	1	95-47-6	1
Styrene	49	1		ug/L	1	100-42-5	1
Isopropylbenzene	48	5		ug/L	1	98-82-8	1
Bromoform	52	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	52	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	53	1		ug/L	1	96-18-4	1
n-Propylbenzene	47	1		ug/L	1	103-65-1	1
Bromobenzene	49	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	47	1		ug/L	1	108-67-8	1
tert-Butylbenzene	47	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	47	1		ug/L	1	95-63-6	1
sec-Butylbenzene	46	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	45	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	47	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	47	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	48	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	49	1		ug/L	1	526-73-8	1
n-Butylbenzene	45	1		ug/L	1	104-51-8	1
Hexachloroethane	45	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	52	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	44	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	44	5		ug/L	1	87-61-6	1
Naphthalene	49	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	40	5		ug/L	1	91-57-6	1

1-Spiked at 50 ug/L

Lab Sample ID: S80786.11
Sample Tag: MW-16-84_103125 MSD
Collected Date/Time: 10/31/2025 13:50
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 22:14, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	67	1		ug/L	1	123-91-1	1

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 18:08, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	47	10		ug/L	1	60-29-7	1
Acetone	Not detected	50		ug/L	1	67-64-1	1
Methyl iodide	48	1		ug/L	1	74-88-4	1
Carbon disulfide	42	5		ug/L	1	75-15-0	1
tert-Methyl butyl ether (MTBE)	52	5		ug/L	1	1634-04-4	1
Acrylonitrile	48	2		ug/L	1	107-13-1	1
2-Butanone (MEK)	53	25		ug/L	1	78-93-3	1
Dichlorodifluoromethane	45	5		ug/L	1	75-71-8	1
Chloromethane	39	5		ug/L	1	74-87-3	1
Vinyl chloride	43	1		ug/L	1	75-01-4	1
Bromomethane	47	5		ug/L	1	74-83-9	1
Chloroethane	41	5		ug/L	1	75-00-3	1
Trichlorofluoromethane	46	1		ug/L	1	75-69-4	1
1,1-Dichloroethene	42	1		ug/L	1	75-35-4	1
Methylene chloride	47	5		ug/L	1	75-09-2	1
trans-1,2-Dichloroethene	45	1		ug/L	1	156-60-5	1
1,1-Dichloroethane	47	1		ug/L	1	75-34-3	1
cis-1,2-Dichloroethene	51	1		ug/L	1	156-59-2	1
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	1
Chloroform	50	1		ug/L	1	67-66-3	1
Bromochloromethane	52	1		ug/L	1	74-97-5	1
1,1,1-Trichloroethane	50	1		ug/L	1	71-55-6	1
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	1
2-Hexanone	Not detected	50		ug/L	1	591-78-6	1
Carbon tetrachloride	48	1		ug/L	1	56-23-5	1
Benzene	46	1		ug/L	1	71-43-2	1
1,2-Dichloroethane	46	1		ug/L	1	107-06-2	1
Trichloroethene	47	1		ug/L	1	79-01-6	1
1,2-Dichloropropane	46	1		ug/L	1	78-87-5	1
Bromodichloromethane	49	1		ug/L	1	75-27-4	1
Dibromomethane	50	5		ug/L	1	74-95-3	1
cis-1,3-Dichloropropene	49	1		ug/L	1	10061-01-5	1

1-Spiked at 50 ug/L

Lab Sample ID: S80786.11 (continued)
Sample Tag: MW-16-84_103125 MSD

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 18:08, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	47	1		ug/L	1	108-88-3	1
trans-1,3-Dichloropropene	50	1		ug/L	1	10061-02-6	1
1,1,2-Trichloroethane	49	1		ug/L	1	79-00-5	1
Tetrachloroethene	47	1		ug/L	1	127-18-4	1
trans-1,4-Dichloro-2-butene	42	1		ug/L	1	110-57-6	1
Dibromochloromethane	52	5		ug/L	1	124-48-1	1
1,2-Dibromoethane	50	1		ug/L	1	106-93-4	1
Chlorobenzene	48	1		ug/L	1	108-90-7	1
1,1,1,2-Tetrachloroethane	51	1		ug/L	1	630-20-6	1
Ethylbenzene	46	1		ug/L	1	100-41-4	1
p,m-Xylene	93	2		ug/L	1	179601-23-1	1
o-Xylene	46	1		ug/L	1	95-47-6	1
Styrene	48	1		ug/L	1	100-42-5	1
Isopropylbenzene	47	5		ug/L	1	98-82-8	1
Bromoform	50	1		ug/L	1	75-25-2	1
1,1,2,2-Tetrachloroethane	49	1		ug/L	1	79-34-5	1
1,2,3-Trichloropropane	49	1		ug/L	1	96-18-4	1
n-Propylbenzene	44	1		ug/L	1	103-65-1	1
Bromobenzene	48	1		ug/L	1	108-86-1	1
1,3,5-Trimethylbenzene	46	1		ug/L	1	108-67-8	1
tert-Butylbenzene	46	1		ug/L	1	98-06-6	1
1,2,4-Trimethylbenzene	47	1		ug/L	1	95-63-6	1
sec-Butylbenzene	44	1		ug/L	1	135-98-8	1
p-Isopropyltoluene	44	5		ug/L	1	99-87-6	1
1,3-Dichlorobenzene	45	1		ug/L	1	541-73-1	1
1,4-Dichlorobenzene	46	1		ug/L	1	106-46-7	1
1,2-Dichlorobenzene	46	1		ug/L	1	95-50-1	1
1,2,3-Trimethylbenzene	47	1		ug/L	1	526-73-8	1
n-Butylbenzene	44	1		ug/L	1	104-51-8	1
Hexachloroethane	45	5		ug/L	1	67-72-1	1
1,2-Dibromo-3-chloropropane	48	5		ug/L	1	96-12-8	1
1,2,4-Trichlorobenzene	44	5		ug/L	1	120-82-1	1
1,2,3-Trichlorobenzene	43	5		ug/L	1	87-61-6	1
Naphthalene	47	5		ug/L	1	91-20-3	1
2-Methylnaphthalene	41	5		ug/L	1	91-57-6	1

1-Spiked at 50 ug/L

Lab Sample ID: S80786.12
Sample Tag: Trip Blank
Collected Date/Time: 10/31/2025 00:01
Matrix: Groundwater
COC Reference: 1

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 15:21, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80786.12 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/04/25 15:21, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80786.13
Sample Tag: MW-19-123_110325
Collected Date/Time: 11/03/2025 10:10
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 18:24, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80786.14
Sample Tag: MW-19-124_110325
Collected Date/Time: 11/03/2025 11:45
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 20:31, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	142	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.15
Sample Tag: MW-20-127_110325
Collected Date/Time: 11/03/2025 12:55
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 20:06, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	123	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.16
Sample Tag: MW-20-126_110325
Collected Date/Time: 11/03/2025 14:55
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 16:42, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Lab Sample ID: S80786.17
Sample Tag: MW-20-129_110325
Collected Date/Time: 11/03/2025 14:42
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 19:15, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	75	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80786.18
Sample Tag: MW-21-142_110325
Collected Date/Time: 11/03/2025 17:28
Matrix: Groundwater
COC Reference: 2

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/05/25 11:00	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/04/25 18:49, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	78	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80786
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 11/04/2025 08:15 Login User: MMC

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

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

	Selection			Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 6.7
02.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☒ No	☐ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
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C.O.C. PAGE # 1 OF 2

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: ~~28550 Cabot Drive, STE 500~~
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 947-465-3086 FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: US3460027593
QUOTE NO.:
PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Scott Elliplat / Daniel Eilmood / Donald Dirr / Robert Prigge

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☒ EDD ☐ OTHER

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS: tiffany.linder@arcadis.com

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

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

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80786.01	10/31/25	1025	MW-16-77_103125	GW	3		3						X	
.02	10/31/25	1150	MW-16-78_103125	GW	3		3						X	
.03	10/31/25	1245	MW-16-82_103125	GW	3		3						X	
.04	10/31/25	1020	MW-17-86_103125	GW	3		3						X	
.05	10/31/25	1142	MW-19-116_103125	GW	3		3						X	
.06	10/31/25	1300	MW-19-115_103125	GW	3		3						X	
.07	10/31/25	1045	MW-19-122_103125	GW	3		3						X	
.08	10/31/25	1205	MW-19-121_103125	GW	3		3						X	
09.10.11	10/31/25	1350	MW-16-84_103125	GW	9		9						X	X
.12	10/31/25	—	Trip Blank	GW	1		1							X

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis ☐ Sampler	11/3/25 DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	11/3/25 DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	11/3/25 DATE	1820 TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	MERIT FRIDGE	11/3/25 DATE	1820 TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Fridge	11/4/25 DATE	0815 TIME
RECEIVED BY SIGNATURE/ORGANIZATION	M Gilbert	11/4/25 DATE	0815 TIME

SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO: SEAL INTACT YES ☐ NO ☐ INITIALS
NOTES: TEMP. ON ARRIVAL: 6.7

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

Rev. 5.16.12

Plant 2

Merit Laboratories, Inc

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C.O.C. PAGE # 2 OF 2

CHAIN OF CUSTODY RECORD

REPORT TO

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ADDRESS: ~~28550 Cabot Drive, STE 500~~
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-465-3086 FAX NO:
P.O. NO.: US3460027593
E-MAIL ADDRESS: kara.donahue@arcadis.com
QUOTE NO.:
PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Nick Cutter / Darrell Richmond / Darrell Dudd

TURNAROUND TIME REQUIRED ☐1 DAY ☐2 DAYS ☐3 DAYS ☒STANDARD ☐OTHER

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

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

INVOICE TO

CONTACT NAME: ☒SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐OHIO VAP ☐Drinking Water
☐DoD ☐NPDES
Project Locations
☐Detroit ☐New York
☐Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80786.13	11/3/25	1010	MW-19-123_110325	GW	3		3						X	
.14	11/3/25	1145	MW-19-124_110325	GW	3		3						X	
.15	11/3/25	1255	MW-20-127_110325	GW	3		3						X	
.16	11/3/25	1455	MW-20-126_110325	GW	3		3						X	
.17	11/3/25	1442	MW-20-129_110325	GW	3		3						X	
.18	11/3/25	1728	MW-21-142_110325	GW	3		3						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis ☐Sampler	DATE 11/3/25	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 11/3/25	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	MERIT DROP BOX	DATE 11/3/25	TIME 1820
RECEIVED BY: SIGNATURE/ORGANIZATION	MERIT FRIDGE	DATE 11/3/25	TIME 1820

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Fridge	DATE 11/4/25	TIME 0815
RECEIVED BY: SIGNATURE/ORGANIZATION	M Quilcado J	DATE 11/4/25	TIME 0815
SEAL NO	SEAL INTACT YES☐ NO☐	INITIALS	NOTES
SEAL NO	SEAL INTACT YES☐ NO☐	INITIALS	TEMP ON ARRIVAL 6.7

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

Rev. 5.18.12

Analytical Laboratory Report

Report ID: S80685.01(01)
Generated on 11/03/2025

Report to

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

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

Report produced by

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

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

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

Addtional Contacts: Kara Donahue, Marina Samp, Kaitlyn Hunt

Report Summary

Lab Sample ID(s): S80685.01-S80685.05
Project: 30267725.0470B / RACER Lansing GWS
Collected Date(s): 10/30/2025
Submitted Date/Time: 10/31/2025 08:15
Sampled by: Karly Wogenstahl
P.O. #: US3460027593

Table of Contents

Cover Page (Page 1)
General Report Notes (Page 2)
Report Narrative (Page 2)
Laboratory Accreditations (Page 3)
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Glossary of Abbreviations (Page 3)
Method Summary (Page 4)
Sample Summary (Page 5)

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Starred (*) analytes are not NY NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.
All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.
For a specific list of accredited analytes, please feel free to contact the laboratory or visit https://www.meritlabs.com/certifications.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
N/A	Not Applicable
SW8260B - SIM	SW 846 Method 8260B Revision 2 December 1996 SIMs

Analytical Laboratory Report

Sample Summary (5 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S80685.01	MW-16-80_103025	Groundwater	10/30/25 10:40
S80685.02	MW-14-63_103025	Groundwater	10/30/25 12:20
S80685.03	MW-16-85_103025	Groundwater	10/30/25 14:05
S80685.04	MW-21-140_103025	Groundwater	10/30/25 15:40
S80685.05	MW-16-76_103025	Groundwater	10/30/25 16:55

Analytical Laboratory Report

Lab Sample ID: S80685.01
Sample Tag: MW-16-80_103025
Collected Date/Time: 10/30/2025 10:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 16:17, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	19	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80685.02
Sample Tag: MW-14-63_103025
Collected Date/Time: 10/30/2025 12:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 16:43, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	5	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80685.03
Sample Tag: MW-16-85_103025
Collected Date/Time: 10/30/2025 14:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 17:08, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	20	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80685.04
Sample Tag: MW-21-140_103025
Collected Date/Time: 10/30/2025 15:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 17:33, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80685.05
Sample Tag: MW-16-76_103025
Collected Date/Time: 10/30/2025 16:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/03/25 11:15	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/31/25 17:59, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Merit Laboratories Login Checklist

Lab Set ID: S80685
Client: ARCADIS_NOVI (ARCADIS U.S., Inc.)
Project: 30267725.0470B / RACER Lansing GWS
Submitted: 10/31/2025 08:15 Login User: MMC

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

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

	Selection			Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.4
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[X] No	[ ] N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

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

Client Review By: _____ Date: _____

Plant 2

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
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www.meritlabs.com

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO: 947-465-3086 FAX NO:
P.O. NO: US84600027593
E-MAIL ADDRESS: kara.donahue@arcadis.com QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kurly Wogenstahl /

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80685.01	10-30-25	1040	MW-16-80-103025	GW	3		3						X	
.02		1220	MW-14-63-103025	GW	3		3						X	
.03		1405	MW-16-85-103025	GW	3		3						X	
.04		1540	MW-21-140_103025	GW	3		3						X	
.05	↓	1655	MW-16-76_103025	GW	3		3						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	Kara Donahue/Arcadis	DATE 10/30/25	TIME 1710
RECEIVED BY SIGNATURE/ORGANIZATION	Amber Wood/Arcadis	DATE 10/30/25	TIME 1710
RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/30/25	TIME
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Fridge	DATE 10/30/25	TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION	Amber Wood/Arcadis	DATE 10/30/25	TIME
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/30/25	TIME

SEAL NO: Merit Fridge SEAL INTACT: NO ☐ INITIALS: 10/31/25 08 NOTES: 15
SEAL NO: M SEAL INTACT: NO ☐ INITIALS: 10/31/25 0815
TEMP. ON ARRIVAL: 4.4

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

Rev. 5.18.12

Racer – Lansing Plant 2,3&6

Data Review

Lansing, Michigan

VOC and Miscellaneous Analyses

SDG #s S74371, S74203 and S74372

VOCs Analyses Performed By:
Merit Laboratories Inc.
East Lansing, Michigan

Report #59716R
Review Level: Tier II
Project: 30267725.00603

Summary

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #s S74371, S74203 and S74372 for samples collected in association with Plants 2, 3 & 6 in Lansing Michigan. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	1,4-D	PFAS	MET	MISC
S74371	MW-12-21	S74371-1	Water	05/09/25			X			
	MW-13-22	S74371-4	Water	05/09/25			X			
	MW-13-34	S74371-5	Water	05/09/25			X			
	MW-13-48	S74371-6	Water	05/09/25			X			
	PW-14-03R	S74371-7	Water	05/09/25			X			
	TW-15-11	S74371-8	Water	05/09/25			X			
	DUP-05	S74371-9	Water	05/09/25	PW-14-03R		X			
S74203	MW-22-156	S74203-1	Water	05/06/25		X	X			
	DUP-01	S74203-2	Water	05/06/25	MW-22-156	X	X			
	Trip Blank	S74203-3	Water	05/06/25			X			
S74372	MW-22-154	S74372-01	Water	05/08/25		X				

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X	X		
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

2. SDG S74372 – A trip blank was listed on the COC; however, it was not in the cooler and therefore not analyzed.

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260C and 8260B.. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate) and the Quality Assurance Project Plan, Revitalizing Auto Communities Environmental Response (RACER) Trust, August 2011.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Volatile Organic Compounds Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260C and 8260B by SIM	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 with hydrochloric acid

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

For the SIM analysis, the samples were spiked with internal standards instead of surrogates. All internal standard recoveries were within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations

where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

SDG (S74371) Bottles were sent for the MS/MSD for sample MW-12-21; however, they were spiked at 500 mg/L, analysed at a 10x dilution and reported as samples (S74371-02 and S74371-03). The results were 680 ug/l and 710 ug/L respectively.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 30% is applied to the RPD between the parent sample and the field duplicate sample results for water matrices. For the case where the parent and/or duplicate sample concentrations are less than five times the reporting limit (RL), a control limit of two times the RL is applied to the difference between the results for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
PW-14-03R / DUP-05	1,4-Dioxane	14	14	0.0%
MW-22-156 / DUP-01	Vinyl Chloride	2	2	0.0%
	Chloroethane	7	9	AC
	1,1-Dichloroethene	14	15	6.9%
	1,1-Dichloroethane	200	200	0.0%
	1,4-Dioxane	42	42	0.0%

Notes:
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for VOCs

8260B AND 8260C (SIM)	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
Internal Standard/Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Rachelle Borne

SIGNATURE:

DATE: June 18, 2025

PEER REVIEW: Joseph C. Houser

DATE: June 18, 2025

Chain of Custody Corrected Sample Analysis Data Sheets

Plant 2

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C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO: 947-777-5215 | FAX NO. | PO NO
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74203.01	5/6/25	1205	MW-22-156_050625	GW	3		3						X	X
.02	5/6/25	—	DUP-01_050625	GW	3		3						X	X
.03	5/6/25	—	Trip Blank	GW	1		1						X	

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis (Sampler)	DATE 5/6/25	TIME 1545
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 5/6/25	TIME 1545
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	5/6/25	1545
RECEIVED BY: SIGNATURE/ORGANIZATION		5/6/25	1545

SEAL NO. | SEAL INTACT YES☐ NO☐ | INITIALS
SEAL NO. | SEAL INTACT YES☐ NO☐ | INITIALS

NOTES | TEMP. ON ARRIVAL 6.4

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

Rev 5.18

Lab Sample ID: S74203.01
Sample Tag: MW-22-156_050625
Collected Date/Time: 05/06/2025 12:05
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 18:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 07:41, #2: 05/08/25 21:03, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	2	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	9	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	15	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	200	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74203.01 (continued)
Sample Tag: MW-22-156_050625

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 07:41, #2: 05/08/25 21:03, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S74203.02
Sample Tag: DUP-01_050625
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 19:16, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	42	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 08:05, #2: 05/08/25 21:27, Analyst: ACK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	2	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	7	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	14	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	200	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74203.02 (continued)
Sample Tag: DUP-01_050625

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 05/08/25 08:05, #2: 05/08/25 21:27, Analyst: ACK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S74203.03
Sample Tag: Trip Blank
Collected Date/Time: 05/06/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	6.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/08/25 10:20	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/07/25 15:28, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Plant 6

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C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO: | P.O. NO:
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0052 / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Austin Westhuis

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other MI

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
74372.01	5/8/25	1125	mw-22-154_050825	GW	3		3							X
.02	5/8/25	—	Trip Blank	GW	1		1							X

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Arcadis (Sampler) — DATE: 5/9/25 — TIME: 1423
RECEIVED BY: SIGNATURE/ORGANIZATION: J. Hel — DATE: 5-9-25 — TIME: 1425

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION — DATE — TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION — DATE — TIME

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP ON ARRIVAL: 4.1°C

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

Rev 5 18 12

Lab Sample ID: S74372.01
Sample Tag: MW-22-154_050825
Collected Date/Time: 05/08/2025 11:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:19, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	1	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S74372.01 (continued)
Sample Tag: MW-22-154_050825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 03:19, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S74372.02
Sample Tag: Trip Blank
Collected Date/Time: 05/08/2025 00:01
Matrix: Water
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	n/a	n/a	Yes	n/a	n/a

Other / Misc.

Method: , Run Date: 05/13/25 09:45, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
No Analyses*	Completed				1		

Plant 3

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi STATE: MI ZIP CODE: 48377
PHONE NO.: 947-777-5215 FAX NO:
P.O. NO.: 4534600024033
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO: E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) PLEASE PRINT/SIGN NAME: Austin Westhuis / [signature]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	T. Phosphorus	TKN	Nitrate
01/02/03	5/9/25	1030	MW-12-21	GW	9		9						X			
74371.04	5/9/25	0930	MW-13-22	GW	3		3						X			
.05	5/9/25	1220	MW-13-34	GW	3		3						X			
06	5/9/25	1255	MW-13-48	GW	3		3						X			
07	5/9/25	1055	PW-14-03R	GW	3		3						X			
08	5/9/25	0955	TW-15-11	GW	3		3						X			

RELINQUISHED BY SIGNATURE/ORGANIZATION: [signature] / Austin Westhuis / Arcadis (Sampler) DATE: 5/9/25 TIME: 1425
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] DATE: 5-9-25 TIME: 1425
RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY SIGNATURE/ORGANIZATION: DATE: TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION: DATE: TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION: DATE: TIME:

SEAL NO: SEAL INTACT YES☐ NO☐ INITIALS:
SEAL NO: SEAL INTACT YES☐ NO☐ INITIALS:

NOTES: TEMP ON ARRIVAL: 4.1C

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

Rev 5.16.12

Analytical Laboratory Report

Lab Sample ID: S74371.01
Sample Tag: MW-12-21_050925
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 19:20, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	120	10		ug/L	10	123-91-1	Y

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S74371.02
Sample Tag: MW-12-21_050925 MS
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 14:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	680	10		ug/L	10	123-91-1	Y1

Y-Elevated reporting limit due to high target concentration 1-Sample spiked at 500 mg/l

Lab Sample ID: S74371.03
Sample Tag: MW-12-21_050925 MSD
Collected Date/Time: 05/09/2025 10:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/14/25 15:06, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	710	10		ug/L	10	123-91-1	Y1

Y-Elevated reporting limit due to high target concentration 1-Sample spiked at 500 mg/l

Lab Sample ID: S74371.04
Sample Tag: MW-13-22_050925
Collected Date/Time: 05/09/2025 09:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 22:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	94	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.05
Sample Tag: MW-13-34_050925
Collected Date/Time: 05/09/2025 12:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 22:33, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	80	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S74371.06
Sample Tag: MW-13-48_050925
Collected Date/Time: 05/09/2025 12:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 21:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	62	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.07
Sample Tag: PW-14-03R_050925
Collected Date/Time: 05/09/2025 10:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 20:51, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.08
Sample Tag: TW-15-11_050925
Collected Date/Time: 05/09/2025 09:55
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/13/25 20:53, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	32	1		ug/L	1	123-91-1	

Lab Sample ID: S74371.09
Sample Tag: DUP-05_050925
Collected Date/Time: 05/09/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.1	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 05/12/25 21:42, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Racer – Lansing Plant 2,3&6

Data Review

Lansing, Michigan

VOC Analyses

SDG #s S8170 and S8171

VOCs Analyses Performed By:
Merit Laboratories Inc.
East Lansing, Michigan

Report #62993R
Review Level: Tier II
Project: 30267725.603

Summary

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #s S8170 and S8171 for samples collected in association with Plants 2, 3 & 6 in Lansing Michigan. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	1,4-D	PFAS	MET	MISC
S8170	MW-19-122	S8170-1	Water	08/26/25			X			
	MW-20-129	S8170-2	Water	08/26/25			X			
	TW-14-02	S8170-3	Water	08/26/25			X			
	MW-19-123	S8170-6	Water	08/26/25			X			
S8171	MW-13-22	S8171-1	Water	08/25/25			X			
	MW-12-21	S8171-2	Water	08/25/25			X			
	AS-19-A05	S8171-3	Water	08/25/25			X			
	TW-15-11	S8171-4	Water	08/25/25			X			
	PW-14-03R	S8171-5	Water	08/25/25			X			
	DUP-01	S8171-6	Water	08/25/25	MW-12-21		X			

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260B-SIM. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate) and the Quality Assurance Project Plan, Revitalizing Auto Communities Environmental Response (RACER) Trust, August 2011.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R"

values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Volatile Organic Compounds Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260B by SIM	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 with hydrochloric acid

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the RL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

For the SIM analysis, the samples were spiked with internal standards instead of surrogates. All internal standard recoveries were within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations

where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD performed on sample TW-14-02 exhibited recoveries and RPD within the control limits.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All LCS/LCSD recoveries and RPDs were within the control limits.

6. Field Duplicate Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 30% is applied to the RPD between the parent sample and the field duplicate sample results for water matrices. For the case where the parent and/or duplicate sample concentrations are less than five times the reporting limit (RL), a control limit of two times the RL is applied to the difference between the results for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-12-21 / DUP-01	1,4-Dioxane	150	140	6.9%

Notes:
AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for VOCs

8260B SIM	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
Internal Standard/Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Rachelle Borne

SIGNATURE:

DATE: February 14, 2026

PEER REVIEW: Joseph C. Houser

DATE: February 16, 2026

Chain of Custody Corrected Sample Analysis Data Sheets

Plant 2

Merit Laboratories, Inc.

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

C.O.C. PAGE # _____ OF _____

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO | P.O. NO.
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO./NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: [Brandi Cobean]

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	Special Instructions
7870.01	8/26/25	1000	MW-19-122_082625	GW	3		3						3	
02	8/26/25	1115	MW-20-129_082625	GW	3		3						3	
03,04,05	8/26/25	1235	TW-14-02_082625	GW	9		9						9	MS/MSD
06	8/26/25	1400	MW-19-123_082625	GW	3		3						3	

RELINQUISHED BY SIGNATURE/ORGANIZATION	☒ Sampler ARCADIS	DATE 8.26.25	TIME 1645
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 8/26/25	TIME 1645
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	
SEAL NO.	SEAL INTACT YES☐ NO☐	INITIALS	

NOTES: TEMP. ON ARRIVAL 4.4

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

Rev. 5.18.12

Analytical Laboratory Report

Lab Sample ID: S78170.01
Sample Tag: MW-19-122_082625
Collected Date/Time: 08/26/2025 10:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 17:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Lab Sample ID: S78170.02
Sample Tag: MW-20-129_082625
Collected Date/Time: 08/26/2025 11:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 17:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	70	1		ug/L	1	123-91-1	

Lab Sample ID: S78170.03
Sample Tag: TW-14-02_082625
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 18:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	2	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78170.04
Sample Tag: TW-14-02_082625 MS
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 14:35, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	53	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Lab Sample ID: S78170.05
Sample Tag: TW-14-02_082625 MSD
Collected Date/Time: 08/26/2025 12:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 15:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	55	1		ug/L	1	123-91-1	1

1-Sample spiked at 50 mg/l

Analytical Laboratory Report

Lab Sample ID: S78170.06
Sample Tag: MW-19-123_082625
Collected Date/Time: 08/26/2025 14:00
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 18:49, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	32	1		ug/L	1	123-91-1	

Plant 3

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

C.O.C. PAGE # _____ OF _____

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kaitlyn Hunt
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-777-5215 | FAX NO | P.O. NO.
E-MAIL ADDRESS: kaitlyn.hunt@arcadis.com | QUOTE NO

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Billy T. Cuberm

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS
78171.01	8/25/25	1115	MW-13-22_082525	GW	3		3						3
.02	8/25/25	1220	MW-12-21_082525	GW	3		3						3
.03	8/25/25	1410	AS-19-A05_082525	GW	3		3						3
.04	8/25/25	1530	TW-15-11_082525	GW	3		3						3
.05	8/25/25	1645	PW-14-03R_082525	GW	3		3						3
.06	8/25/25	—	Dup-01_082525	GW	3		3						3

RELINQUISHED BY: SIGNATURE/ORGANIZATION: [signature] Arcadis (Sampler) DATE 8-26-25 TIME 1645
RECEIVED BY: SIGNATURE/ORGANIZATION: [signature] DATE 8/26/25 TIME 1645
RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION DATE TIME

SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES | TEMP. ON ARRIVAL 4, 4

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

Rev 5.18.12

Analytical Laboratory Report

Lab Sample ID: S78171.01
Sample Tag: MW-13-22_082525
Collected Date/Time: 08/25/2025 11:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 19:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	131	1		ug/L	1	123-91-1	

Lab Sample ID: S78171.02
Sample Tag: MW-12-21_082525
Collected Date/Time: 08/25/2025 12:20
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 19:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	150	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.03
Sample Tag: AS-19-A05_082525
Collected Date/Time: 08/25/2025 14:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:06, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	Not detected	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.04
Sample Tag: TW-15-11_082525
Collected Date/Time: 08/25/2025 15:30
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:31, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	94	1		ug/L	1	123-91-1	

Lab Sample ID: S78171.05
Sample Tag: PW-14-03R_082525
Collected Date/Time: 08/25/2025 16:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 20:56, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	27	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S78171.06
Sample Tag: DUP-01_082525
Collected Date/Time: 08/25/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	4.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	08/29/25 09:55	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 08/28/25 21:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	140	1		ug/L	1	123-91-1	

Racer – Lansing Plant 2,3&6

Data Review

Lansing, Michigan

VOC Analyses

SDG #s S80561, S80835 and S80837

VOCs Analyses Performed By:
Merit Laboratories Inc.
East Lansing, Michigan

Report #62777R
Review Level: Tier II
Project: 30267725.603

Summary

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #s S80561, S80835 and S80837 for samples collected in association with Plants 2, 3 & 6 in Lansing Michigan. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

SDG Number	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
						VOC	1,4-D	PFAS	MET	MISC
S80561	MW-14-57	S80561-1	GW	10/28/25			X			
	MW-22-153	S80561-2	GW	10/28/25		X	X			
	MW-22-155	S80561-3	GW	10/28/25			X			
	MW-22-156	S80561-4	GW	10/28/25		X	X			
	DUP-01	S80561-5	GW	10/28/25	MW-22-153	X	X			
	MW-19-20	S80561-6	GW	10/28/25		X	X			
	MW-22-157	S80561-7	GW	10/28/25		X	X			
	MW-23-163	S80561-8	GW	10/28/25			X			
	MW-23-161	S80561-9	GW	10/28/25			X			
	MW-23-162	S80561-10	GW	10/28/25			X			
	Trip Blank	S80561-11	GW	10/28/25		X				
S80835	MW-13-29	S80835-1	GW	11/04/25			X			
	MW-13-22	S80835-2	GW	11/04/25			X			
	MW-12-21	S80835-3	GW	11/04/25			X			
	MW-13-48	S80835-4	GW	11/04/25			X			
	DUP-06	S80835-5	GW	11/04/25	MW-13-48		X			
	MW-13-34	S80835-6	GW	11/04/25			X			
S80837	MW-04-05(6)	S80837-1	GW	11/04/25		X				
	MW-22-152	S80837-2	GW	11/04/25		X				
	Trip Blank	S80837-3	GW	11/04/25		X				

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

Note:
QA = quality assurance

Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260C and 8260B-SIM. Data were reviewed in accordance with USEPA National Functional Guidelines NFG for Organic Superfund Methods Data Review, EPA-540-R-20-005 (November 2020), with reference to the historical (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate) and the Quality Assurance Project Plan, Revitalizing Auto Communities Environmental Response (RACER) Trust, August 2011.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound is considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

The "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R"

values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Volatile Organic Compounds Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260C and 8260B by SIM	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 with hydrochloric acid

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

For the SIM analysis, the samples were spiked with internal standards instead of surrogates. All internal standard recoveries were within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations

where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD was not included in the data package.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
MW-04-05(6) MW-22-152 Trip Blank	Isopropylbenzene	AC	<LL but >10%
	1,1,2,2-Tetrachloroethane	AC	
	1,2,3-Trichloropropane	AC	
	n-Propylbenzene	AC	
	Bromobenzene	AC	
	1,3,5-Trimethylbenzene	AC	
	tert-Butylbenzene	AC	
	1,2,4-Trimethylbenzene	AC	

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Note:
Sample results were not qualified as rejected (R) due to the deviations listed above.

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
MW-04-05(6) MW-22-152 Trip Blank	trans-1,4-Dichloro-2-butene
	Isopropylbenzene
	1,1,2,2-Tetrachloroethane
	1,2,3-Trichloropropane
	n-Propylbenzene
	Bromobenzene
	1,3,5-Trimethylbenzene
	tert-Butylbenzene
	1,2,4-Trimethylbenzene

The criteria used to evaluate the RPD between the LCS/LCSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

6. Field Duplicate Analysis

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 30% is applied to the RPD between the parent sample and the field duplicate sample results for water matrices. For the case where the parent and/or duplicate sample concentrations are less than five times the reporting limit (RL), a control limit of two times the RL is applied to the difference between the results for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/ Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-22-153 / DUP-01	1,4-Dioxane	16	19	17.1%
MW-13-48 / DUP-06	1,4-Dioxane	74	73	1.4%

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for VOCs

8260B AND 8260C (SIM)	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks	X				X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X	X		
LCS/LCSD Precision (RPD)		X	X		
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field Duplicate (RPD)		X		X	
Internal Standard/Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Rachelle Borne

SIGNATURE:

DATE: January 19, 2026

PEER REVIEW: Joseph C. Houser

DATE: January 22, 2026

Chain of Custody Corrected Sample Analysis Data Sheets

Plant 2

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO: | P.O. NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com | QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Emma Grelm / Karly Wozenstahl

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH*	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
805610.01	10/28/25	1135	MW-14-57_102825	GW	3		3						X	
.02	10/28/25	1325	MW-22-153_102825	GW	3		3						X	X
.03	10/28/25	1425	MW-22-155_102825	GW	3		3						X	
.04	10/28/25	1240	MW-22-156_102825	GW	3		3						X	X
.05	10/28/25	—	DUP-01_102825	GW	3		3						X	X
.06	10/28/25	1535	MW-19-120_102825	GW	3		3						X	X
.07	10/28/25	1145	MW-22-157_102825	GW	3		3						X	X
.08	10/28/25	1315	MW-23-163_102825	GW	3		3						X	
.09	10/28/25	1425	MW-23-161_102825	GW	3		3						X	
.10	10/28/25	1510	MW-23-162_102825	GW	3		3						X	
.11	10/28/25	—	Trip Blank	GW	1		1							X

RELINQUISHED BY SIGNATURE/ORGANIZATION	Emma Grelm / Arcadis	DATE	TIME
RECEIVED BY SIGNATURE/ORGANIZATION	AnnaLeah Austin Westhuis / Arcadis	10/28/25	1530
RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Prop Box	10/28/25	1536
RECEIVED BY SIGNATURE/ORGANIZATION		10/29/25	0815

RELINQUISHED BY SIGNATURE/ORGANIZATION	AnnaLeah Austin Westhuis / Arcadis	DATE 10/28/25	TIME 835
RECEIVED BY SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 10/28/25	TIME 835

SEAL NO: | SEAL INTACT YES ☐ NO ☐ | INITIALS:
SEAL NO: | SEAL INTACT YES ☐ NO ☐ | INITIALS:

NOTES: | TEMP ON ARRIVAL: 5.7

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

Rev 5 18 12

Analytical Laboratory Report

Lab Sample ID: S80561.01
Sample Tag: MW-14-57_102825
Collected Date/Time: 10/28/2025 11:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 22:23, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.02
Sample Tag: MW-22-153_102825
Collected Date/Time: 10/28/2025 13:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 22:48, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	16	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:10, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.02 (continued)
Sample Tag: MW-22-153_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:10, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80561.03
Sample Tag: MW-22-155_102825
Collected Date/Time: 10/28/2025 14:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 23:13, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	79	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.04
Sample Tag: MW-22-156_102825
Collected Date/Time: 10/28/2025 12:40
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 23:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	126	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 10/31/25 06:34, #2: 10/31/25 22:27, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
Diethyl ether	Not detected	10		ug/L	1	Run #1	r
Acetone	Not detected	50		ug/L	1	Run #1	r
Methyl iodide	Not detected	1		ug/L	1	Run #1	r
Carbon disulfide	Not detected	5		ug/L	1	Run #1	r
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	Run #1	r
Acrylonitrile	Not detected	2		ug/L	1	Run #1	r
2-Butanone (MEK)	Not detected	25		ug/L	1	Run #1	r
Dichlorodifluoromethane	Not detected	5		ug/L	1	Run #1	r
Chloromethane	Not detected	5		ug/L	1	Run #1	r
Vinyl chloride	Not detected	1		ug/L	1	Run #1	r
Bromomethane	Not detected	5		ug/L	1	Run #1	r
Chloroethane	Not detected	5		ug/L	1	Run #1	r
Trichlorofluoromethane	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethene	10	1		ug/L	1	Run #1	r
Methylene chloride	Not detected	5		ug/L	1	Run #1	r
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
1,1-Dichloroethane	180	10		ug/L	10	Run #2	Yr
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	Run #1	r
Tetrahydrofuran	Not detected	90		ug/L	1	Run #1	r
Chloroform	Not detected	1		ug/L	1	Run #1	r
Bromochloromethane	Not detected	1		ug/L	1	Run #1	r
1,1,1-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	Run #1	r
2-Hexanone	Not detected	50		ug/L	1	Run #1	r
Carbon tetrachloride	Not detected	1		ug/L	1	Run #1	r
Benzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloroethane	Not detected	1		ug/L	1	Run #1	r
Trichloroethene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichloropropane	Not detected	1		ug/L	1	Run #1	r
Bromodichloromethane	Not detected	1		ug/L	1	Run #1	r
Dibromomethane	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs
Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S80561.04 (continued)
Sample Tag: MW-22-156_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run #1: 10/31/25 06:34, #2: 10/31/25 22:27, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	Run #	Flags
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
Toluene	Not detected	1		ug/L	1	Run #1	r
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	Run #1	r
1,1,2-Trichloroethane	Not detected	1		ug/L	1	Run #1	r
Tetrachloroethene	Not detected	1		ug/L	1	Run #1	r
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	Run #1	r
Dibromochloromethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromoethane	Not detected	1		ug/L	1	Run #1	r
Chlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
Ethylbenzene	Not detected	1		ug/L	1	Run #1	r
p,m-Xylene	Not detected	2		ug/L	1	Run #1	r
o-Xylene	Not detected	1		ug/L	1	Run #1	r
Styrene	Not detected	1		ug/L	1	Run #1	r
Isopropylbenzene	Not detected	5		ug/L	1	Run #1	r
Bromoform	Not detected	1		ug/L	1	Run #1	r
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trichloropropane	Not detected	1		ug/L	1	Run #1	r
n-Propylbenzene	Not detected	1		ug/L	1	Run #1	r
Bromobenzene	Not detected	1		ug/L	1	Run #1	r
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
tert-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
sec-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
p-Isopropyltoluene	Not detected	5		ug/L	1	Run #1	r
1,3-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,4-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2-Dichlorobenzene	Not detected	1		ug/L	1	Run #1	r
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	Run #1	r
n-Butylbenzene	Not detected	1		ug/L	1	Run #1	r
Hexachloroethane	Not detected	5		ug/L	1	Run #1	r
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	Run #1	r
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	Run #1	r
Naphthalene	Not detected	5		ug/L	1	Run #1	r
2-Methylnaphthalene	Not detected	5		ug/L	1	Run #1	r

r-This analyte is being reported as the best result from multiple runs

Lab Sample ID: S80561.05
Sample Tag: DUP-01_102825
Collected Date/Time: 10/28/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/30/25 00:04, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	19	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:57, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.05 (continued)
Sample Tag: DUP-01_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 06:57, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.06
Sample Tag: MW-19-120_102825
Collected Date/Time: 10/28/2025 15:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 19:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	4	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:21, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.06 (continued)
Sample Tag: MW-19-120_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:21, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.07
Sample Tag: MW-22-157_102825
Collected Date/Time: 10/28/2025 11:45
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 21:57, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	65	1		ug/L	1	123-91-1	

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:45, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	

Lab Sample ID: S80561.07 (continued)
Sample Tag: MW-22-157_102825

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 07:45, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Lab Sample ID: S80561.08
Sample Tag: MW-23-163_102825
Collected Date/Time: 10/28/2025 13:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 19:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	9	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.09
Sample Tag: MW-23-161_102825
Collected Date/Time: 10/28/2025 14:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 21:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	14	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80561.10
Sample Tag: MW-23-162_102825
Collected Date/Time: 10/28/2025 15:10
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/30/25 11:25	NDK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 10/29/25 20:41, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	27	1		ug/L	1	123-91-1	

Lab Sample ID: S80561.11
Sample Tag: Trip Blank
Collected Date/Time: 10/28/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.7	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	10/31/25 12:15	NDK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 02:59, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80561.11 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 10/31/25 02:59, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Plant 3

Merit Laboratories, Inc

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

C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO: US3460027593
QUOTE NO:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO: | E-MAIL ADDRESS: tiffany.linder@arcadis.com

PROJECT NO /NAME: 30267725.0470B / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	$MeOH$	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80835.01	11/4/25	9.53	MW-13 29-110425	GW	3		3						X	
.02	11/4/25	11.49	MW-13-22-110425	GW	3		3						X	
.03	11/4/25	1507	MW-12-21_110425	GW	3		3						X	
.04	11/4/25	1615	MW-13-48_110425	GW	3		3						X	
.05	11/4/25	—	DUP-06_110425	GW	3		3						X	
.06	11/4/25	1704	MW-13-34_110425	GW	3		3						X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	Arcadis ☐ Sampler	DATE 11/4/25	TIME	RELINQUISHED BY: SIGNATURE/ORGANIZATION	Merit Drop Box 11/5/25 0815
RECEIVED BY: SIGNATURE/ORGANIZATION	Merit Drop Box	DATE 11/4/25	TIME	RECEIVED BY: SIGNATURE/ORGANIZATION	M Dilcolo 11/5/25 0815
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS	NOTES / TEMP ON ARRIVAL 5.4
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME	SEAL NO. / SEAL INTACT YES ☐ NO ☐ / INITIALS	

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

Rev. 1 10 12

Analytical Laboratory Report

Lab Sample ID: S80835.01
Sample Tag: MW-13-29_110425
Collected Date/Time: 11/04/2025 09:53
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 15:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	1	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.02
Sample Tag: MW-13-22_110425
Collected Date/Time: 11/04/2025 11:49
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:50, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	83	1		ug/L	1	123-91-1	

Lab Sample ID: S80835.03
Sample Tag: MW-12-21_110425
Collected Date/Time: 11/04/2025 15:07
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 17:15, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	145	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.04
Sample Tag: MW-13-48_110425
Collected Date/Time: 11/04/2025 16:15
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:00, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	74	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.05
Sample Tag: DUP-06_110425
Collected Date/Time: 11/04/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 18:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	73	1		ug/L	1	123-91-1	

Analytical Laboratory Report

Lab Sample ID: S80835.06
Sample Tag: MW-13-34_110425
Collected Date/Time: 11/04/2025 17:04
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Method: SW8260B - SIM, Run Date: 11/05/25 16:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,4-Dioxane*	92	1		ug/L	1	123-91-1	

Plant 6

Merit Laboratories, Inc

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C.O.C. PAGE # 1 OF 1

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Tiffany Linder, Kara Donahue
COMPANY: Arcadis
ADDRESS: 28550 Cabot Drive, STE 500
CITY: Novi | STATE: MI | ZIP CODE: 48377
PHONE NO.: 947-465-3086 | FAX NO:
E-MAIL ADDRESS: kara.donahue@arcadis.com
P.O. NO.: WS34600275900
QUOTE NO.:
PROJECT NO /NAME: 30267725.0470A / RACER Lansing GWS
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kayla Wagenstahl / Austin Westhuis

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

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

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY | STATE | ZIP CODE:
PHONE NO | E-MAIL ADDRESS: tiffany.linder@arcadis.com

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

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

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	1,4-Dioxane - 8260 SIMS	VOC - 8260 SIMS
80837.01	11/4/25	1035	MW-04-05(6)_110425	GW	3		3							X
.02	11/4/25	1525	MW-22-152_110425	GW	3		3							X
.03	11/4/25	—	Trip Blank	GW	1		1							X

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

RELINQUISHED BY SIGNATURE/ORGANIZATION	Arcadis / Sampler	DATE 11/4/25	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY SIGNATURE/ORGANIZATION	Merit Drop Box	11/5/25 DATE	0815 TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	M Allcot	11/5/25 DATE	0815 TIME
SEAL NO	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES
SEAL NO	SEAL INTACT YES ☐ NO ☐	INITIALS	TEMP ON ARRIVAL 5.4

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

Rev 5.18

Lab Sample ID: S80837.01
Sample Tag: MW-04-05(6)_110425
Collected Date/Time: 11/04/2025 10:35
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 18:47, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80837.01 (continued)
Sample Tag: MW-04-05(6)_110425

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 18:47, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1	UJ	ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1	UJ	ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1	UJ	ug/L	1	103-65-1	
Bromobenzene	Not detected	1	UJ	ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1	UJ	ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1	UJ	ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1	UJ	ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5	UJ	ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80837.02
Sample Tag: MW-22-152_110425
Collected Date/Time: 11/04/2025 15:25
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 19:11, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1	UJ	ug/L	1	110-57-6	

Lab Sample ID: S80837.02 (continued)
Sample Tag: MW-22-152_110425

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 19:11, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5	UJ	ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1	UJ	ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1	UJ	ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1	UJ	ug/L	1	103-65-1	
Bromobenzene	Not detected	1	UJ	ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1	UJ	ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1	UJ	ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1	UJ	ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S80837.03
Sample Tag: Trip Blank
Collected Date/Time: 11/04/2025 00:01
Matrix: Groundwater
COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	HCL	Yes	5.4	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
pH check for VOCs*	<2	N/A	11/06/25 11:35	ACK	

Organics - Volatiles

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 14:27, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	

Lab Sample ID: S80837.03 (continued)
Sample Tag: Trip Blank

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 11/05/25 14:27, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1	179601-23-1	
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5	UJ	ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1	UJ	ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1	UJ	ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1	UJ	ug/L	1	103-65-1	
Bromobenzene	Not detected	1	UJ	ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1	UJ	ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1	UJ	ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1	UJ	ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	

Appendix B-2

Soil Vapor Laboratory Analytical Reports

Metiri Group - Holt
1914 Holloway Dr, Holt, MI 48842 - Phone (517) 699-0345 - www.metirigroup.com

December 04, 2025

Kaitlyn Hunt
Arcadis U.S., Inc. - Novi
28550 Cabot Dr, Ste 500
Novi, MI 48377

RE: RACER Lansing 30267725.00102
25J0501

Thank you for selecting Metiri Group - Holt as your analytical laboratory. The samples submitted have been analyzed in accordance with all method and NELAC standards, as applicable. Any exceptions to compliance are noted in the report.

Please note that TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results, or if we may be of further assistance to you, please contact us at (517) 699-0345.

Sincerely,

Julia Hicks
Project Manager

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Work Order Case Narrative

This report replaces the original report sent on December 2, 2025 due to a missing chain-of-custody. The chain-of-custody is now included as the last page of the report. JAH 12/4/2025

Analysis Case Narrative

EPA TO-15:

Analyte Xylenes exceeded the 20% RPD threshold in the duplicate BEJ0611-DUP1. The sample was reported with a J Flag approximation.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
25J0501-01	SVMP-20-01_102925	Air	10/29/2025 13:45	10/29/2025
25J0501-02	DUP-01_102925	Air	10/29/2025 13:45	10/29/2025

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi
28550 Cabot Dr, Ste 500
Novi, MI 48377

Project: RACER Lansing
Project Number: 30267725.00102
Project Manager: Kaitlyn Hunt

Reported: 12/04/2025 21:33

Sample Results

Sample: SVMP-20-01_102925 1

25J0501-01 (Air) Sampled: 10/29/25 13:45

Volatiles Analysis-GC/MS (TO-15)

	Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
1	1,1,1-Trichloroethane	ND		33	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
2	1,1,2,2-Tetrachloroethane	ND		3.3	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
3	1,1,2-Trichloroethane	ND		6.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
4	1,1,2-Trichlorotrifluoroethane	ND		46	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
5	1,1-Dichloroethane	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
6	1,1-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
7	1,2,4-Trichlorobenzene	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
8	1,2,4-Trimethylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
9	1,2-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
10	1,2-Dichloroethane	ND		4.9	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
11	1,2-Dichloropropane	ND		28	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
12	1,3,5-Trimethylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
13	1,3-Butadiene	ND		2.7	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
14	1,3-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
15	1,4-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
16	1,4-Dioxane	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
17	2,2,4-Trimethylpentane	ND		56	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
18	2-Butanone	ND		35	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
19	2-Hexanone	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
20	4-Methyl-2-pentanone	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
21	Acetone	ND	*, L-, JS	57	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
22	Benzene	ND		19	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
23	Benzyl Chloride	ND		6.2	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
24	Bromodichloromethane	ND		8.0	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
25	Bromoform	ND		62	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
26	Bromomethane	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
27	Carbon Disulfide	ND		37	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
28	Carbon Tetrachloride	ND		7.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
29	Chlorobenzene	ND		28	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
30	Chloroethane	ND		16	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
31	Chloroform	ND		5.9	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
32	Chloromethane	ND		12	ug/m3	10/31/25	1	EPA TO-15	BEJ0611

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Sample Results
(Continued)

Sample: SVMP-20-01_102925 1 (Continued)
25J0501-01 (Air) Sampled: 10/29/25 13:45

Volatiles Analysis-GC/MS (TO-15) (Continued)

	Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
33	cis-1,2-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
34	cis-1,3-Dichloropropene	ND		27	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
35	Cyclohexane	ND		41	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
36	Dibromochloromethane	ND		4.1	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
37	Dichlorodifluoromethane	ND		30	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
38	Ethanol	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
39	Ethyl Acetate	ND		43	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
40	Ethylbenzene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
41	Ethylene Dibromide	ND		0.92	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
42	Hexachlorobutadiene	ND		5.1	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
43	Isopropanol	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
44	m&p-Xylene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
45	Methylene Chloride	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
46	MTBE	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
47	Naphthalene	ND		19	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
48	n-Heptane	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
49	n-Hexane	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
50	n-Pentane	ND		18	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
51	n-Propylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
52	o-Xylene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
53	sec-Butylbenzene	ND		6.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
54	Styrene	ND		51	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
55	tert-Butylbenzene	ND		6.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
56	Tetrachloroethene	ND		41	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
57	Tetrahydrofuran	ND		3.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
58	Toluene	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
59	trans-1,2-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
60	trans-1,3-Dichloropropene	ND		27	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
61	Trichloroethene	ND		1.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
62	Trichlorofluoromethane	ND		34	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
63	Vinyl Acetate	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
64	Vinyl Chloride	ND		15	ug/m3	10/31/25	1	EPA TO-15	BEJ0611

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No duplication of this report is allowed, except in its entirety.

Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Sample Results
(Continued)

Sample: SVMP-20-01_102925 1 (Continued)
25J0501-01 (Air) Sampled: 10/29/25 13:45

Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
Volatiles Analysis-GC/MS (TO-15) (Continued)								
65 Xylenes	ND		100	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
Surrogate: 4-Bromofluorobenzene(S)	*105%*		*80-120*		*10/31/25*	*1*	*EPA TO-15*	

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Sample Results

(Continued)

Sample: DUP-01_102925 2

25J0501-02 (Air) Sampled: 10/29/25 13:45

Volatiles Analysis-GC/MS (TO-15)

	Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
1	1,1,1-Trichloroethane	ND		33	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
2	1,1,2,2-Tetrachloroethane	ND		3.3	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
3	1,1,2-Trichloroethane	ND		6.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
4	1,1,2-Trichlorotrifluoroethane	ND		46	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
5	1,1-Dichloroethane	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
6	1,1-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
7	1,2,4-Trichlorobenzene	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
8	1,2,4-Trimethylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
9	1,2-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
10	1,2-Dichloroethane	ND		4.9	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
11	1,2-Dichloropropane	ND		28	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
12	1,3,5-Trimethylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
13	1,3-Butadiene	ND		2.7	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
14	1,3-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
15	1,4-Dichlorobenzene	ND		36	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
16	1,4-Dioxane	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
17	2,2,4-Trimethylpentane	ND		56	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
18	2-Butanone	ND		35	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
19	2-Hexanone	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
20	4-Methyl-2-pentanone	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
21	Acetone	ND	*, JS, L-	57	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
22	Benzene	ND		19	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
23	Benzyl Chloride	ND		6.2	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
24	Bromodichloromethane	ND		8.0	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
25	Bromoform	ND		62	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
26	Bromomethane	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
27	Carbon Disulfide	ND		37	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
28	Carbon Tetrachloride	ND		7.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
29	Chlorobenzene	ND		28	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
30	Chloroethane	ND		16	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
31	Chloroform	ND		5.9	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
32	Chloromethane	ND		12	ug/m3	10/31/25	1	EPA TO-15	BEJ0611

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Sample Results
(Continued)

Sample: DUP-01_102925 2 (Continued)
25J0501-02 (Air) Sampled: 10/29/25 13:45

Volatiles Analysis-GC/MS (TO-15) (Continued)

	Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
33	cis-1,2-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
34	cis-1,3-Dichloropropene	ND		27	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
35	Cyclohexane	ND		41	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
36	Dibromochloromethane	ND		4.1	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
37	Dichlorodifluoromethane	ND		30	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
38	Ethanol	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
39	Ethyl Acetate	ND		43	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
40	Ethylbenzene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
41	Ethylene Dibromide	ND		0.92	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
42	Hexachlorobutadiene	ND		5.1	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
43	Isopropanol	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
44	m&p-Xylene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
45	Methylene Chloride	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
46	MTBE	ND		22	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
47	Naphthalene	ND		19	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
48	n-Heptane	ND		49	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
49	n-Hexane	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
50	n-Pentane	ND		18	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
51	n-Propylbenzene	ND		29	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
52	o-Xylene	ND		52	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
53	sec-Butylbenzene	ND		6.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
54	Styrene	ND		51	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
55	tert-Butylbenzene	ND		6.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
56	Tetrachloroethene	ND		41	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
57	Tetrahydrofuran	ND		3.5	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
58	Toluene	ND		23	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
59	trans-1,2-Dichloroethene	ND		24	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
60	trans-1,3-Dichloropropene	ND		27	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
61	Trichloroethene	ND		1.6	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
62	Trichlorofluoromethane	ND		34	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
63	Vinyl Acetate	ND		42	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
64	Vinyl Chloride	ND		15	ug/m3	10/31/25	1	EPA TO-15	BEJ0611

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Sample Results
(Continued)

Sample: DUP-01_102925 2 (Continued)
25J0501-02 (Air) Sampled: 10/29/25 13:45

Analyte	Result	/Qual	PQL	Units	Date Analyzed	DF	Method	Prep Batch
Volatiles Analysis-GC/MS (TO-15) (Continued)								
65 Xylenes	ND		100	ug/m3	10/31/25	1	EPA TO-15	BEJ0611
Surrogate: 4-Bromofluorobenzene(S)	*105%*		*80-120*		*10/31/25*	*1*	*EPA TO-15*	

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

PREPARATION BATCH SUMMARY

EPA TO-15

Laboratory: Metiri Group - Holt

Client: Arcadis U.S., Inc. - Novi

Batch: BEJ0611 Batch Matrix: Air Preparation: TO-15

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. ml
SVMP-20-01_102925	25J0501-01	10/31/25 08:00	100.0000	400
DUP-01_102925	25J0501-02	10/31/25 08:00	100.0000	400
Blank	BEJ0611-BLK1	10/30/25 12:11	400.0000	400
LCS	BEJ0611-BS1	10/30/25 12:11	400.0000	400
LCS Dup	BEJ0611-BSD1	10/30/25 12:11	400.0000	400

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28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control

Volatiles Analysis-GC/MS (TO-15)

Analyte	Result/ Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Method: EPA TO-15									
Batch: BEJ0611 - TO-15									
Blank (BEJ0611-BLK1)				Prepared: 10/30/25 12:11 Analyzed: 10/31/25 12:02					
1 1,1,1-Trichloroethane	ND	8.2	ug/m3						
2 1,1,2,2-Tetrachloroethane	ND	0.82	ug/m3						
3 1,1,2-Trichloroethane	ND	1.6	ug/m3						
4 1,1,2-Trichlorotrifluoroethane	ND	11	ug/m3						
5 1,1-Dichloroethane	ND	6.1	ug/m3						
6 1,1-Dichloroethene	ND	5.9	ug/m3						
7 1,2,4-Trichlorobenzene	ND	5.6	ug/m3						
8 1,2,4-Trimethylbenzene	ND	7.4	ug/m3						
9 1,2-Dichlorobenzene	ND	9.0	ug/m3						
10 1,2-Dichloroethane	ND	1.2	ug/m3						
11 1,2-Dichloropropane	ND	6.9	ug/m3						
12 1,3,5-Trimethylbenzene	ND	7.4	ug/m3						
13 1,3-Butadiene	ND	0.66	ug/m3						
14 1,3-Dichlorobenzene	ND	9.0	ug/m3						
15 1,4-Dichlorobenzene	ND	9.0	ug/m3						
16 1,4-Dioxane	ND	5.4	ug/m3						
17 2,2,4-Trimethylpentane	ND	14	ug/m3						
18 2-Butanone	ND	8.8	ug/m3						
19 2-Hexanone	ND	12	ug/m3						
20 4-Methyl-2-pentanone	ND	12	ug/m3						
21 Acetone	ND JS	14	ug/m3						
22 Benzene	ND	4.8	ug/m3						
23 Benzyl Chloride	ND	1.6	ug/m3						
24 Bromodichloromethane	ND	2.0	ug/m3						
25 Bromoform	ND	15	ug/m3						
26 Bromomethane	ND	5.8	ug/m3						
27 Carbon Disulfide	ND	9.3	ug/m3						
28 Carbon Tetrachloride	ND	1.9	ug/m3						
29 Chlorobenzene	ND	6.9	ug/m3						
30 Chloroethane	ND	4.0	ug/m3						
31 Chloroform	ND	1.5	ug/m3						
32 Chloromethane	ND	3.1	ug/m3						
33 cis-1,2-Dichloroethene	ND	5.9	ug/m3						
34 cis-1,3-Dichloropropene	ND	6.8	ug/m3						
35 Cyclohexane	ND	10	ug/m3						
36 Dibromochloromethane	ND	1.0	ug/m3						
37 Dichlorodifluoromethane	ND	7.4	ug/m3						
38 Ethanol	ND	5.7	ug/m3						
39 Ethyl Acetate	ND	11	ug/m3						
40 Ethylbenzene	ND	13	ug/m3						
41 Ethylene Dibromide	ND	0.23	ug/m3						

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Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control
(Continued)

Volatiles Analysis-GC/MS (TO-15) (Continued)

Analyte	Result/ Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (BEJ0611-BLK1)				Prepared: 10/30/25 12:11 Analyzed: 10/31/25 12:02					
42 Hexachlorobutadiene	ND	1.3	ug/m3						
43 Isopropanol	ND	7.4	ug/m3						
44 m&p-Xylene	ND	13	ug/m3						
45 Methylene Chloride	ND	10	ug/m3						
46 MTBE	ND	5.4	ug/m3						
47 Naphthalene	ND	4.7	ug/m3						
48 n-Heptane	ND	12	ug/m3						
49 n-Hexane	ND	11	ug/m3						
50 n-Pentane	ND	4.4	ug/m3						
51 n-Propylbenzene	ND	7.4	ug/m3						
52 o-Xylene	ND	13	ug/m3						
53 sec-Butylbenzene	ND	1.6	ug/m3						
54 Styrene	ND	13	ug/m3						
55 tert-Butylbenzene	ND	1.6	ug/m3						
56 Tetrachloroethene	ND	10	ug/m3						
57 Tetrahydrofuran	ND	0.88	ug/m3						
58 Toluene	ND	5.7	ug/m3						
59 trans-1,2-Dichloroethene	ND	5.9	ug/m3						
60 trans-1,3-Dichloropropene	ND	6.8	ug/m3						
61 Trichloroethene	ND	0.40	ug/m3						
62 Trichlorofluoromethane	ND	8.4	ug/m3						
63 Vinyl Acetate	ND	11	ug/m3						
64 Vinyl Chloride	ND	3.8	ug/m3						
65 Xylenes	ND	26	ug/m3						
Surrogate: 4-Bromofluorobenzene(S)	*45*		*ug/m3*	*41.1*		*108*	*80-120*		

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28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control
(Continued)

Volatiles Analysis-GC/MS (TO-15) (Continued)

Analyte	Result/	Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (BEJ0611-BS1)					Prepared: 10/30/25 12:11		Analyzed: 10/31/25 09:19			
1 1,1,1-Trichloroethane	69		8.2	ug/m3	72.3		95	70-130		
2 1,1,2,2-Tetrachloroethane	84		0.82	ug/m3	89.9		94	70-130		
3 1,1,2-Trichloroethane	68		1.6	ug/m3	71.4		95	70-130		
4 1,1,2-Trichlorotrifluoroethane	96		23	ug/m3	104		92	70-130		
5 1,1-Dichloroethane	49		6.1	ug/m3	53.0		92	70-130		
6 1,1-Dichloroethene	47		5.9	ug/m3	52.5		90	70-133		
7 1,2,4-Trichlorobenzene	91		22	ug/m3	93.5		97	70-140		
8 1,2,4-Trimethylbenzene	60		7.4	ug/m3	65.1		92	70-132		
9 1,2-Dichlorobenzene	73		9.0	ug/m3	78.1		93	70-130		
10 1,2-Dichloroethane	50		1.2	ug/m3	53.6		93	70-130		
11 1,2-Dichloropropane	56		6.9	ug/m3	61.2		91	70-130		
12 1,3,5-Trimethylbenzene	59		7.4	ug/m3	63.9		93	70-131		
13 1,3-Butadiene	25		0.66	ug/m3	29.3		86	70-134		
14 1,3-Dichlorobenzene	74		9.0	ug/m3	77.5		95	70-131		
15 1,4-Dichlorobenzene	75		9.0	ug/m3	78.7		96	70-134		
16 1,4-Dioxane	44		5.4	ug/m3	46.5		95	70-130		
17 2,2,4-Trimethylpentane	55		28	ug/m3	60.7		91	70-130		
18 2-Butanone	36		8.8	ug/m3	38.3		93	70-130		
19 2-Hexanone	43		12	ug/m3	52.2		82	70-139		
20 4-Methyl-2-pentanone	47		12	ug/m3	53.6		88	70-130		
21 Acetone	21	JS, L-	36	ug/m3	30.3		69	70-130		
22 Benzene	38		4.8	ug/m3	42.8		89	70-130		
23 Benzyl Chloride	68		1.6	ug/m3	66.8		102	70-150		
24 Bromodichloromethane	83		2.0	ug/m3	86.4		96	70-130		
25 Bromoform	140		15	ug/m3	135		104	70-138		
26 Bromomethane	45		5.8	ug/m3	49.5		90	70-133		
27 Carbon Disulfide	39		19	ug/m3	41.2		94	70-130		
28 Carbon Tetrachloride	82		1.9	ug/m3	81.1		100	70-131		
29 Chlorobenzene	59		14	ug/m3	61.0		97	70-130		
30 Chloroethane	30		4.0	ug/m3	34.0		89	70-130		
31 Chloroform	58		1.5	ug/m3	64.7		90	70-130		
32 Chloromethane	23		12	ug/m3	26.6		87	70-130		
33 cis-1,2-Dichloroethene	49		5.9	ug/m3	53.1		92	70-130		
34 cis-1,3-Dichloropropene	57		6.8	ug/m3	59.4		95	70-131		
35 Cyclohexane	40		10	ug/m3	45.6		89	70-130		
36 Dibromochloromethane	110		1.0	ug/m3	110		102	70-135		
37 Dichlorodifluoromethane	60		15	ug/m3	61.8		97	70-132		
38 Ethanol	19		11	ug/m3	23.1		84	70-130		
39 Ethyl Acetate	48		11	ug/m3	47.2		102	70-130		
40 Ethylbenzene	54		13	ug/m3	56.9		95	70-130		
41 Ethylene Dibromide	96		0.23	ug/m3	99.1		97	70-130		
42 Hexachlorobutadiene	130		1.3	ug/m3	141		89	70-134		
43 Isopropanol	27		15	ug/m3	30.1		90	54-144		
44 m&p-Xylene	110		13	ug/m3	115		95	70-130		

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28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control
(Continued)

Volatiles Analysis-GC/MS (TO-15) (Continued)

Analyte	Result/ Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (BEJ0611-BS1)				Prepared: 10/30/25 12:11		Analyzed: 10/31/25 09:19			
45 Methylene Chloride	37	42	ug/m3	43.8		84	70-132		
46 MTBE	43	5.4	ug/m3	47.7		90	70-130		
47 Naphthalene	71	19	ug/m3	71.3		100	70-148		
48 n-Heptane	46	12	ug/m3	53.7		85	70-132		
49 n-Hexane	41	11	ug/m3	46.7		87	70-130		
50 n-Pentane	34	4.4	ug/m3	38.3		89	70-130		
51 n-Propylbenzene	61	7.4	ug/m3	64.4		95	70-130		
52 o-Xylene	54	13	ug/m3	56.9		94	70-130		
53 sec-Butylbenzene	68	4.9	ug/m3	73.5		92	70-130		
54 Styrene	53	13	ug/m3	54.3		98	70-130		
55 tert-Butylbenzene	67	4.9	ug/m3	72.7		93	70-130		
56 Tetrachloroethene	85	10	ug/m3	88.8		96	70-130		
57 Tetrahydrofuran	30	4.4	ug/m3	35.7		84	70-138		
58 Toluene	47	5.7	ug/m3	49.9		94	70-130		
59 trans-1,2-Dichloroethene	47	5.9	ug/m3	51.9		91	70-130		
60 trans-1,3-Dichloropropene	51	6.8	ug/m3	53.3		96	70-134		
61 Trichloroethene	65	0.40	ug/m3	69.3		93	70-130		
62 Trichlorofluoromethane	70	8.4	ug/m3	73.0		96	70-132		
63 Vinyl Acetate	39	11	ug/m3	46.6		83	70-131		
64 Vinyl Chloride	30	3.8	ug/m3	33.0		91	70-131		
Surrogate: 4-Bromofluorobenzene(S)	*46*		*ug/m3*	*41.1*		*111*	*80-120*		

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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control
(Continued)

Volatiles Analysis-GC/MS (TO-15) (Continued)

Analyte	Result/	Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS Dup (BEJ0611-BSD1)					Prepared: 10/30/25 12:11		Analyzed: 10/31/25 10:12			
1 1,1,1-Trichloroethane	69		8.2	ug/m3	72.3		96	70-130	0.08	20
2 1,1,2,2-Tetrachloroethane	84		0.82	ug/m3	89.9		93	70-130	0.2	20
3 1,1,2-Trichloroethane	68		1.6	ug/m3	71.4		95	70-130	0.4	20
4 1,1,2-Trichlorotrifluoroethane	98		23	ug/m3	104		94	70-130	2	20
5 1,1-Dichloroethane	50		6.1	ug/m3	53.0		94	70-130	2	20
6 1,1-Dichloroethene	48		5.9	ug/m3	52.5		92	70-133	2	20
7 1,2,4-Trichlorobenzene	91		22	ug/m3	93.5		97	70-140	0.2	20
8 1,2,4-Trimethylbenzene	59		7.4	ug/m3	65.1		91	70-132	0.9	20
9 1,2-Dichlorobenzene	72		9.0	ug/m3	78.1		92	70-130	1	20
10 1,2-Dichloroethane	51		1.2	ug/m3	53.6		95	70-130	3	20
11 1,2-Dichloropropane	56		6.9	ug/m3	61.2		92	70-130	1	20
12 1,3,5-Trimethylbenzene	59		7.4	ug/m3	63.9		92	70-131	0.8	20
13 1,3-Butadiene	26		0.66	ug/m3	29.3		89	70-134	3	20
14 1,3-Dichlorobenzene	73		9.0	ug/m3	77.5		94	70-131	1	20
15 1,4-Dichlorobenzene	75		9.0	ug/m3	78.7		95	70-134	0.9	20
16 1,4-Dioxane	45		5.4	ug/m3	46.5		96	70-130	0.6	20
17 2,2,4-Trimethylpentane	56		28	ug/m3	60.7		92	70-130	1	20
18 2-Butanone	37		8.8	ug/m3	38.3		96	70-130	3	20
19 2-Hexanone	43		12	ug/m3	52.2		82	70-139	0.4	20
20 4-Methyl-2-pentanone	48		12	ug/m3	53.6		90	70-130	1	20
21 Acetone	32	*, JS	36	ug/m3	30.3		105	70-130	41	20
22 Benzene	38		4.8	ug/m3	42.8		89	70-130	0.8	20
23 Benzyl Chloride	67		1.6	ug/m3	66.8		100	70-150	2	20
24 Bromodichloromethane	83		2.0	ug/m3	86.4		96	70-130	0.2	20
25 Bromoform	140		15	ug/m3	135		103	70-138	0.5	20
26 Bromomethane	45		5.8	ug/m3	49.5		92	70-133	2	20
27 Carbon Disulfide	40		19	ug/m3	41.2		97	70-130	3	20
28 Carbon Tetrachloride	82		1.9	ug/m3	81.1		101	70-131	0.3	20
29 Chlorobenzene	58		14	ug/m3	61.0		96	70-130	2	20
30 Chloroethane	31		4.0	ug/m3	34.0		91	70-130	2	20
31 Chloroform	59		1.5	ug/m3	64.7		92	70-130	2	20
32 Chloromethane	24		12	ug/m3	26.6		89	70-130	2	20
33 cis-1,2-Dichloroethene	50		5.9	ug/m3	53.1		94	70-130	1	20
34 cis-1,3-Dichloropropene	57		6.8	ug/m3	59.4		95	70-131	0	20
35 Cyclohexane	41		10	ug/m3	45.6		90	70-130	2	20
36 Dibromochloromethane	110		1.0	ug/m3	110		101	70-135	1	20
37 Dichlorodifluoromethane	61		15	ug/m3	61.8		98	70-132	2	20
38 Ethanol	19		11	ug/m3	23.1		84	70-130	1	20
39 Ethyl Acetate	49		11	ug/m3	47.2		104	70-130	2	20
40 Ethylbenzene	54		13	ug/m3	56.9		94	70-130	0.3	20
41 Ethylene Dibromide	95		0.23	ug/m3	99.1		96	70-130	1	20
42 Hexachlorobutadiene	120		1.3	ug/m3	141		88	70-134	0.4	20
43 Isopropanol	27		15	ug/m3	30.1		91	54-144	1	20
44 m&p-Xylene	110		13	ug/m3	115		94	70-130	0.9	20

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Quality Control
(Continued)

Volatiles Analysis-GC/MS (TO-15) (Continued)

Analyte	Result/ Qual	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS Dup (BEJ0611-BSD1)				Prepared: 10/30/25 12:11		Analyzed: 10/31/25 10:12			
45 Methylene Chloride	38	42	ug/m3	43.8		86	70-132	2	20
46 MTBE	44	5.4	ug/m3	47.7		92	70-130	2	20
47 Naphthalene	71	19	ug/m3	71.3		100	70-148	0.7	20
48 n-Heptane	46	12	ug/m3	53.7		86	70-132	0.8	20
49 n-Hexane	41	11	ug/m3	46.7		89	70-130	1	20
50 n-Pentane	35	4.4	ug/m3	38.3		91	70-130	2	20
51 n-Propylbenzene	61	7.4	ug/m3	64.4		95	70-130	0.4	20
52 o-Xylene	53	13	ug/m3	56.9		94	70-130	0.7	20
53 sec-Butylbenzene	67	4.9	ug/m3	73.5		91	70-130	1	20
54 Styrene	53	13	ug/m3	54.3		98	70-130	0	20
55 tert-Butylbenzene	67	4.9	ug/m3	72.7		92	70-130	1	20
56 Tetrachloroethene	84	10	ug/m3	88.8		94	70-130	2	20
57 Tetrahydrofuran	31	4.4	ug/m3	35.7		87	70-138	3	20
58 Toluene	47	5.7	ug/m3	49.9		93	70-130	0.3	20
59 trans-1,2-Dichloroethene	48	5.9	ug/m3	51.9		93	70-130	2	20
60 trans-1,3-Dichloropropene	52	6.8	ug/m3	53.3		97	70-134	0.8	20
61 Trichloroethene	65	0.40	ug/m3	69.3		94	70-130	0.5	20
62 Trichlorofluoromethane	71	8.4	ug/m3	73.0		98	70-132	2	20
63 Vinyl Acetate	40	11	ug/m3	46.6		85	70-131	2	20
64 Vinyl Chloride	31	3.8	ug/m3	33.0		93	70-131	3	20
Surrogate: 4-Bromofluorobenzene(S)	*45*		*ug/m3*	*41.1*		*110*	*80-120*		

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

Notes and Definitions

Item	Definition
*	Duplicate analysis not within control limits.
JS	This analyte is an estimated value and should be used for screening purposes only.
L-	Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.
Dry	Sample results reported on a dry weight basis.
MDL	Method Detection Limit (only displays if reported to the MDL)
ND	Analyte NOT DETECTED at or above the reporting limit.
DF	Dilution Factor
DL	Detection Limit
‡	Parameter not included in NELAC Scope of Analysis.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

PQL, Practical Quantitation Limit = Method Reporting Limit (MRL).

Accreditation Number(s):
MI001292024-1

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
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Metiri Group - Holt - 1914 Holloway Dr, Holt, MI 48842

Arcadis U.S., Inc. - Novi	Project: RACER Lansing	
28550 Cabot Dr, Ste 500	Project Number: 30267725.00102	
Novi, MI 48377	Project Manager: Kaitlyn Hunt	Reported: 12/04/2025 21:33

WORK ORDER

25J0501

Printed: 12/04/2025 9:33 pm

Project: **RACER Lansing**
Project Number: **30267725.00102**
Project Manager: **Julia Hicks**
PO Number:

Report To:

Arcadis U.S., Inc. - Novi
Kaitlyn Hunt
28550 Cabot Dr, Ste 500
Novi, MI 48377
Phone: (248) 994-2240
Fax: (248) 994-2241

Invoice To:

Arcadis U.S., Inc. - Novi
Kaitlyn Hunt
28550 Cabot Dr, Ste 500
Novi, MI 48377
Phone: (248) 994-2240
Fax: (248) 994-2241

Date Received: 10/29/2025 02:41 PM
Date Due: 11/12/2025 (10.00 day TAT)

Logged In By: Abigail Taylor
Received By: Riley Rutherford

Analysis		Comments
25J0501-01 SVMP-20-01_102925 [Air] Sampled 10/29/2025 1:45:00PM		
TO-15-MI	Soil Gas/Subslab (65 Compound	Select List (65 Compounds)
25J0501-02 DUP-01_102925 [Air] Sampled 10/29/2025 1:45:00PM		
TO-15-MI	Soil Gas/Subslab (65 Compound	Select List (65 Compounds)

25J0501 **Sample Receipt Log**

Default Cooler

Samples Received at: **20.0°C**

Were Custody Seals present and signed?	No	Container/preservative correct for test requested?	Yes
Received on Ice	No	Sufficient amount sent for tests requested?	Yes
Within proper temp	Yes	Required containers sealed in separate bags?	No
Were all TO-15 samples received at ambient?	Yes	Were all samples inspected and sampled correctly?	Yes
Was a chain of custody received?	Yes	Were bubbles absent in volatile samples?	No
COCs complete/signed in the appropriate places?	Yes	Sufficient remaining holding time for analyses?	Yes
Were all samples listed on COC received?	Yes	If Applicable pH documented for necessary samples?	No
Did all samples/container labels agree with COCs?	Yes	If applicable, was the chlorine test negative?	No
Did all containers arrive in good condition?	Yes	If applicable, samples free of oxidizers?	No
Containers Intact	Yes	Thermometer # : 10003954 used?	No

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
email: lab@fibertec.us

Geoprobe
11766 E. Grand River Rd.
Brighton, MI 48116
Phone: 810 220 3300

Chain of Custody # 231226

Client Name: Arcadis
Contact Person: Kara Donahue
Project Name/ Number: RACER Lansing / 30267725.00102
Email distribution list: Kara.Donahue@arcadis.com; Kaitlyn.Hunt@arcadis.com
Quote#
Purchase Order#

Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PARAMETERS: TO-15	HOLD SAMPLE
10/29/25	1345	1	SVMP-20-01_102925	A	1	X	
10/29/25	1345	2	DUP-01_102925	A	1	X	

Matrix Code: S Soil; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

Deliverables: Level 2; Level 3; Level 4; EDD

Remarks:

Received By Lab
OCT 29 2025
Initials RSR

Comments:

Sampled/Relinquished By: Austin Westhuis / Arcadis	Date/ Time 10/29/25 14:41	Received By:
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

_____1 bus. day _____2 bus. days _____3 bus. days _____4 bus. days

X 5-7 bus. days (standard) _____10-15 bus. days (std for PFAS) Other (specify time/date requirement): _____

LAB USE ONLY

Fibertec project number: 25J0501

Temperature upon receipt at Lab: Ambient

Please see back for terms and conditions

Appendix B-3

Storm Sewer Sampling Laboratory Analytical Results

May 15, 2025

Anyssa Mandich
Arcadis US, Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Work Order: **HN2506238**

Re: **RACER Lansing 2025**

Dear Anyssa,
Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Alex Csaszar
/S/ ALEX CSASZAR

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2506238
Project: RACER Lansing 2025 **Date Received:** 10-May-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

9 wastewater samples were received for analysis at ALS Environmental on 10-May-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Batch ID: 3136380

HN2506238-001: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-001: 13C2-FtS 4:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2506238-001: 13C2-FtS 4:2 - The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2506238-001: Perfluoropentanoic acid (PFPeA) - The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:
HN2506238-001: d3-N-MeFOSA - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-001: Perfluorohexanoic acid (PFHxA) - The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:
HN2506238-001: 13C2-FtS 8:2 - The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound:
HN2506238-001: 13C2-FtS 8:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2506238-001: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-001: 13C2-FtS 6:2 - The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:

Batch ID: 3136223

HN2506238-003: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-003: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-004: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-004: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-005: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2506238-009: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Batch ID: 3136223

HN2506238-009: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MichAve-MH-3_050925 **Lab ID: HN2506238-001**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	3.46	J	0.334	4.21	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	18.0		2.48	4.76	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	3.60	J	1.65	4.76	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.77	J	0.860	4.33	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	71.4	S	1.14	4.76	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	4.56		0.849	1.77	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	6.32		0.600	1.90	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	55.4	S	1.22	4.76	ng/L	EPA 537Mod

CLIENT ID: Verlinden-MH-5_050925 **Lab ID: HN2506238-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	2.32	J	0.352	4.43	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.12		2.61	5.02	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	7.36		1.74	5.02	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.14	J	0.906	4.56	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	15.8		1.20	5.02	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.68	J	0.873	5.02	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	8.50		0.895	1.86	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	14.8		0.632	2.01	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	15.4		1.28	5.02	ng/L	EPA 537Mod

CLIENT ID: Osborn-MH-1_050925 **Lab ID: HN2506238-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	0.985	J	0.362	4.56	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	10.8		2.68	5.16	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	3.20	J	1.28	5.16	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	6.95		1.79	5.16	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.52	J	0.933	4.70	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	9.13		1.24	5.16	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.43	J	0.899	5.16	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	18.4		0.921	1.92	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	16.0		0.651	2.06	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	8.44		1.32	5.16	ng/L	EPA 537Mod

CLIENT ID: P2-MH-2_050925 **Lab ID: HN2506238-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	1.63	J	0.346	4.36	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	7.46		2.56	4.93	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	5.00		1.70	4.93	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	3.36	J	0.890	4.48	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	6.25		1.18	4.93	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.82	J	0.857	4.93	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: P2-MH-2_050925	Lab ID: HN2506238-004					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorooctane sulfonic acid (PFOS)	12.5		0.879	1.83	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	15.2		0.621	1.97	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	5.15		1.26	4.93	ng/L	EPA 537Mod

CLIENT ID: P3-MH-284_050925	Lab ID: HN2506238-005					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.22	J	0.342	4.30	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.49		0.869	1.81	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	1.29	J	1.25	4.87	ng/L	EPA 537Mod

CLIENT ID: P2-MH-W-050925	Lab ID: HN2506238-006					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.17	J	0.337	4.25	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	3.58	J	2.50	4.80	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.66	J	0.868	4.37	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.21	J	0.857	1.78	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	1.89	J	0.605	1.92	ng/L	EPA 537Mod

CLIENT ID: DUP-01_050925	Lab ID: HN2506238-009					
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	0.884	J	0.353	4.44	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	11.2		2.61	5.02	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	3.10	J	1.25	5.02	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	6.55		1.74	5.02	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.47	J	0.907	4.57	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	9.85		1.20	5.02	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.58	J	0.874	5.02	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	19.2		0.896	1.86	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	18.2		0.633	2.01	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	8.55		1.29	5.02	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Workorder: HN2506238

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2506238-001	MichAve-MH-3_050925	WASTEWATER	05/09/25 10:00	05/10/25 10:00
HN2506238-002	Verlinden-MH-5_050925	WASTEWATER	05/09/25 10:30	05/10/25 10:00
HN2506238-003	Osborn-MH-1_050925	WASTEWATER	05/09/25 11:00	05/10/25 10:00
HN2506238-004	P2-MH-2_050925	WASTEWATER	05/09/25 12:15	05/10/25 10:00
HN2506238-005	P3-MH-284_050925	WASTEWATER	05/09/25 13:40	05/10/25 10:00
HN2506238-006	P2-MH-W-050925	WASTEWATER	05/09/25 14:20	05/10/25 10:00
HN2506238-007	FB-01_050925	WASTEWATER	05/09/25 14:40	05/10/25 10:00
HN2506238-008	EB-01_050925	WASTEWATER	05/09/25 14:50	05/10/25 10:00
HN2506238-009	DUP-01_050925	WASTEWATER	05/09/25	05/10/25 10:00

Chain of Custody Form

ALS Group USA, Corp

Environmental Division Holland

Work Order Reference

HN2506238

Telephone : +1 616 399 6070

Company Name	Arcadis U.S., Inc.	Purchase Order			Parameter/Method Requ
		Company Name	Arcadis U.S., Inc.	A	537M, MI List of 28
Send Report To	Anyssa Mandich	Invoice Attn	Anyssa Mandich	B	
Project Name	RACER Lansing 2025	Project #	30267725.0370B	C	
				D	
Address	28550 Cabot Drive Suite 500	Address	28550 Cabot Drive Suite 500 Suite 500	E	
				F	
City State Zip	Novi, MI 48377	City State Zip	Novi, MI 48377	G	
Phone	2489942240	Phone	2489942240	H	
e-Mail Address	anyssa.mandich@arcadis.com	e-Mail Address	anyssa.mandich@arcadis.com	I	
				J	

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MichAve-MH-3_050925	5/9/25	1000	WW	none	9	9										MS|MSD
2	Verlinden-MH-5_050925	5/9/25	1030	WW	none	3	3										
3	Osborn-MH-1_050925	5/9/25	1100	WW	none	3	3										
4	P2-MH-2_050925	5/9/25	1215	WW	none	3	3										Please provide
5	P3-MH-284_050925	5/9/25	1340	WW	none	3	3										results + QC
6	P2-MH-W_050925	5/9/25	1420	WW	none	3	3										along w/ EDF
7	FB-01_050925	5/9/25	1440	WW	none	2	2										for all
8	EB-01_050925	5/9/25	1450	WW	none	3	3										samples
9	DUP-01_050925	5/9/25	—	WW	none	3	3										
10																	

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Required Turnaround Time: _____

X Std 10 Wk days ___ 5 Wk days ___ 2 Wk days ___ 24 hr

Results Due:

Relinquished by	Date	Time	Received by	Date	Time
Rebecca Costigan	5/9/25	1715	FedEx	5/9/25	1715
				5-10-25	0001
				4:37:16	

NOTES:

QC Reporting Level: (check box below)

- Level II: Standard QC
- Level III: Std QC + Raw data
- Level IV: SW846 CLP-Like
- Other:

ALS Group USA, Corp | 3352 128th Ave | | Holland Michigan 49424 | TEL. (616) 399-6070

ALS Holland Sample Receiving Checklist

Received by:	DS
Date/Time:	5-10-25 1000
Carrier Name:	fedex
Shipping container/cooler in good condition?	Yes / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / Not Present
Custody seals intact on sample bottles?	Yes / No / Not Present
Chain of Custody present?	Yes / No
COC signed when relinquished and received?	Yes / No
COC agrees with sample labels?	Yes / No
Samples in proper container/bottle?	Yes / No
Sample containers intact?	Yes / No
Sufficient sample volume for indicated test?	Yes / No
All samples received within holding time?	Yes / No
Container/Temp Blank temperature in compliance?	Yes / No
Temperature(s) (°C):	4.3/4.3
Thermometer(s):	T06
Sample(s) received on ice?	Yes / No
Matrix/Matrices:	water
Cooler(s)/Kit(s):	
Date/Time sample(s) sent to storage:	5-12-25
Water – VOA vials have zero headspace?	Yes / No / No Vials
Water – pH acceptable upon receipt?	Yes / No / N/A
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / N/A
pH adjusted by:	

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		06/21/2024	06/30/2025
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2024	06/30/2025
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2024	04/01/2025
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/25/2024	6/30/2025
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	02/04/2025	08/31/2025
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025		

Sample Name: MichAve-MH-3_050925
Laboratory Code: HN2506238-001
Sample Matrix: WASTEWATER

Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136380	Morgan Morehouse

Sample Name: Verlinden-MH-5_050925
Laboratory Code: HN2506238-002
Sample Matrix: WASTEWATER

Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Sample Name: Osborn-MH-1_050925
Laboratory Code: HN2506238-003
Sample Matrix: WASTEWATER

Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Sample Name: P2-MH-2_050925
Laboratory Code: HN2506238-004
Sample Matrix: WASTEWATER

Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Work Order: HN2506238

Sample Name: P3-MH-284_050925
Laboratory Code: HN2506238-005
Sample Matrix: WASTEWATER
Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Sample Name: P2-MH-W-050925
Laboratory Code: HN2506238-006
Sample Matrix: WASTEWATER
Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Sample Name: FB-01_050925
Laboratory Code: HN2506238-007
Sample Matrix: WASTEWATER
Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Sample Name: EB-01_050925
Laboratory Code: HN2506238-008
Sample Matrix: WASTEWATER
Date Collected: 05/09/25
Date Received: 05/10/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

ANALYST SUMMARY

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025		

Sample Name:	DUP-01_050925	**Date Collected:**	05/09/25
Laboratory Code:	HN2506238-009	**Date Received:**	05/10/25
Sample Matrix:	WASTEWATER		

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1995359	Audrey Peerenboom	3136223	Morgan Morehouse

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 10:00
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: MichAve-MH-3_050925 **Lab ID: HN2506238-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.445	U	ng/L	0.445	4.48	1	05/15/25 11:05	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.08	U	ng/L	1.08	4.56	1	05/15/25 11:05	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.891	U	ng/L	0.891	4.45	1	05/15/25 11:05	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.83	U	ng/L	1.83	4.42	1	05/15/25 11:05	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.535	U	ng/L	0.535	4.48	1	05/15/25 11:05	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.427	U	ng/L	0.427	4.44	1	05/15/25 11:05	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.11	U	ng/L	1.11	4.76	1	05/15/25 11:05	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.47	U	ng/L	1.47	4.76	1	05/15/25 11:05	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.613	U	ng/L	0.613	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.46**	J	ng/L	0.334	4.21	1	05/15/25 11:05	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**18.0**		ng/L	2.48	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.30	U	ng/L	1.30	4.59	1	05/15/25 11:05	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.658	U	ng/L	0.658	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.539	U	ng/L	0.539	4.53	1	05/15/25 11:05	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**3.60**	J	ng/L	1.65	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.77**	J	ng/L	0.860	4.33	1	05/15/25 11:05	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**71.4**	S	ng/L	1.14	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.472	U	ng/L	0.472	4.57	1	05/15/25 11:05	05/14/25 16:09

Analytical Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WASTEWATER

Work Order: HN2506238
Date Collected: 05/09/25 10:00
Date Received: 05/10/25 10:00

CLIENT ID: MichAve-MH-3_050925 **Lab ID: HN2506238-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.828	U	ng/L	0.828	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.677	U	ng/L	0.677	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**4.56**		ng/L	0.849	1.77	1	05/15/25 11:05	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**6.32**		ng/L	0.600	1.90	1	05/15/25 11:05	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.529	U	ng/L	0.529	4.46	1	05/15/25 11:05	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**55.4**	S	ng/L	1.22	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.51	U	ng/L	2.51	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.84	U	ng/L	1.84	4.76	1	05/15/25 11:05	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.927	U	ng/L	0.927	4.76	1	05/15/25 11:05	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***194***	*S*	*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***162***	*S*	*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***134***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***97.6***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***91.6***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***93.1***		*%REC*		*27-134*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***97.9***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***115***		*%REC*		*41-142*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***118***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***113***		*%REC*		*42-141*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***96.0***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***112***		*%REC*		*43-138*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***106***		*%REC*		*30-122*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***88.5***		*%REC*		*35-136*	*1*	*05/15/25 11:05*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***102***		*%REC*		*34-142*	*1*	*05/15/25 11:05*	*05/14/25 16:09*

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WASTEWATER

Work Order: HN2506238
Date Collected: 05/09/25 10:30
Date Received: 05/10/25 10:00

CLIENT ID: Verlinden-MH-5_050925 **Lab ID: HN2506238-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.468	U	ng/L	0.468	4.72	1	05/15/25 02:31	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.13	U	ng/L	1.13	4.80	1	05/15/25 02:31	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.939	U	ng/L	0.939	4.68	1	05/15/25 02:31	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.92	U	ng/L	1.92	4.65	1	05/15/25 02:31	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.564	U	ng/L	0.564	4.72	1	05/15/25 02:31	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.449	U	ng/L	0.449	4.67	1	05/15/25 02:31	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.17	U	ng/L	1.17	5.02	1	05/15/25 02:31	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.55	U	ng/L	1.55	5.02	1	05/15/25 02:31	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.646	U	ng/L	0.646	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.32**	J	ng/L	0.352	4.43	1	05/15/25 02:31	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.12**		ng/L	2.61	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.37	U	ng/L	1.37	4.83	1	05/15/25 02:31	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.24	U	ng/L	1.24	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.693	U	ng/L	0.693	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.568	U	ng/L	0.568	4.77	1	05/15/25 02:31	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**7.36**		ng/L	1.74	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.14**	J	ng/L	0.906	4.56	1	05/15/25 02:31	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**15.8**		ng/L	1.20	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.498	U	ng/L	0.498	4.81	1	05/15/25 02:31	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 10:30
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: Verlinden-MH-5_050925 **Lab ID: HN2506238-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.68**	J	ng/L	0.873	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.713	U	ng/L	0.713	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**8.50**		ng/L	0.895	1.86	1	05/15/25 02:31	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**14.8**		ng/L	0.632	2.01	1	05/15/25 02:31	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.558	U	ng/L	0.558	4.70	1	05/15/25 02:31	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**15.4**		ng/L	1.28	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.65	U	ng/L	2.65	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.94	U	ng/L	1.94	5.02	1	05/15/25 02:31	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.977	U	ng/L	0.977	5.02	1	05/15/25 02:31	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***150***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***127***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***119***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***97.7***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***81.8***		*%REC*		*27-134*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***97.1***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***106***		*%REC*		*41-142*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***124***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***114***		*%REC*		*42-141*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***112***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***99.8***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***99.7***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***107***		*%REC*		*43-138*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***97.1***		*%REC*		*30-122*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***88.4***		*%REC*		*35-136*	*1*	*05/15/25 02:31*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***88.7***		*%REC*		*34-142*	*1*	*05/15/25 02:31*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 11:00
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: Osborn-MH-1_050925 **Lab ID: HN2506238-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.482	U	ng/L	0.482	4.86	1	05/15/25 02:46	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.95	1	05/15/25 02:46	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.967	U	ng/L	0.967	4.82	1	05/15/25 02:46	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.98	U	ng/L	1.98	4.79	1	05/15/25 02:46	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.580	U	ng/L	0.580	4.86	1	05/15/25 02:46	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.463	U	ng/L	0.463	4.81	1	05/15/25 02:46	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.21	U	ng/L	1.21	5.16	1	05/15/25 02:46	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.60	U	ng/L	1.60	5.16	1	05/15/25 02:46	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.665	U	ng/L	0.665	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.985**	J	ng/L	0.362	4.56	1	05/15/25 02:46	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**10.8**		ng/L	2.68	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	4.98	1	05/15/25 02:46	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**3.20**	J	ng/L	1.28	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.714	U	ng/L	0.714	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.585	U	ng/L	0.585	4.92	1	05/15/25 02:46	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**6.95**		ng/L	1.79	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.52**	J	ng/L	0.933	4.70	1	05/15/25 02:46	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**9.13**		ng/L	1.24	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.512	U	ng/L	0.512	4.96	1	05/15/25 02:46	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 11:00
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: Osborn-MH-1_050925 **Lab ID: HN2506238-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.43**	J	ng/L	0.899	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.734	U	ng/L	0.734	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**18.4**		ng/L	0.921	1.92	1	05/15/25 02:46	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**16.0**		ng/L	0.651	2.06	1	05/15/25 02:46	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.574	U	ng/L	0.574	4.84	1	05/15/25 02:46	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**8.44**		ng/L	1.32	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.73	U	ng/L	2.73	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.99	U	ng/L	1.99	5.16	1	05/15/25 02:46	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.16	1	05/15/25 02:46	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***155***	*S*	*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***164***	*S*	*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***139***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***93.2***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***85.5***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***96.0***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***61.6***		*%REC*		*27-134*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.9***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***99.2***		*%REC*		*41-142*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***108***		*%REC*		*42-141*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***90.6***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***92.9***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***99.7***		*%REC*		*43-138*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***95.8***		*%REC*		*30-122*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***90.9***		*%REC*		*35-136*	*1*	*05/15/25 02:46*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***91.8***		*%REC*		*34-142*	*1*	*05/15/25 02:46*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 12:15
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P2-MH-2_050925 **Lab ID: HN2506238-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.460	U	ng/L	0.460	4.64	1	05/15/25 03:01	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.72	1	05/15/25 03:01	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.922	U	ng/L	0.922	4.60	1	05/15/25 03:01	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.89	U	ng/L	1.89	4.57	1	05/15/25 03:01	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.554	U	ng/L	0.554	4.64	1	05/15/25 03:01	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.442	U	ng/L	0.442	4.59	1	05/15/25 03:01	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.93	1	05/15/25 03:01	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.93	1	05/15/25 03:01	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.635	U	ng/L	0.635	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.63**	J	ng/L	0.346	4.36	1	05/15/25 03:01	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**7.46**		ng/L	2.56	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.75	1	05/15/25 03:01	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.681	U	ng/L	0.681	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.558	U	ng/L	0.558	4.69	1	05/15/25 03:01	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**5.00**		ng/L	1.70	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**3.36**	J	ng/L	0.890	4.48	1	05/15/25 03:01	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**6.25**		ng/L	1.18	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.489	U	ng/L	0.489	4.73	1	05/15/25 03:01	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 12:15
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P2-MH-2_050925 **Lab ID: HN2506238-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.82**	J	ng/L	0.857	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.701	U	ng/L	0.701	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**12.5**		ng/L	0.879	1.83	1	05/15/25 03:01	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**15.2**		ng/L	0.621	1.97	1	05/15/25 03:01	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.548	U	ng/L	0.548	4.62	1	05/15/25 03:01	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**5.15**		ng/L	1.26	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.60	U	ng/L	2.60	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.93	1	05/15/25 03:01	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.960	U	ng/L	0.960	4.93	1	05/15/25 03:01	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***165***	*S*	*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***158***	*S*	*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***132***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***86.0***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***78.6***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***87.9***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***69.9***		*%REC*		*27-134*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***81.3***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***100***		*%REC*		*41-142*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***94.8***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***93.9***		*%REC*		*42-141*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***85.7***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***79.2***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***90.5***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***91.1***		*%REC*		*43-138*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***87.0***		*%REC*		*30-122*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***84.2***		*%REC*		*50-150*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***81.5***		*%REC*		*35-136*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***86.8***		*%REC*		*34-142*	*1*	*05/15/25 03:01*	*05/14/25 16:09*
Surr: d7-N-MeFOSE	*EPA 537Mod*	***89.0***		*%REC*		*38-127*	*1*	*05/15/25 03:01*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 13:40
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P3-MH-284_050925 **Lab ID: HN2506238-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.455	U	ng/L	0.455	4.59	1	05/15/25 03:15	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.67	1	05/15/25 03:15	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.912	U	ng/L	0.912	4.55	1	05/15/25 03:15	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	4.52	1	05/15/25 03:15	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.547	U	ng/L	0.547	4.59	1	05/15/25 03:15	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.436	U	ng/L	0.436	4.54	1	05/15/25 03:15	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.87	1	05/15/25 03:15	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.50	U	ng/L	1.50	4.87	1	05/15/25 03:15	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.627	U	ng/L	0.627	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.22**	J	ng/L	0.342	4.30	1	05/15/25 03:15	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.53	U	ng/L	2.53	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.33	U	ng/L	1.33	4.70	1	05/15/25 03:15	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.673	U	ng/L	0.673	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.551	U	ng/L	0.551	4.64	1	05/15/25 03:15	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.68	U	ng/L	1.68	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.880	U	ng/L	0.880	4.43	1	05/15/25 03:15	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.483	U	ng/L	0.483	4.68	1	05/15/25 03:15	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 13:40
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P3-MH-284_050925 **Lab ID: HN2506238-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.848	U	ng/L	0.848	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.693	U	ng/L	0.693	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.49**		ng/L	0.869	1.81	1	05/15/25 03:15	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.614	U	ng/L	0.614	1.95	1	05/15/25 03:15	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.542	U	ng/L	0.542	4.57	1	05/15/25 03:15	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**1.29**	J	ng/L	1.25	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.88	U	ng/L	1.88	4.87	1	05/15/25 03:15	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.949	U	ng/L	0.949	4.87	1	05/15/25 03:15	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***163***	*S*	*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***144***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***134***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***97.2***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***114***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***94.6***		*%REC*		*27-134*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***98.9***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***124***		*%REC*		*41-142*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***125***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***123***		*%REC*		*42-141*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***109***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***117***		*%REC*		*43-138*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***105***		*%REC*		*30-122*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***92.9***		*%REC*		*35-136*	*1*	*05/15/25 03:15*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***94.0***		*%REC*		*34-142*	*1*	*05/15/25 03:15*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:20
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P2-MH-W-050925 **Lab ID: HN2506238-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.449	U	ng/L	0.449	4.53	1	05/15/25 03:30	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.60	1	05/15/25 03:30	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.900	U	ng/L	0.900	4.49	1	05/15/25 03:30	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.84	U	ng/L	1.84	4.46	1	05/15/25 03:30	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.540	U	ng/L	0.540	4.53	1	05/15/25 03:30	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.430	U	ng/L	0.430	4.48	1	05/15/25 03:30	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.12	U	ng/L	1.12	4.80	1	05/15/25 03:30	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.48	U	ng/L	1.48	4.80	1	05/15/25 03:30	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.619	U	ng/L	0.619	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.17**	J	ng/L	0.337	4.25	1	05/15/25 03:30	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**3.58**	J	ng/L	2.50	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.63	1	05/15/25 03:30	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.664	U	ng/L	0.664	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.544	U	ng/L	0.544	4.57	1	05/15/25 03:30	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.66	U	ng/L	1.66	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.66**	J	ng/L	0.868	4.37	1	05/15/25 03:30	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.15	U	ng/L	1.15	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.477	U	ng/L	0.477	4.61	1	05/15/25 03:30	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:20
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: P2-MH-W-050925 **Lab ID: HN2506238-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.836	U	ng/L	0.836	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.683	U	ng/L	0.683	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.21**	J	ng/L	0.857	1.78	1	05/15/25 03:30	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**1.89**	J	ng/L	0.605	1.92	1	05/15/25 03:30	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.534	U	ng/L	0.534	4.51	1	05/15/25 03:30	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.80	1	05/15/25 03:30	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.936	U	ng/L	0.936	4.80	1	05/15/25 03:30	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***129***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***95.2***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***87.5***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***78.7***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***74.1***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***95.4***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***64.7***		*%REC*		*27-134*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***73.0***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***109***		*%REC*		*41-142*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***98.3***		*%REC*		*42-141*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***91.7***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***77.5***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.0***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***102***		*%REC*		*43-138*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***86.5***		*%REC*		*30-122*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***92.7***		*%REC*		*50-150*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***72.9***		*%REC*		*35-136*	*1*	*05/15/25 03:30*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***79.4***		*%REC*		*34-142*	*1*	*05/15/25 03:30*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:40
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: FB-01_050925 **Lab ID: HN2506238-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.452	U	ng/L	0.452	4.56	1	05/15/25 03:44	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.63	1	05/15/25 03:44	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.905	U	ng/L	0.905	4.52	1	05/15/25 03:44	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.86	U	ng/L	1.86	4.49	1	05/15/25 03:44	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.544	U	ng/L	0.544	4.56	1	05/15/25 03:44	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.433	U	ng/L	0.433	4.51	1	05/15/25 03:44	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.13	U	ng/L	1.13	4.84	1	05/15/25 03:44	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.84	1	05/15/25 03:44	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.623	U	ng/L	0.623	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.340	U	ng/L	0.340	4.28	1	05/15/25 03:44	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.52	U	ng/L	2.52	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.66	1	05/15/25 03:44	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.20	U	ng/L	1.20	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.668	U	ng/L	0.668	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.548	U	ng/L	0.548	4.60	1	05/15/25 03:44	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.67	U	ng/L	1.67	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.874	U	ng/L	0.874	4.40	1	05/15/25 03:44	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.16	U	ng/L	1.16	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.480	U	ng/L	0.480	4.64	1	05/15/25 03:44	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:40
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: FB-01_050925 **Lab ID: HN2506238-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.842	U	ng/L	0.842	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.688	U	ng/L	0.688	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.863	U	ng/L	0.863	1.80	1	05/15/25 03:44	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.609	U	ng/L	0.609	1.93	1	05/15/25 03:44	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.538	U	ng/L	0.538	4.54	1	05/15/25 03:44	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.24	U	ng/L	1.24	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.87	U	ng/L	1.87	4.84	1	05/15/25 03:44	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.942	U	ng/L	0.942	4.84	1	05/15/25 03:44	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***116***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***115***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***97.7***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***92.5***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***88.6***		*%REC*		*27-134*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***130***		*%REC*		*41-142*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***126***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***125***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***125***		*%REC*		*42-141*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***98.7***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***100***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***93.3***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***119***		*%REC*		*43-138*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***106***		*%REC*		*30-122*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***92.4***		*%REC*		*35-136*	*1*	*05/15/25 03:44*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***93.0***		*%REC*		*34-142*	*1*	*05/15/25 03:44*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:50
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: EB-01_050925 **Lab ID: HN2506238-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.458	U	ng/L	0.458	4.62	1	05/15/25 03:59	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.70	1	05/15/25 03:59	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.918	U	ng/L	0.918	4.58	1	05/15/25 03:59	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.88	U	ng/L	1.88	4.55	1	05/15/25 03:59	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.551	U	ng/L	0.551	4.62	1	05/15/25 03:59	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.440	U	ng/L	0.440	4.57	1	05/15/25 03:59	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.90	1	05/15/25 03:59	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.90	1	05/15/25 03:59	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.632	U	ng/L	0.632	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.344	U	ng/L	0.344	4.34	1	05/15/25 03:59	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.34	U	ng/L	1.34	4.73	1	05/15/25 03:59	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.678	U	ng/L	0.678	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.555	U	ng/L	0.555	4.67	1	05/15/25 03:59	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.70	U	ng/L	1.70	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.886	U	ng/L	0.886	4.46	1	05/15/25 03:59	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.486	U	ng/L	0.486	4.71	1	05/15/25 03:59	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25 14:50
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: EB-01_050925 **Lab ID: HN2506238-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.854	U	ng/L	0.854	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.698	U	ng/L	0.698	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.875	U	ng/L	0.875	1.82	1	05/15/25 03:59	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.618	U	ng/L	0.618	1.96	1	05/15/25 03:59	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.545	U	ng/L	0.545	4.60	1	05/15/25 03:59	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.89	U	ng/L	1.89	4.90	1	05/15/25 03:59	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.956	U	ng/L	0.956	4.90	1	05/15/25 03:59	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***87.0***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***98.2***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***90.4***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***89.9***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***105***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***75.2***		*%REC*		*27-134*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.5***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***117***		*%REC*		*41-142*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***117***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***124***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***109***		*%REC*		*42-141*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***96.4***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***97.5***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***94.7***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***110***		*%REC*		*43-138*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***98.7***		*%REC*		*30-122*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***97.5***		*%REC*		*50-150*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***81.0***		*%REC*		*35-136*	*1*	*05/15/25 03:59*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***89.5***		*%REC*		*34-142*	*1*	*05/15/25 03:59*	*05/14/25 16:09*

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: DUP-01_050925 **Lab ID: HN2506238-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.469	U	ng/L	0.469	4.73	1	05/15/25 04:13	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.81	1	05/15/25 04:13	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.940	U	ng/L	0.940	4.69	1	05/15/25 04:13	05/14/25 16:09
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.93	U	ng/L	1.93	4.66	1	05/15/25 04:13	05/14/25 16:09
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.565	U	ng/L	0.565	4.73	1	05/15/25 04:13	05/14/25 16:09
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.450	U	ng/L	0.450	4.68	1	05/15/25 04:13	05/14/25 16:09
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.18	U	ng/L	1.18	5.02	1	05/15/25 04:13	05/14/25 16:09
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.55	U	ng/L	1.55	5.02	1	05/15/25 04:13	05/14/25 16:09
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.647	U	ng/L	0.647	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.884**	J	ng/L	0.353	4.44	1	05/15/25 04:13	05/14/25 16:09
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**11.2**		ng/L	2.61	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.38	U	ng/L	1.38	4.84	1	05/15/25 04:13	05/14/25 16:09
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**3.10**	J	ng/L	1.25	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.694	U	ng/L	0.694	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.569	U	ng/L	0.569	4.78	1	05/15/25 04:13	05/14/25 16:09
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**6.55**		ng/L	1.74	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.47**	J	ng/L	0.907	4.57	1	05/15/25 04:13	05/14/25 16:09
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**9.85**		ng/L	1.20	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.498	U	ng/L	0.498	4.82	1	05/15/25 04:13	05/14/25 16:09

Client:	Arcadis US, Inc.	**Work Order:**	HN2506238
Project:	RACER Lansing 2025	**Date Collected:**	05/09/25
Matrix:	WASTEWATER	**Date Received:**	05/10/25 10:00

CLIENT ID: DUP-01_050925 **Lab ID: HN2506238-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.58**	J	ng/L	0.874	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.714	U	ng/L	0.714	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**19.2**		ng/L	0.896	1.86	1	05/15/25 04:13	05/14/25 16:09
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**18.2**		ng/L	0.633	2.01	1	05/15/25 04:13	05/14/25 16:09
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.559	U	ng/L	0.559	4.71	1	05/15/25 04:13	05/14/25 16:09
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**8.55**		ng/L	1.29	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.65	U	ng/L	2.65	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.94	U	ng/L	1.94	5.02	1	05/15/25 04:13	05/14/25 16:09
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.979	U	ng/L	0.979	5.02	1	05/15/25 04:13	05/14/25 16:09
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***171***	*S*	*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***173***	*S*	*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***137***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-PFDA	*EPA 537Mod*	***96.2***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-PFDoA	*EPA 537Mod*	***81.8***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-PFHxA	*EPA 537Mod*	***97.6***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-PFTeA	*EPA 537Mod*	***61.7***		*%REC*		*27-134*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C2-PFUnA	*EPA 537Mod*	***88.0***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***115***		*%REC*		*41-142*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C3-PFBS	*EPA 537Mod*	***111***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C4-PFBA	*EPA 537Mod*	***104***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C4-PFHpA	*EPA 537Mod*	***119***		*%REC*		*42-141*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C4-PFOA	*EPA 537Mod*	***102***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C4-PFOS	*EPA 537Mod*	***91.0***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C5-PFNA	*EPA 537Mod*	***92.1***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C5-PFPeA	*EPA 537Mod*	***110***		*%REC*		*43-138*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 13C8-FOSA	*EPA 537Mod*	***98.7***		*%REC*		*30-122*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: 18O2-PFHxS	*EPA 537Mod*	***97.5***		*%REC*		*50-150*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***95.5***		*%REC*		*35-136*	*1*	*05/15/25 04:13*	*05/14/25 16:09*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***94.3***		*%REC*		*34-142*	*1*	*05/15/25 04:13*	*05/14/25 16:09*

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
Batch: 1995359

Work Order: HN2506238
Date Collected: NA
Date Received: NA

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-1995359-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/14/25 20:54 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***167***	*ng/L*			149.44		112	*50-150*			
Surr: 13C2-FtS 6:2	***148***	*ng/L*			152		97.5	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
Batch: 1995359

Work Order: HN2506238
Date Collected: NA
Date Received: NA

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-1995359-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/14/25 20:54 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-FtS 8:2	***161***	*ng/L*			153.28		105	*50-150*			
Surr: 13C2-PFDA	***160***	*ng/L*			160		99.7	*50-150*			
Surr: 13C2-PFDoA	***152***	*ng/L*			160		94.9	*50-150*			
Surr: 13C2-PFHxA	***183***	*ng/L*			160		114	*50-150*			
Surr: 13C2-PFTeA	***127***	*ng/L*			160		79.3	*27-134*			
Surr: 13C2-PFUnA	***160***	*ng/L*			160		99.9	*50-150*			
Surr: 13C3-HFPO-DA	***184***	*ng/L*			160		115	*41-142*			
Surr: 13C3-PFBS	***176***	*ng/L*			148.8		118	*50-150*			
Surr: 13C4-PFBA	***200***	*ng/L*			160		125	*50-150*			
Surr: 13C4-PFHpA	***188***	*ng/L*			160		117	*42-141*			
Surr: 13C4-PFOA	***172***	*ng/L*			160		107	*50-150*			
Surr: 13C4-PFOS	***153***	*ng/L*			152.8		100	*50-150*			
Surr: 13C5-PFNA	***170***	*ng/L*			160		106	*50-150*			
Surr: 13C5-PFPeA	***186***	*ng/L*			160		116	*43-138*			
Surr: 13C8-FOSA	***166***	*ng/L*			160		104	*30-122*			
Surr: 18O2-PFHxS	***152***	*ng/L*			151.2		100	*50-150*			
Surr: d3-N-MeFOSAA	***144***	*ng/L*			160		89.7	*35-136*			
Surr: d5-N-EtFOSAA	***153***	*ng/L*			160		95.9	*34-142*			
Surr: d7-N-MeFOSE	***163***	*ng/L*			160		102	*38-127*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-1995359-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/14/25 21:09 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	25.6	ng/L	0.467	4.71	30.1		85.0	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	29.2	ng/L	1.13	4.79	30.7		95.1	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.0	ng/L	0.936	4.67	29.9		93.6	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	30.7	ng/L	1.92	4.74	30.3		101	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	33.2	ng/L	0.562	4.71	30.1		110	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	27.2	ng/L	0.448	4.66	29.8		91.2	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	28.0	ng/L	1.17	5.00	32		87.4	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	28.6	ng/L	1.54	5.00	32		89.5	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	27.6	ng/L	0.644	5.00	32		86.1	67-133			
Perfluorobutane sulfonic acid (PFBS)	27.4	ng/L	0.351	4.42	28.3		96.9	69-131			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
Batch: 1995359

Work Order: HN2506238
Date Collected: NA
Date Received: NA

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-1995359-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/14/25 21:09 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutanoic acid (PFBA)	31.0	ng/L	2.60	5.00	32		97.0	73-139			
Perfluorodecane sulfonic acid (PFDS)	29.1	ng/L	1.37	4.82	30.8		94.4	64-128			
Perfluorodecanoic acid (PFDA)	30.6	ng/L	1.24	5.00	32		95.8	77-135			
Perfluorododecanoic acid (PFDOA)	33.2	ng/L	0.691	5.00	32		104	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	31.1	ng/L	0.566	4.76	30.5		102	70-137			
Perfluoroheptanoic acid (PFHpA)	30.2	ng/L	1.73	5.00	32		94.3	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.3	ng/L	0.903	4.55	29.1		97.3	68-131			
Perfluorohexanoic acid (PFHxA)	30.2	ng/L	1.20	5.00	32		94.3	72-129			
Perfluorononane sulfonic acid (PFNS)	27.0	ng/L	0.496	4.80	30.7		88.0	70-132			
Perfluorononanoic acid (PFNA)	33.1	ng/L	0.870	5.00	32		103	75-131			
Perfluorooctane sulfonamide (PFOSAm)	26.7	ng/L	0.711	5.00	32		83.4	66-140			
Perfluorooctane sulfonic acid (PFOS)	30.0	ng/L	0.892	1.86	29.7		101	72-133			
Perfluorooctanoic acid (PFOA)	30.5	ng/L	0.630	2.00	32		95.2	71-133			
Perfluoropentane sulfonic acid (PFPeS)	30.4	ng/L	0.556	4.69	30		101	73-137			
Perfluoropentanoic acid (PFPeA)	31.3	ng/L	1.28	5.00	32		97.7	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.5	ng/L	2.64	5.00	32		92.3	62-139			
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.93	5.00	32		104	47-147			
Perfluoroundecanoic acid (PFUnDA)	30.5	ng/L	0.974	5.00	32		95.3	80-135			
Surr: 13C2-FtS 4:2	***141***	*ng/L*			149.44		94.7	*50-150*			
Surr: 13C2-FtS 6:2	***128***	*ng/L*			152		84.5	*50-150*			
Surr: 13C2-FtS 8:2	***154***	*ng/L*			153.28		100	*50-150*			
Surr: 13C2-PFDA	***146***	*ng/L*			160		91.1	*50-150*			
Surr: 13C2-PFDoA	***129***	*ng/L*			160		80.9	*50-150*			
Surr: 13C2-PFHxA	***153***	*ng/L*			160		95.5	*50-150*			
Surr: 13C2-PFTeA	***128***	*ng/L*			160		80.2	*27-134*			
Surr: 13C2-PFUnA	***133***	*ng/L*			160		83.1	*50-150*			
Surr: 13C3-HFPO-DA	***169***	*ng/L*			160		105	*41-142*			
Surr: 13C3-PFBS	***155***	*ng/L*			148.8		104	*50-150*			
Surr: 13C4-PFBA	***167***	*ng/L*			160		104	*50-150*			
Surr: 13C4-PFHpA	***166***	*ng/L*			160		104	*42-141*			
Surr: 13C4-PFOA	***142***	*ng/L*			160		89.0	*50-150*			
Surr: 13C4-PFOS	***144***	*ng/L*			152.8		94.1	*50-150*			
Surr: 13C5-PFNA	***132***	*ng/L*			160		82.3	*50-150*			
Surr: 13C5-PFPeA	***160***	*ng/L*			160		100	*43-138*			
Surr: 13C8-FOSA	***152***	*ng/L*			160		95.1	*30-122*			
Surr: 18O2-PFHxS	***146***	*ng/L*			151.2		96.7	*50-150*			
Surr: d3-N-MeFOSAA	***136***	*ng/L*			160		84.8	*35-136*			
Surr: d5-N-EtFOSAA	***141***	*ng/L*			160		88.0	*34-142*			
Surr: d7-N-MeFOSE	***144***	*ng/L*			160		89.8	*38-127*			

The following samples were analyzed in this batch: HN2506238-001, HN2506238-002, HN2506238-003, HN2506238-004, HN2506238-005, HN2506238-006, HN2506238-007, HN2506238-008, HN2506238-009

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WASTEWATER
Batch: 1995359

Work Order: HN2506238
Date Collected: 05/09/25 10:00
Date Received: 05/10/25 10:00

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS | **CLIENT ID: MichAve-MH-3_050925** | **Lab ID: QC-1995359-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 05/15/25 10:36
Prep Date: 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane -1-sulfonic acid (11-Cl-PF3OUdS)	24.9	ng/L	0.453	4.57	29.201	<0.453	85.3	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	27.4	ng/L	1.10	4.65	29.783	<1.10	92.2	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	28.4	ng/L	0.908	4.53	29.007	<0.908	97.6	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	27.6	ng/L	1.86	4.50	29.395	<1.86	93.8	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.7	ng/L	0.545	4.57	29.201	<0.545	97.5	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	26.9	ng/L	0.435	4.52	28.91	<0.435	93.0	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.0	ng/L	1.14	4.85	31.044	<1.14	96.3	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	30.8	ng/L	1.50	4.85	31.044	<1.50	98.6	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	28.7	ng/L	0.625	4.85	31.044	<0.625	92.4	67-133			
Perfluorobutane sulfonic acid (PFBS)	28.7	ng/L	0.340	4.29	27.454	3.46	91.8	69-141			
Perfluorobutanoic acid (PFBA)	47.2	ng/L	2.52	4.85	31.044	18.0	94.3	73-139			
Perfluorodecane sulfonic acid (PFDS)	26.8	ng/L	1.33	4.68	29.88	<1.33	89.5	64-128			
Perfluorodecanoic acid (PFDA)	32.8	ng/L	1.20	4.85	31.044	<1.20	105	77-135			
Perfluorododecanoic acid (PFDOA)	32.0	ng/L	0.670	4.85	31.044	<0.670	103	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	27.9	ng/L	0.549	4.62	29.589	<0.549	93.5	70-137			
Perfluoroheptanoic acid (PFHpA)	30.8	ng/L	1.68	4.85	31.044	3.60	87.5	67-130			
Perfluorohexane sulfonic acid (PFHxS)	28.3	ng/L	0.876	4.41	28.23	2.77	90.4	68-131			
Perfluorohexanoic acid (PFHxA)	97.1	ng/L	1.16	4.85	31.044	71.4	82.9	72-129			
Perfluorononane sulfonic acid (PFNS)	24.2	ng/L	0.481	4.66	29.783	<0.481	81.2	70-132			
Perfluorononanoic acid (PFNA)	32.2	ng/L	0.844	4.85	31.044	<0.844	103	75-131			
Perfluorooctane sulfonamide (PFOSAm)	27.7	ng/L	0.690	4.85	31.044	<0.690	88.7	66-140			
Perfluorooctane sulfonic acid (PFOS)	31.7	ng/L	0.865	1.80	28.813	4.56	94.2	72-133			
Perfluorooctanoic acid (PFOA)	37.6	ng/L	0.611	1.94	31.044	6.32	101	71-133			
Perfluoropentane sulfonic acid (PFPeS)	28.9	ng/L	0.539	4.55	29.104	<0.539	98.1	73-137			
Perfluoropentanoic acid (PFPeA)	79.6	ng/L	1.24	4.85	31.044	55.4	77.8	72-129			
Perfluorotetradecanoic acid (PFTDA)	29.2	ng/L	2.56	4.85	31.044	<2.56	93.7	62-139			
Perfluorotridecanoic acid (PFTrDA)	30.3	ng/L	1.87	4.85	31.044	<1.87	97.4	47-147			
Perfluoroundecanoic acid (PFUnDA)	30.7	ng/L	0.945	4.85	31.044	<0.945	98.7	80-135			
Surr: 13C2-FtS 4:2	***222***	*ng/L*			144.97		153	*50-150*			S
Surr: 13C2-FtS 6:2	***232***	*ng/L*			147.46		158	*50-150*			S

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WASTEWATER
Batch: 1995359

Work Order: HN2506238
Date Collected: 05/09/25 10:00
Date Received: 05/10/25 10:00

MS | **CLIENT ID: MichAve-MH-3_050925** | **Lab ID: QC-1995359-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/15/25 10:36 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-FtS 8:2	***299***	*ng/L*			148.7		201	*50-150*			S
Surr: 13C2-PFDA	***130***	*ng/L*			155.22		83.5	*50-150*			
Surr: 13C2-PFDoA	***126***	*ng/L*			155.22		81.0	*50-150*			
Surr: 13C2-PFHxA	***107***	*ng/L*			155.22		69.1	*50-150*			
Surr: 13C2-PFTeA	***115***	*ng/L*			155.22		74.2	*27-134*			
Surr: 13C2-PFUnA	***132***	*ng/L*			155.22		84.9	*50-150*			
Surr: 13C3-HFPO-DA	***129***	*ng/L*			155.22		83.0	*41-142*			
Surr: 13C3-PFBS	***119***	*ng/L*			155.22		76.8	*50-150*			
Surr: 13C4-PFBA	***125***	*ng/L*			155.22		80.3	*50-150*			
Surr: 13C4-PFHpA	***134***	*ng/L*			155.22		86.5	*42-141*			
Surr: 13C4-PFOA	***118***	*ng/L*			155.22		75.8	*50-150*			
Surr: 13C4-PFOS	***103***	*ng/L*			148.23		69.2	*50-150*			
Surr: 13C5-PFNA	***122***	*ng/L*			155.22		78.4	*50-150*			
Surr: 13C5-PFPeA	***130***	*ng/L*			155.22		83.7	*43-138*			
Surr: 13C8-FOSA	***129***	*ng/L*			155.22		83.0	*30-122*			
Surr: 18O2-PFHxS	***108***	*ng/L*			146.68		73.4	*50-150*			
Surr: d3-N-MeFOSAA	***153***	*ng/L*			155.22		98.7	*35-136*			
Surr: d5-N-EtFOSAA	***176***	*ng/L*			155.22		114	*34-142*			
Surr: d7-N-MeFOSE	***134***	*ng/L*			155.22		86.4	*38-127*			

MSD | **CLIENT ID: MichAve-MH-3_050925** | **Lab ID: QC-1995359-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 05/15/25 10:51 | **Prep Date:** 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	23.2	ng/L	0.467	4.71	28.489	<0.467	81.6	61-128	6.98	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	28.0	ng/L	1.13	4.79	29.057	<1.13	96.3	61-148	1.86	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	27.2	ng/L	0.936	4.67	28.299	<0.936	96.1	67-143	4.00	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	24.8	ng/L	1.92	4.74	28.678	<1.92	86.3	66-151	10.8	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	27.4	ng/L	0.562	4.71	28.489	<0.562	95.2	74-135	4.82	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	24.5	ng/L	0.448	4.66	28.205	<0.448	86.9	69-133	9.28	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	23.6	ng/L	1.17	5.00	30.287	<1.17	77.7	65-139	23.7	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	27.3	ng/L	1.54	5.00	30.287	<1.54	89.6	67-140	12.0	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	27.0	ng/L	0.644	5.00	30.287	<0.644	89.1	67-133	6.06	30	
Perfluorobutane sulfonic acid (PFBS)	25.6	ng/L	0.351	4.42	26.785	3.46	82.6	69-141	11.4	30	

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WASTEWATER
Batch: 1995359

Work Order: HN2506238
Date Collected: 05/09/25 10:00
Date Received: 05/10/25 10:00

MSD | **CLIENT ID: MichAve-MH-3_050925** | **Lab ID: QC-1995359-006**

Method: EPA 537Mod
Dilution: 1
Analysis Date: 05/15/25 10:51
Prep Date: 05/14/25 16:10

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorobutanoic acid (PFBA)	42.2	ng/L	2.60	5.00	30.287	18.0	80.1	73-139	11.2	30	
Perfluorodecane sulfonic acid (PFDS)	24.6	ng/L	1.37	4.82	29.151	<1.37	84.4	64-128	8.38	30	
Perfluorodecanoic acid (PFDA)	27.0	ng/L	1.24	5.00	30.287	<1.24	88.8	77-135	19.1	30	
Perfluorododecanoic acid (PFDOA)	27.7	ng/L	0.691	5.00	30.287	<0.691	91.0	77-137	14.5	30	
Perfluoroheptane sulfonic acid (PFHpS)	27.3	ng/L	0.566	4.76	28.867	<0.566	93.6	70-137	2.34	30	
Perfluoroheptanoic acid (PFHpA)	32.1	ng/L	1.73	5.00	30.287	3.60	94.0	67-130	4.12	30	
Perfluorohexane sulfonic acid (PFHxS)	24.0	ng/L	0.903	4.55	27.542	2.77	77.3	68-131	16.2	30	
Perfluorohexanoic acid (PFHxA)	80.7	ng/L	1.20	5.00	30.287	71.4	30.8	72-129	18.5	30	S
Perfluorononane sulfonic acid (PFNS)	23.8	ng/L	0.496	4.80	29.057	<0.496	81.8	70-132	1.74	30	
Perfluorononanoic acid (PFNA)	28.4	ng/L	0.870	5.00	30.287	<0.870	92.9	75-131	12.8	30	
Perfluorooctane sulfonamide (PFOSAm)	27.2	ng/L	0.711	5.00	30.287	<0.711	89.5	66-140	1.62	30	
Perfluorooctane sulfonic acid (PFOS)	28.9	ng/L	0.892	1.86	28.11	4.56	86.7	72-133	9.11	30	
Perfluorooctanoic acid (PFOA)	33.8	ng/L	0.630	2.00	30.287	6.32	90.7	71-133	10.6	30	
Perfluoropentane sulfonic acid (PFPeS)	26.5	ng/L	0.556	4.69	28.394	<0.556	92.0	73-137	8.81	30	
Perfluoropentanoic acid (PFPeA)	71.2	ng/L	1.28	5.00	30.287	55.4	52.1	72-129	11.1	30	S
Perfluorotetradecanoic acid (PFTDA)	27.8	ng/L	2.64	5.00	30.287	<2.64	91.4	62-139	4.91	30	
Perfluorotridecanoic acid (PFTrDA)	28.0	ng/L	1.93	5.00	30.287	<1.93	92.3	47-147	7.90	30	
Perfluoroundecanoic acid (PFUnDA)	26.9	ng/L	0.974	5.00	30.287	<0.974	88.6	80-135	13.3	30	
Surr: 13C2-FtS 4:2	***233***	*ng/L*			141.44		165	*50-150*	5.06	30	S
Surr: 13C2-FtS 6:2	***214***	*ng/L*			143.86		148	*50-150*	8.42	30	
Surr: 13C2-FtS 8:2	***208***	*ng/L*			145.07		144	*50-150*	35.7	30	R
Surr: 13C2-PFDA	***147***	*ng/L*			151.43		97.3	*50-150*	12.7	30	
Surr: 13C2-PFDoA	***145***	*ng/L*			151.43		95.8	*50-150*	14.2	30	
Surr: 13C2-PFHxA	***139***	*ng/L*			151.43		91.8	*50-150*	25.8	30	
Surr: 13C2-PFTeA	***129***	*ng/L*			151.43		85.4	*27-134*	11.6	30	
Surr: 13C2-PFUnA	***138***	*ng/L*			151.43		91.5	*50-150*	4.98	30	
Surr: 13C3-HFPO-DA	***156***	*ng/L*			151.43		103	*41-142*	19.3	30	
Surr: 13C3-PFBS	***149***	*ng/L*			151.43		98.2	*50-150*	21.9	30	
Surr: 13C4-PFBA	***160***	*ng/L*			151.43		106	*50-150*	25.0	30	
Surr: 13C4-PFHpA	***139***	*ng/L*			151.43		91.6	*42-141*	3.27	30	
Surr: 13C4-PFOA	***144***	*ng/L*			151.43		95.5	*50-150*	20.5	30	
Surr: 13C4-PFOS	***130***	*ng/L*			144.62		89.9	*50-150*	23.6	30	
Surr: 13C5-PFNA	***137***	*ng/L*			151.43		90.6	*50-150*	11.9	30	
Surr: 13C5-PFPeA	***151***	*ng/L*			151.43		99.8	*43-138*	15.1	30	
Surr: 13C8-FOSA	***138***	*ng/L*			151.43		91.4	*30-122*	7.09	30	
Surr: 18O2-PFHxS	***139***	*ng/L*			143.11		97.2	*50-150*	25.5	30	
Surr: d3-N-MeFOSAA	***147***	*ng/L*			151.43		97.3	*35-136*	3.94	30	
Surr: d5-N-EtFOSAA	***146***	*ng/L*			151.43		96.8	*34-142*	18.5	30	
Surr: d7-N-MeFOSE	***159***	*ng/L*			151.43		105	*38-127*	17.2	30	

The following samples were analyzed in this batch: HN2506238-001, HN2506238-002, HN2506238-003, HN2506238-004, HN2506238-005, HN2506238-006, HN2506238-007, HN2506238-008, HN2506238-009

October 28, 2025

Eric Feenstra
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Date Received: **10/17/2025**
Work Order: **HN2515540**

Re: **RACER Lansing 2025**

Dear Eric ,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:
ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Alex Csaszar
/S/ ALEX CSASZAR

Project Manager

Client: Arcadis US, Inc. **Work Order:** HN2515540
Project: RACER Lansing 2025 **Date Received:** 17-Oct-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

10 wastewater samples were received for analysis at ALS Environmental on 17-Oct-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 537 Mod-W

Run ID: 3612607

HN2515540-001: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-001: 13C2-FtS 4:2 - The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2515540-001: 13C2-FtS 4:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2515540-001: 13C2-FtS 6:2 - The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2515540-001: 13C2-FtS 6:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2515540-001: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-002: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-002: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-003: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-003: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-004: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-004: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-005: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-005: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-005: 13C2-FtS 8:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2515540-006: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Run ID: 3612607

HN2515540-006: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Run ID: 3629486

HN2515540-008: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2515540-008: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MichAve-MH3_101625			Lab ID: HN2515540-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	3.40	J	0.329	4.14	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	8.53		2.44	4.69	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	2.94	J	1.62	4.69	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	4.30		0.846	4.26	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	3.75	J	1.12	4.69	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	5.86		0.836	1.74	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	6.69		0.591	1.87	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.705	J	0.521	4.40	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	5.55		1.20	4.69	ng/L	EPA 537Mod

CLIENT ID: Verlinden-MH-5_101625			Lab ID: HN2515540-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	3.22	J	0.345	4.35	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	14.4		2.56	4.92	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	17.3		1.70	4.92	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	2.04	J	0.889	4.48	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	21.9		1.18	4.92	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	3.17	J	0.856	4.92	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	13.3		0.878	1.83	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	38.0		0.620	1.97	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.570	J	0.547	4.62	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	22.4		1.26	4.92	ng/L	EPA 537Mod

CLIENT ID: Osborn-MH-1_101625			Lab ID: HN2515540-003			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.56	J	0.332	4.18	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	15.1		2.46	4.73	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	7.48		1.64	4.73	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.94	J	0.854	4.30	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	11.7		1.13	4.73	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	2.42	J	0.823	4.73	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	12.2		0.844	1.76	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	18.5		0.596	1.89	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	13.2		1.21	4.73	ng/L	EPA 537Mod

CLIENT ID: P3-MH-284_101625			Lab ID: HN2515540-004			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	0.757	J	0.345	4.34	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	3.81		0.876	1.82	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: P2-MH-2_101625			Lab ID: HN2515540-005			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	1.45	J	1.13	4.82	ng/L	EPA 537Mod
Perfluorobutane sulfonic acid (PFBS)	5.57		0.339	4.26	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	11.6		2.51	4.82	ng/L	EPA 537Mod
Perfluorodecanoic acid (PFDA)	1.25	J	1.20	4.82	ng/L	EPA 537Mod
Perfluoroheptane sulfonic acid (PFHpS)	0.858	J	0.546	4.59	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	5.76		1.67	4.82	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	4.53		0.871	4.39	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	7.75		1.16	4.82	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	2.46	J	0.839	4.82	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	21.6		0.861	1.79	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	17.2		0.608	1.93	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	0.608	J	0.536	4.53	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	8.64		1.23	4.82	ng/L	EPA 537Mod

CLIENT ID: P2-MH-9_101625			Lab ID: HN2515540-006			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	2.55	J	0.341	4.30	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	12.9		2.53	4.86	ng/L	EPA 537Mod
Perfluoroheptanoic acid (PFHpA)	4.34	J	1.68	4.86	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	6.40		0.878	4.42	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	7.54		1.17	4.86	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	1.15	J	0.845	4.86	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	10.5		0.867	1.80	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	9.04		0.612	1.94	ng/L	EPA 537Mod
Perfluoropentane sulfonic acid (PFPeS)	1.06	J	0.540	4.56	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	12.0		1.24	4.86	ng/L	EPA 537Mod

CLIENT ID: P2-MH-W_101625			Lab ID: HN2515540-007			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.29	J	0.338	4.25	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	5.09		2.50	4.81	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.30	J	0.869	4.38	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	1.28	J	1.16	4.81	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	1.68	J	0.859	1.79	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	2.84		0.606	1.93	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	1.78	J	1.23	4.81	ng/L	EPA 537Mod

CLIENT ID: Dup-01_101625			Lab ID: HN2515540-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluorobutane sulfonic acid (PFBS)	1.48	J	0.364	4.59	ng/L	EPA 537Mod
Perfluorobutanoic acid (PFBA)	13.0		2.70	5.19	ng/L	EPA 537Mod

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: Dup-01_101625			Lab ID: HN2515540-008			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Perfluoroheptanoic acid (PFHpA)	7.27		1.80	5.19	ng/L	EPA 537Mod
Perfluorohexane sulfonic acid (PFHxS)	1.98	J	0.937	4.72	ng/L	EPA 537Mod
Perfluorohexanoic acid (PFHxA)	10.2		1.25	5.19	ng/L	EPA 537Mod
Perfluorononanoic acid (PFNA)	2.17	J	0.903	5.19	ng/L	EPA 537Mod
Perfluorooctane sulfonic acid (PFOS)	11.2		0.926	1.93	ng/L	EPA 537Mod
Perfluorooctanoic acid (PFOA)	20.3		0.654	2.08	ng/L	EPA 537Mod
Perfluoropentanoic acid (PFPeA)	12.6		1.33	5.19	ng/L	EPA 537Mod

SAMPLE SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Workorder: HN2515540

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2515540-001	MichAve-MH3_101625	WASTEWATER	10/16/25 09:00	10/17/25 09:30
HN2515540-002	Verlinden-MH-5_101625	WASTEWATER	10/16/25 09:35	10/17/25 09:30
HN2515540-003	Osborn-MH-1_101625	WASTEWATER	10/16/25 09:55	10/17/25 09:30
HN2515540-004	P3-MH-284_101625	WASTEWATER	10/16/25 11:10	10/17/25 09:30
HN2515540-005	P2-MH-2_101625	WASTEWATER	10/16/25 12:15	10/17/25 09:30
HN2515540-006	P2-MH-9_101625	WASTEWATER	10/16/25 12:35	10/17/25 09:30
HN2515540-007	P2-MH-W_101625	WASTEWATER	10/16/25 13:00	10/17/25 09:30
HN2515540-008	Dup-01_101625	WASTEWATER	10/16/25	10/17/25 09:30
HN2515540-009	EB-01_101625	WASTEWATER	10/16/25 13:45	10/17/25 09:30
HN2515540-010	FB-01_101625	WASTEWATER	10/16/25 13:50	10/17/25 09:30

Chain of Custody Form

ALS Group USA, Corp

Environmental Division
Holland
Work Order Reference
HN2515540

Telephone : +1 616 399 6070

Company Name	Arcadis U.S., Inc.	Purchase Order		Parameter/Method R	
		Company Name	Arcadis U.S., Inc.	A	537M, MI List of 28
Send Report To	Eric Feenstra	Invoice Attn	Eric Feenstra	B	
Project Name	RACER Lansing 2025	Project #	30267725.0370B	C	
				D	
Address	28550 Cabot Drive Suite 500	Address	28550 Cabot Drive Suite 500 Suite 500	E	
				F	
City State Zip	Novi, MI 48377	City State Zip	Novi, MI 48377	G	
Phone	2489942240	Phone	2489942240	H	
e-Mail Address	eric.feenstra@arcadis.com	e-Mail Address	eric.feenstra@arcadis.com	I	
				J	

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MichAve-MH-3_101625	10/16/25	0900	WW	none	9	X										MS/MSD
2	Verlinden-MH-5_101625	10/16/25	0935	WW	none	3	X										
3	Osborn-MH-1_101625	10/16/25	0955	WW	none	3	X										
4	P3-MH-284_101625	10/16/25	1110	WW	none	3	X										Please provide
5	P2-MH-2_101625	10/16/25	1215	WW	none	3	X										results + QC
6	P2-MH-9_101625	10/16/25	1235	WW	none	3	X										along w/ EDD
7	P2-MH-W_101625	10/16/25	1300	WW	none	3	X										for all
8	DUP-01_101625	10/16/25	—	WW	none	3	X										samples.
9	EB-01_101625	10/16/25	1345	WW	none	3	X										
10	FB-01_101625	10/16/25	1350	WW	none	2	X										

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C. 9-5035

Required Turnaround Time: ___ Std 10 Wk days ___ 5 Wk days ___ 2 Wk days ___ 24 hr

Results Due:

Relinquised by	Date	Time	Received by	Date	Time
Maryam Kamari Arcadis	10/16/25	1500	FedEx	10/16/25	1500
			FedEx	10/17/25	09:30
BC	10/17/25	12:15	4.8°C IR6		

NOTES:

QC Reporting Level: (check box below)

- Level II: Standard QC
- Level III: Std QC + Raw data
- Level IV: SW846 CLP-Like

Other:

ALS Group USA, Corp | 3352 128th Ave | | Holland Michigan 49424 | TEL. (616) 399-6070

ALS Holland Sample Receiving Checklist

Received by:	BC
Date/Time:	10/17/25
Carrier Name:	FedEx
Shipping container/cooler in good condition?	Yes / No / Not Present
Custody seals intact on shipping container/cooler?	Yes / No / Not Present
Custody seals intact on sample bottles?	Yes / No / Not Present
Chain of Custody present?	Yes / No
COC signed when relinquished and received?	Yes / No
COC agrees with sample labels?	Yes / No
Samples in proper container/bottle?	Yes / No
Sample containers intact?	Yes / No
Sufficient sample volume for indicated test?	Yes / No
All samples received within holding time?	Yes / No
Container/Temp Blank temperature in compliance?	Yes / No
Temperature(s) (°C):	4.8 °C
Thermometer(s):	IR6
Sample(s) received on ice?	Yes / No
Matrix/Matrices:	water
Cooler(s)/Kit(s):	1
Date/Time sample(s) sent to storage:	10/17/25
Water – VOA vials have zero headspace?	Yes / No / No Vials
Water – pH acceptable upon receipt?	Yes / No / N/A
pH strip lot #: _____	< 2 _____ > 12 _____ Other _____
pH adjusted (note adjustments below)?	Yes / No / N/A
pH adjusted by:	_____

Login Notes:

Custody Seal
http://www.alsglobal.c

3352 128th Avenue
Holland, MI 49424
Ph: 616.399.6070

ALS Environmental
3352 128th Avenue
Holland, Michigan 49424-9263
Ph: 616.399.6070
Attn: Sample Receiving

Company: Arcadis
Name: Rebecca Lastiyan
Date: 10/16/25

4512 FRI 10/17 06:38 3946510
ALS
3352 128TH AVE
HOLLAND MI
E
49424-9263-52

932-6061
ETP: 1 SP:PD:100:Y
1002303112410004942400628935332655

Ref:
Dep:

Date: 19Sep25
Wgt: 15.00 LBS

DV: 0.00

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svcs: STANDARD OVERNIGHT Master 6289 3533 2470
TRCK: 6289 3533 2653

ORIGIN ID:CFAA (616) 399-6070
BOTTLE STOCK
ALS DETROIT
33087 W EIGHT MILE RD

LIVONIA, MI 48152
UNITED STATES US

SHIP DATE: 19SEP25
ACTWGT: 15.00 LB MAN
CAD: 0510437/CAFE3908

58CC3/780E/FE2D

TO ALS HOLLAND (REBILLABLE)
ALS
3352 128TH

HOLLAND MI 49424
(616) 399-6070 REF:
INV:
PO: DEPT:

RMA:

FedEx Express

J251024111401uv

FedEx

FRI - 17 OCT 5:00P
STANDARD OVERNIGHT

TRK# 6289 3533 2653
0221

68 HLMA

49424
MI-US GRR

58HJ4/008C/59F2

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications[1]

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

1 - Scope available upon request

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Work Order: HN2515540

Sample Name: MichAve-MH3_101625
Laboratory Code: HN2515540-001
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	001-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: Verlinden-MH-5_101625
Laboratory Code: HN2515540-002
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	002-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: Osborn-MH-1_101625
Laboratory Code: HN2515540-003
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	003-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: P3-MH-284_101625
Laboratory Code: HN2515540-004
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	004-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Work Order: HN2515540

Sample Name: P2-MH-2_101625
Laboratory Code: HN2515540-005
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	005-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: P2-MH-9_101625
Laboratory Code: HN2515540-006
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	006-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: P2-MH-W_101625
Laboratory Code: HN2515540-007
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	007-AA	2288042	Clayton Rzepka	3612607	Michelle McClendon

Sample Name: Dup-01_101625
Laboratory Code: HN2515540-008
Sample Matrix: WASTEWATER
Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	008-AA	2290637	Gabe	3629486	Morgan Morehouse

ANALYST SUMMARY

Client: Arcadis US, Inc.
Project: RACER Lansing 2025

Work Order: HN2515540

Sample Name: EB-01_101625
Laboratory Code: HN2515540-009
Sample Matrix: WASTEWATER

Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	009-AA	2290637	Gabe	3629486	Morgan Morehouse

Sample Name: FB-01_101625
Laboratory Code: HN2515540-010
Sample Matrix: WASTEWATER

Date Collected: 10/16/25
Date Received: 10/17/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	EPA 537Mod	010-AA	2290637	Gabe	3629486	Morgan Morehouse

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:00
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: MichAve-MH3_101625 **Lab ID: HN2515540-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.438	U	ng/L	0.438	4.41	1	10/21/25 20:10	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.06	U	ng/L	1.06	4.49	1	10/21/25 20:10	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.877	U	ng/L	0.877	4.38	1	10/21/25 20:10	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.80	U	ng/L	1.80	4.35	1	10/21/25 20:10	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.527	U	ng/L	0.527	4.41	1	10/21/25 20:10	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.420	U	ng/L	0.420	4.37	1	10/21/25 20:10	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.10	U	ng/L	1.10	4.69	1	10/21/25 20:10	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.45	U	ng/L	1.45	4.69	1	10/21/25 20:10	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.604	U	ng/L	0.604	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.40**	J	ng/L	0.329	4.14	1	10/21/25 20:10	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**8.53**		ng/L	2.44	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.28	U	ng/L	1.28	4.52	1	10/21/25 20:10	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.16	U	ng/L	1.16	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.648	U	ng/L	0.648	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.531	U	ng/L	0.531	4.46	1	10/21/25 20:10	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**2.94**	J	ng/L	1.62	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**4.30**		ng/L	0.846	4.26	1	10/21/25 20:10	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**3.75**	J	ng/L	1.12	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.50	1	10/21/25 20:10	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:00
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: MichAve-MH3_101625 **Lab ID: HN2515540-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.815	U	ng/L	0.815	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.666	U	ng/L	0.666	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**5.86**		ng/L	0.836	1.74	1	10/21/25 20:10	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**6.69**		ng/L	0.591	1.87	1	10/21/25 20:10	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.705**	J	ng/L	0.521	4.40	1	10/21/25 20:10	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**5.55**		ng/L	1.20	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.47	U	ng/L	2.47	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.81	U	ng/L	1.81	4.69	1	10/21/25 20:10	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.913	U	ng/L	0.913	4.69	1	10/21/25 20:10	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***296***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***241***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***110***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***68.9***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***67.3***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***76.8***		*%REC*		*27-134*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***71.5***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***71.7***		*%REC*		*41-142*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***70.2***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***75.2***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***76.0***		*%REC*		*42-141*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***77.3***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***67.8***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***80.7***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***63.1***		*%REC*		*43-138*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***58.5***		*%REC*		*30-122*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***75.1***		*%REC*		*50-150*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.5***		*%REC*		*35-136*	*1*	*10/21/25 20:10*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***70.2***		*%REC*		*34-142*	*1*	*10/21/25 20:10*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:35
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Verlinden-MH-5_101625 **Lab ID: HN2515540-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.460	U	ng/L	0.460	4.64	1	10/21/25 20:24	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.71	1	10/21/25 20:24	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.921	U	ng/L	0.921	4.60	1	10/21/25 20:24	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.89	U	ng/L	1.89	4.57	1	10/21/25 20:24	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.553	U	ng/L	0.553	4.64	1	10/21/25 20:24	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.441	U	ng/L	0.441	4.59	1	10/21/25 20:24	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.92	1	10/21/25 20:24	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.92	1	10/21/25 20:24	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.634	U	ng/L	0.634	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**3.22**	J	ng/L	0.345	4.35	1	10/21/25 20:24	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**14.4**		ng/L	2.56	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.74	1	10/21/25 20:24	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.680	U	ng/L	0.680	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.557	U	ng/L	0.557	4.68	1	10/21/25 20:24	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**17.3**		ng/L	1.70	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**2.04**	J	ng/L	0.889	4.48	1	10/21/25 20:24	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**21.9**		ng/L	1.18	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.488	U	ng/L	0.488	4.72	1	10/21/25 20:24	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:35
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Verlinden-MH-5_101625 **Lab ID: HN2515540-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**3.17**	J	ng/L	0.856	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.700	U	ng/L	0.700	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**13.3**		ng/L	0.878	1.83	1	10/21/25 20:24	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**38.0**		ng/L	0.620	1.97	1	10/21/25 20:24	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.570**	J	ng/L	0.547	4.62	1	10/21/25 20:24	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**22.4**		ng/L	1.26	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.60	U	ng/L	2.60	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.92	1	10/21/25 20:24	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.959	U	ng/L	0.959	4.92	1	10/21/25 20:24	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***272***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***201***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***80.7***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***74.6***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***77.8***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***82.8***		*%REC*		*27-134*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.0***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***83.9***		*%REC*		*41-142*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***81.9***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.3***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***92.9***		*%REC*		*42-141*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***77.9***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***80.3***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***87.5***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***76.5***		*%REC*		*43-138*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***70.2***		*%REC*		*30-122*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***91.4***		*%REC*		*50-150*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***71.2***		*%REC*		*35-136*	*1*	*10/21/25 20:24*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***74.5***		*%REC*		*34-142*	*1*	*10/21/25 20:24*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:55
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Osborn-MH-1_101625 **Lab ID: HN2515540-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.442	U	ng/L	0.442	4.45	1	10/21/25 20:39	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.07	U	ng/L	1.07	4.53	1	10/21/25 20:39	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.885	U	ng/L	0.885	4.42	1	10/21/25 20:39	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.82	U	ng/L	1.82	4.39	1	10/21/25 20:39	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.532	U	ng/L	0.532	4.45	1	10/21/25 20:39	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.424	U	ng/L	0.424	4.41	1	10/21/25 20:39	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.11	U	ng/L	1.11	4.73	1	10/21/25 20:39	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.46	U	ng/L	1.46	4.73	1	10/21/25 20:39	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.609	U	ng/L	0.609	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.56**	J	ng/L	0.332	4.18	1	10/21/25 20:39	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**15.1**		ng/L	2.46	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.30	U	ng/L	1.30	4.56	1	10/21/25 20:39	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.17	U	ng/L	1.17	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.654	U	ng/L	0.654	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.535	U	ng/L	0.535	4.50	1	10/21/25 20:39	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**7.48**		ng/L	1.64	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.94**	J	ng/L	0.854	4.30	1	10/21/25 20:39	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**11.7**		ng/L	1.13	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.469	U	ng/L	0.469	4.54	1	10/21/25 20:39	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 09:55
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Osborn-MH-1_101625 **Lab ID: HN2515540-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**2.42**	J	ng/L	0.823	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.672	U	ng/L	0.672	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**12.2**		ng/L	0.844	1.76	1	10/21/25 20:39	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**18.5**		ng/L	0.596	1.89	1	10/21/25 20:39	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.526	U	ng/L	0.526	4.44	1	10/21/25 20:39	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**13.2**		ng/L	1.21	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.50	U	ng/L	2.50	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.83	U	ng/L	1.83	4.73	1	10/21/25 20:39	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.921	U	ng/L	0.921	4.73	1	10/21/25 20:39	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***229***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***179***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***93.4***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***72.6***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***67.6***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***72.9***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***77.2***		*%REC*		*27-134*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***72.3***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***71.4***		*%REC*		*41-142*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***72.7***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***82.9***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***75.6***		*%REC*		*42-141*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***79.4***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***71.8***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***81.2***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***68.7***		*%REC*		*43-138*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***60.5***		*%REC*		*30-122*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***76.5***		*%REC*		*50-150*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***64.3***		*%REC*		*35-136*	*1*	*10/21/25 20:39*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***69.2***		*%REC*		*34-142*	*1*	*10/21/25 20:39*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 11:10
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P3-MH-284_101625 **Lab ID: HN2515540-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.459	U	ng/L	0.459	4.62	1	10/21/25 20:53	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.11	U	ng/L	1.11	4.70	1	10/21/25 20:53	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.919	U	ng/L	0.919	4.59	1	10/21/25 20:53	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.89	U	ng/L	1.89	4.56	1	10/21/25 20:53	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.552	U	ng/L	0.552	4.62	1	10/21/25 20:53	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.440	U	ng/L	0.440	4.58	1	10/21/25 20:53	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.15	U	ng/L	1.15	4.91	1	10/21/25 20:53	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.52	U	ng/L	1.52	4.91	1	10/21/25 20:53	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.632	U	ng/L	0.632	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**0.757**	J	ng/L	0.345	4.34	1	10/21/25 20:53	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.35	U	ng/L	1.35	4.73	1	10/21/25 20:53	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.22	U	ng/L	1.22	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.678	U	ng/L	0.678	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.556	U	ng/L	0.556	4.67	1	10/21/25 20:53	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.70	U	ng/L	1.70	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.887	U	ng/L	0.887	4.47	1	10/21/25 20:53	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.18	U	ng/L	1.18	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.487	U	ng/L	0.487	4.71	1	10/21/25 20:53	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 11:10
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P3-MH-284_101625 **Lab ID: HN2515540-004**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.854	U	ng/L	0.854	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.698	U	ng/L	0.698	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**3.81**		ng/L	0.876	1.82	1	10/21/25 20:53	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.619	U	ng/L	0.619	1.96	1	10/21/25 20:53	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.546	U	ng/L	0.546	4.61	1	10/21/25 20:53	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.26	U	ng/L	1.26	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.90	U	ng/L	1.90	4.91	1	10/21/25 20:53	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.956	U	ng/L	0.956	4.91	1	10/21/25 20:53	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***289***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***206***	*S*	*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***98.8***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***83.2***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***75.1***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***79.5***		*%REC*		*27-134*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***78.2***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***77.9***		*%REC*		*41-142*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***74.7***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***89.3***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***82.0***		*%REC*		*42-141*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***87.3***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***78.2***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***87.1***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***70.7***		*%REC*		*43-138*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***63.2***		*%REC*		*30-122*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***80.7***		*%REC*		*50-150*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***70.8***		*%REC*		*35-136*	*1*	*10/21/25 20:53*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***72.6***		*%REC*		*34-142*	*1*	*10/21/25 20:53*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 12:15
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-2_101625 **Lab ID: HN2515540-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.451	U	ng/L	0.451	4.54	1	10/21/25 21:07	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.62	1	10/21/25 21:07	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.903	U	ng/L	0.903	4.51	1	10/21/25 21:07	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.85	U	ng/L	1.85	4.48	1	10/21/25 21:07	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.542	U	ng/L	0.542	4.54	1	10/21/25 21:07	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.432	U	ng/L	0.432	4.50	1	10/21/25 21:07	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	**1.45**	J	ng/L	1.13	4.82	1	10/21/25 21:07	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.82	1	10/21/25 21:07	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.621	U	ng/L	0.621	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**5.57**		ng/L	0.339	4.26	1	10/21/25 21:07	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**11.6**		ng/L	2.51	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.65	1	10/21/25 21:07	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	**1.25**	J	ng/L	1.20	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.667	U	ng/L	0.667	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	**0.858**	J	ng/L	0.546	4.59	1	10/21/25 21:07	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**5.76**		ng/L	1.67	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**4.53**		ng/L	0.871	4.39	1	10/21/25 21:07	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**7.75**		ng/L	1.16	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.479	U	ng/L	0.479	4.63	1	10/21/25 21:07	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 12:15
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-2_101625 **Lab ID: HN2515540-005**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**2.46**	J	ng/L	0.839	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.686	U	ng/L	0.686	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**21.6**		ng/L	0.861	1.79	1	10/21/25 21:07	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**17.2**		ng/L	0.608	1.93	1	10/21/25 21:07	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**0.608**	J	ng/L	0.536	4.53	1	10/21/25 21:07	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**8.64**		ng/L	1.23	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.55	U	ng/L	2.55	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.82	1	10/21/25 21:07	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.940	U	ng/L	0.940	4.82	1	10/21/25 21:07	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***269***	*S*	*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***244***	*S*	*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***157***	*S*	*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***73.4***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***66.2***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***59.6***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***71.8***		*%REC*		*27-134*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***70.2***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***61.8***		*%REC*		*41-142*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***62.5***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***70.7***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***64.4***		*%REC*		*42-141*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***61.1***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***65.9***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***73.6***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***55.7***		*%REC*		*43-138*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***53.2***		*%REC*		*30-122*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***70.2***		*%REC*		*50-150*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.4***		*%REC*		*35-136*	*1*	*10/21/25 21:07*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***65.5***		*%REC*		*34-142*	*1*	*10/21/25 21:07*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 12:35
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-9_101625 **Lab ID: HN2515540-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.454	U	ng/L	0.454	4.58	1	10/21/25 21:22	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.10	U	ng/L	1.10	4.65	1	10/21/25 21:22	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.910	U	ng/L	0.910	4.54	1	10/21/25 21:22	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.87	U	ng/L	1.87	4.51	1	10/21/25 21:22	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.546	U	ng/L	0.546	4.58	1	10/21/25 21:22	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.435	U	ng/L	0.435	4.53	1	10/21/25 21:22	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.14	U	ng/L	1.14	4.86	1	10/21/25 21:22	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.50	U	ng/L	1.50	4.86	1	10/21/25 21:22	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.626	U	ng/L	0.626	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**2.55**	J	ng/L	0.341	4.30	1	10/21/25 21:22	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**12.9**		ng/L	2.53	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.33	U	ng/L	1.33	4.68	1	10/21/25 21:22	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.21	U	ng/L	1.21	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.671	U	ng/L	0.671	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.550	U	ng/L	0.550	4.63	1	10/21/25 21:22	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**4.34**	J	ng/L	1.68	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**6.40**		ng/L	0.878	4.42	1	10/21/25 21:22	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**7.54**		ng/L	1.17	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.482	U	ng/L	0.482	4.66	1	10/21/25 21:22	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 12:35
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-9_101625 **Lab ID: HN2515540-006**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**1.15**	J	ng/L	0.845	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.691	U	ng/L	0.691	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**10.5**		ng/L	0.867	1.80	1	10/21/25 21:22	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**9.04**		ng/L	0.612	1.94	1	10/21/25 21:22	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	**1.06**	J	ng/L	0.540	4.56	1	10/21/25 21:22	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**12.0**		ng/L	1.24	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.57	U	ng/L	2.57	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.88	U	ng/L	1.88	4.86	1	10/21/25 21:22	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.947	U	ng/L	0.947	4.86	1	10/21/25 21:22	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***201***	*S*	*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***155***	*S*	*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***91.7***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***81.6***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.3***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***79.5***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***73.1***		*%REC*		*27-134*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***77.6***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***70.9***		*%REC*		*41-142*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***71.5***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***85.9***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***74.0***		*%REC*		*42-141*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***80.1***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***79.6***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***85.1***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***66.6***		*%REC*		*43-138*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***58.7***		*%REC*		*30-122*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***82.8***		*%REC*		*50-150*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.4***		*%REC*		*35-136*	*1*	*10/21/25 21:22*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***66.4***		*%REC*		*34-142*	*1*	*10/21/25 21:22*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:00
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-W_101625 **Lab ID: HN2515540-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.450	U	ng/L	0.450	4.53	1	10/21/25 21:36	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.09	U	ng/L	1.09	4.61	1	10/21/25 21:36	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.901	U	ng/L	0.901	4.50	1	10/21/25 21:36	10/21/25 16:21
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.85	U	ng/L	1.85	4.47	1	10/21/25 21:36	10/21/25 16:21
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.541	U	ng/L	0.541	4.53	1	10/21/25 21:36	10/21/25 16:21
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.431	U	ng/L	0.431	4.49	1	10/21/25 21:36	10/21/25 16:21
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.13	U	ng/L	1.13	4.81	1	10/21/25 21:36	10/21/25 16:21
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.49	U	ng/L	1.49	4.81	1	10/21/25 21:36	10/21/25 16:21
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.620	U	ng/L	0.620	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.29**	J	ng/L	0.338	4.25	1	10/21/25 21:36	10/21/25 16:21
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**5.09**		ng/L	2.50	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.32	U	ng/L	1.32	4.64	1	10/21/25 21:36	10/21/25 16:21
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.665	U	ng/L	0.665	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.545	U	ng/L	0.545	4.58	1	10/21/25 21:36	10/21/25 16:21
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.67	U	ng/L	1.67	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.30**	J	ng/L	0.869	4.38	1	10/21/25 21:36	10/21/25 16:21
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**1.28**	J	ng/L	1.16	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.477	U	ng/L	0.477	4.62	1	10/21/25 21:36	10/21/25 16:21

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:00
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: P2-MH-W_101625 **Lab ID: HN2515540-007**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.838	U	ng/L	0.838	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.684	U	ng/L	0.684	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**1.68**	J	ng/L	0.859	1.79	1	10/21/25 21:36	10/21/25 16:21
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**2.84**		ng/L	0.606	1.93	1	10/21/25 21:36	10/21/25 16:21
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.535	U	ng/L	0.535	4.51	1	10/21/25 21:36	10/21/25 16:21
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**1.78**	J	ng/L	1.23	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.54	U	ng/L	2.54	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.86	U	ng/L	1.86	4.81	1	10/21/25 21:36	10/21/25 16:21
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.938	U	ng/L	0.938	4.81	1	10/21/25 21:36	10/21/25 16:21
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***147***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***99.5***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***85.6***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-PFDA	*EPA 537Mod*	***73.1***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-PFDoA	*EPA 537Mod*	***71.5***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-PFHxA	*EPA 537Mod*	***75.8***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-PFTeA	*EPA 537Mod*	***80.2***		*%REC*		*27-134*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C2-PFUnA	*EPA 537Mod*	***73.5***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***73.0***		*%REC*		*41-142*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C3-PFBS	*EPA 537Mod*	***75.4***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C4-PFBA	*EPA 537Mod*	***83.4***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C4-PFHpA	*EPA 537Mod*	***80.2***		*%REC*		*42-141*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C4-PFOA	*EPA 537Mod*	***68.8***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C4-PFOS	*EPA 537Mod*	***74.2***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C5-PFNA	*EPA 537Mod*	***76.1***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C5-PFPeA	*EPA 537Mod*	***70.8***		*%REC*		*43-138*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 13C8-FOSA	*EPA 537Mod*	***60.7***		*%REC*		*30-122*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: 18O2-PFHxS	*EPA 537Mod*	***86.1***		*%REC*		*50-150*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***65.0***		*%REC*		*35-136*	*1*	*10/21/25 21:36*	*10/21/25 16:21*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***67.1***		*%REC*		*34-142*	*1*	*10/21/25 21:36*	*10/21/25 16:21*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Dup-01_101625 **Lab ID: HN2515540-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.485	U	ng/L	0.485	4.89	1	10/25/25 17:59	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.17	U	ng/L	1.17	4.97	1	10/25/25 17:59	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.972	U	ng/L	0.972	4.85	1	10/25/25 17:59	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.99	U	ng/L	1.99	4.82	1	10/25/25 17:59	10/22/25 16:54
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.583	U	ng/L	0.583	4.89	1	10/25/25 17:59	10/22/25 16:54
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.84	1	10/25/25 17:59	10/22/25 16:54
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.21	U	ng/L	1.21	5.19	1	10/25/25 17:59	10/22/25 16:54
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.60	U	ng/L	1.60	5.19	1	10/25/25 17:59	10/22/25 16:54
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.668	U	ng/L	0.668	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	**1.48**	J	ng/L	0.364	4.59	1	10/25/25 17:59	10/22/25 16:54
Perfluorobutanoic acid (PFBA)	EPA 537Mod	**13.0**		ng/L	2.70	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.42	U	ng/L	1.42	5.00	1	10/25/25 17:59	10/22/25 16:54
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.717	U	ng/L	0.717	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.588	U	ng/L	0.588	4.94	1	10/25/25 17:59	10/22/25 16:54
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	**7.27**		ng/L	1.80	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	**1.98**	J	ng/L	0.937	4.72	1	10/25/25 17:59	10/22/25 16:54
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	**10.2**		ng/L	1.25	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.515	U	ng/L	0.515	4.98	1	10/25/25 17:59	10/22/25 16:54

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: Dup-01_101625 **Lab ID: HN2515540-008**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	**2.17**	J	ng/L	0.903	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.738	U	ng/L	0.738	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	**11.2**		ng/L	0.926	1.93	1	10/25/25 17:59	10/22/25 16:54
Perfluorooctanoic acid (PFOA)	EPA 537Mod	**20.3**		ng/L	0.654	2.08	1	10/25/25 17:59	10/22/25 16:54
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.577	U	ng/L	0.577	4.87	1	10/25/25 17:59	10/22/25 16:54
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	**12.6**		ng/L	1.33	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.74	U	ng/L	2.74	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<2.00	U	ng/L	2.00	5.19	1	10/25/25 17:59	10/22/25 16:54
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<1.01	U	ng/L	1.01	5.19	1	10/25/25 17:59	10/22/25 16:54
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***289***	*S*	*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***219***	*S*	*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***127***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-PFDA	*EPA 537Mod*	***92.1***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-PFDoA	*EPA 537Mod*	***85.5***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-PFHxA	*EPA 537Mod*	***93.6***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-PFTeA	*EPA 537Mod*	***86.0***		*%REC*		*27-134*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C2-PFUnA	*EPA 537Mod*	***89.9***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***93.8***		*%REC*		*41-142*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C3-PFBS	*EPA 537Mod*	***91.5***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C4-PFBA	*EPA 537Mod*	***108***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C4-PFHpA	*EPA 537Mod*	***102***		*%REC*		*42-141*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C4-PFOA	*EPA 537Mod*	***94.0***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C4-PFOS	*EPA 537Mod*	***91.3***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C5-PFNA	*EPA 537Mod*	***101***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C5-PFPeA	*EPA 537Mod*	***88.2***		*%REC*		*43-138*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 13C8-FOSA	*EPA 537Mod*	***83.8***		*%REC*		*30-122*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: 18O2-PFHxS	*EPA 537Mod*	***91.2***		*%REC*		*50-150*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***73.1***		*%REC*		*35-136*	*1*	*10/25/25 17:59*	*10/22/25 16:54*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***80.6***		*%REC*		*34-142*	*1*	*10/25/25 17:59*	*10/22/25 16:54*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:45
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: EB-01_101625 **Lab ID: HN2515540-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.465	U	ng/L	0.465	4.69	1	10/25/25 18:13	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.12	U	ng/L	1.12	4.77	1	10/25/25 18:13	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.931	U	ng/L	0.931	4.65	1	10/25/25 18:13	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.91	U	ng/L	1.91	4.62	1	10/25/25 18:13	10/22/25 16:54
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.559	U	ng/L	0.559	4.69	1	10/25/25 18:13	10/22/25 16:54
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.446	U	ng/L	0.446	4.64	1	10/25/25 18:13	10/22/25 16:54
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.16	U	ng/L	1.16	4.97	1	10/25/25 18:13	10/22/25 16:54
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.54	U	ng/L	1.54	4.97	1	10/25/25 18:13	10/22/25 16:54
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.641	U	ng/L	0.641	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.349	U	ng/L	0.349	4.40	1	10/25/25 18:13	10/22/25 16:54
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.59	U	ng/L	2.59	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.36	U	ng/L	1.36	4.80	1	10/25/25 18:13	10/22/25 16:54
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.23	U	ng/L	1.23	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.688	U	ng/L	0.688	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.563	U	ng/L	0.563	4.74	1	10/25/25 18:13	10/22/25 16:54
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.72	U	ng/L	1.72	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.898	U	ng/L	0.898	4.53	1	10/25/25 18:13	10/22/25 16:54
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.19	U	ng/L	1.19	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.494	U	ng/L	0.494	4.78	1	10/25/25 18:13	10/22/25 16:54

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:45
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: EB-01_101625 **Lab ID: HN2515540-009**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.866	U	ng/L	0.866	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.707	U	ng/L	0.707	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.888	U	ng/L	0.888	1.85	1	10/25/25 18:13	10/22/25 16:54
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.627	U	ng/L	0.627	1.99	1	10/25/25 18:13	10/22/25 16:54
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.553	U	ng/L	0.553	4.67	1	10/25/25 18:13	10/22/25 16:54
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.27	U	ng/L	1.27	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.63	U	ng/L	2.63	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.92	U	ng/L	1.92	4.97	1	10/25/25 18:13	10/22/25 16:54
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.969	U	ng/L	0.969	4.97	1	10/25/25 18:13	10/22/25 16:54
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***88.1***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***107***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***106***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-PFDA	*EPA 537Mod*	***92.3***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-PFDoA	*EPA 537Mod*	***86.0***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-PFHxA	*EPA 537Mod*	***94.7***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-PFTeA	*EPA 537Mod*	***76.7***		*%REC*		*27-134*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C2-PFUnA	*EPA 537Mod*	***95.8***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***100***		*%REC*		*41-142*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C3-PFBS	*EPA 537Mod*	***97.0***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C4-PFBA	*EPA 537Mod*	***120***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C4-PFHpA	*EPA 537Mod*	***102***		*%REC*		*42-141*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C4-PFOA	*EPA 537Mod*	***95.3***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C4-PFOS	*EPA 537Mod*	***94.8***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C5-PFNA	*EPA 537Mod*	***94.5***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C5-PFPeA	*EPA 537Mod*	***96.3***		*%REC*		*43-138*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 13C8-FOSA	*EPA 537Mod*	***92.7***		*%REC*		*30-122*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: 18O2-PFHxS	*EPA 537Mod*	***98.3***		*%REC*		*50-150*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***75.6***		*%REC*		*35-136*	*1*	*10/25/25 18:13*	*10/22/25 16:54*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***84.8***		*%REC*		*34-142*	*1*	*10/25/25 18:13*	*10/22/25 16:54*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:50
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: FB-01_101625 **Lab ID: HN2515540-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	<0.470	U	ng/L	0.470	4.74	1	10/25/25 18:56	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	<1.14	U	ng/L	1.14	4.82	1	10/25/25 18:56	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	<0.942	U	ng/L	0.942	4.70	1	10/25/25 18:56	10/22/25 16:54
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	<1.93	U	ng/L	1.93	4.67	1	10/25/25 18:56	10/22/25 16:54
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	<0.566	U	ng/L	0.566	4.74	1	10/25/25 18:56	10/22/25 16:54
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	<0.451	U	ng/L	0.451	4.69	1	10/25/25 18:56	10/22/25 16:54
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	<1.18	U	ng/L	1.18	5.03	1	10/25/25 18:56	10/22/25 16:54
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	<1.56	U	ng/L	1.56	5.03	1	10/25/25 18:56	10/22/25 16:54
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	<0.648	U	ng/L	0.648	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	<0.353	U	ng/L	0.353	4.45	1	10/25/25 18:56	10/22/25 16:54
Perfluorobutanoic acid (PFBA)	EPA 537Mod	<2.62	U	ng/L	2.62	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	<1.38	U	ng/L	1.38	4.85	1	10/25/25 18:56	10/22/25 16:54
Perfluorodecanoic acid (PFDA)	EPA 537Mod	<1.25	U	ng/L	1.25	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	<0.696	U	ng/L	0.696	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	<0.570	U	ng/L	0.570	4.79	1	10/25/25 18:56	10/22/25 16:54
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	<1.74	U	ng/L	1.74	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	<0.909	U	ng/L	0.909	4.58	1	10/25/25 18:56	10/22/25 16:54
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	<1.21	U	ng/L	1.21	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	<0.499	U	ng/L	0.499	4.83	1	10/25/25 18:56	10/22/25 16:54

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/16/25 13:50
Matrix:	WASTEWATER	**Date Received:**	10/17/25 09:30

CLIENT ID: FB-01_101625 **Lab ID: HN2515540-010**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	EPA 537Mod	<0.876	U	ng/L	0.876	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	<0.716	U	ng/L	0.716	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	<0.898	U	ng/L	0.898	1.87	1	10/25/25 18:56	10/22/25 16:54
Perfluorooctanoic acid (PFOA)	EPA 537Mod	<0.634	U	ng/L	0.634	2.01	1	10/25/25 18:56	10/22/25 16:54
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	<0.560	U	ng/L	0.560	4.72	1	10/25/25 18:56	10/22/25 16:54
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	<1.29	U	ng/L	1.29	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	<2.66	U	ng/L	2.66	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	<1.94	U	ng/L	1.94	5.03	1	10/25/25 18:56	10/22/25 16:54
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	<0.980	U	ng/L	0.980	5.03	1	10/25/25 18:56	10/22/25 16:54
Surr: 13C2-FtS 4:2	*EPA 537Mod*	***82.1***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-FtS 6:2	*EPA 537Mod*	***89.0***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-FtS 8:2	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-PFDA	*EPA 537Mod*	***77.7***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-PFDoA	*EPA 537Mod*	***76.4***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-PFHxA	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-PFTeA	*EPA 537Mod*	***78.4***		*%REC*		*27-134*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C2-PFUnA	*EPA 537Mod*	***80.9***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C3-HFPO-DA	*EPA 537Mod*	***82.1***		*%REC*		*41-142*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C3-PFBS	*EPA 537Mod*	***84.5***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C4-PFBA	*EPA 537Mod*	***103***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C4-PFHpA	*EPA 537Mod*	***84.9***		*%REC*		*42-141*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C4-PFOA	*EPA 537Mod*	***86.3***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C4-PFOS	*EPA 537Mod*	***83.7***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C5-PFNA	*EPA 537Mod*	***82.6***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C5-PFPeA	*EPA 537Mod*	***84.6***		*%REC*		*43-138*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 13C8-FOSA	*EPA 537Mod*	***78.7***		*%REC*		*30-122*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: 18O2-PFHxS	*EPA 537Mod*	***87.7***		*%REC*		*50-150*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: d3-N-MeFOSAA	*EPA 537Mod*	***73.9***		*%REC*		*35-136*	*1*	*10/25/25 18:56*	*10/22/25 16:54*
Surr: d5-N-EtFOSAA	*EPA 537Mod*	***76.3***		*%REC*		*34-142*	*1*	*10/25/25 18:56*	*10/22/25 16:54*

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2288042	**Run ID:**	3612607

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2288042-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/21/25 17:31

Prep Date: 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***116***	*ng/L*			149.44		77.3	*50-150*			
Surr: 13C2-FtS 6:2	***116***	*ng/L*			152		76.5	*50-150*			
Surr: 13C2-FtS 8:2	***116***	*ng/L*			153.28		75.7	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
QC Lot: 2288042

Work Order: HN2515540
Date Collected: NA
Date Received: NA
Run ID: 3612607

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2288042-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 17:31 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	***111***	*ng/L*			160		69.5	*50-150*			
Surr: 13C2-PFDoA	***97.2***	*ng/L*			160		60.8	*50-150*			
Surr: 13C2-PFHxA	***120***	*ng/L*			160		74.8	*50-150*			
Surr: 13C2-PFTeA	***99.3***	*ng/L*			160		62.1	*27-134*			
Surr: 13C2-PFUnA	***113***	*ng/L*			160		70.5	*50-150*			
Surr: 13C3-HFPO-DA	***125***	*ng/L*			160		78.2	*41-142*			
Surr: 13C3-PFBS	***121***	*ng/L*			148.8		81.3	*50-150*			
Surr: 13C4-PFBA	***136***	*ng/L*			160		84.9	*50-150*			
Surr: 13C4-PFHpA	***127***	*ng/L*			160		79.5	*42-141*			
Surr: 13C4-PFOA	***118***	*ng/L*			160		73.8	*50-150*			
Surr: 13C4-PFOS	***105***	*ng/L*			152.8		68.6	*50-150*			
Surr: 13C5-PFNA	***117***	*ng/L*			160		73.0	*50-150*			
Surr: 13C5-PFPeA	***124***	*ng/L*			160		77.5	*43-138*			
Surr: 13C8-FOSA	***111***	*ng/L*			160		69.2	*30-122*			
Surr: 18O2-PFHxS	***123***	*ng/L*			151.2		81.6	*50-150*			
Surr: d3-N-MeFOSAA	***109***	*ng/L*			160		68.2	*35-136*			
Surr: d5-N-EtFOSAA	***114***	*ng/L*			160		71.3	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2288042-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 17:45 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	26.2	ng/L	0.467	4.71	30.1		87.2	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	43.1	ng/L	1.13	4.79	30.7		141	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	34.4	ng/L	0.936	4.67	29.9		115	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	35.2	ng/L	1.92	4.74	30.3		116	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	28.6	ng/L	0.562	4.71	30.1		95.1	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	32.3	ng/L	0.448	4.66	29.8		108	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	40.6	ng/L	1.17	5.00	32		127	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	39.4	ng/L	1.54	5.00	32		123	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	36.2	ng/L	0.644	5.00	32		113	67-133			
Perfluorobutane sulfonic acid (PFBS)	32.4	ng/L	0.351	4.42	28.3		115	69-131			
Perfluorobutanoic acid (PFBA)	33.7	ng/L	2.60	5.00	32		105	73-139			
Perfluorodecane sulfonic acid (PFDS)	25.1	ng/L	1.37	4.82	30.8		81.4	64-128			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
QC Lot: 2288042

Work Order: HN2515540
Date Collected: NA
Date Received: NA
Run ID: 3612607

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2288042-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 17:45 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	35.0	ng/L	1.24	5.00	32		109	77-135			
Perfluorododecanoic acid (PFDOA)	34.0	ng/L	0.691	5.00	32		106	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	29.6	ng/L	0.566	4.76	30.5		96.9	70-137			
Perfluoroheptanoic acid (PFHpA)	37.1	ng/L	1.73	5.00	32		116	67-130			
Perfluorohexane sulfonic acid (PFHxS)	27.9	ng/L	0.903	4.55	29.1		95.9	68-131			
Perfluorohexanoic acid (PFHxA)	33.6	ng/L	1.20	5.00	32		105	72-129			
Perfluorononane sulfonic acid (PFNS)	30.1	ng/L	0.496	4.80	30.7		98.1	70-132			
Perfluorononanoic acid (PFNA)	32.5	ng/L	0.870	5.00	32		102	75-131			
Perfluorooctane sulfonamide (PFOSAm)	40.2	ng/L	0.711	5.00	32		126	66-140			
Perfluorooctane sulfonic acid (PFOS)	31.6	ng/L	0.892	1.86	29.7		106	72-133			
Perfluorooctanoic acid (PFOA)	33.2	ng/L	0.630	2.00	32		104	71-133			
Perfluoropentane sulfonic acid (PFPeS)	26.4	ng/L	0.556	4.69	30		88.1	73-137			
Perfluoropentanoic acid (PFPeA)	38.6	ng/L	1.28	5.00	32		120	72-129			
Perfluorotetradecanoic acid (PFTDA)	33.9	ng/L	2.64	5.00	32		106	62-139			
Perfluorotridecanoic acid (PFTrDA)	42.6	ng/L	1.93	5.00	32		133	47-147			
Perfluoroundecanoic acid (PFUnDA)	34.0	ng/L	0.974	5.00	32		106	80-135			
Surr: 13C2-FtS 4:2	***119***	*ng/L*			149.44		79.8	*50-150*			
Surr: 13C2-FtS 6:2	***131***	*ng/L*			152		86.3	*50-150*			
Surr: 13C2-FtS 8:2	***129***	*ng/L*			153.28		84.1	*50-150*			
Surr: 13C2-PFDA	***131***	*ng/L*			160		81.7	*50-150*			
Surr: 13C2-PFDoA	***116***	*ng/L*			160		72.2	*50-150*			
Surr: 13C2-PFHxA	***136***	*ng/L*			160		85.2	*50-150*			
Surr: 13C2-PFTeA	***86.4***	*ng/L*			160		54.0	*27-134*			
Surr: 13C2-PFUnA	***127***	*ng/L*			160		79.6	*50-150*			
Surr: 13C3-HFPO-DA	***126***	*ng/L*			160		78.6	*41-142*			
Surr: 13C3-PFBS	***121***	*ng/L*			148.8		81.7	*50-150*			
Surr: 13C4-PFBA	***165***	*ng/L*			160		103	*50-150*			
Surr: 13C4-PFHpA	***128***	*ng/L*			160		79.7	*42-141*			
Surr: 13C4-PFOA	***140***	*ng/L*			160		87.4	*50-150*			
Surr: 13C4-PFOS	***126***	*ng/L*			152.8		82.3	*50-150*			
Surr: 13C5-PFNA	***143***	*ng/L*			160		89.6	*50-150*			
Surr: 13C5-PFPeA	***126***	*ng/L*			160		78.7	*43-138*			
Surr: 13C8-FOSA	***105***	*ng/L*			160		65.9	*30-122*			
Surr: 18O2-PFHxS	***145***	*ng/L*			151.2		96.0	*50-150*			
Surr: d3-N-MeFOSAA	***111***	*ng/L*			160		69.2	*35-136*			
Surr: d5-N-EtFOSAA	***117***	*ng/L*			160		73.3	*34-142*			

MS | **CLIENT ID: MichAve-MH3_101625** | **Lab ID: QC-2288042-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 19:41 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2288042	**Run ID:**	3612607

MS	**CLIENT ID: MichAve-MH3_101625**	**Lab ID: QC-2288042-005**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/21/25 19:41

Prep Date: 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	30.5	ng/L	0.441	4.44	28.404	<0.441	107	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	36.3	ng/L	1.07	4.52	28.97	<1.07	125	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	29.5	ng/L	0.883	4.41	28.215	<0.883	104	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	33.9	ng/L	1.81	4.38	28.592	<1.81	114	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	26.9	ng/L	0.530	4.44	28.404	<0.530	94.4	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	34.6	ng/L	0.423	4.40	28.121	<0.423	123	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	33.6	ng/L	1.10	4.72	30.197	<1.10	110	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	41.0	ng/L	1.46	4.72	30.197	<1.46	135	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	36.0	ng/L	0.608	4.72	30.197	<0.608	119	67-133			
Perfluorobutane sulfonic acid (PFBS)	32.5	ng/L	0.331	4.17	26.705	3.40	109	69-141			
Perfluorobutanoic acid (PFBA)	42.7	ng/L	2.45	4.72	30.197	8.53	113	73-139			
Perfluorodecane sulfonic acid (PFDS)	30.9	ng/L	1.29	4.55	29.064	<1.29	106	64-128			
Perfluorodecanoic acid (PFDA)	34.6	ng/L	1.17	4.72	30.197	<1.17	114	77-135			
Perfluorododecanoic acid (PFDOA)	36.7	ng/L	0.652	4.72	30.197	<0.652	121	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	28.9	ng/L	0.534	4.49	28.781	<0.534	99.6	70-137			
Perfluoroheptanoic acid (PFHpA)	33.9	ng/L	1.63	4.72	30.197	2.94	102	67-130			
Perfluorohexane sulfonic acid (PFHxS)	36.1	ng/L	0.852	4.29	27.46	4.30	116	68-131			
Perfluorohexanoic acid (PFHxA)	36.5	ng/L	1.13	4.72	30.197	3.75	108	72-129			
Perfluorononane sulfonic acid (PFNS)	32.2	ng/L	0.468	4.53	28.97	<0.468	110	70-132			
Perfluorononanoic acid (PFNA)	34.0	ng/L	0.821	4.72	30.197	<0.821	111	75-131			
Perfluorooctane sulfonamide (PFOSAm)	36.9	ng/L	0.671	4.72	30.197	<0.671	121	66-140			
Perfluorooctane sulfonic acid (PFOS)	40.5	ng/L	0.842	1.75	28.026	5.86	124	72-133			
Perfluorooctanoic acid (PFOA)	40.9	ng/L	0.594	1.89	30.197	6.69	113	71-133			
Perfluoropentane sulfonic acid (PFPeS)	28.4	ng/L	0.525	4.43	28.309	0.705	97.9	73-137			
Perfluoropentanoic acid (PFPeA)	40.4	ng/L	1.21	4.72	30.197	5.55	115	72-129			
Perfluorotetradecanoic acid (PFTDA)	31.5	ng/L	2.49	4.72	30.197	<2.49	104	62-139			
Perfluorotridecanoic acid (PFTrDA)	34.8	ng/L	1.82	4.72	30.197	<1.82	115	47-147			
Perfluoroundecanoic acid (PFUnDA)	35.2	ng/L	0.919	4.72	30.197	<0.919	116	80-135			
Surr: 13C2-FtS 4:2	***420***	*ng/L*			141.02		298	*50-150*			S
Surr: 13C2-FtS 6:2	***335***	*ng/L*			143.43		233	*50-150*			S
Surr: 13C2-FtS 8:2	***159***	*ng/L*			144.64		110	*50-150*			
Surr: 13C2-PFDA	***104***	*ng/L*			150.98		68.9	*50-150*			
Surr: 13C2-PFDoA	***99.5***	*ng/L*			150.98		65.9	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
QC Lot: 2288042

Work Order: HN2515540
Date Collected: NA
Date Received: NA
Run ID: 3612607

MS | **CLIENT ID: MichAve-MH3_101625** | **Lab ID: QC-2288042-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 19:41 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFHxA	***98.8***	*ng/L*			150.98		65.5	*50-150*			
Surr: 13C2-PFTeA	***113***	*ng/L*			150.98		74.5	*27-134*			
Surr: 13C2-PFUnA	***104***	*ng/L*			150.98		69.0	*50-150*			
Surr: 13C3-HFPO-DA	***107***	*ng/L*			150.98		71.2	*41-142*			
Surr: 13C3-PFBS	***101***	*ng/L*			140.41		72.1	*50-150*			
Surr: 13C4-PFBA	***114***	*ng/L*			150.98		75.6	*50-150*			
Surr: 13C4-PFHpA	***109***	*ng/L*			150.98		72.3	*42-141*			
Surr: 13C4-PFOA	***109***	*ng/L*			150.98		72.3	*50-150*			
Surr: 13C4-PFOS	***94.6***	*ng/L*			144.19		65.6	*50-150*			
Surr: 13C5-PFNA	***113***	*ng/L*			150.98		74.9	*50-150*			
Surr: 13C5-PFPeA	***96.8***	*ng/L*			150.98		64.1	*43-138*			
Surr: 13C8-FOSA	***92.1***	*ng/L*			150.98		61.0	*30-122*			
Surr: 18O2-PFHxS	***103***	*ng/L*			142.68		72.4	*50-150*			
Surr: d3-N-MeFOSAA	***98.9***	*ng/L*			150.98		65.5	*35-136*			
Surr: d5-N-EtFOSAA	***99.1***	*ng/L*			150.98		65.6	*34-142*			

MSD | **CLIENT ID: MichAve-MH3_101625** | **Lab ID: QC-2288042-006**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/21/25 19:55 | **Prep Date:** 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	28.4	ng/L	0.467	4.71	28.131	<0.467	101	61-128	7.29	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	36.3	ng/L	1.13	4.79	28.692	<1.13	127	61-148	0.226	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	31.2	ng/L	0.936	4.67	27.944	<0.936	111	67-143	5.55	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	37.1	ng/L	1.92	4.74	28.318	<1.92	126	66-151	9.00	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	26.5	ng/L	0.562	4.71	28.131	<0.562	94.1	74-135	1.31	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	31.3	ng/L	0.448	4.66	27.85	<0.448	112	69-133	10.0	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	30.9	ng/L	1.17	5.00	29.907	<1.17	102	65-139	8.34	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	39.6	ng/L	1.54	5.00	29.907	<1.54	131	67-140	3.52	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	34.4	ng/L	0.644	5.00	29.907	<0.644	115	67-133	4.70	30	
Perfluorobutane sulfonic acid (PFBS)	34.5	ng/L	0.351	4.42	26.449	3.40	118	69-141	6.04	30	
Perfluorobutanoic acid (PFBA)	42.2	ng/L	2.60	5.00	29.907	8.53	113	73-139	1.12	30	
Perfluorodecane sulfonic acid (PFDS)	30.4	ng/L	1.37	4.82	28.785	<1.37	105	64-128	1.81	30	
Perfluorodecanoic acid (PFDA)	33.7	ng/L	1.24	5.00	29.907	<1.24	112	77-135	2.73	30	
Perfluorododecanoic acid (PFDOA)	35.4	ng/L	0.691	5.00	29.907	<0.691	118	77-137	3.65	30	

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2288042	**Run ID:**	3612607

MSD	**CLIENT ID: MichAve-MH3_101625**	**Lab ID: QC-2288042-006**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/21/25 19:55

Prep Date: 10/21/25 16:22

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptane sulfonic acid (PFHpS)	32.0	ng/L	0.566	4.76	28.505	<0.566	112	70-137	10.4	30	
Perfluoroheptanoic acid (PFHpA)	36.8	ng/L	1.73	5.00	29.907	2.94	113	67-130	8.24	30	
Perfluorohexane sulfonic acid (PFHxS)	35.1	ng/L	0.903	4.55	27.196	4.30	113	68-131	2.97	30	
Perfluorohexanoic acid (PFHxA)	37.6	ng/L	1.20	5.00	29.907	3.75	113	72-129	2.94	30	
Perfluorononane sulfonic acid (PFNS)	30.4	ng/L	0.496	4.80	28.692	<0.496	105	70-132	5.82	30	
Perfluorononanoic acid (PFNA)	31.9	ng/L	0.870	5.00	29.907	<0.870	105	75-131	6.46	30	
Perfluorooctane sulfonamide (PFOSAm)	36.0	ng/L	0.711	5.00	29.907	<0.711	119	66-140	2.54	30	
Perfluorooctane sulfonic acid (PFOS)	38.7	ng/L	0.892	1.86	27.757	5.86	118	72-133	4.39	30	
Perfluorooctanoic acid (PFOA)	39.8	ng/L	0.630	2.00	29.907	6.69	111	71-133	2.66	30	
Perfluoropentane sulfonic acid (PFPeS)	29.3	ng/L	0.556	4.69	28.037	0.705	102	73-137	3.09	30	
Perfluoropentanoic acid (PFPeA)	43.7	ng/L	1.28	5.00	29.907	5.55	128	72-129	7.80	30	
Perfluorotetradecanoic acid (PFTDA)	31.7	ng/L	2.64	5.00	29.907	<2.64	106	62-139	0.640	30	
Perfluorotridecanoic acid (PFTrDA)	38.1	ng/L	1.93	5.00	29.907	<1.93	127	47-147	9.18	30	
Perfluoroundecanoic acid (PFUnDA)	34.8	ng/L	0.974	5.00	29.907	<0.974	116	80-135	0.931	30	
Surr: 13C2-FtS 4:2	***425***	*ng/L*			139.66		304	*50-150*	1.25	30	S
Surr: 13C2-FtS 6:2	***317***	*ng/L*			142.06		223	*50-150*	5.35	30	S
Surr: 13C2-FtS 8:2	***160***	*ng/L*			143.25		112	*50-150*	0.980	30	
Surr: 13C2-PFDA	***115***	*ng/L*			149.53		76.9	*50-150*	9.92	30	
Surr: 13C2-PFDoA	***107***	*ng/L*			149.53		71.3	*50-150*	6.86	30	
Surr: 13C2-PFHxA	***104***	*ng/L*			149.53		69.8	*50-150*	5.40	30	
Surr: 13C2-PFTeA	***109***	*ng/L*			149.53		72.8	*27-134*	3.25	30	
Surr: 13C2-PFUnA	***108***	*ng/L*			149.53		72.1	*50-150*	3.50	30	
Surr: 13C3-HFPO-DA	***108***	*ng/L*			149.53		72.1	*41-142*	0.360	30	
Surr: 13C3-PFBS	***99.7***	*ng/L*			139.07		71.7	*50-150*	1.43	30	
Surr: 13C4-PFBA	***123***	*ng/L*			149.53		81.9	*50-150*	7.11	30	
Surr: 13C4-PFHpA	***109***	*ng/L*			149.53		72.8	*42-141*	0.161	30	
Surr: 13C4-PFOA	***113***	*ng/L*			149.53		75.6	*50-150*	3.53	30	
Surr: 13C4-PFOS	***103***	*ng/L*			142.8		72.5	*50-150*	9.01	30	
Surr: 13C5-PFNA	***129***	*ng/L*			149.53		86.0	*50-150*	12.9	30	
Surr: 13C5-PFPeA	***94.2***	*ng/L*			149.53		63.0	*43-138*	2.78	30	
Surr: 13C8-FOSA	***92.1***	*ng/L*			149.53		61.6	*30-122*	0.0431	30	
Surr: 18O2-PFHxS	***110***	*ng/L*			141.31		77.8	*50-150*	6.21	30	
Surr: d3-N-MeFOSAA	***102***	*ng/L*			149.53		68.1	*35-136*	2.94	30	
Surr: d5-N-EtFOSAA	***103***	*ng/L*			149.53		69.0	*34-142*	4.01	30	

The following samples were analyzed in this batch: HN2515540-001, HN2515540-002, HN2515540-003, HN2515540-004, HN2515540-005, HN2515540-006, HN2515540-007

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2290637	**Run ID:**	3623407

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2290637-001**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/24/25 07:43

Prep Date: 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.467	ng/L	0.467	4.71							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.13	ng/L	1.13	4.79							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.936	ng/L	0.936	4.67							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.92	ng/L	1.92	4.74							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.562	ng/L	0.562	4.71							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.448	ng/L	0.448	4.66							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.17	ng/L	1.17	5.00							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.54	ng/L	1.54	5.00							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.644	ng/L	0.644	5.00							U
Perfluorobutane sulfonic acid (PFBS)	<0.351	ng/L	0.351	4.42							U
Perfluorobutanoic acid (PFBA)	<2.60	ng/L	2.60	5.00							U
Perfluorodecane sulfonic acid (PFDS)	<1.37	ng/L	1.37	4.82							U
Perfluorodecanoic acid (PFDA)	<1.24	ng/L	1.24	5.00							U
Perfluorododecanoic acid (PFDOA)	<0.691	ng/L	0.691	5.00							U
Perfluoroheptane sulfonic acid (PFHpS)	<0.566	ng/L	0.566	4.76							U
Perfluoroheptanoic acid (PFHpA)	<1.73	ng/L	1.73	5.00							U
Perfluorohexane sulfonic acid (PFHxS)	<0.903	ng/L	0.903	4.55							U
Perfluorohexanoic acid (PFHxA)	<1.20	ng/L	1.20	5.00							U
Perfluorononane sulfonic acid (PFNS)	<0.496	ng/L	0.496	4.80							U
Perfluorononanoic acid (PFNA)	<0.870	ng/L	0.870	5.00							U
Perfluorooctane sulfonamide (PFOSAm)	<0.711	ng/L	0.711	5.00							U
Perfluorooctane sulfonic acid (PFOS)	<0.892	ng/L	0.892	1.86							U
Perfluorooctanoic acid (PFOA)	<0.630	ng/L	0.630	2.00							U
Perfluoropentane sulfonic acid (PFPeS)	<0.556	ng/L	0.556	4.69							U
Perfluoropentanoic acid (PFPeA)	<1.28	ng/L	1.28	5.00							U
Perfluorotetradecanoic acid (PFTDA)	<2.64	ng/L	2.64	5.00							U
Perfluorotridecanoic acid (PFTrDA)	<1.93	ng/L	1.93	5.00							U
Perfluoroundecanoic acid (PFUnDA)	<0.974	ng/L	0.974	5.00							U
Surr: 13C2-FtS 4:2	***127***	*ng/L*			149.44		85.0	*50-150*			
Surr: 13C2-FtS 6:2	***120***	*ng/L*			152		79.2	*50-150*			
Surr: 13C2-FtS 8:2	***134***	*ng/L*			153.28		87.3	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: WATER
QC Lot: 2290637

Work Order: HN2515540
Date Collected: NA
Date Received: NA
Run ID: 3623407

MB | **CLIENT ID: Method Blank** | **Lab ID: QC-2290637-001**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/24/25 07:43 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	***145***	*ng/L*			160		90.4	*50-150*			
Surr: 13C2-PFDoA	***138***	*ng/L*			160		86.1	*50-150*			
Surr: 13C2-PFHxA	***149***	*ng/L*			160		93.0	*50-150*			
Surr: 13C2-PFTeA	***84.9***	*ng/L*			160		53.1	*27-134*			
Surr: 13C2-PFUnA	***145***	*ng/L*			160		90.9	*50-150*			
Surr: 13C3-HFPO-DA	***130***	*ng/L*			160		81.0	*41-142*			
Surr: 13C3-PFBS	***122***	*ng/L*			148.8		81.8	*50-150*			
Surr: 13C4-PFBA	***154***	*ng/L*			160		96.5	*50-150*			
Surr: 13C4-PFHpA	***129***	*ng/L*			160		80.4	*42-141*			
Surr: 13C4-PFOA	***154***	*ng/L*			160		96.0	*50-150*			
Surr: 13C4-PFOS	***135***	*ng/L*			152.8		88.5	*50-150*			
Surr: 13C5-PFNA	***152***	*ng/L*			160		94.7	*50-150*			
Surr: 13C5-PFPeA	***130***	*ng/L*			160		81.3	*43-138*			
Surr: 13C8-FOSA	***119***	*ng/L*			160		74.2	*30-122*			
Surr: 18O2-PFHxS	***133***	*ng/L*			151.2		88.3	*50-150*			
Surr: d3-N-MeFOSAA	***116***	*ng/L*			160		72.4	*35-136*			
Surr: d5-N-EtFOSAA	***114***	*ng/L*			160		71.3	*34-142*			

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2290637-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/24/25 07:57 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	31.7	ng/L	1.13	4.79	30.7		103	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	32.8	ng/L	0.936	4.67	29.9		110	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	33.3	ng/L	1.92	4.74	30.3		110	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	26.3	ng/L	0.562	4.71	30.1		87.3	74-135			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	33.8	ng/L	1.17	5.00	32		105	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	34.0	ng/L	1.54	5.00	32		106	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	35.3	ng/L	0.644	5.00	32		110	67-133			
Perfluorobutane sulfonic acid (PFBS)	31.4	ng/L	0.351	4.42	28.3		111	69-131			
Perfluorobutanoic acid (PFBA)	32.3	ng/L	2.60	5.00	32		101	73-139			
Perfluorodecanoic acid (PFDA)	31.6	ng/L	1.24	5.00	32		98.8	77-135			
Perfluorododecanoic acid (PFDOA)	32.4	ng/L	0.691	5.00	32		101	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	33.8	ng/L	0.566	4.76	30.5		111	70-137			
Perfluoroheptanoic acid (PFHpA)	33.7	ng/L	1.73	5.00	32		105	67-130			

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2290637	**Run ID:**	3623407

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2290637-002**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/24/25 07:57

Prep Date: 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	27.3	ng/L	0.903	4.55	29.1		93.7	68-131			
Perfluorohexanoic acid (PFHxA)	30.8	ng/L	1.20	5.00	32		96.3	72-129			
Perfluorononanoic acid (PFNA)	30.4	ng/L	0.870	5.00	32		94.9	75-131			
Perfluorooctane sulfonamide (PFOSAm)	37.0	ng/L	0.711	5.00	32		116	66-140			
Perfluorooctanoic acid (PFOA)	30.6	ng/L	0.630	2.00	32		95.8	71-133			
Perfluoropentane sulfonic acid (PFPeS)	30.5	ng/L	0.556	4.69	30		102	73-137			
Perfluoropentanoic acid (PFPeA)	34.0	ng/L	1.28	5.00	32		106	72-129			
Perfluorotetradecanoic acid (PFTDA)	38.9	ng/L	2.64	5.00	32		122	62-139			
Perfluorotridecanoic acid (PFTrDA)	45.8	ng/L	1.93	5.00	32		143	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.5	ng/L	0.974	5.00	32		98.6	80-135			
Surr: 13C2-FtS 4:2	***128***	*ng/L*			149.44		85.9	*50-150*			
Surr: 13C2-FtS 6:2	***149***	*ng/L*			152		97.9	*50-150*			
Surr: 13C2-FtS 8:2	***129***	*ng/L*			153.28		83.8	*50-150*			
Surr: 13C2-PFDA	***137***	*ng/L*			160		85.9	*50-150*			
Surr: 13C2-PFDoA	***94.5***	*ng/L*			160		59.1	*50-150*			
Surr: 13C2-PFHxA	***149***	*ng/L*			160		92.9	*50-150*			
Surr: 13C2-PFTeA	***57.6***	*ng/L*			160		36.0	*27-134*			
Surr: 13C2-PFUnA	***131***	*ng/L*			160		81.8	*50-150*			
Surr: 13C3-HFPO-DA	***139***	*ng/L*			160		86.9	*41-142*			
Surr: 13C3-PFBS	***129***	*ng/L*			148.8		86.8	*50-150*			
Surr: 13C4-PFBA	***157***	*ng/L*			160		98.0	*50-150*			
Surr: 13C4-PFHpA	***142***	*ng/L*			160		88.5	*42-141*			
Surr: 13C4-PFOA	***153***	*ng/L*			160		95.6	*50-150*			
Surr: 13C5-PFNA	***152***	*ng/L*			160		94.8	*50-150*			
Surr: 13C5-PFPeA	***139***	*ng/L*			160		86.8	*43-138*			
Surr: 13C8-FOSA	***125***	*ng/L*			160		78.3	*30-122*			
Surr: 18O2-PFHxS	***133***	*ng/L*			151.2		87.8	*50-150*			
Surr: d3-N-MeFOSAA	***97.0***	*ng/L*			160		60.6	*35-136*			
Surr: d5-N-EtFOSAA	***105***	*ng/L*			160		65.3	*34-142*			

The following samples were analyzed in this batch: HN2515540-008, HN2515540-009, HN2515540-010

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/15/25 16:00
Matrix:	GROUNDWATER	**Date Received:**	10/18/25 11:00
QC Lot:	2290637	**Run ID:**	3629486

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2290637-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/25/25 16:18 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	26.2	ng/L	0.477	4.81	30.742	<0.477	85.1	61-128			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	33.8	ng/L	1.15	4.89	31.355	<1.15	108	61-148			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	34.3	ng/L	0.956	4.77	30.538	<0.956	112	67-143			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	36.2	ng/L	1.96	4.74	30.946	<1.96	111	66-151			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	29.6	ng/L	0.574	4.81	30.742	<0.574	96.2	74-135			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	28.1	ng/L	0.458	4.76	30.435	<0.458	92.2	69-133			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	32.0	ng/L	1.19	5.11	32.682	<1.19	96.9	65-139			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	37.5	ng/L	1.58	5.11	32.682	<1.58	114	67-140			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	30.7	ng/L	0.658	5.11	32.682	<0.658	93.6	67-133			
Perfluorobutane sulfonic acid (PFBS)	31.3	ng/L	0.358	4.51	28.904	<0.358	108	69-141			
Perfluorobutanoic acid (PFBA)	32.8	ng/L	2.66	5.11	32.682	<2.66	99.3	73-139			
Perfluorodecane sulfonic acid (PFDS)	25.8	ng/L	1.40	4.92	31.457	<1.40	81.9	64-128			
Perfluorodecanoic acid (PFDA)	30.7	ng/L	1.27	5.11	32.682	<1.27	93.5	77-135			
Perfluorododecanoic acid (PFDOA)	32.7	ng/L	0.706	5.11	32.682	<0.706	99.9	77-137			
Perfluoroheptane sulfonic acid (PFHpS)	30.8	ng/L	0.578	4.86	31.15	<0.578	98.8	70-137			
Perfluoroheptanoic acid (PFHpA)	32.8	ng/L	1.77	5.11	32.682	<1.77	99.8	67-130			
Perfluorohexane sulfonic acid (PFHxS)	29.6	ng/L	0.922	4.65	29.721	<0.922	97.5	68-131			
Perfluorohexanoic acid (PFHxA)	33.3	ng/L	1.23	5.11	32.682	<1.23	101	72-129			
Perfluorononane sulfonic acid (PFNS)	25.2	ng/L	0.507	4.90	31.355	<0.507	80.4	70-132			
Perfluorononanoic acid (PFNA)	30.1	ng/L	0.889	5.11	32.682	<0.889	91.6	75-131			
Perfluorooctane sulfonamide (PFOSAm)	35.0	ng/L	0.726	5.11	32.682	<0.726	107	66-140			
Perfluorooctane sulfonic acid (PFOS)	30.0	ng/L	0.911	1.90	30.333	<0.911	98.0	72-133			
Perfluorooctanoic acid (PFOA)	30.1	ng/L	0.643	2.04	32.682	<0.643	91.1	71-133			
Perfluoropentane sulfonic acid (PFPeS)	30.5	ng/L	0.568	4.79	30.64	<0.568	99.6	73-137			
Perfluoropentanoic acid (PFPeA)	36.8	ng/L	1.31	5.11	32.682	<1.31	112	72-129			
Perfluorotetradecanoic acid (PFTDA)	34.4	ng/L	2.70	5.11	32.682	<2.70	105	62-139			
Perfluorotridecanoic acid (PFTrDA)	33.2	ng/L	1.97	5.11	32.682	<1.97	101	47-147			
Perfluoroundecanoic acid (PFUnDA)	31.7	ng/L	0.995	5.11	32.682	<0.995	96.6	80-135			
Surr: 13C2-FtS 4:2	***154***	*ng/L*			152.63		101	*50-150*			
Surr: 13C2-FtS 6:2	***154***	*ng/L*			155.24		99.4	*50-150*			
Surr: 13C2-FtS 8:2	***149***	*ng/L*			156.55		94.9	*50-150*			

QA/QC Report

Client: Arcadis US, Inc.
Project: RACER Lansing 2025
Matrix: GROUNDWATER
QC Lot: 2290637

Work Order: HN2515540
Date Collected: 10/15/25 16:00
Date Received: 10/18/25 11:00
Run ID: 3629486

MS | **CLIENT ID: Batch QC** | **Lab ID: QC-2290637-005**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/25/25 16:18 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	***148***	*ng/L*			163.41		90.5	*50-150*			
Surr: 13C2-PFDoA	***137***	*ng/L*			163.41		83.7	*50-150*			
Surr: 13C2-PFHxA	***151***	*ng/L*			163.41		92.6	*50-150*			
Surr: 13C2-PFTeA	***134***	*ng/L*			163.41		81.8	*27-134*			
Surr: 13C2-PFUnA	***146***	*ng/L*			163.41		89.5	*50-150*			
Surr: 13C3-HFPO-DA	***148***	*ng/L*			163.41		90.7	*41-142*			
Surr: 13C3-PFBS	***135***	*ng/L*			151.97		89.1	*50-150*			
Surr: 13C4-PFBA	***173***	*ng/L*			163.41		106	*50-150*			
Surr: 13C4-PFHpA	***149***	*ng/L*			163.41		91.4	*42-141*			
Surr: 13C4-PFOA	***156***	*ng/L*			163.41		95.2	*50-150*			
Surr: 13C4-PFOS	***142***	*ng/L*			156.06		91.0	*50-150*			
Surr: 13C5-PFNA	***149***	*ng/L*			163.41		91.0	*50-150*			
Surr: 13C5-PFPeA	***142***	*ng/L*			163.41		87.0	*43-138*			
Surr: 13C8-FOSA	***136***	*ng/L*			163.41		83.1	*30-122*			
Surr: 18O2-PFHxS	***136***	*ng/L*			154.42		88.2	*50-150*			
Surr: d3-N-MeFOSAA	***123***	*ng/L*			163.41		75.2	*35-136*			
Surr: d5-N-EtFOSAA	***131***	*ng/L*			163.41		80.3	*34-142*			

DUP | **CLIENT ID: Batch QC** | **Lab ID: QC-2290637-007**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/25/25 16:47 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<0.454	ng/L	0.454	4.57		<0.461			1.70	30	U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<1.10	ng/L	1.10	4.65		<1.12			1.70	30	U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<0.909	ng/L	0.909	4.54		<0.925			NC		U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<1.86	ng/L	1.86	4.51		<1.90			NC		U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<0.546	ng/L	0.546	4.57		<0.555			1.70	30	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<0.435	ng/L	0.435	4.53		<0.443			NC		U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<1.14	ng/L	1.14	4.86		<1.16					U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<1.50	ng/L	1.50	4.86		<1.53					U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<0.625	ng/L	0.625	4.86		<0.636					U
Perfluorobutane sulfonic acid (PFBS)	<0.341	ng/L	0.341	4.29		<0.347			NC		U
Perfluorobutanoic acid (PFBA)	<2.53	ng/L	2.53	4.86		<2.57					U
Perfluorodecane sulfonic acid (PFDS)	<1.33	ng/L	1.33	4.68		<1.35			1.70	30	U

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	10/15/25 16:00
Matrix:	GROUNDWATER	**Date Received:**	10/18/25 11:00
QC Lot:	2290637	**Run ID:**	3629486

DUP | **CLIENT ID: Batch QC** | **Lab ID: QC-2290637-007**

Method: EPA 537Mod | **Dilution:** 1 | **Analysis Date:** 10/25/25 16:47 | **Prep Date:** 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	<1.20	ng/L	1.20	4.86		<1.22					U
Perfluorododecanoic acid (PFDOA)	<0.671	ng/L	0.671	4.86		<0.683					U
Perfluoroheptane sulfonic acid (PFHpS)	<0.550	ng/L	0.550	4.62		<0.559			1.70	30	U
Perfluoroheptanoic acid (PFHpA)	<1.68	ng/L	1.68	4.86		<1.71					U
Perfluorohexane sulfonic acid (PFHxS)	<0.877	ng/L	0.877	4.42		<0.892			NC		U
Perfluorohexanoic acid (PFHxA)	<1.17	ng/L	1.17	4.86		<1.19					U
Perfluorononane sulfonic acid (PFNS)	<0.482	ng/L	0.482	4.66		<0.490			1.70	30	U
Perfluorononanoic acid (PFNA)	<0.845	ng/L	0.845	4.86		<0.859					U
Perfluorooctane sulfonamide (PFOSAm)	<0.691	ng/L	0.691	4.86		<0.702					U
Perfluorooctane sulfonic acid (PFOS)	<0.866	ng/L	0.866	1.80		<0.881			1.70	30	U
Perfluorooctanoic acid (PFOA)	<0.612	ng/L	0.612	1.94		<0.622			NC		U
Perfluoropentane sulfonic acid (PFPeS)	<0.540	ng/L	0.540	4.56		<0.549			NC		U
Perfluoropentanoic acid (PFPeA)	<1.24	ng/L	1.24	4.86		<1.26					U
Perfluorotetradecanoic acid (PFTDA)	<2.56	ng/L	2.56	4.86		<2.61					U
Perfluorotridecanoic acid (PFTrDA)	<1.88	ng/L	1.88	4.86		<1.91					U
Perfluoroundecanoic acid (PFUnDA)	<0.946	ng/L	0.946	4.86		<0.962					U
Surr: 13C2-FtS 4:2	***115***	*ng/L*			149.44		79.4	*50-150*	2.36	30	
Surr: 13C2-FtS 6:2	***133***	*ng/L*			152		90.1	*50-150*	0.994	30	
Surr: 13C2-FtS 8:2	***127***	*ng/L*			153.28		85.6	*50-150*	6.99	30	
Surr: 13C2-PFDA	***131***	*ng/L*			160		84.0	*50-150*	0.358	30	
Surr: 13C2-PFDoA	***101***	*ng/L*			160		64.9	*50-150*	15.8	30	
Surr: 13C2-PFHxA	***133***	*ng/L*			160		85.3	*50-150*	2.55	30	
Surr: 13C2-PFTeA	***60.0***	*ng/L*			160		38.6	*27-134*	5.59	30	
Surr: 13C2-PFUnA	***125***	*ng/L*			160		80.3	*50-150*	6.51	30	
Surr: 13C3-HFPO-DA	***138***	*ng/L*			160		88.6	*41-142*	0.452	30	
Surr: 13C3-PFBS	***122***	*ng/L*			148.8		84.4	*50-150*	0.356	30	
Surr: 13C4-PFBA	***164***	*ng/L*			160		105	*50-150*	3.74	30	
Surr: 13C4-PFHpA	***133***	*ng/L*			160		85.9	*42-141*	0.349	30	
Surr: 13C4-PFOA	***129***	*ng/L*			160		83.0	*50-150*	8.76	30	
Surr: 13C4-PFOS	***126***	*ng/L*			152.8		84.7	*50-150*	4.84	30	
Surr: 13C5-PFNA	***131***	*ng/L*			160		84.3	*50-150*	2.69	30	
Surr: 13C5-PFPeA	***128***	*ng/L*			160		82.2	*43-138*	2.88	30	
Surr: 13C8-FOSA	***125***	*ng/L*			160		80.6	*30-122*	1.37	30	
Surr: 18O2-PFHxS	***132***	*ng/L*			151.2		89.8	*50-150*	2.25	30	
Surr: d3-N-MeFOSAA	***107***	*ng/L*			160		68.7	*35-136*	0.581	30	
Surr: d5-N-EtFOSAA	***112***	*ng/L*			160		71.8	*34-142*	3.83	30	

The following samples were analyzed in this batch: HN2515540-008, HN2515540-009, HN2515540-010

QA/QC Report

Client:	Arcadis US, Inc.	**Work Order:**	HN2515540
Project:	RACER Lansing 2025	**Date Collected:**	NA
Matrix:	WATER	**Date Received:**	NA
QC Lot:	2290637	**Run ID:**	3631440

Per- and Polyfluorinated Alkyl Substances by LC-MS

LCS | **CLIENT ID: Laboratory Control Sample** | **Lab ID: QC-2290637-002**

Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 10/25/25 09:19

Prep Date: 10/22/25 16:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	20.5	ng/L	0.467	4.71	30.1		68.1	61-128			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	28.2	ng/L	0.448	4.66	29.8		94.5	69-133			
Perfluorodecane sulfonic acid (PFDS)	21.0	ng/L	1.37	4.82	30.8		68.1	64-128			
Perfluorononane sulfonic acid (PFNS)	25.2	ng/L	0.496	4.80	30.7		82.2	70-132			
Perfluorooctane sulfonic acid (PFOS)	31.0	ng/L	0.892	1.86	29.7		104	72-133			
Surr: 13C4-PFOS	***126***	*ng/L*			152.8		82.6	*50-150*			

The following samples were analyzed in this batch: HN2515540-008, HN2515540-009, HN2515540-010

Appendix C-1

Low-Flow Groundwater Sampling Logs

Groundwater Sampling Form

ARCADIS

Project Number	30267725	**Well ID**	MW-12-21			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	45.0 degrees F and Clear. The wind is blowing N at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.58	**Total Depth (ft-bmp)**	78.1	**Water Column (ft)**	11.52	**Gallons in Well**	1.87
Purge Start	09:55	**Pump Intake (ft-bmp)**	75.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:30	**Volumes Purged**	0.49	**Sample ID**	MW-12-21_050925	**Sampled by**	Billy Cobern
Sample Time	10:30	**Gallons Purged**	0.92	**Replicate/ Code No.**	MW-12-21_050925	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:00	0	0	100	66.90	0.13	6.88	1.82	44	1.59	13.8	-76.3	Clear	None
10:05	5	5	100	66.90	0.26	6.88	1.82	33.2	0.85	13.8	-79.9	Clear	None
10:10	5	10	100	66.90	0.40	6.88	1.82	27.7	0.65	14	-80.8	Clear	None
10:15	5	15	100	66.90	0.53	6.88	1.82	17.6	0.63	14	-81.4	Clear	None
10:20	5	20	100	66.90	0.66	6.88	1.81	17.7	0.54	14.4	-81.9	Clear	None
10:25	5	25	100	66.90	0.79	6.88	1.81	17.4	0.57	14.5	-83.7	Clear	None
10:30	5	30	100	66.90	0.92	6.89	1.8	17.9	0.56	14.6	-85.5	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	9	HCL

Comments: Used historical total depth.

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: Plant 3
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

Project Number	30267725	**Well ID**	MW-13-22			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	37.9 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	70.35	**Total Depth (ft-bmp)**	96.15	**Water Column (ft)**	25.80	**Gallons in Well**	4.19
Purge Start	08:45	**Pump Intake (ft-bmp)**	93.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	09:30	**Volumes Purged**	0.28	**Sample ID**	MW-13-22_050925	**Sampled by**	Billy Cobern
Sample Time	09:30	**Gallons Purged**	1.19	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:50	0	0	100	70.66	0.13	6.94	1.93	38.7	4.83	12.4	194.8	Clear	None
08:55	5	5	100	70.66	0.26	6.94	1.94	49.4	3.94	12.1	190.8	Clear	None
09:00	5	10	100	70.66	0.40	6.94	1.95	33.6	3.07	11.9	174.8	Clear	None
09:05	5	15	100	70.66	0.53	6.94	1.94	27.8	3.94	12	162.3	Clear	None
09:10	5	20	100	70.66	0.66	6.93	1.94	27.6	2.91	12.4	148.2	Clear	None
09:15	5	25	100	70.66	0.79	6.93	1.93	20.8	1.94	12.7	141.1	Clear	None
09:20	5	30	100	70.66	0.92	6.93	1.94	16.9	3.08	12.8	137	Clear	None
09:25	5	35	100	70.66	1.06	6.92	1.94	16.5	3.14	12.8	133.2	Clear	None
09:30	5	40	100	70.66	1.19	6.92	1.94	16.7	3.01	12.9	131.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth.

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: Plant 3
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

Project Number	30267725	**Well ID**	MW-13-29			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	52.0 degrees F and Light Rain and Fog/Mist. The wind is blowing NW at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	64.75	**Total Depth (ft-bmp)**	76.3	**Water Column (ft)**	11.55	**Gallons in Well**	1.88
Purge Start	10:00	**Pump Intake (ft-bmp)**	74	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:55	**Volumes Purged**	0.77	**Sample ID**	MW-13-29_050625	**Sampled by**	Billy Cobern
Sample Time	10:55	**Gallons Purged**	1.45	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:00	0	0	0	64.75	0.00	0	0	0	0	0	0	Clear	None
10:05	5	5	100	64.95	0.13	6.78	3.15	23.2	3.45	13.1	48.6	Clear	None
10:10	5	10	100	64.95	0.26	6.62	3.16	16.8	8.11	13	47.3	Clear	None
10:15	5	15	100	64.95	0.40	6.53	3.15	14.9	0.81	13	46.6	Clear	None
10:20	5	20	100	64.95	0.53	6.43	3.16	12.8	3.22	12.9	45.3	Clear	None
10:25	5	25	100	64.95	0.66	6.34	3.15	10.8	0.13	12.9	44.7	Clear	None
10:30	5	30	100	64.95	0.79	6.34	3.15	9.62	0.17	12.9	44.2	Clear	None
10:35	5	35	100	64.95	0.92	6.35	3.14	9.06	1.02	12.9	41.7	Clear	None
10:40	5	40	100	64.95	1.06	6.36	3.15	8.78	1.01	12.9	40.4	Clear	None
10:45	5	45	100	64.95	1.19	6.37	3.15	8.56	0.91	13	41.2	Clear	None
10:50	5	50	100	64.95	1.32	6.37	3.14	8.31	0.94	12.9	41.6	Clear	None
10:55	5	55	100	64.95	1.45	6.37	3.14	7.98	0.89	13	41.6	Clear	None

Constituent Sampled	Container	Number	Preservative
TKN/T. Phosphorus	125 mL Plastic	1	H2SO4
Nitrate	250 mL Plastic	1	None
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 3

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

Project Number	30267725	**Well ID**	MW-13-34			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	53.1 degrees F and Clear. The wind is blowing NE at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.38	**Total Depth (ft-bmp)**	79.9	**Water Column (ft)**	13.52	**Gallons in Well**	2.20
Purge Start	11:20	**Pump Intake (ft-bmp)**	77.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	12:20	**Volumes Purged**	0.72	**Sample ID**	MW-13-34_050925	**Sampled by**	Billy Cobern
Sample Time	12:20	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:25	0	0	100	66.68	0.13	7.02	2.55	19.9	2.26	16.3	-89.2	Clear	None
11:30	5	5	100	66.68	0.26	7.02	2.56	17.6	0.88	16.3	-89.3	Clear	None
11:35	5	10	100	66.68	0.40	7.02	2.56	17.7	2.98	16.5	-89.4	Clear	None
11:40	5	15	100	66.68	0.53	7.02	2.56	12.2	2	16.6	-90	Clear	None
11:45	5	20	100	66.68	0.66	7.02	2.56	13.6	1.09	16.7	-90	Clear	None
11:50	5	25	100	66.68	0.79	7.02	2.55	10.3	0.77	16.7	-90.2	Clear	None
11:55	5	30	100	66.68	0.92	7.02	2.56	9.6	0.97	16.7	-90.2	Clear	None
12:00	5	35	100	66.68	1.06	7.02	2.56	9.34	0.98	16.8	-90.5	Clear	None
12:05	5	40	100	66.68	1.19	7.02	2.56	8.78	1.21	16.8	-90.5	Clear	None
12:10	5	45	100	66.68	1.32	7.02	2.56	8.67	0.9	17.1	-91.3	Clear	None
12:15	5	50	100	66.68	1.45	7.01	2.58	8.34	0.87	17.1	-91.9	Clear	None
12:20	5	55	100	66.68	1.59	7.03	2.59	8.12	0.86	17.1	-92.7	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth.

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: Plant 3
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

Project Number	30267725	**Well ID**	MW-13-43			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	68.20	**Total Depth (ft-bmp)**	76.72	**Water Column (ft)**	8.52	**Gallons in Well**	1.38
Purge Start	09:50	**Pump Intake (ft-bmp)**	74.22	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:50	**Volumes Purged**	1.72	**Sample ID**	MW-13-43_050725	**Sampled by**	Donald Richmond
Sample Time	10:40	**Gallons Purged**	2.38	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:05	0	0	200	68.20	0.79	6.87	2.3	76.3	4.54	17.2	172.4	Clear	None
10:10	5	5	200	68.20	1.06	6.89	2.39	194	3.05	17.2	176.9	Clear	None
10:15	5	10	200	68.20	1.32	6.87	2.41	247	2.96	17.4	180.3	Clear	None
10:20	5	15	200	68.20	1.59	6.85	2.43	261	2.91	17.7	184.9	Clear	None
10:25	5	20	200	68.20	1.85	6.83	2.44	279	2.87	17.9	187.8	Clear	None
10:30	5	25	200	68.20	2.11	6.82	2.44	267	2.58	17.8	190.8	Clear	None
10:35	5	30	200	68.20	2.38	6.81	2.45	258	2.69	18	192.9	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2

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

Project Number	30267725	**Well ID**	MW-13-45			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.05	**Total Depth (ft-bmp)**	78.32	**Water Column (ft)**	11.27	**Gallons in Well**	1.83
Purge Start	11:25	**Pump Intake (ft-bmp)**	75.82	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	12:35	**Volumes Purged**	1.59	**Sample ID**	MW-13-45_050725	**Sampled by**	Donald Richmond
Sample Time	12:25	**Gallons Purged**	2.91	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:35	0	0	200	67.05	0.53	6.82	1	14.1	2.36	18	215.3	Clear	None
11:40	5	5	200	67.05	0.79	6.74	1.06	2	0.95	17.8	208	Clear	None
11:45	5	10	200	67.05	1.06	6.7	1.09	1.18	0.72	17	192.4	Clear	None
11:50	5	15	200	67.05	1.32	6.63	1.18	34.8	0.51	17.3	78.8	Clear	None
11:55	5	20	200	67.05	1.59	6.61	1.26	32.4	0.48	17.5	55.2	Clear	None
12:00	5	25	200	67.05	1.85	6.58	1.31	22.6	0.46	17.8	22.5	Clear	None
12:05	5	30	200	67.05	2.11	6.57	1.31	19.6	0.45	17.8	17.3	Clear	None
12:10	5	35	200	67.05	2.38	6.57	1.31	16.5	0.44	17.6	10.5	Clear	None
12:15	5	40	200	67.05	2.64	6.57	1.31	12.6	0.42	17.5	5.1	Clear	None
12:20	5	45	200	67.05	2.91	6.57	1.32	9.99	0.4	17.8	0.1	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-13-48			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	56.82	**Total Depth (ft-bmp)**	73.02	**Water Column (ft)**	16.20	**Gallons in Well**	2.63
Purge Start	11:55	**Pump Intake (ft-bmp)**	70.52	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:00	**Volumes Purged**	1.11	**Sample ID**	MW-13-48_050925	**Sampled by**	Donald Richmond
Sample Time	12:55	**Gallons Purged**	2.91	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:05	0	0	200	56.82	0.53	6.6	2.38	40.4	0.28	15.6	478	Clear	None
12:10	5	5	200	56.82	0.79	6.58	2.41	50.9	0.23	15.7	448	Clear	None
12:15	5	10	200	56.82	1.06	6.54	2.51	20.9	0.25	15.8	156.9	Clear	None
12:20	5	15	200	56.82	1.32	6.54	2.52	15.4	0.24	15.8	86	Clear	None
12:25	5	20	200	56.82	1.59	6.53	2.57	17.9	0.23	15.8	54	Clear	None
12:30	5	25	200	56.82	1.85	6.52	2.66	13.7	0.21	15.9	36.3	Clear	None
12:35	5	30	200	56.82	2.11	6.52	2.74	14.4	0.22	16.1	21.6	Clear	None
12:40	5	35	200	56.82	2.38	6.51	2.79	11.1	0.21	16.1	10.7	Clear	None
12:45	5	40	200	56.82	2.64	6.51	2.82	9.11	0.22	16.1	3.6	Clear	None
12:50	5	45	200	56.82	2.91	6.51	2.84	6.13	0.23	16.2	-2.3	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 3
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

Project Number	30267725	**Well ID**	MW-14-61			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.71	**Total Depth (ft-bmp)**	77.25	**Water Column (ft)**	9.54	**Gallons in Well**	1.55
Purge Start	13:10	**Pump Intake (ft-bmp)**	74.75	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	14:10	**Volumes Purged**	1.54	**Sample ID**	MW-14-61_050725	**Sampled by**	Donald Richmond
Sample Time	14:00	**Gallons Purged**	2.38	**Replicate/ Code No.**	DUP-02_050725	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:25	0	0	200	67.05	0.79	6.9	3.08	55.3	1.35	20.7	86.4	Clear	None
13:30	5	5	200	67.05	1.06	6.89	3.13	54.2	0.67	21.1	88.3	Clear	None
13:35	5	10	200	67.05	1.32	6.88	3.06	41.7	0.54	19.9	90.3	Clear	None
13:40	5	15	200	67.05	1.59	6.88	3.09	36	0.5	20.9	92	Clear	None
13:45	5	20	200	67.05	1.85	6.85	3.15	28.7	0.39	21.3	97	Clear	None
13:50	5	25	200	67.05	2.11	6.85	3.16	27.1	0.38	21.5	98.7	Clear	None
13:55	5	30	200	67.05	2.38	6.85	3.18	28.5	0.34	21	101.6	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	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: Plant 2

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

Project Number	30267725	**Well ID**	MW-15-72			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	57.36	**Total Depth (ft-bmp)**	70.25	**Water Column (ft)**	12.89	**Gallons in Well**	2.09
Purge Start	15:50	**Pump Intake (ft-bmp)**	68.25	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	16:30	**Volumes Purged**	0.76	**Sample ID**	MW-15-72_050725	**Sampled by**	Donald Richmond
Sample Time	16:25	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:00	0	0	200	57.36	0.53	6.74	1.07	29.9	1.1	18.5	6.7	Clear	None
16:05	5	5	200	57.36	0.79	6.76	1.08	33.3	0.64	18.7	-23.5	Clear	None
16:10	5	10	200	57.36	1.06	6.75	1.09	28.5	0.47	18.5	-28.5	Clear	None
16:15	5	15	200	57.36	1.32	6.75	1.08	27.6	0.43	17.9	-31.3	Clear	None
16:20	5	20	200	57.36	1.59	6.75	1.09	24.6	0.4	18.7	-34.6	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-74			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.20	**Total Depth (ft-bmp)**	73.67	**Water Column (ft)**	7.47	**Gallons in Well**	1.21
Purge Start	14:40	**Pump Intake (ft-bmp)**	71.17	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	15:30	**Volumes Purged**	1.53	**Sample ID**	MW-16-74_050725	**Sampled by**	Donald Richmond
Sample Time	15:20	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:50	0	0	200	66.20	0.53	6.62	2.48	79.5	1.13	21.8	92.7	Clear	None
14:55	5	5	200	66.20	0.79	6.62	2.47	39.6	0.71	21.1	42.4	Clear	None
15:00	5	10	200	66.20	1.06	6.61	2.5	37.9	0.59	21.2	25.4	Clear	None
15:05	5	15	200	66.20	1.32	6.62	2.5	33.8	0.52	21.3	11.9	Clear	None
15:10	5	20	200	66.20	1.59	6.61	2.5	32.9	0.51	21.5	7.9	Clear	None
15:15	5	25	200	66.20	1.85	6.62	2.4	30.6	0.46	19.3	3	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-75			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	62.67	**Total Depth (ft-bmp)**	74.09	**Water Column (ft)**	11.42	**Gallons in Well**	1.86
Purge Start	09:15	**Pump Intake (ft-bmp)**	71.59	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:35	**Volumes Purged**	1.84	**Sample ID**	MW-16-75_050825	**Sampled by**	Donald Richmond
Sample Time	10:25	**Gallons Purged**	3.43	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:30	0	0	200	62.67	0.79	7.05	1.36		2.27	12.1	63.5	Clear	None
09:35	5	5	200	62.67	1.06	6.99	1.38	106	1.27	12.5	36.2	Clear	None
09:40	5	10	200	62.67	1.32	6.99	1.36	108	1.35	11.9	26.3	Clear	None
09:45	5	15	200	62.67	1.59	6.96	1.37	108	0.69	11.9	12.4	Clear	None
09:50	5	20	200	62.67	1.85	6.96	1.38	78.3	0.71	12.3	-4.2	Clear	None
09:55	5	25	200	62.67	2.11	6.95	1.39	65.4	0.63	12.4	-9.3	Clear	None
10:00	5	30	200	62.67	2.38	6.95	1.39	60.7	0.63	12.5	-12.5	Clear	None
10:05	5	35	200	62.67	2.64	6.95	1.39	51.4	0.61	12.5	-18.8	Clear	None
10:10	5	40	200	62.67	2.91	6.94	1.4	36.3	0.55	12.7	-24.9	Clear	None
10:15	5	45	200	62.67	3.17	6.94	1.4	31.2	0.49	12.8	-27.1	Clear	None
10:20	5	50	200	62.67	3.43	6.94	1.41	24.7	0.55	13	-29.6	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-77			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	61.73	**Total Depth (ft-bmp)**	73.96	**Water Column (ft)**	12.23	**Gallons in Well**	1.99
Purge Start	11:05	**Pump Intake (ft-bmp)**	71.46	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	11:40	**Volumes Purged**	0.40	**Sample ID**	MW-16-77_050825	**Sampled by**	Donald Richmond
Sample Time	11:30	**Gallons Purged**	0.79	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:10	0	0	200	61.73	0.26	6.93	2.39	10.5	2.49	13	59.34	Clear	None
11:15	5	5	200	61.73	0.53	6.98	2.39	9.1	3.09	13.1	57	Clear	None
11:20	5	10	200	61.73	0.79	6.98	2.4	7.12	2.8	13.3	56.5	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-78			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	65.41	**Total Depth (ft-bmp)**	76.19	**Water Column (ft)**	10.78	**Gallons in Well**	1.75
Purge Start	14:55	**Pump Intake (ft-bmp)**	73.69	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	16:05	**Volumes Purged**	1.81	**Sample ID**	MW-16-78_050825	**Sampled by**	Donald Richmond
Sample Time	16:00	**Gallons Purged**	3.17	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:00	0	0	200	65.41	0.26	7.05	1.27	3.98	1.87	14.8	70.1	Clear	None
15:05	5	5	200	65.41	0.53	7.04	1.23	5.63	1.03	14.7	166.8	Clear	None
15:10	5	10	200	65.41	0.79	6.99	1.34	17.5	0.26	14.5	12.3	Clear	None
15:15	5	15	200	65.41	1.06	6.99	1.35	17.1	0.23	14.5	97.5	Clear	None
15:20	5	20	200	65.41	1.32	6.99	1.36	18.5	0.21	14.6	78.4	Clear	None
15:25	5	25	200	65.41	1.59	6.99	1.37	16.9	0.22	15.1	58.2	Clear	None
15:30	5	30	200	65.41	1.85	6.98	1.35	18.2	0.21	14.4	40.6	Clear	None
15:35	5	35	200	65.41	2.11	6.99	1.35	18.5	0.19	14.4	24.4	Clear	None
15:40	5	40	200	65.41	2.38	6.99	1.36	13	0.2	14.7	-1.5	Clear	None
15:45	5	45	200	65.41	2.64	6.99	1.35	11.5	0.17	14.6	-7.3	Clear	None
15:50	5	50	200	65.41	2.91	6.99	1.35	4.2	0.19	14.6	-22.9	Clear	None
15:55	5	55	200	65.41	3.17	6.99	1.36	3.22	0.19	14.6	-29.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
Well Locked at Arrival: yes
Condition of Well: Good condition
Well Locked at Departure: yes
Well Completion: Stick-up
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

Project Number	30267725	**Well ID**	MW-16-81			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	63.51	**Total Depth (ft-bmp)**	77.21	**Water Column (ft)**	13.70	**Gallons in Well**	2.23
Purge Start	14:00	**Pump Intake (ft-bmp)**	74.71	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	14:35	**Volumes Purged**	0.59	**Sample ID**	MW-16-81_050825	**Sampled by**	Donald Richmond
Sample Time	14:30	**Gallons Purged**	1.32	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:05	0	0	200	63.51	0.26	6.96	2.52	4.21	3.97	16.7	85.1	Clear	None
14:10	5	5	200	63.51	0.53	6.86	2.55	5.08	2.65	16.6	91.4	Clear	None
14:15	5	10	200	63.51	0.79	6.85	2.53	4.71	1.64	16.9	91.2	Clear	None
14:20	5	15	200	63.51	1.06	6.87	2.49	9.53	1	16.8	94.5	Clear	None
14:25	5	20	200	63.51	1.32	6.87	2.49	10	0.85	16.7	96.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-82			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	68.21	**Total Depth (ft-bmp)**	77.12	**Water Column (ft)**	8.91	**Gallons in Well**	1.45
Purge Start	12:40	**Pump Intake (ft-bmp)**	74.62	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:30	**Volumes Purged**	1.64	**Sample ID**	MW-16-82_050825	**Sampled by**	Donald Richmond
Sample Time	13:25	**Gallons Purged**	2.38	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:45	0	0	200	68.21	0.26	6.92	1.22	1.51	1.69	16.1	79	Clear	None
12:50	5	5	200	68.21	0.53	6.91	1.34	0.02	1.04	16.1	31.8	Clear	None
12:55	5	10	200	68.21	0.79	6.9	1.41	0.02	0.89	16.2	7.6	Clear	None
13:00	5	15	200	68.21	1.06	6.87	1.47	0.02	0.6	16.3	-8	Clear	None
13:05	5	20	200	68.21	1.32	6.86	1.51	0.02	0.39	16.2	-20.7	Clear	None
13:10	5	25	200	68.21	1.59	6.86	1.53	0.02	0.37	16.6	-27.7	Clear	None
13:15	5	30	200	68.21	1.85	6.86	1.54	0.02	0.33	17	-33.9	Clear	None
13:20	5	35	200	68.21	2.11	6.85	1.54	0.02	0.31	16.5	-39.6	Clear	None
13:25	5	40	200	68.21	2.38	6.86	1.55	0.02	0.26	17.3	-40.7	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-16-84			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	52.0 degrees F and Mostly Clear. The wind is blowing N/NE at 15.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	69.66	**Total Depth (ft-bmp)**	81.1	**Water Column (ft)**	11.44	**Gallons in Well**	1.86
Purge Start	14:35	**Pump Intake (ft-bmp)**	78.6	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	15:20	**Volumes Purged**	1.13	**Sample ID**	MW-16-84_050825	**Sampled by**	Austin Westhuis
Sample Time	15:10	**Gallons Purged**	2.11	**Replicate/ Code No.**	MW-16-84_050825	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:40	0	0	200	72.28	0.26	6.86	2.16	51.2	5.74	13.6	122.5	Clear	None
14:45	5	5	200	72.28	0.53	6.87	2.16	48.6	5.21	13.8	130.7	Clear	None
14:50	5	10	200	72.28	0.79	6.88	2.15	44.2	4.95	13.7	133.6	Clear	None
14:55	5	15	200	72.28	1.06	6.88	2.15	39.7	4.38	13.6	136.3	Clear	None
15:00	5	20	200	72.28	1.32	6.89	2.14	33.9	4.02	13.6	138.8	Clear	None
15:05	5	25	200	72.28	1.59	6.89	2.13	33.1	3.95	13.6	139.9	Clear	None
15:10	5	30	200	72.28	1.85	6.89	2.13	33.1	3.95	13.6	139.9	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	9	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: Plant 2

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-16-85			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	52.0 degrees F and Mostly Clear. The wind is blowing N/NE at 15.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	71.40	**Total Depth (ft-bmp)**	81.75	**Water Column (ft)**	10.35	**Gallons in Well**	1.68
Purge Start	15:25	**Pump Intake (ft-bmp)**	79	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	16:25	**Volumes Purged**	0.95	**Sample ID**	MW-16-85_050725	**Sampled by**	Billy Cobern
Sample Time	16:25	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:25	0	0	100	71.40	0.00	0	0	0	0	1	0	Clear	None
15:30	5	5	100	71.85	0.13	7.36	1.21	25.6	3.46	14.4	-80.2	Clear	None
15:35	5	10	100	72.08	0.26	7.32	1.24	18.7	3.24	14.6	-87.7	Clear	None
15:40	5	15	100	72.29	0.40	7.32	1.22	14.7	3.01	14.5	-92.1	Clear	None
15:45	5	20	100	72.43	0.53	7.32	1.2	12.8	3.03	14.3	-95.7	Clear	None
15:50	5	25	100	72.56	0.66	7.33	1.19	10.4	2.84	14	-97.5	Clear	None
15:55	5	30	100	72.69	0.79	7.33	1.18	9.72	2.79	14.2	-99	Clear	None
16:00	5	35	100	72.82	0.92	7.33	1.17	9.21	2.74	14.1	-99.7	Clear	None
16:05	5	40	100	72.95	1.06	7.33	1.16	9.07	2.47	13.8	-100	Clear	None
16:10	5	45	100	73.09	1.19	7.34	1.15	8.78	2.35	13.1	-101.5	Clear	None
16:15	5	50	100	73.21	1.32	7.33	1.16	8.88	2.61	13.5	-104.3	Clear	None
16:20	5	55	100	73.31	1.45	7.33	1.17	8.65	2.54	13.4	-104.4	Clear	None
16:25	5	60	100	73.41	1.59	7.33	1.17	8.31	2.48	13.4	-104.5	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth. 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: Plant 2
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

Project Number	30267725	**Well ID**	MW-17-86			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	52.0 degrees F and Mostly Clear. The wind is blowing N/NE at 15.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.00	**Total Depth (ft-bmp)**	81.43	**Water Column (ft)**	14.43	**Gallons in Well**	2.34
Purge Start	16:15	**Pump Intake (ft-bmp)**	78.93	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	16:50	**Volumes Purged**	0.79	**Sample ID**	MW-17-86_050825	**Sampled by**	Austin Westhuis
Sample Time	16:45	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
16:20	0	0	200	67.08	0.26	7.4	2.4	176	9.64	14.5	-35.8	Clear	None
16:25	5	5	200	67.08	0.53	7.4	2.35	111	8.87	13.9	-32.4	Clear	None
16:30	5	10	200	67.08	0.79	7.28	2.36	82.2	8.45	13.8	-28.5	Clear	None
16:35	5	15	200	67.08	1.06	7.24	2.38	78.8	8.41	13.9	-31.4	Clear	None
16:40	5	20	200	67.08	1.32	7.21	2.39	76.5	8.35	13.9	-35.6	Clear	None
16:45	5	25	200	67.08	1.59	7.2	2.33	72.9	8.31	13.9	-38.4	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-19-115			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	50.0 degrees F and Clear. The wind is blowing NE at 17.2 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	58.29	**Total Depth (ft-bmp)**	81.5	**Water Column (ft)**	23.21	**Gallons in Well**	3.77
Purge Start	13:00	**Pump Intake (ft-bmp)**	79	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:50	**Volumes Purged**	0.70	**Sample ID**	MW-19-115_050825	**Sampled by**	Austin Westhuis
Sample Time	13:45	**Gallons Purged**	2.64	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:05	0	0	200	61.00	0.26	6.87	1.59	133	6.21	13.9	24.6	Clear	None
13:10	5	5	200	61.95	0.53	6.86	0.242	45.7	6.16	13.9	17.8	Clear	None
13:15	5	10	200	62.97	0.79	6.87	0.8	28.2	5.54	13.8	4.7	Clear	None
13:20	5	15	200	63.42	1.06	6.88	0.67	21.2	5.17	13.8	1.1	Clear	None
13:25	5	20	200	63.42	1.32	6.88	0.69	17.7	5.12	13.8	-3.7	Clear	None
13:30	5	25	200	63.74	1.59	6.89	0.67	15.9	4.54	13.8	-6.8	Clear	None
13:35	5	30	200	63.82	1.85	6.89	0.67	19.8	4.24	13.9	-7.9	Clear	None
13:40	5	35	200	63.87	2.11	6.89	0.66	19.2	4.21	13.9	-9	Clear	None
13:45	5	40	200	63.89	2.38	6.89	0.66	18.6	4.11	13.9	-9.3	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-19-116			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	45.0 degrees F and Partly Cloudy. The wind is blowing NE at 16.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	56.98	**Total Depth (ft-bmp)**	73.2	**Water Column (ft)**	16.22	**Gallons in Well**	2.64
Purge Start	10:00	**Pump Intake (ft-bmp)**	71	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:40	**Volumes Purged**	0.40	**Sample ID**	MW-19-116_050825	**Sampled by**	Billy Cobern
Sample Time	10:40	**Gallons Purged**	1.06	**Replicate/ Code No.**	DUP-03_050825	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:00	0	0	100	56.98	0.00	0	0	0	0	0	0	Clear	None
10:05	5	5	100	57.21	0.13	6.95	1.53	22.2	6.25	12.2	-66.7	Clear	None
10:10	5	10	100	57.29	0.26	6.95	1.54	26.9	5.8	12.2	-69.8	Clear	None
10:15	5	15	100	57.30	0.40	6.95	1.6	24.1	5.08	12.1	-76.7	Clear	None
10:20	5	20	100	57.30	0.53	6.93	1.62	15.9	4.27	11.9	-78.9	Clear	None
10:25	5	25	100	57.30	0.66	6.91	1.61	12.2	4.1	11.8	-77.8	Clear	None
10:30	5	30	100	57.30	0.79	6.91	1.6	9.83	3.25	11.6	-77	Clear	None
10:35	5	35	100	57.30	0.92	6.92	1.6	9.27	3.28	11.5	-77.2	Clear	None
10:40	5	40	100	57.30	1.06	6.92	1.6	9.17	3.33	11.5	-77.6	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	6	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-117			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	46.0 degrees F and Clear. The wind is blowing NE at 13.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	59.99	**Total Depth (ft-bmp)**	62.8	**Water Column (ft)**	2.81	**Gallons in Well**	0.46
Purge Start	11:05	**Pump Intake (ft-bmp)**	62.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	12:00	**Volumes Purged**	3.15	**Sample ID**	MW-19-117_050825	**Sampled by**	Billy Cobern
Sample Time	12:00	**Gallons Purged**	1.45	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:05	0	0	100	59.99	0.00	0	0	0	0	0	0	Clear	None
11:10	5	5	100	60.22	0.13	6.91	1.17	173	1.31	14.4	-77.3	Clear	None
11:15	5	10	100	60.22	0.26	6.9	1.17	126	2.17	14.4	-76	Clear	None
11:20	5	15	100	60.22	0.40	6.9	1.17	96.2	1.83	14.5	-75.5	Clear	None
11:25	5	20	100	60.22	0.53	6.9	1.17	76.4	1.12	14.8	-75.4	Clear	None
11:30	5	25	100	60.22	0.66	6.89	1.17	42.2	0.94	15	-75.7	Clear	None
11:35	5	30	100	60.22	0.79	6.89	1.17	24.9	0.86	15.1	-76.6	Clear	None
11:40	5	35	100	60.22	0.92	6.89	1.17	21.2	0.95	15.3	-77	Clear	None
11:45	5	40	100	60.22	1.06	6.89	1.17	25.7	0.78	15.3	-77.7	Clear	None
11:50	5	45	100	60.22	1.19	6.9	1.17	19.7	0.63	15.4	-78.9	Clear	None
11:55	5	50	100	60.22	1.32	6.9	1.17	18.7	0.65	15.7	-79.8	Clear	None
12:00	5	55	100	60.22	1.45	6.9	1.17	19.1	0.66	15.8	-79.9	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-120			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	53.1 degrees F and Partly Cloudy. The wind is blowing N at 13.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.75	**Total Depth (ft-bmp)**	74	**Water Column (ft)**	7.25	**Gallons in Well**	1.18
Purge Start	13:55	**Pump Intake (ft-bmp)**	71.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	14:55	**Volumes Purged**	1.35	**Sample ID**	MW-19-120_050725	**Sampled by**	Billy Cobern
Sample Time	14:55	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:55	0	0	100	66.75	0.00	0	0	0	0	1	0	Clear	None
14:00	5	5	100	67.04	0.13	7.29	1.69	879	7.56	17.8	158	Clear	None
14:05	5	10	100	67.02	0.26	7.15	2.06	794	0.34	17.7	154.1	Clear	None
14:10	5	15	100	67.02	0.40	7.1	2.23	698	0.39	18.1	90	Clear	None
14:15	5	20	100	67.02	0.53	7.13	2.01	632	0.35	18.9	85.4	Clear	None
14:20	5	25	100	67.02	0.66	7.15	1.89	558	0.33	17.7	89.7	Clear	None
14:25	5	30	100	67.02	0.79	7.15	1.9	520	0.31	17.4	93.1	Clear	None
14:30	5	35	100	67.02	0.92	7.16	1.84	447	0.36	17.5	94.3	Clear	None
14:35	5	40	100	67.02	1.06	7.17	1.83	404	0.38	17.3	93	Clear	None
14:40	5	45	100	67.02	1.19	7.17	1.82	123	0.36	17.8	89.2	Clear	None
14:45	5	50	100	67.02	1.32	7.17	1.82	195	0.34	17.7	80.1	Clear	None
14:50	5	55	100	67.02	1.45	7.16	1.85	198	0.35	18.1	76.8	Clear	None
14:55	5	60	100	67.02	1.59	7.16	1.87	69.7	0.33	17.9	74.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth. Turbidity didn't stabilize within 60 minutes.

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-121			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.10	**Total Depth (ft-bmp)**	73.61	**Water Column (ft)**	7.51	**Gallons in Well**	1.22
Purge Start	13:00	**Pump Intake (ft-bmp)**	71.11	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	13:50	**Volumes Purged**	1.52	**Sample ID**	MW-19-121_050625	**Sampled by**	Donald Richmond
Sample Time	13:40	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:10	0	0	200	66.10	0.53	6.52	2.56	19.8	0.83	16.4	180.2	Clear	None
13:15	5	5	200	66.10	0.79	6.61	2.61	12.1	0.56	16.4	184.3	Clear	None
13:20	5	10	200	66.10	1.06	6.63	2.62	6.66	0.41	16.4	187.6	Clear	None
13:25	5	15	200	66.10	1.32	6.63	2.62	6.31	0.4	16.5	190.2	Clear	None
13:30	5	20	200	66.10	1.59	6.64	2.62	6.45	0.35	16.5	196	Clear	None
13:35	5	25	200	66.10	1.85	6.64	2.62	4.93	0.35	16.6	199.7	Clear	None

Constituent Sampled	Container	Number	Preservative
TKN/T. Phosphorus	125 mL Plastic	1	H2SO4
Nitrate	250 mL Plastic	1	None
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-122			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	50.0 degrees F and Clear. The wind is blowing NE at 17.2 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	64.45	**Total Depth (ft-bmp)**	66.85	**Water Column (ft)**	2.40	**Gallons in Well**	0.39
Purge Start	12:25	**Pump Intake (ft-bmp)**	66.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:25	**Volumes Purged**	4.08	**Sample ID**	MW-19-122_050725	**Sampled by**	Billy Cobern
Sample Time	13:25	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:25	0	0	100	64.45	0.00	0	0	0	0	0	0	Clear	None
12:30	5	5	100	64.55	0.13	6.72	4.77	169	0.21	14.6	127.1	Clear	None
12:35	5	10	100	64.75	0.26	6.69	4.78	100	0.43	13.8	131	Clear	None
12:40	5	15	100	64.75	0.40	6.7	4.8	81.1	0.43	13.6	134.5	Clear	None
12:45	5	20	100	64.75	0.53	6.7	4.81	55.6	0.61	13.6	135	Clear	None
12:50	5	25	100	64.75	0.66	6.7	4.81	47.7	0.31	13.6	135	Clear	None
12:55	5	30	100	64.75	0.79	6.7	4.76	36.9	0.21	13.7	133.2	Clear	None
13:00	5	35	100	64.75	0.92	6.72	4.71	32.3	0.15	13.8	136.5	Clear	None
13:05	5	40	100	64.75	1.06	6.75	4.74	38.5	0.29	13.9	133.2	Clear	None
13:10	5	45	100	64.75	1.19	6.77	4.72	39.7	0.45	14	136.7	Clear	None
13:15	5	50	100	64.75	1.32	6.79	4.71	36.2	0.22	14.1	139.4	Clear	None
13:20	5	55	100	64.75	1.45	6.8	4.73	36.9	0.16	14.2	141.1	Clear	None
13:25	5	60	100	64.75	1.59	6.82	4.75	37.3	0.11	14.2	142.8	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth. DO did not stabilize with 60 minutes.

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-123			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**				
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.42	**Total Depth (ft-bmp)**	73.78	**Water Column (ft)**	6.36	**Gallons in Well**	1.03
Purge Start	10:45	**Pump Intake (ft-bmp)**	71.28	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	11:30	**Volumes Purged**	1.54	**Sample ID**	MW-19-123_050625	**Sampled by**	Donald Richmond
Sample Time	11:20	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon 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	67.42	1.06	6.71	1.65	8.67	4.02	13.7	174	Clear	None
11:10	5	5	200	67.42	1.32	6.72	1.68	5.02	4.24	13.7	169.5	Clear	None
11:15	5	10	200	67.42	1.59	6.73	1.71	3.99	4.14	13.7	163.8	Clear	None

Constituent Sampled	Container	Number	Preservative
TKN/ T. Phosphorus	125 mL Plastic	1	H2SO4
Nitrate	250 mL Plastic	1	None
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-19-124			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	73.9 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	66.28	**Total Depth (ft-bmp)**	72.25	**Water Column (ft)**	5.97	**Gallons in Well**	0.97
Purge Start	15:40	**Pump Intake (ft-bmp)**	70	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	16:30	**Volumes Purged**	1.36	**Sample ID**	MW-19-124_050725	**Sampled by**	Billy Cobern
Sample Time	16:30	**Gallons Purged**	1.32	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:40	0	0	100	66.28	0.00	0	0	0	0	0	0	Clear	None
15:45	5	5	100	66.35	0.13	6.64	3.32	10.1	0.89	18	-69.9	Clear	None
15:50	5	10	100	66.35	0.26	6.65	3.23	9.67	0.59	20.4	-73.4	Clear	None
15:55	5	15	100	66.35	0.40	6.65	3.35	8.83	0.55	19.2	-73.4	Clear	None
16:00	5	20	100	66.35	0.53	6.65	3.32	8.18	0.51	19.2	-73.5	Clear	None
16:05	5	25	100	66.35	0.66	6.65	3.3	8.72	0.31	20.3	-74.1	Clear	None
16:10	5	30	100	66.35	0.79	6.65	3.31	8.14	0.29	21	-74.4	Clear	None
16:15	5	35	100	66.35	0.92	6.65	3.3	7.92	0.41	21.6	-74.5	Clear	None
16:20	5	40	100	66.35	1.06	6.65	3.31	7.69	0.42	18.2	-67.5	Clear	None
16:25	5	45	100	66.35	1.19	6.65	3.31	7.48	0.41	18.1	-69.6	Clear	None
16:30	5	50	100	66.35	1.32	6.65	3.31	7.28	0.4	18	-69.9	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-20-126			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	44.1 degrees F and Mostly Cloudy. The wind is blowing N/NE at 13.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	72.54	**Total Depth (ft-bmp)**	75.5	**Water Column (ft)**	2.96	**Gallons in Well**	0.48
Purge Start	08:45	**Pump Intake (ft-bmp)**	75	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	09:35	**Volumes Purged**	2.75	**Sample ID**	MW-20-126_050825	**Sampled by**	Billy Cobern
Sample Time	09:35	**Gallons Purged**	1.32	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:45	0	0	100	72.54	0.00	0	0	0	0	0	0	Clear	None
08:50	5	5	100	72.55	0.13	7.05	1.89	42.1	5.06	12.2	226.7	Clear	None
08:55	5	10	100	72.55	0.26	7.05	1.87	34.8	7.14	11.9	225.1	Clear	None
09:00	5	15	100	72.55	0.40	7.05	1.88	23.8	4.32	11.8	224.2	Clear	None
09:05	5	20	100	72.55	0.53	7.07	1.84	19.7	3.23	10.9	218.4	Clear	None
09:10	5	25	100	72.55	0.66	7.06	1.77	19.9	2.89	10.2	212.9	Clear	None
09:15	5	30	100	72.55	0.79	7.06	1.73	18.7	2.05	10	207.2	Clear	None
09:20	5	35	100	72.55	0.92	7.06	1.7	18.6	2.12	10.1	202.4	Clear	None
09:25	5	40	100	72.55	1.06	7.06	1.67	18.2	2.42	10.2	197.2	Clear	None
09:30	5	45	100	72.55	1.19	7.06	1.66	18.1	2.35	10.3	196.7	Clear	None
09:35	5	50	100	72.55	1.32	7.06	1.66	17.9	2.53	10.3	196.3	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-20-127			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	54.0 degrees F and Light Rain and Fog/Mist. The wind is blowing N/NW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.88	**Total Depth (ft-bmp)**	78.7	**Water Column (ft)**	10.82	**Gallons in Well**	1.76
Purge Start	11:40	**Pump Intake (ft-bmp)**	76	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	12:35	**Volumes Purged**	0.83	**Sample ID**	MW-20-127_050625	**Sampled by**	Billy Cobern
Sample Time	12:35	**Gallons Purged**	1.452946	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:40	0	0	0	67.88	0.00	0	0	0	0	0	0	Clear	None
11:45	5	5	100	68.15	0.13	6.6	3.18	19.8	1.13	15	-24.7	Clear	None
11:50	5	10	100	68.25	0.26	6.59	3.18	14.3	2.09	15.1	-26	Clear	None
11:55	5	15	100	68.35	0.40	6.59	3.18	10.1	2.42	15	-26.4	Clear	None
12:00	5	20	100	68.42	0.53	6.59	3.18	7.92	0.45	15	-26.8	Clear	None
12:05	5	25	100	68.47	0.66	6.59	3.18	6.93	1.04	15	-27.1	Clear	None
12:10	5	30	100	68.52	0.79	6.6	3.19	8.82	0.58	14.8	-28.5	Clear	None
12:15	5	35	100	68.55	0.92	6.6	3.18	5.96	0.78	14.6	-29.5	Clear	None
12:20	5	40	100	68.57	1.06	6.6	3.18	6.04	0.66	14.6	-30.7	Clear	None
12:25	5	45	100	68.57	1.19	6.6	3.18	6.37	0.56	14.7	-31.6	Clear	None
12:30	5	50	100	68.57	1.32	6.6	3.18	6.12	0.56	14.7	-32.6	Clear	None
12:35	5	55	100	68.57	1.45	6.6	3.18	6.29	0.55	14.7	-32.8	Clear	None

Constituent Sampled	Container	Number	Preservative
TKN/ T. Phosphorus	125 mL Plastic	1	H2SO4
Nitrate	250 mL Plastic	1	None
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Didn't meet maximum 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: Plant 2
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

Project Number	30267725	**Well ID**	MW-20-128			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	57.0 degrees F and Clear. The wind is blowing W/SW at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	65.93	**Total Depth (ft-bmp)**	69.7	**Water Column (ft)**	3.77	**Gallons in Well**	0.61
Purge Start	10:25	**Pump Intake (ft-bmp)**	67.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	11:20	**Volumes Purged**	2.38	**Sample ID**	MW-20-128_050725	**Sampled by**	Billy Cobern
Sample Time	11:20	**Gallons Purged**	1.45	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:25	0	0	100	65.93	0.00	0	0	0	0	0	0	Clear	None
10:30	5	5	100	66.24	0.13	6.96	3.06	95.6	4.7	16.7	189.2	Clear	None
10:35	5	10	100	66.25	0.26	6.97	3.05	48.7	5.87	16.9	183.7	Clear	None
10:40	5	15	100	66.25	0.40	6.97	3.06	34.2	1.28	16.8	178	Clear	None
10:45	5	20	100	66.25	0.53	6.98	3.07	18.9	1.11	16.7	168.2	Clear	None
10:50	5	25	100	66.25	0.66	6.99	3.08	13.9	1.06	16.7	160.8	Clear	None
10:55	5	30	100	66.25	0.79	7	3.09	15.9	1.02	16.9	147	Clear	None
11:00	5	35	100	66.25	0.92	7	3.09	11.4	0.98	17.1	141	Clear	None
11:05	5	40	100	66.25	1.06	6.99	3.09	12.1	1.04	17.3	136.4	Clear	None
11:10	5	45	100	66.25	1.19	6.99	3.1	10.5	0.99	17.2	135.5	Clear	None
11:15	5	50	100	66.25	1.32	6.99	3.1	10.3	0.97	17.2	134.9	Clear	None
11:20	5	55	100	66.25	1.45	6.99	3.11	10.3	0.96	17.2	134.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 2
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

Project Number	30267725	**Well ID**	MW-20-129			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	70.0 degrees F and Clear. The wind is blowing SW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	62.73	**Total Depth (ft-bmp)**	70.95	**Water Column (ft)**	8.22	**Gallons in Well**	1.34
Purge Start	14:25	**Pump Intake (ft-bmp)**	68.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	15:10	**Volumes Purged**	0.89	**Sample ID**	MW-20-129_050725	**Sampled by**	Billy Cobern
Sample Time	15:10	**Gallons Purged**	1.19	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:25	0	0	100	62.73	0.00	0	0	0	0	0	0	Clear	None
14:30	5	5	100	63.00	0.13	7.01	1.57	15.1	0.64	17.9	-79	Clear	None
14:35	5	10	100	63.01	0.26	7	1.56	12.2	3.42	17.8	-77.7	Clear	None
14:40	5	15	100	63.01	0.40	7	1.53	9.81	2.51	18.4	-78.3	Clear	None
14:45	5	20	100	63.01	0.53	6.99	1.52	9.34	1.07	18.4	-78.8	Clear	None
14:50	5	25	100	63.01	0.66	6.99	1.51	8.78	1.12	17.9	-78.9	Clear	None
14:55	5	30	100	63.01	0.79	6.99	1.49	7.81	0.98	18.4	-79.6	Clear	None
15:00	5	35	100	63.01	0.92	6.99	1.49	7.31	0.33	18.5	-79.6	Clear	None
15:05	5	40	100	63.01	1.06	6.98	1.5	7.11	0.35	18.8	-79.8	Clear	None
15:10	5	45	100	63.01	1.19	6.98	1.5	6.98	0.32	18.8	-79.8	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-21-142			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	53.1 degrees F and Fog/Mist. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.17	**Total Depth (ft-bmp)**	78.95	**Water Column (ft)**	11.78	**Gallons in Well**	1.91
Purge Start	08:50	**Pump Intake (ft-bmp)**	76.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	09:50	**Volumes Purged**	0.83	**Sample ID**	MW-21-142_050725	**Sampled by**	Billy Cobern
Sample Time	09:50	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
08:50	0	0	100	67.17	0.00	0	0	0	0	0	0	Orange	None
08:55	5	5	100	67.47	0.13	6.78	2.84	975.3	0.11	10.8	-39.6	Orange	None
09:00	5	10	100	67.50	0.26	6.78	2.85	893	0.1	13.9	-40.3	Orange	None
09:05	5	15	100	67.50	0.40	6.78	2.85	804	0.09	13.9	-41.5	Orange	None
09:10	5	20	100	67.50	0.53	6.78	2.85	732	0.18	13.9	-42.2	Orange	None
09:15	5	25	100	67.50	0.66	6.78	2.85	695	0.51	13.9	-43.3	Orange	None
09:20	5	30	100	67.50	0.79	6.78	2.87	554	0.41	14	-62	Orange	None
09:25	5	35	100	67.50	0.92	6.79	2.86	521	0.45	14	-75.2	Orange	None
09:30	5	40	100	67.50	1.06	6.79	2.86	421	0.36	14	74.7	Orange	None
09:35	5	45	100	67.50	1.19	6.79	2.86	339	0.26	14.1	-73.9	Orange	None
09:40	5	50	100	67.50	1.32	6.79	2.86	221	0.21	14.1	-73.3	Orange	None
09:45	5	55	100	67.50	1.45	6.79	2.86	298	0.12	14.1	-72.1	Orange	None
09:50	5	60	100	67.50	1.59	6.79	2.86	381	3.41	14.1	-71.2	Orange	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Think iron in well. Hard to pump water. DO and turbidity did not stabilize in 60 minutes.

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: Plant 2
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

Project Number	30267725	**Well ID**	MW-22-153			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	66.0 degrees F and Clear. The wind is blowing S/SE at 10.3 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.39	**Total Depth (ft-bmp)**	31.18	**Water Column (ft)**	21.79	**Gallons in Well**	3.54
Purge Start	10:20	**Pump Intake (ft-bmp)**	28.68	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	10:55	**Volumes Purged**	0.52	**Sample ID**	MW-22-153_050725	**Sampled by**	Austin Westhuis
Sample Time	10:50	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:25	0	0	200	9.39	0.26	7.07	1.49	17.8	0.47	13.6	-64.5	Clear	None
10:30	5	5	200	9.39	0.53	7.02	1.51	12.6	0.29	13.8	-65	Clear	None
10:35	5	10	200	9.39	0.79	6.97	1.53	9.77	0.23	13.8	-65.2	Clear	None
10:40	5	15	200	9.39	1.06	6.96	1.53	9.51	0.23	13.7	-67	Clear	None
10:45	5	20	200	9.39	1.32	6.97	1.53	9.12	0.21	13.9	-70	Clear	None
10:50	5	25	200	9.39	1.59	6.98	1.53	8.87	0.21	13.8	-71.2	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM,VOCs SW-846	40 mL Glass	3	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.

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-22-154			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	46.0 degrees F and Clear. The wind is blowing NE at 13.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	3.45	**Total Depth (ft-bmp)**	10.58	**Water Column (ft)**	7.13	**Gallons in Well**	1.16
Purge Start	10:55	**Pump Intake (ft-bmp)**	8.08	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	11:30	**Volumes Purged**	1.59	**Sample ID**	MW-22-154_050825	**Sampled by**	Austin Westhuis
Sample Time	11:25	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon 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	3.45	0.26	7.12	2.94	34.9	0.47	9.7	12.7	Clear	None
11:05	5	5	200	3.45	0.53	7.1	2.96	22.7	0.41	10.1	39.8	Clear	None
11:10	5	10	200	3.45	0.79	7.09	2.97	18.7	0.36	10.1	48.7	Clear	None
11:15	5	15	200	3.45	1.06	7.09	2.99	16.8	0.33	10.2	59.7	Clear	None
11:20	5	20	200	3.45	1.32	7.1	2.99	16.1	0.33	10.2	59.9	Clear	None
11:25	5	25	200	3.45	1.59	7.1	2.99	15.3	0.31	10.2	60.3	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs SW-846 8260C	40 mL Glass	3	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: Plant 6

Condition of Well: Good condition

Well Completion: Flush mount

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

Project Number	30267725	**Well ID**	MW-22-155			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	66.0 degrees F and Clear. The wind is blowing SW at 4.7 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	10.58	**Total Depth (ft-bmp)**	31.51	**Water Column (ft)**	20.93	**Gallons in Well**	3.40
Purge Start	12:20	**Pump Intake (ft-bmp)**	30.01	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	12:55	**Volumes Purged**	0.54	**Sample ID**	MW-22-155_050725	**Sampled by**	Austin Westhuis
Sample Time	12:50	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon 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	10.58	0.26	6.9	1.91	314	0.46	13.6	-23.9	Clear	None
12:30	5	5	200	10.58	0.53	6.85	1.92	252	0.31	13.7	-29.3	Clear	None
12:35	5	10	200	10.58	0.79	6.83	1.92	241	0.25	13.8	-32	Clear	None
12:40	5	15	200	10.58	1.06	6.83	1.81	209	0.24	13.6	-33.3	Clear	None
12:45	5	20	200	10.58	1.32	6.85	1.84	195	0.24	13.7	-36.2	Clear	None
12:50	5	25	200	10.58	1.59	6.85	1.85	208	0.22	13.7	-37.7	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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.

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-22-156			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	54.0 degrees F and Light Rain and Fog/Mist. The wind is blowing N/NW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	12.10	**Total Depth (ft-bmp)**	31.04	**Water Column (ft)**	18.94	**Gallons in Well**	3.08
Purge Start	11:30	**Pump Intake (ft-bmp)**	27.51	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	12:10	**Volumes Purged**	0.69	**Sample ID**	MW-22-156_050625	**Sampled by**	Austin Westhuis
Sample Time	12:05	**Gallons Purged**	2.11	**Replicate/ Code No.**	DUP-01_050625	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:35	0	0	200	12.16	0.26	6.97	1.26	40	0.28	12.8	-75.8	Clear	None
11:40	5	5	200	12.16	0.53	7	1.23	30.2	0.29	12.8	-78.7	Clear	None
11:45	5	10	200	12.16	0.79	7.02	1.22	29.3	0.29	12.9	-79.9	Clear	None
11:50	5	15	200	12.16	1.06	7.03	1.22	24.3	0.28	12.9	-83.3	Clear	None
11:55	5	20	200	12.16	1.32	7.04	1.21	22.6	0.27	13	-87.1	Clear	None
12:00	5	25	200	12.16	1.59	7.05	1.22	21.2	0.27	13.1	-87.8	Clear	None
12:05	5	30	200	12.16	1.85	7.05	1.21	20.9	0.27	13.1	-91.3	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM,VOCs SW-846	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.
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

Project Number	30267725	**Well ID**	MW-22-157			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	71.1 degrees F and Clear. The wind is blowing W/SW at 15.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	1.38	**Total Depth (ft-bmp)**	27.61	**Water Column (ft)**	26.23	**Gallons in Well**	4.26
Purge Start	09:35	**Pump Intake (ft-bmp)**	25.11	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	10:10	**Volumes Purged**	0.43	**Sample ID**	MW-22-157_050725	**Sampled by**	Austin Westhuis
Sample Time	10:05	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:40	0	0	200	1.38	0.26	6.89	0.52	21.7	0.51	14.5	-44.7	Clear	None
09:45	5	5	200	1.38	0.53	6.85	0.57	13.5	0.37	14.5	-46	Clear	None
09:50	5	10	200	1.38	0.79	6.85	0.61	9.55	0.24	14.7	-49.5	Clear	None
09:55	5	15	200	1.38	1.06	6.85	0.61	8.77	0.24	14.7	-49.9	Clear	None
10:00	5	20	200	1.38	1.32	6.87	0.62	8.14	0.22	14.7	-51.3	Clear	None
10:05	5	25	200	1.38	1.59	6.88	0.62	7.88	0.22	14.7	-53.7	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM,VOCs SW-846	40 mL Glass	3	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.

Condition of Well: Good condition

Well Completion: Flush mount

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-23-161			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	69.1 degrees F and . The wind is blowing at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	9.35	**Total Depth (ft-bmp)**	27.58	**Water Column (ft)**	18.23	**Gallons in Well**	2.96
Purge Start	13:10	**Pump Intake (ft-bmp)**	22.08	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	13:50	**Volumes Purged**	0.71	**Sample ID**	MW-23-161_050725	**Sampled by**	Austin Westhuis
Sample Time	13:45	**Gallons Purged**	2.11	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:15	0	0	200	9.35	0.26	7.08	1.16	119	0.32	12.8	-7.2	Clear	None
13:20	5	5	200	9.35	0.53	7.03	1.18	72.4	0.15	12.6	-20.6	Clear	None
13:25	5	10	200	9.35	0.79	7.01	1.22	67.8	0.17	12.7	-44.8	Clear	None
13:30	5	15	200	9.35	1.06	6.99	1.27	54.3	0.17	12.7	-53.8	Clear	None
13:35	5	20	200	9.35	1.32	6.98	1.26	51.2	0.18	12.7	-56.9	Clear	None
13:40	5	25	200	9.35	1.59	6.99	1.25	48.6	0.18	12.7	-57.4	Clear	None
13:45	5	30	200	9.35	1.85	6.99	1.26	48.2	0.18	12.7	-57.9	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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.

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-23-162			**Date**	5/8/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	44.1 degrees F and Mostly Cloudy. The wind is blowing N/NE at 13.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	12.60	**Total Depth (ft-bmp)**	36.63	**Water Column (ft)**	24.03	**Gallons in Well**	3.90
Purge Start	09:35	**Pump Intake (ft-bmp)**	34.13	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	10:20	**Volumes Purged**	0.61	**Sample ID**	MW-23-162_050825	**Sampled by**	Austin Westhuis
Sample Time	10:15	**Gallons Purged**	2.38	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:40	0	0	200	14.48	0.26	6.92	2.33	88.5	0.97	11.4	86.2	Clear	None
09:45	5	5	200	14.89	0.53	6.88	2.35	42.1	0.64	11.6	7.8	Clear	None
09:50	5	10	200	15.33	0.79	6.88	2.36	35.3	0.69	11.8	-1.9	Clear	None
09:55	5	15	200	15.44	1.06	6.88	2.37	26.8	0.77	11.9	-16.6	Clear	None
10:00	5	20	200	15.49	1.32	6.85	2.38	24.3	0.73	11.9	-24.2	Clear	None
10:05	5	25	200	15.51	1.59	6.85	2.38	21.1	0.71	11.9	-29.4	Clear	None
10:10	5	30	200	15.51	1.85	6.84	2.38	20.6	0.7	11.9	-31.3	Clear	None
10:15	5	35	200	15.51	2.11	6.84	2.38	20.2	0.7	11.9	-38.6	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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.

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	MW-23-163			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	63.0 degrees F and . The wind is blowing W at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	12.08	**Total Depth (ft-bmp)**	27.22	**Water Column (ft)**	15.14	**Gallons in Well**	2.46
Purge Start	11:15	**Pump Intake (ft-bmp)**	25.72	**Purge Method**	Low-Flow	**Purge Equipment**	Peristaltic
Purge End	11:50	**Volumes Purged**	0.75	**Sample ID**	MW-23-163_050725	**Sampled by**	Austin Westhuis
Sample Time	11:45	**Gallons Purged**	1.85	**Replicate/ Code No.**	MW-23-163_050725	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:20	0	0	200	12.08	0.26	6.99	0.79	70.1	0.39	12.4	-67	Clear	None
11:25	5	5	200	12.08	0.53	6.95	0.15	35.6	0.28	12.3	-66.4	Clear	None
11:30	5	10	200	12.08	0.79	6.92	0.059	32.1	0.23	12.3	-66.2	Clear	None
11:35	5	15	200	12.08	1.06	6.93	0.059	28.9	0.21	12.3	-67.1	Clear	None
11:40	5	20	200	12.08	1.32	6.94	0.059	28.1	0.2	12.3	-68.7	Clear	None
11:45	5	25	200	12.08	1.59	6.95	0.06	27.5	0.2	12.3	-70	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	9	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.

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: 6000B

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

Project Number	30267725	**Well ID**	PW-14-01			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	69.1 degrees F and . The wind is blowing at 3.4 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	6	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	69.20	**Total Depth (ft-bmp)**	81.9	**Water Column (ft)**	12.70	**Gallons in Well**	18.57
Purge Start	13:05	**Pump Intake (ft-bmp)**	79.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:55	**Volumes Purged**	0.07	**Sample ID**	PW-14-01_050725	**Sampled by**	Billy Cobern
Sample Time	13:55	**Gallons Purged**	1.32	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:05	0	0	100	69.20	0.00	0	0	0	0	0	0	Clear	None
13:10	5	5	100	69.35	0.13	6.59	3.82	21.7	2.46	19.7	69.4	Clear	None
13:15	5	10	100	69.39	0.26	6.59	3.83	26.7	1.89	20	51.4	Clear	None
13:20	5	15	100	69.39	0.40	6.59	3.85	21.4	1.65	20.3	57.1	Clear	None
13:25	5	20	100	69.39	0.53	6.6	3.86	19.8	1.71	20.1	67.1	Clear	None
13:30	5	25	100	69.39	0.66	6.61	3.85	19.4	1.62	20.3	78.2	Clear	None
13:35	5	30	100	69.39	0.79	6.63	3.84	15.8	1.69	20.4	88.7	Clear	None
13:40	5	35	100	69.39	0.92	6.64	3.84	15.9	1.69	20.1	94.3	Clear	None
13:45	5	40	100	69.39	1.06	6.65	3.82	15.4	1.29	20.3	101.8	Clear	None
13:50	5	45	100	69.39	1.19	6.67	3.81	15.7	1.24	20.5	105	Clear	None
13:55	5	50	100	69.39	1.32	6.67	3.8	15	1.21	20.5	107.8	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	PW-14-02			**Date**	5/7/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	66.0 degrees F and Clear. The wind is blowing SW at 4.7 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	6	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	67.54	**Total Depth (ft-bmp)**	85.2	**Water Column (ft)**	17.66	**Gallons in Well**	25.83
Purge Start	11:45	**Pump Intake (ft-bmp)**	82.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	12:35	**Volumes Purged**	0.05	**Sample ID**	PW-14-02_050725	**Sampled by**	Billy Cobern
Sample Time	12:35	**Gallons Purged**	1.32	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
11:45	0	0	100	67.54	0.00	0	0	0	0	0	0	Clear	None
11:50	5	5	100	67.65	0.13	7.07	2.08	18.9	0.75	18.1	195.9	Clear	None
11:55	5	10	100	67.67	0.26	7	2.07	18.4	0.69	17.9	195	Clear	None
12:00	5	15	100	67.69	0.40	7	2.08	18.1	1.5	17.6	187.5	Clear	None
12:05	5	20	100	67.69	0.53	7.01	2.08	15.4	1.17	17.6	181.2	Clear	None
12:10	5	25	100	67.69	0.66	7.01	2.08	15.9	0.91	17.5	173.9	Clear	None
12:15	5	30	100	67.69	0.79	7	2.08	17.4	0.78	17.3	168.2	Clear	None
12:20	5	35	100	67.69	0.92	6.99	2.07	17.5	0.71	17.6	163	Clear	None
12:25	5	40	100	67.69	1.06	6.98	2.07	17.2	0.72	17.9	155.3	Clear	None
12:30	5	45	100	67.69	1.19	6.97	2.06	17	0.68	18.1	152.7	Clear	None
12:35	5	50	100	67.69	1.32	6.97	2.07	16.9	0.71	18.2	152	Clear	None

Constituent Sampled	**Container**	**Number**	**Preservative**
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Used historical total depth

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: Plant 2
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

Project Number	30267725	**Well ID**	PW-14-03R			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	6	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	74.31	**Total Depth (ft-bmp)**	92.95	**Water Column (ft)**	18.64	**Gallons in Well**	27.26
Purge Start	10:25	**Pump Intake (ft-bmp)**	90.45	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	11:05	**Volumes Purged**	0.05	**Sample ID**	PW-14-03R_050925	**Sampled by**	Donald Richmond
Sample Time	10:55	**Gallons Purged**	1.32	**Replicate/ Code No.**	DUP-05_050925	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:35	0	0	200	74.31	0.53	2.46	4.56	4.43	0.7	16.9	484	Clear	None
10:40	5	5	200	74.31	0.79	2.46	4.58	4.1	0.48	17.3	505.2	Clear	None
10:45	5	10	200	74.31	1.06	2.45	4.6	2.01	0.45	17.3	508.4	Clear	None
10:50	5	15	200	74.31	1.32	2.45	4.61	1.71	0.41	17.3	509.1	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	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: Plant 3
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

Project Number	30267725	**Well ID**	TW-14-02			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	55.9 degrees F and Rain. The wind is blowing NW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	63.39	**Total Depth (ft-bmp)**	71.95	**Water Column (ft)**	8.56	**Gallons in Well**	1.39
Purge Start	14:25	**Pump Intake (ft-bmp)**	70	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	15:10	**Volumes Purged**	0.86	**Sample ID**	TW-14-02_050625	**Sampled by**	Billy Cobern
Sample Time	15:10	**Gallons Purged**	1.19	**Replicate/ Code No.**	DUP-04_050625	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:25	0	0	100	63.39	0.00	0	0	0	0	0	0	Clear	None
14:30	5	5	100	63.89	0.13	7.45	4.24	12.8	7.24	15.9	173.9	Clear	None
14:35	5	10	100	64.26	0.26	7.38	4.25	10.2	7.63	16.2	172	Clear	None
14:40	5	15	100	64.67	0.40	7.33	4.26	9.89	1.1	16.4	171	Clear	None
14:45	5	20	100	64.82	0.53	7.27	4.27	8.91	0.76	16.4	176.8	Clear	None
14:50	5	25	100	65.07	0.66	7.24	4.27	9.09	0.81	16.4	180.5	Clear	None
14:55	5	30	100	65.19	0.79	7.25	4.27	6.89	0.69	16.4	181.4	Clear	None
15:00	5	35	100	65.22	0.92	7.25	4.26	5.85	0.63	16.4	183	Clear	None
15:05	5	40	100	65.25	1.06	7.26	4.26	5.79	0.63	16.5	183.1	Clear	None
15:10	5	45	100	65.27	1.19	7.25	4.25	5.54	0.62	16.5	183.7	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	6	HCL

Comments: Didn't meet maximum drawdown requirements, 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: Plant 2
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

Project Number	30267725	**Well ID**	TW-15-11			**Date**	5/9/2025
Project Name/Location	RACER Lansing 2025 GWS	**Weather(°F)**					
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	74.13	**Total Depth (ft-bmp)**	87.03	**Water Column (ft)**	12.90	**Gallons in Well**	2.10
Purge Start	09:20	**Pump Intake (ft-bmp)**	84.53	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	10:00	**Volumes Purged**	0.76	**Sample ID**	TW-15-11_050925	**Sampled by**	Donald Richmond
Sample Time	09:55	**Gallons Purged**	1.59	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
09:30	0	0	200	74.13	0.53	7.07	2.92	26.5	4.37	13.8	74.1	Clear	None
09:35	5	5	200	74.13	0.79	7.06	2.92	19.6	4.44	13.8	75.1	Clear	None
09:40	5	10	200	74.13	1.06	7.02	2.96	13.1	3.98	14.2	77.2	Clear	None
09:45	5	15	200	74.13	1.32	7.01	2.98	13	3.95	14.5	77.9	Clear	None
09:50	5	20	200	74.13	1.59	6.99	2.99	12.4	3.74	14.6	81.1	Clear	None

Constituent Sampled	Container	Number	Preservative
1,4-Dioxane 8270D SIM	40 mL Glass	3	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: Plant 3
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

Project Number	30267725	**Well ID**	TW-15-12			**Date**	5/6/2025
Project Name/Location	RACER Lansing 2025 GWS		**Weather(°F)**	55.0 degrees F and Fog/Mist. The wind is blowing N/NW at 6.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**MP Elevation**		**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	65.53	**Total Depth (ft-bmp)**	77.1	**Water Column (ft)**	11.57	**Gallons in Well**	7.52
Purge Start	13:05	**Pump Intake (ft-bmp)**	74.5	**Purge Method**	Low-Flow	**Purge Equipment**	Bladder
Purge End	13:50	**Volumes Purged**	0.16	**Sample ID**	TW-15-12_050625	**Sampled by**	Billy Cobern
Sample Time	13:50	**Gallons Purged**	1.19	**Replicate/ Code No.**	NA	**Sample Type**	Grab

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallon Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
13:05	0	0	100	65.53	0.00	0	0	0	0	0	0	Clear	None
13:10	5	5	100	65.63	0.13	7.01	2.94	29.8	5.34	14	128.6	Clear	None
13:15	5	10	100	65.66	0.26	7	2.94	15.4	2.77	13.9	132.8	Clear	None
13:20	5	15	100	65.66	0.40	6.99	2.94	18.8	1.72	13.9	135.7	Clear	None
13:25	5	20	100	65.66	0.53	6.98	2.94	13.2	1.67	13.9	138.3	Clear	None
13:30	5	25	100	65.66	0.66	6.98	2.94	11.3	0.55	13.9	142.2	Clear	None
13:35	5	30	100	65.66	0.79	6.98	2.94	10.2	0.57	13.8	142.8	Clear	None
13:40	5	35	100	65.66	0.92	6.98	2.93	9.9	0.78	13.9	145.9	Clear	None
13:45	5	40	100	65.66	1.06	6.98	2.93	9.52	0.76	13.9	146.4	Clear	None
13:50	5	45	100	65.66	1.19	6.98	2.93	9.14	0.74	13.9	146.3	Clear	None

Constituent Sampled	Container	Number	Preservative
TKN/T. Phosphorus	125 mL Plastic	1	H2SO4
Nitrate	250 mL Plastic	1	None
1,4-Dioxane 8270D SIM	40 mL Glass	3	HCL

Comments: Soft bottom

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: Plant 2
Condition of Well: Good condition
Well Completion: Flush mount
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

Location ID:	AS-19-A05	**Date(s):**	2025-08-25	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:65.73 °F, rH:61%, Clouds: 40%, Wind:18.41mph W-NW			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85-95	**Casing Diameter (in):**		**Well Casing Material:**	
Static Water Level (ft-bmp):	68	**Total Depth (ft-bmp):**	93.85	**Water Column(ft):**	25.85	**Liters in Well:**	
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	91.3	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:10	**Total Volume Purged (liters):**	6	**Sample ID:**	AS-19-05_082526	**Sample Time:**	14:10
Purge End Time:	14:10	**Well Volumes Purged (total):**		**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:15	0	100	mL/min	68.30	6.55	3.3	198.9	5.48	20.5	72.1	Clear	No Odor
13:20	5	100	mL/min	68.30	6.56	3.36	154	5.35	20.6	76.5	Clear	No Odor
13:25	10	100	mL/min	68.30	6.56	3.44	106.5	5.27	20.7	79.2	Clear	No Odor
13:30	15	100	mL/min	68.30	6.56	3.54	90.9	3.55	20.7	84	Clear	No Odor
13:35	20	100	mL/min	68.30	6.51	3.76	82.7	4.4	20.4	89.6	Clear	No Odor
13:40	25	100	mL/min	68.30	6.46	3.72	73.3	4.42	20.4	89	Clear	No Odor
13:45	30	100	mL/min	68.30	6.35	3.62	55.8	4.54	20.2	88	Clear	No Odor
13:50	35	100	mL/min	68.30	6.29	3.58	41.4	4.63	20.2	87.3	Clear	No Odor
13:55	40	100	mL/min	68.30	6.23	3.49	28.7	5.06	20.6	86.9	Clear	No Odor
14:00	45	100	mL/min	68.30	6.2	3.44	17.3	5.29	20.8	86.2	Clear	No Odor
14:05	50	100	mL/min	68.30	6.19	3.43	13.3	5.31	20.9	86.3	Clear	No Odor
14:10	55	100	mL/min	68.30	6.18	3.43	15.9	5.39	20.9	86.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Turbidity didn't stabilize within 60 minutes. Well under pressure.

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-21	**Date(s):**	2025-08-25	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:63.43 °F, rH:68%, Clouds: 75%, Wind:9.22mph NW			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70-75	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.2	**Total Depth (ft-bmp):**	78.05	**Water Column(ft):**	11.85	**Liters in Well:**	7.32
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	75.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:40	**Total Volume Purged (liters):**	4	**Sample ID:**	MW-12-21_082525	**Sample Time:**	12:20
Purge End Time:	12:20	**Well Volumes Purged (total):**	0.55	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-01_082525	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:45	0	100	mL/min	66.53	6.67	1.9	40.4	1.66	15.9	-43.8	Clear	No Odor
11:50	5	100	mL/min	66.53	6.7	1.88	20.6	1	17.3	-59.2	Clear	No Odor
11:55	10	100	mL/min	66.53	6.7	1.89	14.3	0.88	17.5	-63.8	Clear	No Odor
12:00	15	100	mL/min	66.53	6.7	1.87	13.8	0.7	17.9	-68	Clear	No Odor
12:05	20	100	mL/min	66.53	6.69	1.88	12.5	0.63	17.7	-69.2	Clear	No Odor
12:10	25	100	mL/min	66.53	6.69	1.88	9.69	0.58	17.1	-69.7	Clear	No Odor
12:15	30	100	mL/min	66.53	6.69	1.88	9.41	0.57	17.1	-69.8	Clear	No Odor
12:20	35	100	mL/min	66.53	6.69	1.88	9.12	0.55	17.1	-69.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-22	**Date(s):**	2025-08-25	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:61.09 °F, rH:74%, Clouds: 100%, Wind:11.5mph W			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	89-94	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	70.15	**Total Depth (ft-bmp):**	96.05	**Water Column(ft):**	25.9	**Liters in Well:**	16
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	93.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:30	**Total Volume Purged (liters):**	4.5	**Sample ID:**	MW-13-22_082525	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.28	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:35	0	100	mL/min	70.45	6.62	2.01	45.7	1.78	16.1	126.6	Clear	No Odor
10:40	5	100	mL/min	70.45	6.65	2	32.2	1.44	16.7	109.9	Clear	No Odor
10:45	10	100	mL/min	70.45	6.67	2.02	27.5	1.38	16.6	95.7	Clear	No Odor
10:50	15	100	mL/min	70.45	6.67	2.01	16.8	1.32	16.5	86	Clear	No Odor
10:55	20	100	mL/min	70.46	6.68	2.01	14.8	1.23	16.7	76.5	Clear	No Odor
11:00	25	100	mL/min	70.45	6.7	1.99	10.7	1.23	18.3	64.7	Clear	No Odor
11:05	30	100	mL/min	70.45	6.7	1.99	9.08	1.25	18.5	63.2	Clear	No Odor
11:10	35	100	mL/min	70.45	6.71	1.99	8.76	1.24	18.5	61.7	Clear	No Odor
11:15	40	100	mL/min	70.45	6.7	1.99	8.69	1.23	18.5	60.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-122	**Date(s):**	2025-08-26	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:56.35 °F, rH:75%, Clouds: 0%, Wind:4.61mph W			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	59-64	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	65.08	**Total Depth (ft-bmp):**	66.75	**Water Column(ft):**	1.67	**Liters in Well:**	1.03
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	66.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:00	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-19-122_082625	**Sample Time:**	10:00
Purge End Time:	10:00	**Well Volumes Purged (total):**	5.83	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:05	0	100	mL/min	65.41	7.07	5.03	298	9.23	16	112.9	Clear	No Odor
09:10	5	100	mL/min	65.41	6.79	2.74	234	9.38	16.1	105.2	Clear	No Odor
09:15	10	100	mL/min	65.41	7.03	3.53	210	7.71	16.1	102.2	Clear	No Odor
09:20	15	100	mL/min	65.41	7.04	3.51	188	7.21	16.1	102.3	Clear	No Odor
09:25	20	100	mL/min	65.41	7.04	3.46	163	6.9	16.2	102.4	Clear	No Odor
09:30	25	100	mL/min	65.41	7.04	3.43	141	6.74	16.2	102.5	Clear	No Odor
09:35	30	100	mL/min	65.41	7.05	3.39	127	6.61	16.2	102.5	Clear	No Odor
09:40	35	100	mL/min	65.41	7.05	3.33	109	6.54	16.2	102.5	Clear	No Odor
09:45	40	100	mL/min	65.41	7.05	3.36	102	6.45	16.2	102.3	Clear	No Odor
09:50	45	100	mL/min	65.41	7.05	3.35	78.9	6.37	16.2	102.2	Clear	No Odor
09:55	50	100	mL/min	65.41	7.05	3.35	54.7	6.31	16.2	102.1	Clear	No Odor
10:00	55	100	mL/min	65.41	7.05	3.34	61.3	6.27	16.2	102.1	Brown	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Could not measure drawdown due to pump. Turbidity didn't stabilize within 60 minutes.

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-123	**Date(s):**	2025-08-26	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	HAZE, T:67.53 °F, rH:48%, Clouds: 75%, Wind:6.91mph NW			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66-71	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	68.78	**Total Depth (ft-bmp):**	73.75	**Water Column(ft):**	4.97	**Liters in Well:**	3.07
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	72.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	4.5	**Sample ID:**	MW-19-123_082626	**Sample Time:**	14:00
Purge End Time:	14:00	**Well Volumes Purged (total):**	1.47	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	100	mL/min	69.10	6.73	2.31	69.7	6.95	16.8	75.9	Clear	No Odor
13:25	5	100	mL/min	69.10	6.67	2.23	78.8	6.07	16.4	78	Clear	No Odor
13:30	10	100	mL/min	69.10	6.67	2.21	55.5	6	16.8	79.8	Clear	No Odor
13:35	15	100	mL/min	69.10	6.65	2.21	48.8	5.87	16.9	80.8	Clear	No Odor
13:40	20	100	mL/min	69.10	6.65	2.21	37.4	5.78	17	82.2	Clear	No Odor
13:45	25	100	mL/min	69.10	6.65	2.19	22.1	5.65	17.1	83.3	Clear	No Odor
13:50	30	100	mL/min	69.10	6.65	2.19	16.7	5.6	17	84.1	Clear	No Odor
13:55	35	100	mL/min	69.10	6.65	2.18	15.5	5.52	17.1	84.5	Clear	No Odor
14:00	40	100	mL/min	69.10	6.65	2.17	15.3	5.51	17.1	84.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Well under pressure

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-129	**Date(s):**	2025-08-26	**Work Order(s):**			Q3 2025 GWS (Bio event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:61.81 °F, rH:61%, Clouds: 0%, Wind:6.91mph W			**Field Technician:**			Billy Cobern
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	64-69	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	61.67	**Total Depth (ft-bmp):**	71	**Water Column(ft):**	9.33	**Liters in Well:**	5.76
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	68.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:30	**Total Volume Purged (liters):**	4.5	**Sample ID:**	MW-20-129_082625	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.78	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:35	0	100	mL/min	62.00	6.88	1.59	98.6	1.07	17.2	-7.3	Clear	No Odor
10:40	5	100	mL/min	62.31	6.87	1.59	91.1	0.87	18.1	-25.1	Clear	No Odor
10:45	10	100	mL/min	62.60	6.86	1.59	77.8	0.81	18.4	-32.7	Clear	No Odor
10:50	15	100	mL/min	62.88	6.85	1.53	60.8	0.82	18.8	-37.1	Clear	No Odor
10:55	20	100	mL/min	63.05	6.84	1.53	44.8	0.78	18.9	-39.1	Clear	No Odor
11:00	25	100	mL/min	63.29	6.84	1.57	33.3	0.74	19	-40.8	Clear	No Odor
11:05	30	100	mL/min	63.41	6.84	1.57	26.7	0.71	19.1	-42.4	Clear	No Odor
11:10	35	100	mL/min	63.57	6.84	1.56	24.98	0.71	19.1	-43.6	Clear	No Odor
11:15	40	100	mL/min	63.69	6.84	1.56	24.1	0.71	19.1	-42.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Didn't meet drawdown requirements

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	PW-14-03R	**Date(s):**	2025-08-25	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	RAIN, T:66.04 °F, rH:63%, Clouds: 100%, Wind:5.75mph W			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85-90	**Casing Diameter (in):**	6	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	74.48	**Total Depth (ft-bmp):**	94.3	**Water Column(ft):**	19.82	**Liters in Well:**	110.2
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	92	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:00	**Total Volume Purged (liters):**	4.5	**Sample ID:**	PW-14-03R_082525	**Sample Time:**	16:45
Purge End Time:	16:45	**Well Volumes Purged (total):**	0.04	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:05	0	100	mL/min	74.70	2.35	7.19	342	8.42	19	589.5	Clear	No Odor
16:10	5	100	mL/min	74.70	2.34	7.27	299	7.78	18.7	584.6	Clear	No Odor
16:15	10	100	mL/min	74.70	2.32	7.34	241	7.85	17.8	594.7	Clear	No Odor
16:20	15	100	mL/min	74.70	2.32	7.31	212	7.87	18.1	597.4	Clear	No Odor
16:25	20	100	mL/min	74.70	2.31	7.34	145	8.09	17.6	598.6	Clear	No Odor
16:30	25	100	mL/min	74.70	2.31	735	141	8.49	17.4	601.8	Clear	No Odor
16:35	30	100	mL/min	74.70	2.3	7.34	131	8.45	17.4	603	Clear	No Odor
16:40	35	100	mL/min	74.70	2.31	7.35	136	8.45	17.4	603	Clear	No Odor
16:45	40	100	mL/min	74.70	2.3	7.34	128	8.4	17.4	603.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: pH very low, conductivity and ORP high

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	TW-14-02	**Date(s):**	2025-08-26	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:64.89 °F, rH:53%, Clouds: 0%, Wind:11.5mph W			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	67-72	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.75	**Total Depth (ft-bmp):**	71.9	**Water Column(ft):**	5.15	**Liters in Well:**	3.18
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	69.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:45	**Total Volume Purged (liters):**	5	**Sample ID:**	TW-14-02_082625	**Sample Time:**	12:35
Purge End Time:	12:35	**Well Volumes Purged (total):**	1.57	**Replicate Type / Replicate ID:**	**MS/MSD** / TW-14-02_082625	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	100	mL/min	67.00	7.06	4.85	47.7	7.57	19	59.2	Clear	No Odor
11:55	5	100	mL/min	67.00	7.1	4.81	44.2	7.09	20.2	60.7	Clear	No Odor
12:00	10	100	mL/min	67.00	7.1	4.87	40.5	6.76	20	64	Clear	No Odor
12:05	15	100	mL/min	67.00	7.09	4.85	36.5	6.79	20	66.9	Clear	No Odor
12:10	20	100	mL/min	67.00	7.08	4.87	27.7	6.8	20.2	68.8	Clear	No Odor
12:15	25	100	mL/min	67.00	7.06	4.88	22.5	6.76	20.1	70.3	Clear	No Odor
12:20	30	100	mL/min	67.00	7.04	4.89	16.7	6.81	20.2	72.2	Clear	No Odor
12:25	35	100	mL/min	67.00	7.02	4.89	9.92	6.67	20.2	74	Clear	No Odor
12:30	40	100	mL/min	67.00	7.02	4.92	9.56	6.31	20	75.1	Clear	No Odor
12:35	45	100	mL/min	67.00	7.02	4.91	9.69	6.26	20	75.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Well under pressure, water level measurement was challenging

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	TW-15-11	**Date(s):**	2025-08-25	**Work Order(s):**		Q3 2025 GWS (Bio event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:65.64 °F, rH:64%, Clouds: 100%, Wind:10.36mph W-NW			**Field Technician:**		Billy Cobern	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85-90	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	71.7	**Total Depth (ft-bmp):**	87	**Water Column(ft):**	15.3	**Liters in Well:**	9.45
Depth to Product (ft-bmp):		**Pump Intake Depth(ft-bmp):**	84.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:45	**Total Volume Purged (liters):**	4.5	**Sample ID:**	TW-15-11_082525	**Sample Time:**	15:30
Purge End Time:	15:30	**Well Volumes Purged (total):**	0.48	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS /
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:50	0	100	mL/min	72.00	7.4	3.87	313	12.35	16.8	86.7	Clear	No Odor
14:55	5	100	mL/min	72.00	7.34	3.74	222	12.78	16.8	78.2	Clear	No Odor
15:00	10	100	mL/min	72.00	7.34	3.89	136	11.59	16.9	76.8	Clear	No Odor
15:05	15	100	mL/min	72.00	7.34	3.89	91.5	11.96	16.9	75.6	Clear	No Odor
15:10	20	100	mL/min	72.00	7.35	3.9	78.9	10.26	17.3	74.1	Clear	No Odor
15:15	25	100	mL/min	72.00	7.35	3.91	44.2	9.57	17.1	73.3	Clear	No Odor
15:20	30	100	mL/min	72.00	7.34	3.91	31.1	11.95	16.7	73.5	Clear	No Odor
15:25	35	100	mL/min	72.00	7.35	3.91	30.8	11.74	16.8	73.5	Clear	No Odor
15:30	40	100	mL/min	72.00	7.35	3.91	30.8	11.67	16.8	73.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Well under pressure

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Description:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	AS-19-A05	**Date(s):**	2025-11-05	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:52.29 °F, rH:80%, Clouds: 0%, Wind:11.5mph SW			**Field Technician:**			Donald Richmond
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-95.00	**Casing Diameter (in):**	NA	**Well Casing Material:**	NA
Static Water Level (ft-bmp):	68.93	**Total Depth (ft-bmp):**	93.99	**Water Column(ft):**	25.06	**Gallons in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:30	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	AS-19-A05_110525	**Sample Time:**	10:00
Purge End Time:	10:00	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:40	0	200	mL/min	68.93	6.05	3.153	54.64	2.53	13.8	215	Clear	No Odor
09:45	5	200	mL/min	68.93	6.11	3.16	54.7	1.86	13.9	207.4	Clear	No Odor
09:50	10	200	mL/min	68.93	6.11	3.164	52	1.56	14	204.8	Clear	No Odor
09:55	15	200	mL/min	68.93	6.12	3.167	54	1.38	13.9	203.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	CH-14-RO	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:35.65 °F, rH:80%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.66	**Total Depth (ft-bmp):**	14.82	**Water Column(ft):**	6.16	**Gallons in Well:**	1.01
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:05	**Total Volume Purged (gallons):**	2.112	**Sample ID:**	CH-14-RO_110625	**Sample Time:**	09:50
Purge End Time:	09:50	**Well Volumes Purged (total):**	2.09	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-04_110625	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:15	0	200	mL/min	8.66	7.13	1.136	4.72	2.2	15.3	244	Clear	No Odor
09:20	5	200	mL/min	8.66	7.12	1.139	3.83	1.34	16.2	242.3	Clear	No Odor
09:25	10	200	mL/min	8.66	7.11	1.14	4.04	0.95	16.4	238	Clear	No Odor
09:30	15	200	mL/min	8.66	7.1	1.138	4.73	0.77	16.4	233	Clear	No Odor
09:35	20	200	mL/min	8.66	7.1	1.136	5.11	0.71	16.7	229.6	Clear	No Odor
09:40	25	200	mL/min	8.66	7.1	1.139	3.25	0.65	16.7	226.7	Clear	No Odor
09:45	30	200	mL/min	8.66	7.09	1.138	3.57	0.61	16.6	223	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-02-02(6)	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:12.98 °C, rH:57%, Clouds: 49%, Wind:9.2m/s W			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	35.00-45.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	28.8	**Total Depth (ft-bmp):**	43.4	**Water Column(ft):**	14.6	**Liters in Well:**	9.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	40.9	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:55	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-02-02(6)_110325	**Sample Time:**	13:25
Purge End Time:	13:30	**Well Volumes Purged (total):**	0.67	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-02-02(6)_110325 MS/MSD	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:00	0	200	mL/min	31.90	6.73	5.417	44.52	0.61	14.4	-97.4	Clear	No Odor
13:05	5	200	mL/min	32.00	6.74	5.638	12.48	0.41	14.4	-99.3	Clear	No Odor
13:10	10	200	mL/min	32.00	6.75	5.905	9.52	0.35	14.3	-101.2	Clear	No Odor
13:15	15	200	mL/min	32.00	6.75	5.935	9.11	0.33	14.3	-104.9	Clear	No Odor
13:20	20	200	mL/min	32.02	6.76	5.979	9.11	0.32	14.2	-109.8	Clear	No Odor
13:25	25	200	mL/min	32.02	6.76	5.995	8.74	0.3	14.2	-111.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-02-04(3)	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:51.89 °F, rH:64%, Clouds: 100%, Wind:19.57mph NW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	76.00-86.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	62.2	**Total Depth (ft-bmp):**	83.08	**Water Column(ft):**	20.88	**Gallons in Well:**	3.41
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:15	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-02-04(3)_110525	**Sample Time:**	16:15
Purge End Time:	16:15	**Well Volumes Purged (total):**	0.85	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:20	0	200	mL/min	62.20	6.94	3.922	118	2.71	12.8	195.5	Clear	No Odor
15:25	5	200	mL/min	62.20	6.92	3.934	119	1.77	13.2	192.2	Clear	No Odor
15:30	10	200	mL/min	62.20	6.92	3.967	128	1.38	13.4	188.9	Clear	No Odor
15:35	15	200	mL/min	62.20	6.92	3.986	180	1	12.9	181.7	Clear	No Odor
15:40	20	200	mL/min	62.20	6.92	3.987	185	0.9	12.9	177.7	Clear	No Odor
15:45	25	200	mL/min	62.20	6.92	3.997	259.72	0.71	13	168.6	Clear	No Odor
15:50	30	200	mL/min	62.20	6.91	4.015	343	0.62	13.1	161	Clear	No Odor
15:55	35	200	mL/min	62.20	6.9	4.007	396	0.55	13.2	148.8	Clear	No Odor
16:00	40	200	mL/min	62.20	6.9	3.981	405	0.51	13.2	138	Clear	No Odor
16:05	45	200	mL/min	62.20	6.89	3.979	424	0.52	13.3	123.1	Clear	No Odor
16:10	50	200	mL/min	62.20	6.89	3.985	380	0.43	13.4	92	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-03-05	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:13.06 °C, rH:40%, Clouds: 0%, Wind:9.26m/s W			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	35.00-45.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.59	**Total Depth (ft-bmp):**	48	**Water Column(ft):**	26.41	**Liters in Well:**	16.32
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	45.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:35	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-03-05_110325	**Sample Time:**	15:05
Purge End Time:	15:10	**Well Volumes Purged (total):**	0.37	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-09_110325	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:40	0	200	mL/min	21.59	7.89	1.622	642.11	3.14	15.2	-68.5	Clear	No Odor
14:45	5	200	mL/min	21.59	7.88	1.617	255.71	0.75	14.9	-100.5	Clear	No Odor
14:50	10	200	mL/min	21.61	7.87	1.621	112.68	0.62	14.7	-110.6	Clear	No Odor
14:55	15	200	mL/min	21.61	7.86	1.624	98.73	0.6	14.7	-111.3	Clear	No Odor
15:00	20	200	mL/min	21.62	7.86	1.623	93.92	0.6	14.7	-113.7	Clear	No Odor
15:05	25	200	mL/min	21.62	7.85	1.625	92.44	0.63	14.6	-117.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-03-06	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:12.53 °C, rH:42%, Clouds: 0%, Wind:10.29m/s W			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	30.00-40.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	35.88	**Total Depth (ft-bmp):**	40.6	**Water Column(ft):**	4.72	**Liters in Well:**	2.92
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	39.6	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:45	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-03-06_110325	**Sample Time:**	16:15
Purge End Time:	16:20	**Well Volumes Purged (total):**	2.05	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:50	0	200	mL/min	36.32	6.74	8.2	34.56	0.45	14.1	-58.2	Clear	No Odor
15:55	5	200	mL/min	36.59	6.75	8.245	18.64	0.34	14.1	-58.7	Clear	No Odor
16:00	10	200	mL/min	36.82	6.75	8.323	12.61	0.21	14	-60.4	Clear	No Odor
16:05	15	200	mL/min	36.87	6.75	8.334	9.42	0.2	14	-60.6	Clear	No Odor
16:10	20	200	mL/min	36.89	6.76	8.352	9.08	0.18	14	-61.1	Clear	No Odor
16:15	25	200	mL/min	36.89	6.76	8.384	8.85	0.15	14	-61.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-04-04R	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:14.36 °C, rH:38%, Clouds: 100%, Wind:6.69m/s W-SW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	82.00-110.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	77.22	**Total Depth (ft-bmp):**	111.11	**Water Column(ft):**	33.89	**Liters in Well:**	83.75
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	108.61	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:00	**Total Volume Purged (liters):**	7	**Sample ID:**	MW-04-04R_110425	**Sample Time:**	13:35
Purge End Time:	13:45	**Well Volumes Purged (total):**	0.08	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-12_110425	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:05	0	200	mL/min	77.65	6.97	1.185	14.22	0.59	13.7	-62.1	Clear	No Odor
13:10	5	200	mL/min	77.65	6.96	1.176	11.69	0.48	13.7	-61.1	Clear	No Odor
13:15	10	200	mL/min	77.65	6.95	1.166	8.83	0.44	13.7	-60.3	Clear	No Odor
13:20	15	200	mL/min	77.65	6.94	1.162	6.61	0.42	13.7	-60	Clear	No Odor
13:25	20	200	mL/min	77.65	6.94	1.155	6.02	0.39	13.6	-59.4	Clear	No Odor
13:30	25	200	mL/min	77.65	6.94	1.152	5.73	0.38	13.6	-59.1	Clear	No Odor
13:35	30	200	mL/min	77.65	6.94	1.146	5.52	0.38	13.5	-58.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-04-05(6)	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:10.59 °C, rH:65%, Clouds: 0%, Wind:4.63m/s W-SW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.54	**Total Depth (ft-bmp):**	29.55	**Water Column(ft):**	20.01	**Liters in Well:**	12.36
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27.05	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:00	**Total Volume Purged (liters):**	7	**Sample ID:**	MW-04-05(6)_110425	**Sample Time:**	10:35
Purge End Time:	10:45	**Well Volumes Purged (total):**	0.57	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	200	mL/min	10.75	7.65	2.245	3.64	0.71	15.3	-87.5	Clear	No Odor
10:10	5	200	mL/min	11.42	7.62	2.229	3.12	0.45	15.5	-102.2	Clear	No Odor
10:15	10	200	mL/min	12.10	7.59	2.21	2.94	0.32	15.6	-110	Clear	No Odor
10:20	15	200	mL/min	12.19	7.58	2.215	2.57	0.31	15.5	-111.3	Clear	No Odor
10:25	20	200	mL/min	12.21	7.57	2.211	2.29	0.31	15.6	-112.9	Clear	No Odor
10:30	25	200	mL/min	12.22	7.56	2.207	2.02	0.29	15.6	-114.7	Clear	No Odor
10:35	30	200	mL/min	12.22	7.56	2.207	1.79	0.27	15.7	-115.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-04-06R	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:12.89 °C, rH:53%, Clouds: 0%, Wind:6.17m/s W			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	74.00-99.50	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	66.53	**Total Depth (ft-bmp):**	77.93	**Water Column(ft):**	11.4	**Liters in Well:**	28.17
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75.43	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:10	**Total Volume Purged (liters):**	7	**Sample ID:**	MW-04-06R_110425	**Sample Time:**	11:45
Purge End Time:	11:50	**Well Volumes Purged (total):**	0.25	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	200	mL/min	66.64	7.61	5.925	66.78	0.31	13.7	-183.2	Clear	No Odor
11:20	5	200	mL/min	66.64	7.59	5.931	43.31	0.23	13.7	-189.8	Clear	No Odor
11:25	10	200	mL/min	66.64	7.55	5.949	21.11	0.2	13.7	-190.1	Clear	No Odor
11:30	15	200	mL/min	66.64	7.49	6.001	15.69	0.18	13.6	-187.2	Clear	No Odor
11:35	20	200	mL/min	66.64	7.43	6.04	14.91	0.17	13.6	-183.1	Clear	No Odor
11:40	25	200	mL/min	66.64	7.42	6.103	14.12	0.17	13.6	-181.8	Clear	No Odor
11:45	30	200	mL/min	66.64	7.42	6.103	13.92	0.16	13.5	-177.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-05R	**Date(s):**	2025-10-30	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:38.44 °F, rH:93%, Clouds: 0%, Wind:5.75mph N			**Field Technician:**			Donald Richmond
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	100.00-112.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	74.86	**Total Depth (ft-bmp):**	109.23	**Water Column(ft):**	34.37	**Gallons in Well:**	22.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:45	**Total Volume Purged (gallons):**	1.584	**Sample ID:**	MW-12-05R_103025	**Sample Time:**	11:20
Purge End Time:	11:20	**Well Volumes Purged (total):**	0.07	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:50	0	200	mL/min	74.86	9.64	0.315	68.01	2.31	13.4	132	Clear	No Odor
10:55	5	200	mL/min	74.86	9.65	0.306	66	1.2	13.8	124	Clear	No Odor
11:00	10	200	mL/min	74.86	9.66	0.304	66	0.66	13.8	115.2	Clear	No Odor
11:05	15	200	mL/min	74.86	9.67	0.304	67	0.53	13.9	112.4	Clear	No Odor
11:10	20	200	mL/min	74.86	9.67	0.304	71	0.46	13.9	109.8	Clear	No Odor
11:15	25	200	mL/min	74.86	9.63	0.312	66	0.42	14	108.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-06	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:48.02 °F, rH:77%, Clouds: 0%, Wind:16.11mph N			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.60-99.50	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	74.61	**Total Depth (ft-bmp):**	103.53	**Water Column(ft):**	28.92	**Gallons in Well:**	18.88
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:05	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-12-06_103025	**Sample Time:**	13:05
Purge End Time:	13:05	**Well Volumes Purged (total):**	0.15	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:15	0	200	mL/min	74.61	7.16	0.858	109	0.73	14.4	115	Clear	No Odor
12:20	5	200	mL/min	74.61	7.15	0.857	139	0.72	14.5	100	Clear	No Odor
12:25	10	200	mL/min	74.61	7.13	0.856	148	0.69	14.5	66.5	Clear	No Odor
12:30	15	200	mL/min	74.61	7.13	0.853	141	0.53	14.5	34.2	Clear	No Odor
12:35	20	200	mL/min	74.61	7.12	0.855	139	1.56	14.5	14.8	Clear	No Odor
12:40	25	200	mL/min	74.61	7.12	0.855	119	0.98	14.6	4.3	Clear	No Odor
12:45	30	200	mL/min	74.61	7.12	0.858	115	0.8	13.9	-5.9	Clear	No Odor
12:50	35	200	mL/min	74.61	7.12	0.855	104.35	0.73	14.2	-11.8	Clear	No Odor
12:55	40	200	mL/min	74.61	7.11	0.857	86	0.65	14.9	-21.2	Clear	No Odor
13:00	45	200	mL/min	74.61	7.11	0.859	84	0.6	14.9	-24.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-09	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:1.74 °C, rH:93%, Clouds: 0%, Wind:3.6m/s NE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	14.00-19.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.96	**Total Depth (ft-bmp):**	19	**Water Column(ft):**	6.04	**Gallons in Well:**	0.99
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	16	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:21	**Total Volume Purged (gallons):**	1.691	**Sample ID:**	MW-12-09_102925	**Sample Time:**	10:25
Purge End Time:	10:30	**Well Volumes Purged (total):**	1.71	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:25	0	100	mL/min	12.96	6.89	1.029	43.41	1.09	15.1	145.3	Clear	No Odor
09:30	5	100	mL/min	12.96	6.99	1.128	111.73	0.44	15.1	-76	Clear	No Odor
09:35	10	100	mL/min	12.96	7.03	1.162	70.22	0.3	15.3	-111.4	Clear	No Odor
09:40	15	100	mL/min	12.96	7.05	1.175	44.99	0.18	15.5	-122.8	Clear	No Odor
09:45	20	100	mL/min	12.96	7.06	1.192	32.34	0.13	15.4	-127.5	Clear	No Odor
09:50	25	100	mL/min	12.96	7.06	1.222	20.2	0.1	15.6	-129.1	Clear	No Odor
09:55	30	100	mL/min	12.96	7.05	1.262	17.64	0.08	15.6	-129.8	Clear	No Odor
10:00	35	100	mL/min	12.96	7.04	1.317	18.45	0.06	15.8	-129.9	Clear	No Odor
10:05	40	100	mL/min	12.96	7.03	1.394	20.44	0.04	15.9	-130.2	Clear	No Odor
10:10	45	100	mL/min	12.96	7.02	1.438	22.21	0.03	16	-130.2	Clear	No Odor
10:15	50	100	mL/min	12.96	7.01	1.456	23	0.03	16.1	-130.3	Clear	No Odor
10:20	55	100	mL/min	12.96	7.01	1.486	28	0.01	15.8	-130.1	Clear	No Odor
10:25	60	100	mL/min	12.96	7.01	1.497	29.99	0.01	15.8	-129.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-10R	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:6.83 °C, rH:82%, Clouds: 75%, Wind:3.09m/s W-NW			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	10.00-15.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.36	**Total Depth (ft-bmp):**	15	**Water Column(ft):**	2.64	**Gallons in Well:**	0.43
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	14	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:43	**Total Volume Purged (gallons):**	1.638	**Sample ID:**	MW-12-10R_103125	**Sample Time:**	10:50
Purge End Time:	10:50	**Well Volumes Purged (total):**	3.81	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:45	0	100	mL/min	12.67	6.47	5.5	23	1.05	15.1	39.6	Clear	No Odor
09:50	5	100	mL/min	12.63	6.49	5.36	22.11	0.5	15	57.7	Clear	No Odor
09:55	10	100	mL/min	12.65	6.49	5.448	10.1	0.3	15	64.8	Clear	No Odor
10:00	15	100	mL/min	12.65	6.48	5.783	11.66	0.2	15.1	69.1	Clear	No Odor
10:05	20	100	mL/min	12.67	6.48	6.18	6.03	0.13	15.1	71.7	Clear	No Odor
10:10	25	100	mL/min	12.69	6.47	6.65	4.74	0.11	15.2	73.7	Clear	No Odor
10:15	30	100	mL/min	12.69	6.47	6.936	4	0.09	15.4	74.6	Clear	No Odor
10:20	35	100	mL/min	12.70	6.47	7.371	2.5	0.08	15.5	75.9	Clear	No Odor
10:25	40	100	mL/min	12.70	6.47	7.574	2	0.07	15.5	76.5	Clear	No Odor
10:30	45	100	mL/min	12.70	6.47	7.77	2.01	0.06	15.4	76.9	Clear	No Odor
10:35	50	100	mL/min	12.70	6.47	7.955	1.87	0.06	15.7	77.4	Clear	No Odor
10:40	55	100	mL/min	12.70	6.46	8.132	1.9	0.06	15.5	78	Clear	No Odor
10:45	60	100	mL/min	12.70	6.47	8.228	1.53	0.05	15.4	78.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-11	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:5.76 °C, rH:86%, Clouds: 100%, Wind:3.09m/s W-NW			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-18.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.29	**Total Depth (ft-bmp):**	18	**Water Column(ft):**	10.71	**Gallons in Well:**	1.75
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	12	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:42	**Total Volume Purged (gallons):**	1.004	**Sample ID:**	MW-12-11_103125	**Sample Time:**	09:25
Purge End Time:	09:25	**Well Volumes Purged (total):**	0.57	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:45	0	100	mL/min	7.70	6.46	2.665	6.14	2.45	14	109	Clear	No Odor
08:50	5	100	mL/min	8.00	6.59	3.177	5.32	1.1	14.1	-60.1	Clear	No Odor
08:55	10	100	mL/min	8.07	6.54	3.75	3.48	0.52	14.1	-81.6	Clear	No Odor
09:00	15	100	mL/min	8.05	6.53	3.887	3.53	0.45	14.1	-83.7	Clear	No Odor
09:05	20	100	mL/min	8.05	6.5	4.251	4.17	0.23	14.1	-86.7	Clear	No Odor
09:10	25	100	mL/min	8.10	6.5	4.39	5.68	0.15	14	-86.3	Clear	No Odor
09:15	30	100	mL/min	8.10	6.51	4.444	7.37	0.19	13.9	-85.9	Clear	No Odor
09:20	35	100	mL/min	8.10	6.51	4.498	1.54	0.16	14	-84.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-12	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	RAIN, T:9.31 °C, rH:71%, Clouds: 100%, Wind:6.69m/s W-NW			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-18.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.6	**Total Depth (ft-bmp):**	18	**Water Column(ft):**	10.4	**Gallons in Well:**	1.7
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	11	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:33	**Total Volume Purged (gallons):**	0.581	**Sample ID:**	MW-12-12_103125	**Sample Time:**	13:00
Purge End Time:	13:00	**Well Volumes Purged (total):**	0.34	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	100	mL/min	8.00	7.04	1.217	75.45	1.48	17.3	89.2	Clear	No Odor
12:40	5	100	mL/min	8.65	7.02	1.248	22.04	0.58	17	69.6	Clear	No Odor
12:45	10	100	mL/min	8.98	7.03	1.249	11.2	0.37	17.2	56.3	Clear	No Odor
12:50	15	100	mL/min	9.28	7.04	1.249	5.38	0.34	17	51.9	Clear	No Odor
12:55	20	100	mL/min	9.69	7.04	1.244	4.25	0.36	17.3	47.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-13	**Date(s):**	2025-10-31	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:44.29 °F, rH:82%, Clouds: 75%, Wind:6.91mph W-NW			**Field Technician:**			Karly Wogenstahl
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	18.50-23.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.1	**Total Depth (ft-bmp):**	23.5	**Water Column(ft):**	12.4	**Gallons in Well:**	2.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:31	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-12-13_103125	**Sample Time:**	10:20
Purge End Time:	10:24	**Well Volumes Purged (total):**	0.87	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:33	0	150	mL/min	11.32	7.68	0.669	4.07	0.77	14	70.8	Clear	No Odor
09:38	5	150	mL/min	12.20	7.59	0.666	5.4	0.25	14	18.5	Clear	No Odor
09:43	10	150	mL/min	12.20	7.6	0.665	8.06	0.19	13.8	-6.3	Clear	No Odor
09:48	15	150	mL/min	12.30	7.61	0.664	21.95	0.07	13.7	-38	Clear	No Odor
09:53	20	150	mL/min	12.32	7.62	0.661	12.7	0.06	13.8	-49.9	Clear	No Odor
09:58	25	150	mL/min	12.35	7.62	0.656	7.01	0.04	13.8	-56.5	Clear	No Odor
10:03	30	150	mL/min	12.35	7.65	0.654	6.38	0.02	13.8	-63.5	Clear	No Odor
10:08	35	150	mL/min	12.58	7.64	0.654	7.02	0.02	13.8	-64.1	Clear	No Odor
10:13	40	150	mL/min	12.60	7.64	0.651	7.01	0.02	13.8	-67.5	Clear	No Odor
10:18	45	150	mL/min	12.65	7.64	0.65	7.02	0	13.7	-70.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-18	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:8.57 °C, rH:76%, Clouds: 0%, Wind:5.58m/s E-NE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	28.00-33.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.7	**Total Depth (ft-bmp):**	33	**Water Column(ft):**	9.3	**Gallons in Well:**	1.52
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:55	**Total Volume Purged (gallons):**	1.321	**Sample ID:**	MW-12-18_102925	**Sample Time:**	11:50
Purge End Time:	11:50	**Well Volumes Purged (total):**	0.87	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-12-18-MS/MSD_102925	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:00	0	100	mL/min	24.21	8.01	2.532	18.16	3.42	13	14.4	Clear	No Odor
11:05	5	100	mL/min	24.65	6.97	2.391	14.32	2.73	12.9	40.7	Clear	No Odor
11:10	10	100	mL/min	24.70	6.94	2.343	11.24	2.62	12.9	42.8	Clear	No Odor
11:15	15	100	mL/min	24.77	6.92	2.3	9.53	2.34	12.8	44.8	Clear	No Odor
11:20	20	100	mL/min	24.83	6.91	2.307	8.31	1.9	12.8	44.9	Clear	No Odor
11:25	25	100	mL/min	24.86	6.85	2.348	8.38	1.25	12.9	-9	Clear	No Odor
11:30	30	100	mL/min	24.94	6.83	2.332	5.73	0.46	12.8	-68.7	Clear	No Odor
11:35	35	100	mL/min	24.92	6.83	2.35	5	0.44	12.8	-76.9	Clear	No Odor
11:40	40	100	mL/min	24.90	6.82	2.397	4.33	0.24	12.7	-82.1	Clear	No Odor
11:45	45	100	mL/min	24.89	6.82	2.41	5.4	0.19	12.9	-83.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-12-21	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	52 deg, partly cloudy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.06	**Total Depth (ft-bmp):**	75	**Water Column(ft):**	7.94	**Liters in Well:**	4.91
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	72.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:43	**Total Volume Purged (liters):**	7.09	**Sample ID:**	MW-12-21_110425	**Sample Time:**	15:07
Purge End Time:	14:22	**Well Volumes Purged (total):**	1.44	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:50	0	210	mL/min	68.95	6.8	1.763	28.33	1.42	14.5	-73.8	Clear	No Odor
12:55	5	210	mL/min	70.46	6.81	1.761	28.42	0.65	14.3	-70	Clear	No Odor
13:00	10	210	mL/min	72.10	6.82	1.752	40.18	0.76	14.5	-61.3	Clear	No Odor
14:00	70	110	mL/min	73.60	6.87	1.757	378.73	2.64	14.5	-54.2	Clear	No Odor
14:05	75	110	gpm	73.60	6.87	1.76	370.39	2.52	14.5	356.41	Clear	No Odor
14:10	80	110	mL/min	73.60	6.87	1.754	336.16	2.37	14.5	-54.8	Clear	No Odor
14:15	85	110	mL/min	73.60	6.86	1.745	500.12	1.84	14.5	-57.7	Clear	No Odor
14:20	90	110	mL/min	73.60	6.86	1.737	491.76	1.51	14.7	-59.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Attempted to lower flow rate at 1306 to prevent drawdown. Lost all flow. Could not restart flow regardless of increasing pressure or any discharge fill ratios. Replaced bladder still no flow. Replaced bladder and tubing entirely. Flow resumed after at 1350. New flow 110 ml to try and stop drawdown as not much water in well. Drawdown continued and the well was pumped dry. All DTW recordings 1405 and on say will say 73.6 but this is the top of the pump, depth was actually paste pump but could not be recorded due to blockage.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-22	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	49 deg, sunny			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	89.00-94.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	70.28	**Total Depth (ft-bmp):**	94	**Water Column(ft):**	23.72	**Liters in Well:**	14.65
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	91.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:37	**Total Volume Purged (liters):**	14.28	**Sample ID:**	MW-13-22_110425	**Sample Time:**	11:49
Purge End Time:	11:50	**Well Volumes Purged (total):**	0.97	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:45	0	210	mL/min	70.32	6.82	1.923	106.93	0.82	14	-61	Clear	No Odor
10:50	5	210	mL/min	70.35	6.81	1.925	320.43	0.58	14	-64.5	Clear	No Odor
10:55	10	210	mL/min	70.35	6.81	1.944	355.28	0.49	14	-67	Clear	No Odor
11:00	15	210	mL/min	70.35	6.81	1.944	500.46	0.44	14	-69	Clear	No Odor
11:05	20	210	mL/min	70.35	6.81	1.934	122.7	0.42	14	-70.6	Clear	No Odor
11:10	25	210	mL/min	70.35	6.81	1.925	45.24	0.44	14	-71.3	Clear	No Odor
11:15	30	210	mL/min	70.35	6.81	1.919	50.04	0.36	14	-72	Clear	No Odor
11:20	35	210	mL/min	70.35	6.82	1.906	101.66	0.35	14	-72.5	Clear	No Odor
11:25	40	210	mL/min	70.35	6.82	1.9	149.21	0.35	14	-72.8	Clear	No Odor
11:30	45	210	mL/min	70.35	6.82	1.898	190.55	0.35	14	-73	Clear	No Odor
11:35	50	210	mL/min	70.35	6.82	1.889	258.59	0.34	14	-73.1	Clear	No Odor
11:40	55	210	mL/min	70.35	6.82	1.883	285.36	0.33	14	-73.3	Clear	No Odor
11:45	60	210	mL/min	70.35	6.82	1.874	301.26	0.33	14.1	-73.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: New to ysi pro dss meter. Turbidity reading seemed way off, water appears clear but turn up too 500 NTU. Up turned flow cell to move air bubbles, turn dropped dramatically, still seems it may be slightly hire. Asking peers for advice. Attempted tips from other staff, turn continues to climb regardless. Will try to rinse cell after this well and see if it improves.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-25	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:57.87 °F, rH:38%, Clouds: 0%, Wind:13.8mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	67.00-72.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.17	**Total Depth (ft-bmp):**	74.99	**Water Column(ft):**	8.82	**Gallons in Well:**	1.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:55	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	MW-13-25_110425	**Sample Time:**	13:25
Purge End Time:	13:25	**Well Volumes Purged (total):**	0.92	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-13-25_110425	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:05	0	200	mL/min	66.17	6.44	1.436	5.59	1.68	13.7	200.6	Clear	No Odor
13:10	5	200	mL/min	66.17	6.39	1.451	3.78	1.06	13.7	198.2	Clear	No Odor
13:15	10	200	mL/min	66.17	6.39	1.455	3.31	0.88	13.7	196	Clear	No Odor
13:20	15	200	mL/min	66.17	6.38	1.459	3.3	0.77	13.6	193.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-28	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:55.9 °F, rH:46%, Clouds: 0%, Wind:13.8mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	99.00-115.50	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	70.95	**Total Depth (ft-bmp):**	115.18	**Water Column(ft):**	44.23	**Gallons in Well:**	28.87
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:55	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	MW-13-28_110425	**Sample Time:**	12:25
Purge End Time:	12:25	**Well Volumes Purged (total):**	0.05	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:00	0	200	mL/min	70.95	9.28	0.22	23	7.51	15.6	123.8	Clear	No Odor
12:05	5	200	mL/min	70.95	9.41	0.214	16.61	1.97	15.2	121.9	Clear	No Odor
12:10	10	200	mL/min	70.95	9.42	0.212	25	1.18	15.6	117.3	Clear	No Odor
12:15	15	200	mL/min	70.95	9.44	0.212	24	1.04	15.8	115.2	Clear	No Odor
12:20	20	200	mL/min	70.95	9.56	0.206	27	1.01	15.4	111.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-29	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	49 deg, sunny			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-73.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	65.93	**Total Depth (ft-bmp):**	73	**Water Column(ft):**	7.07	**Liters in Well:**	4.37
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	69.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:24	**Total Volume Purged (liters):**	5.98	**Sample ID:**	MW-13-29_110425	**Sample Time:**	09:53
Purge End Time:	09:53	**Well Volumes Purged (total):**	1.37	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:30	0	230	mL/min	65.90	6.48	2.612	8.89	0.68	14.3	15.2	Clear	No Odor
09:35	5	230	mL/min	65.93	6.49	2.614	5.86	0.55	14.2	12.5	Clear	No Odor
09:40	10	230	mL/min	65.90	6.49	2.604	3.73	0.45	14.4	13.1	Clear	No Odor
09:45	15	230	mL/min	65.90	6.49	2.606	4.6	0.43	14.4	13.4	Clear	No Odor
09:50	20	230	mL/min	65.90	6.5	2.601	3.07	0.39	14.4	14.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-34	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	57 deg, cloudy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	74.00-79.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.7	**Total Depth (ft-bmp):**	79	**Water Column(ft):**	12.3	**Liters in Well:**	7.6
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	72.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:00	**Total Volume Purged (liters):**	12.6	**Sample ID:**	MW-13-34_110425	**Sample Time:**	17:04
Purge End Time:	17:05	**Well Volumes Purged (total):**	1.66	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:10	0	210	mL/min	67.96	6.97	2.63	1014.69	0.61	13.7	-83.6	Clear	No Odor
16:15	5	210	mL/min	68.00	6.96	2.674	1437.49	0.41	13.7	-87.4	Clear	No Odor
16:20	10	210	mL/min	68.05	6.93	2.696	1506.42	0.42	13.7	-85.5	Clear	No Odor
16:25	15	210	mL/min	68.05	6.94	2.696	133.57	0.31	13.6	-88.3	Clear	No Odor
16:30	20	210	mL/min	68.05	6.94	2.694	1332.43	0.3	13.6	-88.9	Clear	No Odor
16:35	25	210	mL/min	68.05	6.94	2.692	914	0.3	13.6	-89.4	Clear	No Odor
16:40	30	210	mL/min	68.05	6.94	2.691	769.84	0.3	13.6	-89.7	Clear	No Odor
16:45	35	210	mL/min	68.05	6.94	2.674	630.23	0.29	13.5	-89.8	Clear	No Odor
16:50	40	210	mL/min	68.05	6.93	2.676	609.64	0.28	13.5	-89.9	Clear	No Odor
16:55	45	210	mL/min	68.05	6.93	2.675	592.34	0.27	13.5	-89.9	Clear	No Odor
17:00	50	210	mL/min	68.05	6.94	2.699	553.12	0.27	13.6	-78	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Waited till one hour of purging to sample even though after 55 minutes parameters appeared stable. Turbidity increased to 670 directly after that reading and may not be as stable as appeared.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-36R	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:45.07 °F, rH:79%, Clouds: 100%, Wind:9.22mph W-NW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.50-10.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6	**Total Depth (ft-bmp):**	10.5	**Water Column(ft):**	4.5	**Gallons in Well:**	0.73
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:32	**Total Volume Purged (gallons):**	1.25	**Sample ID:**	MW-13-16R_103125	**Sample Time:**	11:10
Purge End Time:	11:09	**Well Volumes Purged (total):**	1.71	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:34	0	150	mL/min	6.03	12.57	2.174	6.24	1.08	14.6	-87.4	Clear	No Odor
10:39	5	150	mL/min	6.03	12.63	2.178	4.25	0.56	14.7	-96.4	Clear	No Odor
10:44	10	150	mL/min	6.04	12.68	2.257	3.31	0.34	14.8	-111.2	Clear	No Odor
10:49	15	150	mL/min	6.05	12.72	2.28	2.37	0.21	14.9	-126.5	Clear	No Odor
10:54	20	150	mL/min	6.03	12.74	2.292	2.29	0.15	14.9	-133.9	Clear	No Odor
10:59	25	150	mL/min	6.03	12.75	2.317	2.11	0.1	15	-138.5	Clear	No Odor
11:04	30	150	mL/min	6.03	12.76	2.304	2.31	0.09	14.9	-141.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-43	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:48.51 °F, rH:77%, Clouds: 0%, Wind:13.8mph E			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	68.57	**Total Depth (ft-bmp):**	76.54	**Water Column(ft):**	7.97	**Liters in Well:**	4.92
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:15	**Total Volume Purged (liters):**	6.995	**Sample ID:**	MW-13-43_102825	**Sample Time:**	13:20
Purge End Time:	11:55	**Well Volumes Purged (total):**	1.42	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:25	0	200	mL/min	68.57	6.61	2.65	39	5.31	12.1	192.1	Clear	No Odor
11:30	5	200	mL/min	68.57	6.62	2.65	36	5.18	11.9	192.7	Clear	No Odor
11:35	10	200	mL/min	68.57	6.63	2.645	51	5.06	11.8	194.4	Clear	No Odor
11:40	15	200	mL/min	68.57	6.64	2.652	43	5.02	11.7	196.2	Clear	No Odor
11:45	20	200	mL/min	68.57	6.63	2.658	41	4.98	11.6	197.7	Clear	No Odor
11:50	25	200	mL/min	68.57	6.63	2.66	45	4.94	11.5	198.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-44	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:51.4 °F, rH:66%, Clouds: 75%, Wind:16.11mph N			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	96.00-115.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	78.96	**Total Depth (ft-bmp):**	118.9	**Water Column(ft):**	39.94	**Gallons in Well:**	26.07
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:55	**Total Volume Purged (gallons):**	1.584	**Sample ID:**	MW-13-44_103025	**Sample Time:**	14:35
Purge End Time:	14:35	**Well Volumes Purged (total):**	0.06	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:00	0	200	mL/min	78.96	10.4	1.495	24	3.12	14.5	82.2	Clear	No Odor
14:05	5	200	mL/min	78.96	10.4	1.514	14.32	0.98	14.8	48.7	Clear	No Odor
14:10	10	200	mL/min	78.96	10.39	1.52	18.43	0.81	14.4	41.8	Clear	No Odor
14:15	15	200	mL/min	78.96	10.39	1.52	29	0.74	14.4	37.6	Clear	No Odor
14:20	20	200	mL/min	78.96	10.37	1.521	33	0.74	14.5	34.6	Clear	No Odor
14:25	25	200	mL/min	78.96	10.36	1.523	31	0.69	14.7	31.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-45	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:53.91 °F, rH:59%, Clouds: 0%, Wind:1.99mph SE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.54	**Total Depth (ft-bmp):**	78.31	**Water Column(ft):**	10.77	**Gallons in Well:**	1.76
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:30	**Total Volume Purged (gallons):**	2.377	**Sample ID:**	MW-13-45_102825	**Sample Time:**	13:20
Purge End Time:	13:20	**Well Volumes Purged (total):**	1.35	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	200	mL/min	67.54	6.77	1.418	8.13	4.81	13.4	166.5	Clear	No Odor
12:50	5	200	mL/min	67.54	6.61	1.396	5.79	2.17	13.6	149.7	Clear	No Odor
12:55	10	200	mL/min	67.54	6.6	1.394	5.4	1.86	13.7	137.4	Clear	No Odor
13:00	15	200	mL/min	67.54	6.6	1.395	5.15	1.74	13.7	130.7	Clear	No Odor
13:05	20	200	mL/min	67.54	6.6	1.385	5.2	1.61	13.5	119.9	Clear	No Odor
13:10	25	200	mL/min	67.54	6.6	1.383	5.03	1.61	13.5	117.4	Clear	No Odor
13:15	30	200	mL/min	67.54	6.6	1.386	4.49	1.61	13.5	112.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-46	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.78 °F, rH:44%, Clouds: 100%, Wind:12.66mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-73.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	63.7	**Total Depth (ft-bmp):**	74.61	**Water Column(ft):**	10.91	**Gallons in Well:**	1.78
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:15	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-13-46_110425	**Sample Time:**	15:15
Purge End Time:	15:15	**Well Volumes Purged (total):**	1.63	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	200	mL/min	63.70	6.64	2.147	78.52	3.04	14.7	202.7	Clear	No Odor
14:25	5	200	mL/min	63.70	6.63	2.151	72	2.91	14.9	202.9	Clear	No Odor
14:30	10	200	mL/min	63.70	6.62	2.155	70	2.56	15.1	203	Clear	No Odor
14:35	15	200	mL/min	63.70	6.61	2.157	64	2.18	14	203.5	Clear	No Odor
14:40	20	200	mL/min	63.70	6.55	2.145	43	1.64	14.7	201.5	Clear	No Odor
14:45	25	200	mL/min	63.70	6.54	2.149	32	1.26	14.7	195.3	Clear	No Odor
14:50	30	200	mL/min	63.70	6.53	2.16	26	0.87	14.6	183	Clear	No Odor
14:55	35	200	mL/min	63.70	6.52	2.168	23	0.69	14.5	170.5	Clear	No Odor
15:00	40	200	mL/min	63.70	6.52	2.169	21	0.66	14.5	165.4	Clear	No Odor
15:05	45	200	mL/min	63.70	6.52	2.171	20	0.61	14.4	151.8	Clear	No Odor
15:10	50	200	mL/min	63.70	6.52	2.174	18	0.58	14.3	140.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-13-48	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:13.2 °C, rH:47%, Clouds: 100%, Wind:5.66m/s W-SW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	65.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	57.15	**Total Depth (ft-bmp):**	73.08	**Water Column(ft):**	15.93	**Liters in Well:**	9.84
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	70.58	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:35	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-13-48_110425	**Sample Time:**	16:15
Purge End Time:	16:20	**Well Volumes Purged (total):**	0.81	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-06_110425	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:40	0	200	mL/min	57.14	6.44	2.981	27.93	0.37	13.8	-60.7	Clear	No Odor
15:45	5	200	mL/min	57.14	6.44	3.005	20.5	0.38	13.8	-62.5	Clear	No Odor
15:50	10	200	mL/min	57.14	6.44	3.018	17.74	0.37	13.8	-63.1	Clear	No Odor
15:55	15	200	mL/min	57.14	6.44	3.024	15.62	0.37	13.8	-64.5	Clear	No Odor
16:00	20	200	mL/min	57.14	6.45	3.032	13.1	0.38	13.7	-65.1	Clear	No Odor
16:05	25	200	mL/min	57.14	6.45	3.049	8.89	0.37	13.7	-65.9	Clear	No Odor
16:10	30	200	mL/min	57.14	6.45	3.047	8.63	0.38	13.7	-66.3	Clear	No Odor
16:15	35	200	mL/min	57.14	6.45	3.055	8.16	0.38	13.7	-66.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-56	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:54.97 °F, rH:56%, Clouds: 40%, Wind:16.11mph N-NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	71.00-76.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.56	**Total Depth (ft-bmp):**	75.55	**Water Column(ft):**	8.99	**Gallons in Well:**	1.47
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:10	**Total Volume Purged (gallons):**	1.584	**Sample ID:**	MW-14-56_102925	**Sample Time:**	14:45
Purge End Time:	14:45	**Well Volumes Purged (total):**	1.08	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-03_102925	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	200	mL/min	66.56	6.58	3.17	20.41	2.61	13.7	167.9	Clear	No Odor
14:25	5	200	mL/min	66.56	6.55	3.308	17.09	2.15	13.7	166.7	Clear	No Odor
14:30	10	200	mL/min	66.56	6.53	3.525	11	1.52	13.8	163.3	Clear	No Odor
14:35	15	200	mL/min	66.56	6.52	3.614	9.12	1.65	13.7	161	Clear	No Odor
14:40	20	200	mL/min	66.56	6.52	3.658	7.05	1.82	13.7	159.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None
VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-57	**Date(s):**	2025-10-28	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:7.82 °C, rH:85%, Clouds: 0%, Wind:0.89m/s SE			**Field Technician:**			Emma Giem
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-20.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.08	**Total Depth (ft-bmp):**	21.4	**Water Column(ft):**	10.32	**Gallons in Well:**	1.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:02	**Total Volume Purged (gallons):**	0.74	**Sample ID:**	MW-14-57_102825	**Sample Time:**	11:35
Purge End Time:	11:35	**Well Volumes Purged (total):**	0.44	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	100	mL/min	11.18	7.53	0.743	9.2	2.35	18.2	55.5	Clear	No Odor
11:10	5	100	mL/min	11.14	7.5	0.799	8.42	1.39	18.1	49	Clear	No Odor
11:15	10	100	mL/min	11.11	7.48	0.838	3.69	0.68	18.2	34.5	Clear	No Odor
11:20	15	100	mL/min	11.10	7.48	0.851	1.76	0.64	17.6	28.3	Clear	No Odor
11:25	20	100	mL/min	11.11	7.48	0.856	1.54	0.62	17.5	23.2	Clear	No Odor
11:30	25	100	mL/min	11.11	7.48	0.871	1.49	0.6	18	19.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-58R	**Date(s):**	2025-10-29	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:11.29 °C, rH:67%, Clouds: 0%, Wind:5.14m/s NE			**Field Technician:**			Emma Giem
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-27.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.39	**Total Depth (ft-bmp):**	27	**Water Column(ft):**	13.61	**Gallons in Well:**	2.22
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	16	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:42	**Total Volume Purged (gallons):**	0.608	**Sample ID:**	MW-14-58R_102925	**Sample Time:**	13:10
Purge End Time:	13:10	**Well Volumes Purged (total):**	0.27	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	100	mL/min	13.44	7.25	2.65	25.85	0.97	17.2	-156.6	Clear	No Odor
12:50	5	100	mL/min	13.41	6.8	2.511	19.26	0.51	16.6	-129.8	Clear	No Odor
12:55	10	100	mL/min	13.41	6.74	2.431	19.03	0.2	16.9	-124.3	Clear	No Odor
13:00	15	100	mL/min	13.41	6.74	2.421	16.55	0.15	16.5	-123.7	Clear	No Odor
13:05	20	100	mL/min	13.42	6.75	2.419	19.09	0.08	16.4	-123.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-59	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:12.84 °C, rH:56%, Clouds: 20%, Wind:7.72m/s NE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	12.00-17.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.39	**Total Depth (ft-bmp):**	17	**Water Column(ft):**	11.61	**Gallons in Well:**	1.89
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:36	**Total Volume Purged (gallons):**	0.766	**Sample ID:**	MW-14-59_102925	**Sample Time:**	14:10
Purge End Time:	14:10	**Well Volumes Purged (total):**	0.41	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:40	0	100	mL/min	5.99	7.72	0.634	5.15	6.51	16.5	5.4	Clear	No Odor
13:45	5	100	mL/min	5.75	7.67	0.621	4.5	6.43	17	16.7	Clear	No Odor
13:50	10	100	mL/min	5.75	7.65	0.621	1.55	6.41	17	20.3	Clear	No Odor
13:55	15	100	mL/min	5.75	7.65	0.621	1.45	6.36	17.6	21.5	Clear	No Odor
14:00	20	100	mL/min	5.75	7.64	0.621	2.64	6.32	17.7	23.6	Clear	No Odor
14:05	25	100	mL/min	5.75	7.63	0.621	9.4	6.2	17.7	27.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-60	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:13.08 °C, rH:56%, Clouds: 75%, Wind:4.63m/s N-NE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-20.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.08	**Total Depth (ft-bmp):**	20	**Water Column(ft):**	10.92	**Gallons in Well:**	1.78
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	14	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:36	**Total Volume Purged (gallons):**	1.691	**Sample ID:**	MW-14-60_102925	**Sample Time:**	15:45
Purge End Time:	15:45	**Well Volumes Purged (total):**	0.95	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:40	0	100	mL/min	9.11	7.06	0.959	2.04	0.89	18.6	30	Clear	No Odor
14:45	5	100	mL/min	9.11	7.09	0.972	2	0.33	18.8	-4	Clear	No Odor
14:50	10	100	mL/min	9.11	7.1	0.973	2.32	0.23	18.4	-15.2	Clear	No Odor
14:55	15	100	mL/min	9.11	7.11	0.973	2.5	0.17	18.8	-44.6	Clear	No Odor
15:00	20	100	mL/min	9.11	7.13	0.974	3.24	0.12	19.1	-61.8	Clear	No Odor
15:05	25	100	mL/min	9.11	7.15	0.973	3.5	0.07	18.5	-83.9	Clear	No Odor
15:10	30	100	mL/min	9.11	7.18	0.974	4.6	0.04	18.4	-109.5	Clear	No Odor
15:15	35	100	mL/min	9.11	7.18	0.976	5.3	0.03	18.8	-119.3	Clear	No Odor
15:20	40	100	mL/min	9.11	7.2	0.978	7.2	0.02	18.9	-128.5	Clear	No Odor
15:25	45	100	mL/min	9.11	7.21	0.98	9.84	0.03	19.2	-134.5	Clear	No Odor
15:30	50	100	mL/min	9.11	7.23	0.984	4.04	0.02	18.8	-142.6	Clear	No Odor
15:35	55	100	mL/min	9.11	7.25	0.987	6.3	0.01	19	-149.8	Clear	No Odor
15:40	60	100	mL/min	9.11	7.26	0.99	9.8	0.03	18.9	-154.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-61	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:35.73 °F, rH:94%, Clouds: 0%, Wind:4.61mph NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.95	**Total Depth (ft-bmp):**	77.3	**Water Column(ft):**	9.35	**Gallons in Well:**	1.53
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:10	**Total Volume Purged (gallons):**	1.848	**Sample ID:**	MW-14-61_102925	**Sample Time:**	09:50
Purge End Time:	09:55	**Well Volumes Purged (total):**	1.21	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:20	0	200	mL/min	67.95	7.24	3.25	12.55	6.13	11.5	206.5	Clear	No Odor
09:25	5	200	mL/min	67.95	7.13	3.263	13	4.43	11.5	208.7	Clear	No Odor
09:30	10	200	mL/min	67.95	7.06	3.277	12.07	3.14	11.6	209.6	Clear	No Odor
09:35	15	200	mL/min	67.95	7.03	3.283	8.14	2.55	11.6	209.6	Clear	No Odor
09:40	20	200	mL/min	67.95	7.01	3.285	6.65	2.31	11.7	209.1	Clear	No Odor
09:45	25	200	mL/min	67.95	7	3.291	5.13	2.03	11.7	207.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW 8260B-SIM)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-62	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:35.35 °F, rH:93%, Clouds: 0%, Wind:8.05mph NE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	12.00-17.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.73	**Total Depth (ft-bmp):**	17	**Water Column(ft):**	13.27	**Gallons in Well:**	2.17
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:55	**Total Volume Purged (gallons):**	2.5	**Sample ID:**	MW-14-62_102925	**Sample Time:**	10:00
Purge End Time:	10:05	**Well Volumes Purged (total):**	1.15	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:57	0	150	mL/min	3.79	9.79	0.314	2.88	1.96	16.3	158	Clear	No Odor
09:02	5	150	mL/min	3.79	9.85	0.311	2.45	1.32	16.2	141.8	Clear	No Odor
09:07	10	150	mL/min	3.79	9.9	0.312	2.09	1.18	16.2	102	Clear	No Odor
09:12	15	150	mL/min	3.79	10.39	0.342	1.52	0.84	16.3	-214.8	Clear	No Odor
09:17	20	150	mL/min	3.79	11.16	0.498	1.53	0.42	16.6	-261	Clear	No Odor
09:22	25	150	mL/min	3.79	11.22	0.534	1.49	0.35	16.7	-260	Clear	No Odor
09:27	30	150	mL/min	3.79	11.32	0.575	1.56	0.27	16.8	-264.3	Clear	No Odor
09:32	35	150	mL/min	3.79	11.38	0.599	1.42	0.24	16.2	-265.5	Clear	No Odor
09:37	40	150	mL/min	3.79	11.41	0.602	1.7	0.21	16.2	-264.2	Clear	No Odor
09:42	45	150	mL/min	3.79	11.44	0.631	1.71	0.13	16.7	-271.8	Clear	No Odor
09:47	50	150	mL/min	3.79	11.48	0.677	1.77	0.05	17	-283.6	Clear	No Odor
09:52	55	150	mL/min	3.79	11.48	0.673	2.85	0.04	17	-284.7	Clear	No Odor
09:57	60	150	mL/min	3.79	11.5	0.693	3.3	0.01	17.1	-291.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-63	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:43.43 °F, rH:89%, Clouds: 96%, Wind:12.68mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-73.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	68.42	**Total Depth (ft-bmp):**	73	**Water Column(ft):**	4.58	**Gallons in Well:**	0.75
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:17	**Total Volume Purged (gallons):**	3.25	**Sample ID:**	MW-14-63_103025	**Sample Time:**	12:20
Purge End Time:	12:25	**Well Volumes Purged (total):**	4.33	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:19	0	200	mL/min	69.30	7.13	1.289	531.7	1.33	13.5	-23.9	Brown	No Odor
11:24	5	200	mL/min	69.43	7.06	1.297	490.77	0.55	13.9	-35.6	Clear	No Odor
11:29	10	200	mL/min	69.44	7.05	1.306	401.22	0.43	13.9	-42.2	Clear	No Odor
11:34	15	200	mL/min	69.43	7.04	1.314	336.52	0.4	14	-49.4	Clear	No Odor
11:39	20	200	mL/min	68.43	7.04	1.317	223.93	0.41	14.2	-55.1	Clear	No Odor
11:44	25	200	mL/min	68.43	7.04	1.318	202.14	0.39	14.2	-57.7	Clear	No Odor
11:49	30	200	mL/min	69.43	7.04	1.316	177.17	0.31	14.3	-61.7	Clear	No Odor
11:54	35	200	mL/min	69.43	7.04	1.312	152.45	0.3	14.2	-63.5	Clear	No Odor
11:59	40	200	mL/min	69.43	7.04	1.309	147.4	0.26	14.3	-65.7	Clear	No Odor
12:04	45	200	mL/min	69.43	7.04	1.309	131.85	0.24	14.1	-67	Clear	No Odor
12:09	50	200	mL/min	68.43	7.04	1.303	107.43	0.25	14.2	-68.6	Clear	No Odor
12:14	55	200	mL/min	68.43	7.04	1.304	103.77	0.28	14.1	-68.8	Clear	No Odor
12:19	60	200	mL/min	69.43	7.04	1.301	104.65	0.3	14.2	-69	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-67	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:42.37 °F, rH:86%, Clouds: 100%, Wind:6.91mph W-NW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-18.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.18	**Total Depth (ft-bmp):**	18	**Water Column(ft):**	12.82	**Gallons in Well:**	2.09
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:39	**Total Volume Purged (gallons):**	1.25	**Sample ID:**	MW-14-67_103125	**Sample Time:**	09:15
Purge End Time:	09:18	**Well Volumes Purged (total):**	0.60	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-10_103125	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:40	0	150	mL/min	5.48	7.84	1.201	3.49	3.41	14.8	237	Clear	No Odor
08:45	5	150	mL/min	5.61	7.63	1.204	2.93	2.23	14.7	235.5	Clear	No Odor
08:50	10	150	mL/min	5.63	7.54	1.216	2.91	0.85	14.6	231.7	Clear	No Odor
08:55	15	150	mL/min	5.68	7.51	1.224	4.9	0.54	14.7	229.7	Clear	No Odor
09:00	20	150	mL/min	5.72	7.5	1.234	10.59	0.32	14.8	225.9	Clear	No Odor
09:05	25	150	mL/min	5.78	7.49	1.243	11.58	0.32	14.9	220.8	Clear	No Odor
09:10	30	150	mL/min	5.79	7.49	1.245	11.28	0.22	14.8	217.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-14-70	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:8.1 °C, rH:76%, Clouds: 100%, Wind:4.63m/s W-NW			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	16.00-21.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.53	**Total Depth (ft-bmp):**	21	**Water Column(ft):**	8.47	**Gallons in Well:**	1.38
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	16	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:16	**Total Volume Purged (gallons):**	1.427	**Sample ID:**	MW-14-70_103125	**Sample Time:**	12:15
Purge End Time:	12:15	**Well Volumes Purged (total):**	1.03	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:20	0	100	mL/min	12.90	7.55	1.285	1.7	2.15	14.5	56.8	Clear	No Odor
11:25	5	100	mL/min	12.90	7.15	1.182	3.61	1.67	14.8	55.1	Clear	No Odor
11:30	10	100	mL/min	13.00	7.11	1.125	6.98	1.23	15	46.9	Clear	No Odor
11:35	15	100	mL/min	13.05	7.09	1.115	8.79	1.04	15.3	41.2	Clear	No Odor
11:40	20	100	mL/min	13.00	7.08	1.112	12.43	0.8	15.5	36	Clear	No Odor
11:45	25	100	mL/min	13.10	7.06	1.107	18.2	0.73	15.5	32.1	Clear	No Odor
11:50	30	100	mL/min	13.15	7.06	1.106	22.95	0.65	14.9	35	Clear	No Odor
11:55	35	100	mL/min	13.25	7.04	1.108	22.21	0.26	14.5	37.9	Clear	No Odor
12:00	40	100	mL/min	12.38	7.04	1.11	27.77	0.3	14.2	38.5	Clear	No Odor
12:05	45	100	mL/min	13.70	7.04	1.111	33.82	0.31	14	40	Clear	No Odor
12:10	50	100	mL/min	13.43	7.03	1.114	40.94	0.1	13.9	39.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-15-72	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:46.22 °F, rH:80%, Clouds: 0%, Wind:8.05mph N-NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	63.00-68.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	57.51	**Total Depth (ft-bmp):**	70.26	**Water Column(ft):**	12.75	**Gallons in Well:**	2.08
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:00	**Total Volume Purged (gallons):**	1.584	**Sample ID:**	MW-15-72_102925	**Sample Time:**	11:35
Purge End Time:	11:35	**Well Volumes Purged (total):**	0.76	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	200	mL/min	57.51	6.87	1.216	11	3.78	13.7	161	Clear	No Odor
11:10	5	200	mL/min	57.51	6.8	1.202	10	2.69	13.6	158	Clear	No Odor
11:15	10	200	mL/min	57.51	6.77	1.203	7.77	2.31	13.6	151.9	Clear	No Odor
11:20	15	200	mL/min	57.51	6.75	1.207	7.03	2.02	13.9	139.4	Clear	No Odor
11:25	20	200	mL/min	57.51	6.75	1.208	7.25	1.92	14	133.8	Clear	No Odor
11:30	25	200	mL/min	57.51	6.74	1.212	10.76	2.09	14	128.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-74	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:55.58 °F, rH:52%, Clouds: 0%, Wind:16.11mph E-SE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.32	**Total Depth (ft-bmp):**	73.66	**Water Column(ft):**	7.34	**Gallons in Well:**	1.2
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:05	**Total Volume Purged (gallons):**	2.112	**Sample ID:**	MW-16-74_102825	**Sample Time:**	14:50
Purge End Time:	14:50	**Well Volumes Purged (total):**	1.76	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:15	0	200	mL/min	66.32	6.62	2.79	45	3.39	15	176.2	Clear	No Odor
14:20	5	200	mL/min	66.32	6.51	2.832	13.51	0.81	14.9	157.4	Clear	No Odor
14:25	10	200	mL/min	66.32	6.51	2.829	8.5	0.6	14.9	144	Clear	No Odor
14:30	15	200	mL/min	66.32	6.52	2.826	7.9	0.54	14.9	137.6	Clear	No Odor
14:35	20	200	mL/min	66.32	6.52	2.82	9.93	0.47	14.9	126.6	Clear	No Odor
14:40	25	200	mL/min	66.32	6.52	2.817	9.47	0.44	15	121.3	Clear	No Odor
14:45	30	200	mL/min	66.32	6.52	2.812	9.85	0.41	14.9	115.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-75	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:56.55 °F, rH:48%, Clouds: 0%, Wind:16.11mph E-NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	62.79	**Total Depth (ft-bmp):**	74.08	**Water Column(ft):**	11.29	**Gallons in Well:**	1.84
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:20	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-16-75_102825	**Sample Time:**	16:20
Purge End Time:	16:20	**Well Volumes Purged (total):**	1.58	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:25	0	200	mL/min	62.79	6.88	1.729	19.96	2.18	14.2	134.2	Clear	No Odor
15:30	5	200	mL/min	62.79	6.87	1.731	20.51	2.02	14.1	127.7	Clear	No Odor
15:35	10	200	mL/min	62.79	6.86	1.738	51	1.8	14.1	123.6	Clear	No Odor
15:40	15	200	mL/min	62.79	6.82	1.761	121	1.13	14.1	111.5	Clear	No Odor
15:45	20	200	mL/min	62.79	6.81	1.765	113	0.81	14.2	104.4	Clear	No Odor
15:50	25	200	mL/min	62.79	6.8	1.767	99	0.64	14.2	96.1	Clear	No Odor
15:55	30	200	mL/min	62.79	6.8	1.77	86	0.55	14.1	85.5	Clear	No Odor
16:00	35	200	mL/min	62.79	6.8	1.768	51	0.5	14	79.5	Clear	No Odor
16:05	40	200	mL/min	62.79	6.8	1.767	49	0.46	14.1	72.7	Clear	No Odor
16:10	45	200	mL/min	62.79	6.79	1.765	35	0.44	14.1	64.7	Clear	No Odor
16:15	50	200	mL/min	62.79	6.79	1.764	34	0.42	14.1	61.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-76	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:52.84 °F, rH:59%, Clouds: 75%, Wind:12.66mph N-NW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.1	**Total Depth (ft-bmp):**	75	**Water Column(ft):**	8.9	**Gallons in Well:**	1.45
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:20	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-16-76_103025	**Sample Time:**	16:55
Purge End Time:	17:59	**Well Volumes Purged (total):**	1.21	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:22	0	200	mL/min	66.41	6.93	2.913	10.75	2.66	12.8	-23.4	Clear	No Odor
16:27	5	200	mL/min	66.52	6.97	3.017	8.66	1.54	12.3	-35.6	Clear	No Odor
16:32	10	200	mL/min	66.72	7.01	3.038	7.8	1.48	12.4	-39.3	Clear	No Odor
16:38	16	200	mL/min	66.59	7.02	3.055	7.05	1.25	12.4	-41.2	Clear	No Odor
16:43	21	200	mL/min	66.67	7.02	3.057	6.89	1.2	12.5	-42.5	Clear	No Odor
16:48	26	200	mL/min	66.69	7.02	3.069	6.56	1.09	12.6	-43.3	Clear	No Odor
16:53	31	200	mL/min	66.69	7.02	3.072	6.43	1.08	12.6	-43.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-77	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:44.31 °F, rH:82%, Clouds: 75%, Wind:6.91mph W-NW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	61.49	**Total Depth (ft-bmp):**	73.96	**Water Column(ft):**	12.47	**Gallons in Well:**	2.04
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:30	**Total Volume Purged (gallons):**	2.641	**Sample ID:**	MW-16-77_103125	**Sample Time:**	10:25
Purge End Time:	10:25	**Well Volumes Purged (total):**	1.29	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:45	0	200	mL/min	61.49	7.42	3.2	33	10.53	11.7	196.6	Clear	No Odor
09:50	5	200	mL/min	61.49	7.07	3.3	26	8.8	11.8	201.7	Clear	No Odor
09:55	10	200	mL/min	61.49	7.03	3.3	15	8.03	12	201	Clear	No Odor
10:00	15	200	mL/min	61.49	7.55	3.237	15	10.58	11.4	185	Clear	No Odor
10:05	20	200	mL/min	61.49	8.12	0.346	24	10.68	10.8	174.6	Clear	No Odor
10:10	25	200	mL/min	61.49	8.27	1.554	25	10.79	10.4	171.9	Clear	No Odor
10:15	30	200	mL/min	61.49	8.3	1.54	24	10.85	10.3	171	Clear	No Odor
10:20	35	200	mL/min	61.49	8.41	1.5	24	10.95	9.9	169	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-78	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:46.58 °F, rH:76%, Clouds: 100%, Wind:10.36mph W-NW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-73.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	65	**Total Depth (ft-bmp):**	76.17	**Water Column(ft):**	11.17	**Gallons in Well:**	1.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:10	**Total Volume Purged (gallons):**	1.848	**Sample ID:**	MW-16-78_103125	**Sample Time:**	11:50
Purge End Time:	11:50	**Well Volumes Purged (total):**	1.02	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	200	mL/min	65.00	7.14	1.727	8.46	3.32	12.3	179	Clear	No Odor
11:20	5	200	mL/min	65.00	7.02	1.715	9.59	1.25	12.3	179.5	Clear	No Odor
11:25	10	200	mL/min	65.00	7.02	1.72	7.9	1.03	12.1	177.5	Clear	No Odor
11:30	15	200	mL/min	65.00	7	1.722	8.03	0.83	12.2	173.7	Clear	No Odor
11:35	20	200	mL/min	65.00	7	1.724	8.01	0.72	12.2	170	Clear	No Odor
11:40	25	200	mL/min	65.00	6.99	1.729	9.12	0.65	12	167	Clear	No Odor
11:45	30	200	mL/min	65.00	6.99	1.73	9.23	0.59	12.5	163	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Location ID:	MW-16-80	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:38.44 °F, rH:93%, Clouds: 0%, Wind:5.75mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-73.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.22	**Total Depth (ft-bmp):**	73	**Water Column(ft):**	5.78	**Gallons in Well:**	0.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:40	**Total Volume Purged (gallons):**	2.25	**Sample ID:**	MW-16-80_103025	**Sample Time:**	10:40
Purge End Time:	10:43	**Well Volumes Purged (total):**	2.39	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:41	0	200	mL/min	67.52	6.41	4.448	263.61	3.11	11.7	30.5	Clear	No Odor
09:46	5	150	mL/min	67.72	6.28	4.458	170.85	0.66	11.6	15.8	Clear	No Odor
09:51	10	150	mL/min	67.60	6.3	4.456	133.3	0.5	11.1	13.3	Clear	No Odor
09:56	15	150	mL/min	67.43	6.33	4.446	80.69	0.48	10.9	11.1	Clear	No Odor
10:01	20	150	mL/min	67.42	6.34	4.443	62.36	0.47	10.8	10	Clear	No Odor
10:06	25	150	mL/min	67.42	6.35	4.403	42.42	0.43	11.8	6.8	Clear	No Odor
10:11	30	150	mL/min	67.42	6.36	4.355	32.36	0.33	11.8	2.2	Clear	No Odor
10:16	35	150	mL/min	67.42	6.43	4.317	20.9	0.26	11.9	-8.8	Clear	No Odor
10:21	40	150	mL/min	67.42	6.38	4.307	20.51	0.27	11.9	-11.6	Clear	No Odor
10:26	45	150	mL/min	67.42	6.4	4.258	16.98	0.46	12	-20.5	Clear	No Odor
10:31	50	150	mL/min	67.42	6.41	4.253	16.85	0.45	11.9	-22.2	Clear	No Odor
10:36	55	150	mL/min	67.42	6.41	4.323	15.78	0.41	11.9	-29.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-81	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:52.32 °F, rH:67%, Clouds: 0%, Wind:11.5mph NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	63.85	**Total Depth (ft-bmp):**	77.21	**Water Column(ft):**	13.36	**Gallons in Well:**	2.18
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:15	**Total Volume Purged (gallons):**	2.376	**Sample ID:**	MW-16-81_102925	**Sample Time:**	13:05
Purge End Time:	13:05	**Well Volumes Purged (total):**	1.09	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:25	0	200	mL/min	63.85	6.84	2.445	2.65	5.14	15.4	159.4	Clear	No Odor
12:30	5	200	mL/min	63.85	6.65	2.76	3.62	3.29	15.2	160.4	Clear	No Odor
12:35	10	200	mL/min	63.85	6.65	2.94	6.48	2.27	15	155	Clear	No Odor
12:40	15	200	mL/min	63.85	6.75	2.955	12	1.84	15.2	150.8	Clear	No Odor
12:45	20	200	mL/min	63.85	6.77	2.979	19	1.5	15.2	147	Clear	No Odor
12:50	25	200	mL/min	63.85	6.8	2.927	15	1.81	15.3	143.1	Clear	No Odor
12:55	30	200	mL/min	63.85	6.79	2.961	15	1.67	15.6	142	Clear	No Odor
13:00	35	200	mL/min	63.85	6.78	3.012	12.5	1.27	14.9	139.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-82	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	RAIN, T:48.74 °F, rH:71%, Clouds: 100%, Wind:14.97mph W-NW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.95	**Total Depth (ft-bmp):**	77.12	**Water Column(ft):**	9.17	**Gallons in Well:**	1.5
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:20	**Total Volume Purged (gallons):**	1.056	**Sample ID:**	MW-16-82_103125	**Sample Time:**	12:45
Purge End Time:	12:45	**Well Volumes Purged (total):**	0.70	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:30	0	200	mL/min	67.95	6.85	1.816	5.58	1.7	13.8	157.1	Clear	No Odor
12:35	5	200	mL/min	67.95	6.85	1.816	5.39	1.64	13.9	154.2	Clear	No Odor
12:40	10	200	mL/min	67.95	6.84	1.845	5.17	1.57	14.1	149.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-84	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	Cloudy 50's			**Field Technician:**		Scott Filipiak	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	70.22	**Total Depth (ft-bmp):**	81.1	**Water Column(ft):**	10.88	**Gallons in Well:**	1.78
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	79	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:10	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-16-84_103125	**Sample Time:**	13:50
Purge End Time:	13:50	**Well Volumes Purged (total):**	0.98	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-16-84_103125	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:15	0	200	mL/min	70.27	6.85	2.92	17.8	1.38	14	111	Clear	No Odor
13:20	5	200	mL/min	70.27	6.85	2.88	9.00	1.2	14	102	Clear	No Odor
13:25	10	200	mL/min	70.27	6.86	2.84	5.51	1.07	14	97.6	Clear	No Odor
13:30	15	200	mL/min	70.27	6.86	2.83	5.91	1.01	14	61.5	Clear	No Odor
13:35	20	200	mL/min	70.27	6.86	2.82	4.88	0.9	13.9	67.6	Clear	No Odor
13:40	25	200	mL/min	70.27	6.88	2.79	4.64	0.89	14	68	Clear	No Odor
13:45	30	200	mL/min	70.27	6.88	2.79	4	0.89	14	67.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (8260),VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-16-85	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:50.92 °F, rH:70%, Clouds: 75%, Wind:13.8mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	74.00-79.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	71.78	**Total Depth (ft-bmp):**	79	**Water Column(ft):**	7.22	**Gallons in Well:**	1.18
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:56	**Total Volume Purged (gallons):**	2.25	**Sample ID:**	MW-16-85_103025	**Sample Time:**	14:05
Purge End Time:	14:10	**Well Volumes Purged (total):**	1.91	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:59	0	200	mL/min	72.51	7.49	1.29	838.52	3.23	14.4	-67	Clear	No Odor
13:04	5	150	mL/min	72.96	7.4	1.237	558.74	30.9	14	-67.4	Clear	No Odor
13:09	10	150	mL/min	73.34	7.41	1.195	384.55	3.36	13.9	-65.8	Clear	No Odor
13:14	15	150	mL/min	73.39	7.41	1.187	338.55	3.36	13.8	-63.2	Clear	No Odor
13:19	20	150	mL/min	73.49	7.41	1.183	311.24	3.31	13.5	-61.6	Clear	No Odor
13:24	25	150	mL/min	73.50	7.41	1.174	280.47	3.3	13.6	-59.2	Clear	No Odor
13:29	30	150	mL/min	73.50	7.41	1.169	250.31	3.29	13.9	-57.3	Clear	No Odor
13:34	35	150	mL/min	73.50	7.45	1.168	225.63	3.25	14.1	-55.4	Clear	No Odor
13:39	40	150	mL/min	73.42	7.4	1.166	228.33	3.25	13.9	-52.2	Clear	No Odor
13:44	45	150	mL/min	73.49	7.39	1.214	171.8	3.09	14.4	-53.9	Clear	No Odor
13:49	50	150	mL/min	73.49	7.39	1.234	164.25	2.87	14.5	-52.6	Clear	No Odor
13:54	55	150	mL/min	73.49	7.38	1.24	167.71	2.95	14.5	-52	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-17-86	**Date(s):**	2025-10-31	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	30–50s cloudy			**Field Technician:**			Robert Prigge
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	73.00-78.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.82	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**	11.18	**Liters in Well:**	6.91
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	76	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:46	**Total Volume Purged (liters):**	5.5	**Sample ID:**	MW-17-86	**Sample Time:**	10:20
Purge End Time:	10:29	**Well Volumes Purged (total):**	0.80	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:55	0	150	mL/min	66.86	6.92	2.946	40.41	1.49	13.2	-74.1	Clear	No Odor
10:01	6	150	mL/min	67.89	6.93	2.956	15.11	1.01	13.3	-75.2	Clear	No Odor
10:06	11	150	gpm	66.89	6.94	2.958	14.66	0.67	13.2	-79.7	Clear	No Odor
10:11	16	150	gpm	66.89	6.95	2.955	11.56	0.65	13.3	-80.8	Clear	No Odor
10:17	22	150	gpm	66.89	6.95	2.949	9.43	0.66	13.4	-81.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-17-87	**Date(s):**	2025-10-30	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:52.56 °F, rH:60%, Clouds: 100%, Wind:12.66mph N			**Field Technician:**			Donald Richmond
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	100.00-112.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	77.28	**Total Depth (ft-bmp):**	113.75	**Water Column(ft):**	36.47	**Gallons in Well:**	23.81
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:30	**Total Volume Purged (gallons):**	1.585	**Sample ID:**	MW-17-87_103025	**Sample Time:**	16:05
Purge End Time:	16:05	**Well Volumes Purged (total):**	0.07	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:45	0	200	mL/min	77.28	9.14	2.497	8.86	1.61	13.2	97	Clear	No Odor
15:50	5	200	mL/min	77.28	9.15	2.492	13.2	2.25	13.2	100.6	Clear	No Odor
15:55	10	200	mL/min	77.28	9.14	2.492	8.15	2.74	13.1	103.1	Clear	No Odor
16:00	15	200	mL/min	77.28	9.14	2.495	8.55	2.74	13.3	105.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-88	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:44.04 °F, rH:61%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	6.00-11.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.89	**Total Depth (ft-bmp):**	15.03	**Water Column(ft):**	9.14	**Gallons in Well:**	1.49
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:20	**Total Volume Purged (gallons):**	2.64	**Sample ID:**	MW-18-88_110625	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	1.77	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:25	0	200	mL/min	5.89	7.13	0.814	140	2.36	16.6	171.6	Clear	No Odor
10:30	5	200	mL/min	5.89	7.01	0.81	42	1.22	16.4	175.3	Clear	No Odor
10:35	10	200	mL/min	5.89	6.99	0.811	35	1.06	16.4	175.1	Clear	No Odor
10:40	15	200	mL/min	5.89	6.98	0.808	29	0.9	16.2	174.4	Clear	No Odor
10:45	20	200	mL/min	5.89	6.97	0.809	37	0.78	16.4	173	Clear	No Odor
10:50	25	200	mL/min	16.40	6.96	0.808	25	0.71	16.3	171.3	Clear	No Odor
10:55	30	200	mL/min	5.89	6.95	0.807	17.86	0.65	16.7	169.6	Clear	No Odor
11:00	35	200	mL/min	5.89	6.94	0.806	9.5	0.61	16.7	167.4	Clear	No Odor
11:05	40	200	mL/min	5.89	6.94	0.806	8.16	0.57	16.7	165	Clear	No Odor
11:10	45	200	mL/min	5.89	6.93	0.806	8.82	0.54	16.8	163.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-89	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	50 deg F, sunny, windy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.55	**Total Depth (ft-bmp):**	15.64	**Water Column(ft):**	7.09	**Liters in Well:**	4.38
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:10	**Total Volume Purged (liters):**	5.9	**Sample ID:**	MW-18-89_110525	**Sample Time:**	16:23
Purge End Time:	16:24	**Well Volumes Purged (total):**	1.35	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:20	0	100	mL/min	10.75	7.7	0.915	6.76	0.75	15.6	31.6	Clear	No Odor
15:25	5	100	mL/min	11.39	7.64	0.914	8.54	0.64	15.8	21.5	Clear	No Odor
15:30	10	100	mL/min	12.06	7.63	0.915	7.16	0.57	16.5	19.7	Clear	No Odor
15:35	15	100	mL/min	12.64	7.63	0.915	7.53	0.55	16	17.8	Clear	No Odor
15:40	20	100	mL/min	13.04	7.66	0.912	73.26	1.93	15.7	8.4	Clear	No Odor
15:45	25	100	mL/min	13.52	7.64	0.909	22.08	0.87	16.3	-8.6	Clear	No Odor
15:50	30	100	mL/min	14.06	7.64	0.908	14.07	0.59	16.6	-3.5	Clear	No Odor
15:55	35	100	mL/min	14.21	7.64	0.904	8.54	0.56	16.8	-2.9	Clear	No Odor
16:00	40	100	mL/min	14.55	7.65	0.902	8.92	0.55	16.9	-66.8	Clear	No Odor
16:05	45	100	mL/min	14.72	7.65	0.895	17.12	0.53	16.9	-92.1	Clear	No Odor
16:10	50	100	mL/min	15.06	7.66	0.898	10.16	0.56	17	-103.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-90	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:42.89 °F, rH:68%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-20.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.02	**Total Depth (ft-bmp):**	20	**Water Column(ft):**	8.98	**Gallons in Well:**	1.47
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:05	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	MW-18-90_110625	**Sample Time:**	10:40
Purge End Time:	10:44	**Well Volumes Purged (total):**	0.88	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:08	0	150	mL/min	11.10	12.78	1.714	1.9	0.89	15.9	-87.9	Clear	No Odor
10:13	5	150	mL/min	11.20	12.86	1.849	1.23	0.3	16.2	-129.1	Clear	No Odor
10:18	10	150	mL/min	11.22	12.94	1.865	1.25	0.18	16.1	-204.2	Clear	No Odor
10:23	15	150	mL/min	11.28	12.99	1.877	1.44	0.12	16.1	-230.5	Clear	No Odor
10:28	20	150	mL/min	11.30	13.02	1.882	1.45	0.08	16.3	-240.5	Clear	No Odor
10:33	25	150	mL/min	11.33	13.04	1.903	1.58	0.07	16.2	-245.6	Clear	No Odor
10:38	30	150	mL/min	11.38	13.05	1.908	1.84	0.06	16.2	-246.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-91	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:35.65 °F, rH:80%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.36	**Total Depth (ft-bmp):**	12	**Water Column(ft):**	5.64	**Gallons in Well:**	0.92
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:56	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-18-91_110625	**Sample Time:**	09:50
Purge End Time:	09:53	**Well Volumes Purged (total):**	2.17	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:58	0	200	mL/min	7.96	8.06	0.646	4.81	0.53	15.1	113.6	Clear	No Odor
09:03	5	150	mL/min	8.30	8.1	0.642	3.17	0.38	15	140.9	Clear	No Odor
09:08	10	150	mL/min	8.35	8.13	0.639	3.63	0.34	14.3	129	Clear	No Odor
09:13	15	150	mL/min	8.38	8.15	0.634	3.21	0.29	14.4	119.5	Clear	No Odor
09:18	20	150	mL/min	8.40	8.15	0.631	3.29	0.25	14.4	110.2	Clear	No Odor
09:23	25	150	mL/min	8.48	8.16	0.63	2.83	0.21	14.5	98.1	Clear	No Odor
09:28	30	150	mL/min	8.52	8.2	0.63	2.99	0.17	14.7	68.5	Clear	No Odor
09:33	35	150	mL/min	8.55	8.16	0.631	2.7	0.15	14.7	67.2	Clear	No Odor
09:38	40	150	mL/min	8.58	8.15	0.631	2.95	0.13	15	46.1	Clear	No Odor
09:43	45	150	mL/min	8.58	8.17	0.615	2.72	0.12	15.1	39.7	Clear	No Odor
09:48	50	150	mL/min	8.72	8.18	0.615	2.85	0.12	15.2	36.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-92	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	57 deg, cloudy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.34	**Total Depth (ft-bmp):**	30.11	**Water Column(ft):**	8.77	**Liters in Well:**	5.42
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	9.25	**Sample ID:**	MW-18-92_110525	**Sample Time:**	14:34
Purge End Time:	14:35	**Well Volumes Purged (total):**	1.71	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-18-92_110525 MS/MSD	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	200	mL/min	22.79	6.83	1.136	12.52	0.82	14	-19.5	Clear	No Odor
13:25	5	150	mL/min	23.48	6.82	1.127	25.14	0.55	13.9	-20.4	Clear	No Odor
13:30	10	150	mL/min	23.82	6.82	1.126	39.09	0.5	13.8	-16.9	Clear	No Odor
13:35	15	150	mL/min	24.18	6.82	1.123	65.05	0.47	13.8	-14.5	Clear	No Odor
13:40	20	150	mL/min	24.56	6.82	1.121	12.75	0.47	13.9	-8.9	Clear	No Odor
13:45	25	150	mL/min	24.82	6.82	1.12	12.02	0.54	13.9	-3.1	Clear	No Odor
13:50	30	150	mL/min	25.12	6.83	1.116	16.88	0.61	13.9	0.1	Clear	No Odor
13:55	35	150	mL/min	25.40	6.84	1.114	28.49	0.77	13.9	5	Clear	No Odor
14:00	40	150	mL/min	25.50	6.84	1.115	36.66	0.81	13.9	7	Clear	No Odor
14:05	45	150	mL/min	25.52	6.84	1.115	39.48	0.83	13.8	6.7	Clear	No Odor
14:10	50	150	mL/min	25.50	6.85	1.119	44.73	0.81	13.9	8.4	Clear	No Odor
14:15	55	150	mL/min	25.50	6.84	1.123	46.26	0.69	13.8	8.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: Turbidity probe seems to be possibly malfunctioning. Purge appears clear but reading continuously climbs. Knocking probe, as peers suggest, bring reading back down but then number seems to continue to climb. Will attempt cleaning probe again.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-93	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:53.89 °F, rH:66%, Clouds: 100%, Wind:17.27mph W-NW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	77.50-82.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	48.2	**Total Depth (ft-bmp):**	84.94	**Water Column(ft):**	36.74	**Gallons in Well:**	6
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:50	**Total Volume Purged (gallons):**	1.848	**Sample ID:**	MW-18-93_110525	**Sample Time:**	14:30
Purge End Time:	14:30	**Well Volumes Purged (total):**	0.31	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-07_110525	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	200	mL/min	48.20	7.76	0.822	12	6.9	12.7	93.9	Clear	No Odor
14:00	5	200	mL/min	48.20	7.61	0.688	9.5	2.51	12.9	98.5	Clear	No Odor
14:05	10	200	mL/min	48.20	7.62	0.674	14	2.53	12.7	99.7	Clear	No Odor
14:10	15	200	mL/min	48.20	7.62	0.673	15.07	2.96	12.9	101	Clear	No Odor
14:15	20	200	mL/min	48.20	7.63	0.671	15	3.39	12.8	103.1	Clear	No Odor
14:20	25	200	mL/min	48.20	7.63	0.671	16	3.79	12.8	106.4	Clear	No Odor
14:25	30	200	mL/min	48.20	7.64	0.67	16.9	3.97	12.8	108.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-94	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.38 °F, rH:75%, Clouds: 100%, Wind:14.97mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	58.29	**Total Depth (ft-bmp):**	79.68	**Water Column(ft):**	21.39	**Gallons in Well:**	3.49
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:10	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-18-94_110525	**Sample Time:**	13:10
Purge End Time:	13:10	**Well Volumes Purged (total):**	0.83	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:15	0	200	mL/min	58.29	6.93	5.41	4.31	2.61	14.6	234.8	Clear	No Odor
12:20	5	200	mL/min	58.29	6.85	5.687	4.72	1.12	14.3	221.7	Clear	No Odor
12:25	10	200	mL/min	58.29	6.79	5.939	3.33	0.8	14.1	207.6	Clear	No Odor
12:30	15	200	mL/min	58.29	6.78	6.098	3.52	0.7	14.1	195.3	Clear	No Odor
12:35	20	200	mL/min	58.29	6.75	6.313	9.98	0.6	14	165	Clear	No Odor
12:40	25	200	mL/min	58.29	6.74	6.454	3.72	0.56	13.9	142.4	Clear	No Odor
12:45	30	200	mL/min	58.29	6.73	6.621	3.77	0.52	13.9	111.9	Clear	No Odor
12:50	35	200	mL/min	58.29	6.73	6.706	6.87	0.51	13.8	93.7	Clear	No Odor
12:55	40	200	mL/min	58.29	6.73	6.73	3.7	0.48	13.7	72.1	Clear	No Odor
13:00	45	200	mL/min	58.29	6.72	6.9	4.18	0.46	13.7	53.5	Clear	No Odor
13:05	50	200	mL/min	58.29	6.71	6.943	4.58	0.43	13.6	36.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-95	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	48 deg F, sunny			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	4.50-9.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.05	**Total Depth (ft-bmp):**	12.47	**Water Column(ft):**	5.42	**Liters in Well:**	3.35
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:38	**Total Volume Purged (liters):**	10.6	**Sample ID:**	MW-18-95_110625	**Sample Time:**	11:39
Purge End Time:	11:40	**Well Volumes Purged (total):**	3.16	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:45	0	200	mL/min	7.49	7.45	0.56	63.77	3.14	15.1	209	Clear	No Odor
10:50	5	200	mL/min	7.63	7.42	0.558	39.99	2.67	15.2	25.7	Clear	No Odor
10:55	10	200	mL/min	7.77	7.38	0.558	18.56	1.96	15.1	26.6	Clear	No Odor
11:00	15	200	mL/min	7.91	7.36	0.558	20.33	1.74	15.2	27.2	Clear	No Odor
11:05	20	200	mL/min	8.03	7.36	0.558	16.41	1.65	15.2	27.6	Clear	No Odor
11:10	25	200	mL/min	8.03	7.35	0.557	19.28	1.57	15.3	27.6	Clear	No Odor
11:15	30	200	mL/min	8.03	7.34	0.557	20.76	1.57	15.3	28.2	Clear	No Odor
11:20	35	200	mL/min	8.03	7.34	0.556	23.37	1.52	15.3	28.3	Clear	No Odor
11:25	40	200	mL/min	8.03	7.33	0.556	25.6	1.56	15.4	28.7	Clear	No Odor
11:31	46	200	mL/min	8.03	7.33	0.555	24.56	1.51	15.4	28.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-97	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:12.98 °C, rH:76%, Clouds: 75%, Wind:6.69m/s W			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	64.1	**Total Depth (ft-bmp):**	91.72	**Water Column(ft):**	27.62	**Liters in Well:**	17.06
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	89.22	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:40	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-18-97_110525	**Sample Time:**	12:20
Purge End Time:	12:25	**Well Volumes Purged (total):**	0.47	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:45	0	200	mL/min	64.10	7.07	1.557	189.98	6.69	14.3	-66.9	Clear	No Odor
11:50	5	200	mL/min	64.10	7.01	1.522	111.12	1.69	14.1	-69.8	Clear	No Odor
11:55	10	200	mL/min	64.10	6.97	1.508	70.9	1.11	14	-71.8	Clear	No Odor
12:00	15	200	mL/min	64.10	6.96	1.512	34.32	0.71	13.9	-73.3	Clear	No Odor
12:05	20	200	mL/min	64.10	6.96	1.515	27.74	0.57	13.9	-74.8	Clear	No Odor
12:10	25	200	mL/min	64.10	6.96	1.522	22.45	0.43	14.1	-76.6	Clear	No Odor
12:15	30	200	mL/min	64.10	6.96	1.521	21.46	0.35	14.1	-77.9	Clear	No Odor
12:20	35	200	mL/min	64.10	6.96	1.525	21.06	0.32	14	-78.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-98	**Date(s):**	2025-11-04	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	40s sunny			**Field Technician:**			Robert Prigge
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:49	**Total Volume Purged (liters):**	1.8	**Sample ID:**	MW-18-98_110425	**Sample Time:**	11:20
Purge End Time:	11:30	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:59	0	150	mL/min	7.00	7.44	0.681	5.25	0.57	16	-45.4	Clear	No Odor
11:04	5	150	mL/min	7.68	7.4	0.678	5.9	0.5	15.7	-36.1	Clear	No Odor
11:09	10	150	mL/min	8.03	7.38	0.676	4.03	0.46	15.8	-32.9	Clear	No Odor
11:14	15	150	mL/min	8.28	7.37	0.676	3.33	0.43	15.8	-29.4	Clear	No Odor
11:19	20	150	mL/min	8.54	7.36	0.672	3.23	0.39	16.1	-26	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-99	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	40s sunny			**Field Technician:**		Robert Prigge	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	9.00-14.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	12	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:47	**Total Volume Purged (liters):**	10	**Sample ID:**	MW-18-99_110425	**Sample Time:**	12:48
Purge End Time:	12:56	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:57	0	150	mL/min	6.43	7.74	2.1553	1.4	0.33	16.7	-37.4	Clear	No Odor
12:02	5	150	mL/min	6.35	7.72	2.133	1.3	0.29	16.6	-83.4	Clear	No Odor
12:07	10	150	mL/min	6.33	7.69	2.112	1.65	0.24	16.6	-118.7	Clear	No Odor
12:12	15	150	mL/min	6.33	7.8	2.113	1.2	0.21	17.1	-132	Clear	No Odor
12:17	20	150	mL/min	6.33	7.69	2.123	0.9	0.17	16.9	-135.9	Clear	No Odor
12:22	25	150	mL/min	6.33	7.65	2.033	0.663	0.12	16.8	-149.2	Clear	No Odor
12:27	30	150	mL/min	6.33	7.65	1.969	0.57	0.11	16.8	-159.9	Clear	No Odor
12:31	34	150	mL/min	6.33	7.62	1.963	0.78	0.1	16.5	-160.6	Clear	No Odor
12:37	40	150	mL/min	6.30	7.67	1.86	0.41	0.07	16.5	-169.5	Clear	No Odor
12:41	44	150	mL/min	6.30	7.71	1.85	0.29	0.06	16.5	-175.2	Clear	No Odor
12:47	50	150	mL/min	6.30	7.73	1.83	0.27	0.05	16.5	-179	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-100	**Date(s):**	2025-11-04	**Work Order(s):**			Q4 2025 GWS (Annual event)
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	40 cloudy			**Field Technician:**			Robert Prigge
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	8.00-13.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	1.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-18-100	**Sample Time:**	13:58
Purge End Time:	14:05	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:25	0	150	mL/min	11.98	7.24	1.836	40	6.01	16.4	23.6	Clear	No Odor
13:30	5	150	mL/min	11.98	7.38	1.84	31.44	6.04	16.4	31.93	Clear	No Odor
13:35	10	150	mL/min	12.34	7.36	1.843	20.5	5.99	16.4	33	Clear	No Odor
13:40	15	150	mL/min	12.55	7.32	1.853	10	6.04	16.5	37.4	Clear	No Odor
13:50	25	150	mL/min	12.84	7.29	1.828	9.22	6.01	16.4	44.3	Clear	No Odor
13:55	30	150	mL/min	12.89	7.27	1.844	6.67	5.98	16.5	47	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-101	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:11.18 °C, rH:66%, Clouds: 100%, Wind:6.69m/s NW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	64.5	**Total Depth (ft-bmp):**	86.71	**Water Column(ft):**	22.21	**Liters in Well:**	13.72
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	84.21	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:55	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-18-101_110525	**Sample Time:**	15:35
Purge End Time:	15:40	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00	0	200	mL/min	65.30	6.83	4.249	148.95	0.89	13.1	-73.3	Clear	No Odor
15:05	5	200	mL/min	65.50	6.83	4.495	83.23	0.45	13	-77.7	Clear	No Odor
15:10	10	200	mL/min	65.50	6.83	4.578	76.57	0.41	13	-78.9	Clear	No Odor
15:15	15	200	mL/min	65.50	6.84	4.655	62.1	0.35	13	-80.4	Clear	No Odor
15:20	20	200	mL/min	65.50	6.84	4.735	46.2	0.29	13	-81.8	Clear	No Odor
15:25	25	200	mL/min	65.50	6.84	4.811	44.46	0.28	13.1	-82.7	Clear	No Odor
15:30	30	200	mL/min	65.50	6.84	4.885	44.03	0.26	13.1	-83.8	Clear	No Odor
15:35	35	200	mL/min	65.50	6.84	4.905	43.77	0.26	13.1	-84.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-102	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.98 °F, rH:72%, Clouds: 100%, Wind:14.97mph W			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	10.00-15.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.96	**Total Depth (ft-bmp):**	15	**Water Column(ft):**	2.04	**Gallons in Well:**	0.33
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:41	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-18-102_110525	**Sample Time:**	13:28
Purge End Time:	13:31	**Well Volumes Purged (total):**	5.30	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:43	0	150	mL/min	13.06	7.29	0.666	26.89	2.69	14.5	153.9	Clear	No Odor
12:48	5	150	mL/min	13.09	7.24	0.664	13.89	2.2	14.5	153.1	Clear	No Odor
12:55	12	150	mL/min	13.25	7.25	0.666	10.23	1.69	14.5	150.4	Clear	No Odor
13:00	17	150	mL/min	13.28	7.26	0.667	8.8	1.17	14.5	147.7	Clear	No Odor
13:05	22	150	mL/min	13.29	7.27	0.666	7.22	0.78	14.5	143.8	Clear	No Odor
13:10	27	150	mL/min	13.32	7.27	0.666	5	0.6	14.5	141.2	Clear	No Odor
13:15	32	150	mL/min	13.35	7.31	0.666	4.22	0.42	14.4	105.5	Clear	No Odor
13:20	37	150	mL/min	13.38	7.28	0.665	3.91	0.37	14.4	109.5	Clear	No Odor
13:25	42	150	mL/min	13.42	7.28	0.665	3.98	0.35	14.3	110.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-103	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.38 °F, rH:75%, Clouds: 100%, Wind:14.97mph W			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.00-10.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.25	**Total Depth (ft-bmp):**	10	**Water Column(ft):**	5.75	**Gallons in Well:**	0.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:02	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	MW-18-103_110525	**Sample Time:**	12:26
Purge End Time:	12:30	**Well Volumes Purged (total):**	0.85	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:04	0	150	mL/min	4.28	7	0.893	10.92	1.4	14.2	168.2	Clear	No Odor
12:09	5	150	mL/min	4.73	7.01	0.897	6.8	0.72	14.1	165.5	Clear	No Odor
12:14	10	150	mL/min	4.90	7.01	0.898	4.01	0.49	14.2	162	Clear	No Odor
12:19	15	150	mL/min	5.10	7.02	0.897	3.84	0.38	14.1	159.2	Clear	No Odor
12:24	20	150	mL/min	5.24	7.02	0.897	4.12	0.3	14.1	157.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-104	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.36 °F, rH:77%, Clouds: 75%, Wind:14.97mph W			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.00-10.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.53	**Total Depth (ft-bmp):**	10	**Water Column(ft):**	5.47	**Gallons in Well:**	0.89
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:18	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	MW-18-104	**Sample Time:**	11:48
Purge End Time:	11:52	**Well Volumes Purged (total):**	1.35	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:21	0	150	mL/min	4.63	7.24	0.63	90	4.1	14.6	166.2	Clear	No Odor
11:26	5	150	mL/min	4.84	7.24	0.631	12.86	3.93	14.5	164.5	Clear	No Odor
11:31	10	150	mL/min	4.98	7.26	0.629	5.73	4.13	14.5	163.1	Clear	No Odor
11:36	15	150	mL/min	5.12	7.27	0.626	4.55	4.64	14.5	162.6	Clear	No Odor
11:41	20	150	mL/min	5.23	7.27	0.625	4.9	4.66	14.5	162.5	Clear	No Odor
11:46	25	150	mL/min	5.35	7.27	0.627	4.65	4.29	14.5	162.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-18-105	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:54.05 °F, rH:79%, Clouds: 75%, Wind:13.8mph W-SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	6.00-11.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	2.05	**Total Depth (ft-bmp):**	11	**Water Column(ft):**	8.95	**Gallons in Well:**	1.46
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:36	**Total Volume Purged (gallons):**	0.9	**Sample ID:**	MW-18-105_110526	**Sample Time:**	11:00
Purge End Time:	11:05	**Well Volumes Purged (total):**	0.62	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:37	0	150	mL/min	2.05	7.42	0.568	4.76	0.99	13.6	170.1	Clear	No Odor
10:42	5	150	mL/min	2.95	7.32	0.57	3.08	2.12	13.5	165.2	Clear	No Odor
10:47	10	150	mL/min	3.31	7.34	0.57	2.95	2.27	13.5	161.9	Clear	No Odor
10:52	15	150	mL/min	3.48	7.34	0.57	2.6	2.38	13.5	160.8	Clear	No Odor
10:57	20	150	mL/min	3.48	7.34	0.571	2.45	2.35	13.5	160	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-107	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	36 deg F, sunny.			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	24.43	**Total Depth (ft-bmp):**	29.86	**Water Column(ft):**	5.43	**Liters in Well:**	3.35
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:00	**Total Volume Purged (liters):**	11.4	**Sample ID:**	MW-19-107_110625	**Sample Time:**	10:05
Purge End Time:	10:06	**Well Volumes Purged (total):**	3.40	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:07	0	200	mL/min	24.74	6.68	0.925	20.23	1.58	12.8	-24	Clear	No Odor
09:12	5	200	mL/min	24.94	6.67	0.93	214.39	0.92	13.1	-40.5	Clear	No Odor
09:17	10	200	mL/min	25.03	6.69	0.939	131.73	0.8	13.2	-44	Clear	No Odor
09:22	15	200	mL/min	25.03	6.71	0.941	61.22	0.69	13.1	-47.4	Clear	No Odor
09:27	20	200	mL/min	25.03	6.72	0.946	176.32	0.62	13.2	-50.2	Clear	No Odor
09:32	25	200	mL/min	25.03	6.72	0.955	29.8	0.58	13.1	-51.8	Clear	No Odor
09:37	30	200	mL/min	25.03	6.73	0.961	464.03	0.55	13.3	-52.6	Clear	No Odor
09:42	35	200	mL/min	25.03	6.72	0.966	36.14	0.51	13.4	-52.4	Clear	No Odor
09:47	40	200	mL/min	25.03	6.72	0.974	8.62	0.48	13.4	-52.3	Clear	No Odor
09:52	45	200	mL/min	25.03	6.73	0.979	8.49	0.48	13.3	-51.9	Clear	No Odor
09:57	50	200	mL/min	25.03	6.73	0.984	9.02	0.48	13.3	-51.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-108	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	58 deg F, cloudy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.58	**Total Depth (ft-bmp):**	30	**Water Column(ft):**	8.42	**Liters in Well:**	5.2
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:15	**Total Volume Purged (liters):**	12.4	**Sample ID:**	MW-19-108_110525	**Sample Time:**	12:28
Purge End Time:	12:29	**Well Volumes Purged (total):**	2.38	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:22	0	200	mL/min	21.69	6.75	1.41	39.95	0.85	14	-11.5	Clear	No Odor
11:27	5	200	mL/min	21.71	6.75	1.406	39.64	0.61	14	-11.9	Clear	No Odor
11:32	10	200	mL/min	21.74	6.76	1.392	76.07	0.53	14	-11.2	Clear	No Odor
11:37	15	200	mL/min	21.77	6.77	1.373	188.04	0.48	14.1	-10.6	Clear	No Odor
11:42	20	200	mL/min	21.80	6.78	1.37	13.36	0.38	14.1	-9.4	Clear	No Odor
11:48	26	200	mL/min	21.81	6.78	1.367	32.85	0.36	14.1	-8.3	Clear	No Odor
11:52	30	200	mL/min	21.83	6.78	1.357	46.66	0.36	14.1	-7.8	Clear	No Odor
11:57	35	200	mL/min	21.86	6.79	1.348	67.72	0.35	14.1	-6.8	Clear	No Odor
12:02	40	200	mL/min	21.87	6.79	1.336	97.22	0.35	14.1	-6	Clear	No Odor
12:07	45	200	mL/min	21.89	6.79	1.338	49.4	0.45	14.2	-5.5	Clear	No Odor
12:11	49	200	mL/min	21.90	6.8	1.331	82.03	0.43	14.2	-5.8	Clear	No Odor
12:17	55	200	mL/min	21.92	6.8	1.322	121.43	0.47	14.2	-5.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-111	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	55 deg F, cloudy.			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	25.33	**Total Depth (ft-bmp):**	27.41	**Water Column(ft):**	2.08	**Liters in Well:**	1.28
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	26.25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:35	**Total Volume Purged (liters):**	5	**Sample ID:**	MW-19-111_110525	**Sample Time:**	10:36
Purge End Time:	10:37	**Well Volumes Purged (total):**	3.91	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:45	0	100	mL/min	25.70	6.61	1.459	9.41	1.87	13.6	125.9	Clear	No Odor
09:50	5	100	mL/min	25.75	6.65	1.448	12.32	1.16	13.6	98.2	Clear	No Odor
09:55	10	100	mL/min	25.80	6.7	1.39	24.72	0.8	13.6	82.8	Clear	No Odor
10:00	15	100	mL/min	25.82	6.71	1.334	34.63	0.66	13.6	75.4	Clear	No Odor
10:05	20	100	mL/min	25.82	6.72	1.318	32.16	0.61	13.6	70.6	Clear	No Odor
10:10	25	100	mL/min	25.82	6.73	1.305	28.52	0.56	13.7	67.6	Clear	No Odor
10:15	30	100	mL/min	25.82	6.73	1.295	29.23	0.52	13.6	65.4	Clear	No Odor
10:20	35	100	mL/min	25.82	6.72	1.291	27.82	0.49	13.7	63.7	Clear	No Odor
10:25	40	100	mL/min	25.82	6.73	1.285	29.64	0.47	13.7	62.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-112	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	40s sunny			**Field Technician:**		Robert Prigge	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	9.00-14.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	12	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:52	**Total Volume Purged (liters):**	1.9	**Sample ID:**	MW-19-112_110425	**Sample Time:**	10:25
Purge End Time:	10:32	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:02	0	150	mL/min	9.03	6.03	8.927	25.01	0.75	18.3	-114.2	Clear	No Odor
10:07	5	150	mL/min	9.54	6.08	8.89	42.56	0.38	18.3	-114.8	Clear	No Odor
10:12	10	150	mL/min	9.94	6.13	8.735	64.68	0.38	18.3	-109.7	Clear	No Odor
10:17	15	15	mL/min	10.33	6.14	8.712	63.65	0.41	18.53	-108.1	Clear	No Odor
10:23	21	15	mL/min	10.78	6.15	8.697	67.99	0.33	18.8	-105.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-114	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:52.29 °F, rH:79%, Clouds: 0%, Wind:11.5mph SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	6.00-11.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.1	**Total Depth (ft-bmp):**	11	**Water Column(ft):**	7.9	**Gallons in Well:**	1.29
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:17	**Total Volume Purged (gallons):**	2.25	**Sample ID:**	MW-19-114_110525	**Sample Time:**	10:15
Purge End Time:	10:21	**Well Volumes Purged (total):**	1.74	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-05	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:20	0	150	mL/min	3.48	7.24	0.502	2.2	1.94	14.5	197.5	Clear	No Odor
09:25	5	150	mL/min	3.56	7.25	0.483	2.55	1.48	14.3	199.3	Clear	No Odor
09:30	10	150	mL/min	3.64	7.27	0.478	2.25	1.24	14.3	196.9	Clear	No Odor
09:35	15	150	mL/min	3.68	7.28	0.476	2.04	1.08	14.3	195.6	Clear	No Odor
09:40	20	150	mL/min	3.70	7.28	0.475	2.05	0.97	14.3	194.4	Clear	No Odor
09:45	25	150	mL/min	3.72	7.29	0.475	1.96	0.87	14.4	193.1	Clear	No Odor
09:50	30	150	mL/min	3.75	7.3	0.475	1.82	0.77	14.4	143.4	Clear	No Odor
09:55	35	150	mL/min	3.78	7.3	0.475	1.79	0.56	14.4	157	Clear	No Odor
10:00	40	150	mL/min	3.80	7.31	0.475	1.63	0.49	14.4	159.8	Clear	No Odor
10:05	45	150	mL/min	3.82	7.31	0.475	1.6	0.49	14.4	160.7	Clear	No Odor
10:11	51	150	mL/min	3.82	7.32	0.475	1.59	0.41	14.4	160.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-115	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	50 cloudy			**Field Technician:**		Robert Prigge	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.50-77.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:24	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-19-115_103125	**Sample Time:**	13:00
Purge End Time:	13:06	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:34	0	200	mL/min	61.69	6.82	2.791	22.33	0.43	13.4	-37.4	Clear	No Odor
12:40	6	200	mL/min	61.49	6.83	2.793	21.38	0.5	13.5	-34.5	Clear	No Odor
12:44	10	200	mL/min	61.58	6.82	2.811	19.91	0.47	14.1	-35	Clear	No Odor
12:49	15	200	mL/min	62.25	6.82	2.835	25.34	0.3	14.1	-36.2	Clear	No Odor
12:54	20	200	mL/min	62.80	6.83	2.817	26.9	0.26	14.1	-32.2	Clear	No Odor
12:59	25	200	mL/min	63.07	6.83	2.816	25.95	0.23	13.9	-33.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-116	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	40s cloudy			**Field Technician:**		Robert Prigge	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	65.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	67.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:54	**Total Volume Purged (liters):**	8	**Sample ID:**	MW-19-116_103125	**Sample Time:**	11:42
Purge End Time:	11:51	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:14	0	200	mL/min	57.06	6.82	1.791	11.78	0.37	14.6	-78.8	Clear	No Odor
11:19	5	200	mL/min	57.20	6.78	1.808	30.89	0.25	14.8	-85.6	Clear	No Odor
11:24	10	200	mL/min	57.31	6.78	1.806	44.8	0.2	14.6	-88	Clear	No Odor
11:29	15	200	mL/min	57.41	6.78	1.803	64.2	0.16	14.8	-90.4	Clear	No Odor
11:34	20	200	mL/min	57.35	6.79	1.802	68.6	0.14	14.8	-91.7	Clear	No Odor
11:39	25	200	mL/min	57.35	6.79	1.803	70.1	0.13	14.7	-93.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-117	**Date(s):**	2025-11-06	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:2.01 °C, rH:80%, Clouds: 0%, Wind:0m/s N			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	54.00-59.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	60.17	**Total Depth (ft-bmp):**	62.88	**Water Column(ft):**	2.71	**Liters in Well:**	1.67
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	62.38	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:05	**Total Volume Purged (liters):**	3	**Sample ID:**	MW-19-117_110625	**Sample Time:**	10:00
Purge End Time:	09:38	**Well Volumes Purged (total):**	1.80	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:10	0	200	mL/min	61.20	7.02	1.239	91.25	0.47	14.8	-68.2	Clear	No Odor
09:15	5	200	mL/min	61.20	7.01	1.231	210.1	0.34	14.7	-80.6	Clear	No Odor
09:20	10	200	mL/min	61.20	7	1.226	68.13	0.39	14.7	-81.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: The water level dropped below the top of the bladder pump after 5 minutes of purging. Unable to measure depth to water after 5 minutes.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-118D	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:7.9 °C, rH:86%, Clouds: 94%, Wind:6.31m/s N-NE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	175.00-190.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	78.09	**Total Depth (ft-bmp):**	190	**Water Column(ft):**	111.91	**Liters in Well:**	69.14
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	185	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:40	**Total Volume Purged (liters):**	14	**Sample ID:**	MW-19-118D_103025	**Sample Time:**	12:50
Purge End Time:	12:55	**Well Volumes Purged (total):**	0.20	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:45	0	200	mL/min	78.11	7.18	2.092	291.22	1.07	12.7	-67.2	Clear	No Odor
11:50	5	200	mL/min	78.11	7.34	1.844	357.27	1.25	11.5	-69.1	Clear	No Odor
11:55	10	200	mL/min	78.11	7.36	1.772	309.73	1.45	11.4	-65.3	Clear	No Odor
12:00	15	200	mL/min	78.11	7.37	1.734	291.49	1.58	11.3	-63.1	Clear	No Odor
12:05	20	200	mL/min	78.11	7.34	1.739	208.27	1.36	11.7	-64.4	Clear	No Odor
12:10	25	200	mL/min	78.11	7.32	1.746	152.81	1.28	11.8	-65.2	Clear	No Odor
12:15	30	200	mL/min	78.11	7.3	1.751	131.25	1.15	12	-68.6	Clear	No Odor
12:20	35	200	mL/min	78.11	7.27	1.759	128.37	1.12	12.2	-69.6	Clear	No Odor
12:25	40	200	mL/min	78.11	7.22	1.784	59.75	0.98	12.7	-78.9	Clear	No Odor
12:30	45	200	mL/min	78.11	7.19	1.842	12.37	0.82	13.2	-86.5	Clear	No Odor
12:35	50	200	mL/min	78.11	7.18	1.868	7.57	0.71	12.8	-89.7	Clear	No Odor
12:40	55	200	mL/min	78.11	7.17	1.866	6.87	0.7	12.6	-90.9	Clear	No Odor
12:45	60	200	mL/min	78.11	7.16	1.871	6.11	0.68	12.4	-93.5	Clear	No Odor
12:50	65	200	mL/min	78.11	7.15	1.893	6.57	0.66	12.3	-97.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-118S	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:10.64 °C, rH:69%, Clouds: 40%, Wind:7.2m/s N-NE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	145.00-160.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	77.96	**Total Depth (ft-bmp):**	160	**Water Column(ft):**	82.04	**Liters in Well:**	50.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	155	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-19-118S_103025	**Sample Time:**	13:45
Purge End Time:	13:50	**Well Volumes Purged (total):**	0.12	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	200	mL/min	78.17	6.8	3.176	94.32	1.63	13.4	-50.5	Clear	No Odor
13:25	5	200	mL/min	78.17	6.77	3.374	29.59	0.45	13.4	-45.2	Clear	No Odor
13:30	10	200	mL/min	78.17	6.77	3.417	26.33	0.36	13.2	-45.5	Clear	No Odor
13:35	15	200	mL/min	78.17	6.77	3.411	25.61	0.32	13.3	-45.5	Clear	No Odor
13:40	20	200	mL/min	78.17	6.76	3.452	24.38	0.29	13.4	-46.7	Clear	No Odor
13:45	25	200	mL/min	78.17	6.76	3.457	24.09	0.27	13.3	-47.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-119D	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:52.38 °F, rH:59%, Clouds: 0%, Wind:10.36mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	180.00-195.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	84.92	**Total Depth (ft-bmp):**	197.9	**Water Column(ft):**	112.98	**Gallons in Well:**	18.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:45	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	MW-19-119D_110425	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.07	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-08_110425	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:50	0	200	mL/min	84.92	7.35	1.269	3.55	6.18	13.5	196.2	Clear	No Odor
11:00	10	200	mL/min	84.92	7.11	1.264	3.01	2.43	13.3	200.1	Clear	No Odor
11:05	15	200	mL/min	84.92	7.1	1.265	2.97	2.05	13.5	198.8	Clear	No Odor
11:10	20	200	mL/min	84.92	7.1	1.266	2.97	1.99	13.5	198.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	2	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-119S	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:51.13 °F, rH:65%, Clouds: 0%, Wind:10.36mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	145.00-160.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	71.85	**Total Depth (ft-bmp):**	162.9	**Water Column(ft):**	91.05	**Gallons in Well:**	14.86
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:55	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	MW-19-119S_110425	**Sample Time:**	10:25
Purge End Time:	10:25	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	200	mL/min	71.85	6.97	1.317	8.84	3.21	12.2	214.1	Clear	No Odor
10:10	5	200	mL/min	71.85	6.97	1.318	8.7	2.88	12.4	216.8	Clear	No Odor
10:15	10	200	mL/min	71.85	6.97	1.321	9.8	2.56	12.4	220	Clear	No Odor
10:20	15	200	mL/min	71.85	6.97	1.323	8.82	2.46	12.4	221	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-120	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:13.38 °C, rH:49%, Clouds: 0%, Wind:7.2m/s E-SE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.22	**Total Depth (ft-bmp):**	71	**Water Column(ft):**	3.78	**Gallons in Well:**	0.62
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	68.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:05	**Total Volume Purged (gallons):**	1.638	**Sample ID:**	MW-19-120_102825	**Sample Time:**	15:35
Purge End Time:	15:35	**Well Volumes Purged (total):**	2.64	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:10	0	280	mL/min	67.20	7.32	1.015	100.59	3.82	15	16.4	Clear	No Odor
15:15	5	240	mL/min	67.20	7.3	1.019	95	3.35	15.1	19.9	Clear	No Odor
15:20	10	240	mL/min	67.20	7.3	1.024	78	3	15	21.2	Clear	No Odor
15:25	15	240	mL/min	67.20	7.3	1.028	78	2.93	15	22.4	Clear	No Odor
15:30	20	240	mL/min	67.20	7.3	1.031	67	2.9	15	23.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (8260),VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-121	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	Cloudy 50's			**Field Technician:**		Scott Filipiak	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	65.72	**Total Depth (ft-bmp):**	73.5	**Water Column(ft):**	7.78	**Gallons in Well:**	1.27
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	72	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	11:15	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-19-121_103125	**Sample Time:**	12:05
Purge End Time:	12:05	**Well Volumes Purged (total):**	1.57	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:20	0	200	mL/min	65.75	7.19	2.83	64.8	3.52	14.1	125	Clear	No Odor
11:25	5	200	mL/min	65.75	7.2	2.78	10.6	3.08	14.1	125	Clear	No Odor
11:30	10	200	mL/min	65.75	7.2	2.78	6.96	2.87	14.1	124	Clear	No Odor
11:35	15	200	mL/min	65.75	7.2	2.78	5.5	2.66	14.2	125	Clear	No Odor
11:40	20	200	mL/min	65.75	7.2	2.77	5.34	2.56	14.2	124	Clear	No Odor
11:45	25	200	mL/min	65.75	7.2	2.75	4.88	2.3	14.2	125	Clear	No Odor
11:50	30	200	mL/min	65.75	7.2	2.75	4.73	2.26	14.2	126	Clear	No Odor
11:55	35	200	mL/min	65.75	7.2	2.75	4.9	2.26	14.2	126	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-122	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	Cloudy 50's			**Field Technician:**		Scott Filipiak	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	59.00-64.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	64.8	**Total Depth (ft-bmp):**	66.8	**Water Column(ft):**	2	**Gallons in Well:**	0.33
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	65	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:00	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-19-122_103125	**Sample Time:**	10:45
Purge End Time:	10:45	**Well Volumes Purged (total):**	6.06	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	200	mL/min	64.84	6.68	4.78	15.8	5.97	13	160	Clear	No Odor
10:10	5	200	mL/min	64.84	6.68	4.79	12.7	6.09	13.1	162	Clear	No Odor
10:15	10	200	mL/min	64.84	6.58	4.78	9.83	3.43	13.1	148	Clear	No Odor
10:20	15	200	mL/min	64.84	6.58	4.77	6.74	2.87	13.1	145	Clear	No Odor
10:25	20	200	mL/min	64.84	6.58	4.79	6.03	2.78	13.1	143	Clear	No Odor
10:30	25	200	mL/min	64.84	6.58	4.8	5.47	2.8	13.2	143	Clear	No Odor
10:35	30	200	mL/min	64.84	6.59	4.8	5.12	2.8	13.2	142	Clear	No Odor
10:40	35	200	mL/min	64.84	6.59	4.8	5.31	2.8	13.2	142	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-123	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:46.13 °F, rH:77%, Clouds: 100%, Wind:13.8mph SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-71.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	64.24	**Total Depth (ft-bmp):**	73.77	**Water Column(ft):**	9.53	**Gallons in Well:**	1.56
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	09:40	**Total Volume Purged (gallons):**	1.32	**Sample ID:**	MW-19-123_110325	**Sample Time:**	10:10
Purge End Time:	10:10	**Well Volumes Purged (total):**	0.85	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:55	0	200	mL/min	64.24	6.34	1.919	10.76	2.44	12.5	205.5	Clear	No Odor
10:00	10	200	mL/min	64.24	6.39	1.89	7.71	2.13	12.3	209.4	Clear	No Odor
10:05	15	200	mL/min	64.24	6.41	1.901	6.42	1.92	12.6	211.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-124	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:48.97 °F, rH:79%, Clouds: 74%, Wind:19.44mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	65.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66.24	**Total Depth (ft-bmp):**	72.19	**Water Column(ft):**	5.95	**Gallons in Well:**	0.97
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:45	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	MW-19-124_110325	**Sample Time:**	11:45
Purge End Time:	11:45	**Well Volumes Purged (total):**	2.99	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:50	0	200	mL/min	66.24	6.53	3.279	269	3.93	13.2	207.6	Clear	No Odor
11:00	10	200	mL/min	66.24	6.52	3.28	150	2.25	13.4	203.3	Clear	No Odor
11:05	15	200	mL/min	66.24	6.52	3.287	116	2.02	13.3	201.7	Clear	No Odor
11:10	20	200	mL/min	66.24	6.52	3.29	85	1.68	13.2	198.2	Clear	No Odor
11:15	25	200	mL/min	66.24	6.52	3.287	61	1.42	13.4	193.8	Clear	No Odor
11:20	30	200	mL/min	66.24	6.52	3.296	51	1.28	13.5	190.7	Clear	No Odor
11:25	35	200	mL/min	66.24	6.52	3.294	40	1.17	13.3	186.6	Clear	No Odor
11:30	40	200	mL/min	66.24	6.52	3.292	31	1.04	14.4	181	Clear	No Odor
11:35	45	200	mL/min	66.24	6.52	3.3	25	0.97	13.5	176.4	Clear	No Odor
11:40	50	200	mL/min	66.24	6.53	3.297	16	0.88	13.5	167.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-19-125	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:11.46 °C, rH:62%, Clouds: 75%, Wind:5.14m/s N			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	100.00-115.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	79.01	**Total Depth (ft-bmp):**	115	**Water Column(ft):**	35.99	**Liters in Well:**	22.23
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	110	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:20	**Total Volume Purged (liters):**	7	**Sample ID:**	MW-19-125_103025	**Sample Time:**	14:55
Purge End Time:	15:00	**Well Volumes Purged (total):**	0.31	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:25	0	200	mL/min	79.95	10.52	0.964	68.59	2.49	14.9	-120	Clear	No Odor
14:30	5	200	mL/min	80.58	10.55	0.918	37.2	1.14	14.7	-138.2	Clear	No Odor
14:35	10	200	mL/min	81.08	10.56	0.879	31.37	0.68	14.7	-146.7	Clear	No Odor
14:40	15	200	mL/min	81.54	10.54	0.836	29.04	0.35	14.7	-151.7	Clear	No Odor
14:45	20	200	mL/min	81.88	10.53	0.831	26.22	0.32	14.6	-155.5	Clear	No Odor
14:50	25	200	mL/min	82.32	10.53	0.827	25.89	0.29	14.6	-158.3	Clear	No Odor
14:55	30	200	mL/min	82.54	10.53	0.822	25.14	0.29	14.6	-159.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
SVOCs (522 MOD)	Amber Glass	1	250 mL	NaHSO4,Other

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-126	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:55.96 °F, rH:41%, Clouds: 0%, Wind:20.71mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	69.00-74.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	73.02	**Total Depth (ft-bmp):**	75.45	**Water Column(ft):**	2.43	**Gallons in Well:**	0.4
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:50	**Total Volume Purged (gallons):**	3.17	**Sample ID:**	MW-20-126_110325	**Sample Time:**	14:55
Purge End Time:	14:55	**Well Volumes Purged (total):**	7.92	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	200	mL/min	73.02	6.88	2.812	170	3.59	15.2	154.3	Clear	No Odor
14:25	5	200	mL/min	73.02	6.86	2.84	114	2.37	15.2	154.1	Clear	No Odor
14:30	10	200	mL/min	73.02	6.85	2868	50	1.61	15.4	153	Clear	No Odor
14:35	15	200	mL/min	73.02	6.85	2.902	35	1.62	15.9	152.1	Clear	No Odor
14:40	20	200	mL/min	73.02	6.86	2.918	28	1.51	15.5	151.6	Clear	No Odor
14:45	25	200	mL/min	73.02	6.85	2.965	25	1.51	14.9	151.7	Clear	No Odor
14:50	30	200	mL/min	73.02	6.84	2.992	25	1.48	14.9	151.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-127	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:54.25 °F, rH:58%, Clouds: 40%, Wind:21.85mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	68.73	**Total Depth (ft-bmp):**	78.7	**Water Column(ft):**	9.97	**Gallons in Well:**	1.63
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:20	**Total Volume Purged (gallons):**	1.585	**Sample ID:**	MW-20-127_110325	**Sample Time:**	12:55
Purge End Time:	12:55	**Well Volumes Purged (total):**	0.97	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	200	mL/min	68.73	6.49	3.189	6.53	3.56	15.2	175.5	Clear	No Odor
12:40	5	200	mL/min	68.73	6.45	3.179	5.46	1.78	14.9	173.7	Clear	No Odor
12:45	10	200	mL/min	68.73	6.44	3.179	5.25	1.44	15.2	173	Clear	No Odor
12:50	15	200	mL/min	68.73	6.44	3.177	4.37	1.22	15.3	172.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-129	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	55 deg F, windy, sunny			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	64.00-69.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	61.82	**Total Depth (ft-bmp):**	71	**Water Column(ft):**	9.18	**Liters in Well:**	5.67
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	64	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:20	**Total Volume Purged (liters):**	13	**Sample ID:**	MW-20-129_110325	**Sample Time:**	14:42
Purge End Time:	14:42	**Well Volumes Purged (total):**	2.29	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:25	0	200	mL/min	63.95	7	1.435	97.36	0.92	15.2	-60.7	Clear	No Odor
13:30	5	200	mL/min	64.91	6.98	1.331	74.35	0.83	15.2	-52.2	Clear	No Odor
13:35	10	200	mL/min	65.24	6.98	1.337	114.3	1.16	15.9	-53.1	Clear	No Odor
13:40	15	200	mL/min	65.77	6.99	1.523	157	0.67	15.3	-67.2	Clear	No Odor
13:45	20	200	mL/min	65.76	6.98	1.442	117.63	0.62	15.2	-62.1	Clear	No Odor
13:58	33	200	mL/min	65.75	7.29	1.456	1214	8.07	15.8	-37.8	Clear	No Odor
14:03	38	200	mL/min	65.73	7.08	1.475	1720.05	6.43	16	-31.5	Clear	No Odor
14:08	43	200	mL/min	65.71	7.33	1.474	1366.21	8.45	16.1	-51.5	Clear	No Odor
14:20	55	200	mL/min	65.84	6.25	1.469	1044	5.6	15.9	-39.7	Clear	No Odor
14:25	60	200	mL/min	65.92	7.01	1.426	575.06	1.76	15.5	-41.8	Clear	No Odor
14:30	65	200	mL/min	65.80	6.98	1.413	506.2	1.42	16	-43.5	Clear	No Odor
14:35	70	200	mL/min	65.73	6.98	1.425	468.25	1.31	15.9	-44.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Lost flow entirely. Had to pull and replace bladder. 10 min trying to fix flow. Purged for 10 min past 1 hour to compensate. Sampled then as parameters not stabilizing.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-130	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:54.9 °F, rH:56%, Clouds: 20%, Wind:9.22mph N-NE			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	63.00-68.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.8	**Total Depth (ft-bmp):**	69.75	**Water Column(ft):**	1.95	**Gallons in Well:**	0.32
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:45	**Total Volume Purged (gallons):**	0.265	**Sample ID:**	MW-20-130_102925	**Sample Time:**	16:30
Purge End Time:	16:10	**Well Volumes Purged (total):**	0.83	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:05	0	200	mL/min	67.80	6.83	0.013	476	9.39	14.3	139.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-131	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:12.64 °C, rH:57%, Clouds: 20%, Wind:4.12m/s N-NE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.00-10.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.45	**Total Depth (ft-bmp):**	8.65	**Water Column(ft):**	3.2	**Liters in Well:**	1.98
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	16:15	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-20-131_102925	**Sample Time:**	16:45
Purge End Time:	16:50	**Well Volumes Purged (total):**	3.03	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:20	0	200	mL/min	5.88	6.94	5.276	15.03	0.27	18.1	-40.7	Clear	No Odor
16:25	5	200	mL/min	5.95	6.95	5.309	11.4	0.26	18.1	-42.3	Clear	No Odor
16:30	10	200	mL/min	5.95	6.96	5.328	9.83	0.23	18.1	-42.8	Clear	No Odor
16:35	15	200	mL/min	5.95	6.96	5.334	7.47	0.22	18.1	-42.3	Clear	No Odor
16:40	20	200	mL/min	5.95	6.96	5.336	7.13	0.2	18.1	-41.4	Clear	No Odor
16:45	25	200	mL/min	5.95	6.97	5.333	6.78	0.2	18.1	-41	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-20-132	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:12.12 °C, rH:57%, Clouds: 20%, Wind:4.63m/s N-NE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	6.00-11.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.79	**Total Depth (ft-bmp):**	10.81	**Water Column(ft):**	5.02	**Liters in Well:**	3.1
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	17:05	**Total Volume Purged (liters):**	6	**Sample ID:**	MW-20-132_102925	**Sample Time:**	17:35
Purge End Time:	17:40	**Well Volumes Purged (total):**	1.94	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
17:10	0	200	mL/min	6.00	7.21	3.755	8.19	0.62	16.5	-82.5	Clear	No Odor
17:15	5	200	mL/min	6.02	7.2	3.721	6.62	0.33	16.5	-80.6	Clear	No Odor
17:20	10	200	mL/min	6.02	7.19	3.716	4.11	0.35	16.5	-79.8	Clear	No Odor
17:25	15	200	mL/min	6.02	7.19	3.717	3.51	0.33	16.4	-84.6	Clear	No Odor
17:30	20	200	mL/min	6.02	7.19	3.733	3.21	0.31	16.4	-87	Clear	No Odor
17:35	25	200	mL/min	6.02	7.19	3.738	2.88	0.29	16.3	-88.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-133	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:11.48 °C, rH:62%, Clouds: 75%, Wind:5.14m/s N			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	10.00-15.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.5	**Total Depth (ft-bmp):**	15	**Water Column(ft):**	1.5	**Gallons in Well:**	0.24
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:50	**Total Volume Purged (gallons):**	1.717	**Sample ID:**	MW-21-133_103025	**Sample Time:**	16:00
Purge End Time:	16:00	**Well Volumes Purged (total):**	7.15	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:55	0	100	mL/min	13.92	6.65	0.964	9.02	0.85	14.7	94.4	Clear	No Odor
15:00	5	100	mL/min	13.97	6.65	0.957	15.97	0.58	14.6	86.6	Clear	No Odor
15:05	10	100	mL/min	14.06	6.67	0.956	10.66	1.09	14.6	84	Clear	No Odor
15:10	15	100	mL/min	14.20	6.68	0.954	5.94	1.85	14.4	83.2	Clear	No Odor
15:15	20	100	mL/min	14.30	6.73	0.95	4.28	2.82	14.4	87.5	Clear	No Odor
15:20	25	100	mL/min	14.37	6.74	0.943	4.55	3.21	14.3	89.5	Clear	No Odor
15:25	30	100	mL/min	14.44	6.75	0.94	4.96	2.85	14.3	90.2	Clear	No Odor
15:30	35	100	mL/min	14.50	6.73	0.941	5.22	2.4	14.2	89.6	Clear	No Odor
15:35	40	100	mL/min	14.55	6.73	0.941	4.67	2.19	14.3	88.6	Clear	No Odor
15:40	45	100	mL/min	14.61	6.73	0.942	4.62	1.92	14.4	87.5	Clear	No Odor
15:45	50	100	mL/min	14.65	6.72	0.943	4.42	1.62	14.4	86.3	Clear	No Odor
15:50	55	100	mL/min	14.69	6.76	0.944	4.73	1.39	14.4	68.1	Clear	No Odor
15:55	60	100	mL/min	14.72	6.72	0.943	5.21	1.38	14.4	76.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-134	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:10.95 °C, rH:67%, Clouds: 75%, Wind:7.2m/s N			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	11.00-16.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.19	**Total Depth (ft-bmp):**	20.1	**Water Column(ft):**	3.91	**Gallons in Well:**	0.64
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	19	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:50	**Total Volume Purged (gallons):**	0.925	**Sample ID:**	MW-21-134_103025	**Sample Time:**	14:30
Purge End Time:	14:30	**Well Volumes Purged (total):**	1.45	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	100	mL/min	16.35	6.97	0.983	24.24	4.42	14.9	71.7	Clear	No Odor
14:00	5	100	mL/min	16.43	6.77	0.903	14.78	4.12	14.6	87.5	Clear	No Odor
14:05	10	100	mL/min	16.53	6.78	0.878	18	4.03	15.3	80.7	Clear	No Odor
14:10	15	100	mL/min	16.54	6.79	0.876	13.68	4.03	15.3	82.2	Clear	No Odor
14:16	21	100	mL/min	16.63	6.77	0.863	7.9	4.29	14.6	85.4	Clear	No Odor
14:20	25	100	mL/min	16.71	6.77	0.858	6.84	4.1	14.8	84	Clear	No Odor
14:25	30	100	mL/min	16.78	6.78	0.862	7.02	4.06	14.8	81.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-136	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:3.47 °C, rH:93%, Clouds: 0%, Wind:2.57m/s N			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	9.00-14.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.33	**Total Depth (ft-bmp):**	14	**Water Column(ft):**	5.67	**Gallons in Well:**	0.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	11	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:15	**Total Volume Purged (gallons):**	0.925	**Sample ID:**	MW-21-136_103025	**Sample Time:**	09:55
Purge End Time:	09:55	**Well Volumes Purged (total):**	0.99	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:20	0	100	mL/min	8.92	6.9	1.044	4.48	0.81	14.6	9.9	Clear	No Odor
09:25	5	100	mL/min	9.05	6.89	1.036	5.23	0.66	14.8	-36.5	Clear	No Odor
09:30	10	100	mL/min	9.05	6.91	1.041	4.05	0.72	14.8	-51.7	Clear	No Odor
09:35	15	100	mL/min	9.15	6.91	1.044	1.55	0.55	14.8	-70.6	Clear	No Odor
09:40	20	100	mL/min	9.25	6.91	1.042	0.69	0.37	14.8	-83.4	Clear	No Odor
09:45	25	100	mL/min	9.35	6.91	1.039	0.75	0.37	14.7	-84.6	Clear	No Odor
09:50	30	100	mL/min	9.45	6.91	1.037	1.02	0.36	14.7	-83.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-137	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:7.89 °C, rH:86%, Clouds: 94%, Wind:6.31m/s N-NE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.61	**Total Depth (ft-bmp):**	12	**Water Column(ft):**	2.39	**Gallons in Well:**	0.39
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	11	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:50	**Total Volume Purged (gallons):**	1.057	**Sample ID:**	MW-21-137_103025	**Sample Time:**	12:35
Purge End Time:	12:35	**Well Volumes Purged (total):**	2.71	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:55	0	100	mL/min	9.90	6.73	1.018	155	1.2	15.4	70	Clear	No Odor
12:00	5	100	mL/min	9.90	6.73	1.02	39.34	1.43	15.1	71	Clear	No Odor
12:05	10	100	mL/min	9.90	6.7	1.012	16.31	1.13	15.2	73	Clear	No Odor
12:10	15	100	mL/min	9.90	6.66	0.994	5.57	0.69	15.4	76.1	Clear	No Odor
12:15	20	100	mL/min	9.90	6.63	0.982	3.62	0.54	15.3	77.9	Clear	No Odor
12:20	25	100	mL/min	9.90	6.62	0.974	2.62	0.39	15.3	79.1	Clear	No Odor
12:25	30	100	mL/min	9.90	6.61	0.97	1.86	0.35	15.7	80.4	Clear	No Odor
12:30	35	100	mL/min	9.90	6.6	0.969	2.21	0.37	15.7	81.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-138	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:4.56 °C, rH:92%, Clouds: 94%, Wind:4.9m/s N			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-29.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.7	**Total Depth (ft-bmp):**	29	**Water Column(ft):**	7.3	**Gallons in Well:**	1.19
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:17	**Total Volume Purged (gallons):**	0.872	**Sample ID:**	MW-21-138_103025	**Sample Time:**	10:55
Purge End Time:	10:55	**Well Volumes Purged (total):**	0.73	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-21-138-MS/MSD_103025	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:20	0	100	mL/min	22.05	6.71	1.418	44.72	2.6	12.1	-93.1	Clear	No Odor
10:25	5	100	mL/min	22.38	6.7	1.46	56	0.77	11.7	-83.1	Clear	No Odor
10:30	10	100	mL/min	22.85	6.73	1.448	90	0.48	11.9	-82.1	Clear	No Odor
10:35	15	100	mL/min	23.30	6.74	1.442	116	0.41	11.5	-78.8	Clear	No Odor
10:40	20	100	mL/min	23.55	6.75	1.446	51.88	0.42	11.1	-76	Clear	No Odor
10:45	25	100	mL/min	23.78	6.76	1.445	52.54	0.45	11	-73.5	Clear	No Odor
10:50	30	100	mL/min	23.98	6.76	1.447	44.94	0.48	11.1	-70.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-139	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:46.72 °F, rH:76%, Clouds: 0%, Wind:12.48mph E-NE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.00-12.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.1	**Total Depth (ft-bmp):**	12	**Water Column(ft):**	8.9	**Gallons in Well:**	1.45
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:40	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-21-139_102925	**Sample Time:**	11:45
Purge End Time:	11:50	**Well Volumes Purged (total):**	1.21	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:42	0	200	mL/min	3.88	8.37	1.022	2.83	2.04	14.6	-48.2	Clear	No Odor
10:47	5	100	mL/min	4.20	8.38	1.018	2.5	1.8	14.3	-27	Clear	No Odor
10:52	10	100	mL/min	3.94	8.33	1.008	1.72	1.59	14	-24.1	Clear	No Odor
10:57	15	100	mL/min	3.88	8.24	0.978	1.75	1.48	13.8	-52.7	Clear	No Odor
11:02	20	100	mL/min	4.00	8.15	0.948	1.58	1.22	14.6	-85.8	Clear	No Odor
11:07	25	100	mL/min	4.10	8.08	0.928	1.48	1.1	14.6	-90.9	Clear	No Odor
11:17	35	100	mL/min	4.49	7.9	0.862	1.42	0.68	15.6	-103.5	Clear	No Odor
11:21	39	100	mL/min	4.49	7.89	0.857	1.53	0.65	15.7	-103.3	Clear	No Odor
11:26	44	100	mL/min	4.45	7.85	0.842	1.45	0.55	15.6	-103.3	Clear	No Odor
11:31	49	100	mL/min	4.49	7.8	0.829	1.48	0.47	15.7	-103.7	Clear	No Odor
11:36	54	100	mL/min	4.45	7.79	0.825	1.59	0.42	15.7	-103.3	Clear	No Odor
11:41	59	100	mL/min	4.45	7.78	0.822	1.47	0.39	15.9	-102.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-140	**Date(s):**	2025-10-30	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:52.68 °F, rH:62%, Clouds: 75%, Wind:11.5mph N			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	67.00-72.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	65.85	**Total Depth (ft-bmp):**	72	**Water Column(ft):**	6.15	**Gallons in Well:**	1
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	14:36	**Total Volume Purged (gallons):**	3	**Sample ID:**	MW-21-140_103025	**Sample Time:**	15:40
Purge End Time:	15:44	**Well Volumes Purged (total):**	3.00	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:39	0	200	mL/min	69.00	7.3	0.985	923.5	4.18	13.4	-1.7	Clear	No Odor
14:44	5	200	mL/min	69.00	7.17	0.975	528.44	4.27	13.3	4.7	Clear	No Odor
14:49	10	200	mL/min	68.95	7.16	0.97	373.89	4.25	13.2	11.3	Clear	No Odor
14:54	15	200	mL/min	68.95	7.15	0.969	289.65	3.85	13.5	9.4	Clear	No Odor
14:59	20	200	mL/min	68.98	7.12	0.97	206.82	3.08	13.4	3	Clear	No Odor
15:04	25	200	mL/min	68.98	7.1	0.976	145.37	2.16	13.4	-8.6	Clear	No Odor
15:09	30	200	mL/min	68.98	7.18	0.982	97.35	1.78	13.4	-14.4	Clear	No Odor
15:14	35	200	mL/min	68.98	7.08	0.985	90.76	1.62	13.6	-15.3	Clear	No Odor
15:24	45	200	mL/min	38.95	7.31	0.989	1692.09	5.73	13.4	-11.6	Clear	No Odor
15:29	50	200	mL/min	68.98	7.07	0.987	1613.4	0.54	13.3	-25.7	Clear	No Odor
15:34	55	200	mL/min	68.98	7.06	0.985	823.84	0.54	13.5	-21.8	Gray	No Odor
15:39	60	200	mL/min	68.98	7.06	0.985	635.83	0.62	13.5	-21	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: Well dried at 15:35. Allowed to recharge and continue purging. Well sampled with high turbidity.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-141	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:54.55 °F, rH:42%, Clouds: 0%, Wind:23.02mph W			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-77.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	78.2	**Total Depth (ft-bmp):**	79.7	**Water Column(ft):**	1.5	**Gallons in Well:**	0.24
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:45	**Total Volume Purged (gallons):**	2.64	**Sample ID:**	MW-21-141_110325	**Sample Time:**	16:40
Purge End Time:	16:40	**Well Volumes Purged (total):**	11.00	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-11_110325	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:50	0	200	mL/min	78.20	6.85	1.453	344	4.97	13.1	140.1	Clear	No Odor
15:55	5	200	mL/min	78.20	6.77	1.457	250	3.72	13	149	Clear	No Odor
16:00	10	200	mL/min	78.20	6.7	1.457	145	2.18	12.8	154.9	Clear	No Odor
16:05	15	200	mL/min	78.20	6.68	1.449	98	1.54	12.7	153.9	Clear	No Odor
16:10	20	200	mL/min	78.20	6.67	1.429	63	1.32	12.6	151.4	Clear	No Odor
16:15	25	200	mL/min	78.20	6.66	1.419	50	1.16	12.6	149.3	Clear	No Odor
16:20	30	200	mL/min	78.20	6.67	1.405	40	1.03	12.5	146.3	Clear	No Odor
16:25	35	200	mL/min	78.20	6.67	1.393	35	0.99	12.5	144.5	Clear	No Odor
16:30	40	200	mL/min	78.20	6.67	1.382	35	0.95	12.4	142.6	Clear	No Odor
16:35	45	200	mL/min	78.20	6.67	1.372	32	0.9	12.4	140.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-21-142	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	55 deg F sunny windy			**Field Technician:**		Nicholas Battjes	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	71.50-76.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	67.44	**Total Depth (ft-bmp):**	78	**Water Column(ft):**	10.56	**Liters in Well:**	6.52
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:20	**Total Volume Purged (liters):**	8.125	**Sample ID:**	MW-21-142_110325	**Sample Time:**	17:28
Purge End Time:	05:28	**Well Volumes Purged (total):**	1.25	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:30	0	125	mL/min	67.71	6.88	2.912	2567	6.07	13.5	77.8	Clear	No Odor
16:35	5	125	mL/min	67.75	6.78	2.909	1191	3.26	13.3	39.6	Clear	No Odor
16:40	10	125	mL/min	67.77	6.76	2.896	1750	2.45	13.3	25.7	Clear	No Odor
16:45	15	125	mL/min	67.77	6.75	2.876	1833	1.79	13.3	19.2	Clear	No Odor
16:50	20	125	mL/min	67.77	6.73	2.852	2870	1.12	13.2	11.8	Clear	No Odor
16:55	25	125	mL/min	67.77	6.72	2.817	3062	0.83	13.2	2.8	Clear	No Odor
17:00	30	125	mL/min	67.77	6.73	2.766	1810	0.78	13.2	-4.7	Clear	No Odor
17:05	35	125	mL/min	67.77	6.73	2.751	1196	0.77	13.2	-5.6	Clear	No Odor
17:10	40	125	mL/min	67.77	6.73	2.688	1151	0.71	13.2	-10.3	Clear	No Odor
17:15	45	125	mL/min	67.77	6.74	2.639	1381	0.68	13.1	-14.6	Clear	No Odor
17:20	50	125	mL/min	67.77	6.74	2.619	1441	0.7	13.1	-14.6	Clear	No Odor
17:25	55	125	mL/min	67.77	6.74	2.621	1516	0.96	13.2	-13.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-143	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:46.33 °F, rH:78%, Clouds: 100%, Wind:13.8mph SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	26.00-31.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.11	**Total Depth (ft-bmp):**	31	**Water Column(ft):**	12.89	**Gallons in Well:**	2.1
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:55	**Total Volume Purged (gallons):**	2.5	**Sample ID:**	MW-22-143_110325	**Sample Time:**	11:05
Purge End Time:	11:03	**Well Volumes Purged (total):**	1.19	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	150	mL/min	18.32	7.07	2.726	15.16	5.66	13.6	231.2	Clear	No Odor
10:05	5	150	mL/min	18.33	7.02	2.706	5.68	5.07	14.2	227.7	Clear	No Odor
10:10	10	150	mL/min	18.43	6.94	2.754	4.18	2.27	14.3	40.1	Clear	No Odor
10:15	15	150	mL/min	18.43	7	2.816	5.49	0.6	14.4	-30.8	Clear	No Odor
10:20	20	150	mL/min	18.43	7.01	2.826	9.76	0.42	14.4	-40.8	Clear	No Odor
10:25	25	150	mL/min	18.43	7.02	2.856	5.55	0.28	14.2	-45.8	Clear	No Odor
10:30	30	150	mL/min	18.43	7.02	2.901	6.64	0.17	14.3	-50.6	Clear	No Odor
10:35	35	150	mL/min	18.43	7.02	2.927	5.95	0.14	14.3	-52.5	Clear	No Odor
10:40	40	150	mL/min	18.43	7.02	2.996	5.8	0.08	14.6	-55.5	Clear	No Odor
10:45	45	150	mL/min	18.43	7.02	3	6.5	0.07	14.5	-55.8	Clear	No Odor
10:50	50	150	mL/min	18.43	7.02	3.015	8.17	0.07	14.5	-56.4	Clear	No Odor
10:55	55	150	mL/min	18.43	7.02	3.041	8.49	0.08	14.5	-56.7	Clear	No Odor
11:00	60	150	mL/min	18.43	7.02	3.06	3.41	0.06	14.3	-57.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-144	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:54.3 °F, rH:58%, Clouds: 40%, Wind:21.85mph W-SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	19.50-24.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.37	**Total Depth (ft-bmp):**	24.5	**Water Column(ft):**	10.13	**Gallons in Well:**	1.65
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:36	**Total Volume Purged (gallons):**	1.25	**Sample ID:**	MW-22-144_110325	**Sample Time:**	13:10
Purge End Time:	13:14	**Well Volumes Purged (total):**	0.76	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:37	0	150	mL/min	14.37	7.25	1.182	34.88	0.77	15	82	Clear	No Odor
12:42	5	150	mL/min	14.37	7.16	1.215	5.38	0.55	15.1	81	Clear	No Odor
12:47	10	150	mL/min	14.75	7.16	1.23	3.21	0.42	15	79.4	Clear	No Odor
12:52	15	150	mL/min	14.47	7.15	1.233	6.58	0.35	15.1	78.6	Clear	No Odor
12:57	20	150	mL/min	14.47	7.16	1.227	2.55	0.29	15.1	78.3	Clear	No Odor
13:02	25	150	mL/min	14.47	7.15	1.228	2.18	0.26	15.1	78.1	Clear	No Odor
13:07	30	150	mL/min	14.47	7.15	1.231	1.81	0.26	15.2	78.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-145	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:55.51 °F, rH:50%, Clouds: 0%, Wind:24.16mph W-SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	10.50-15.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14	**Total Depth (ft-bmp):**	15.5	**Water Column(ft):**	1.5	**Gallons in Well:**	0.24
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:25	**Total Volume Purged (gallons):**	1.85	**Sample ID:**	MW-22-145_110325	**Sample Time:**	14:15
Purge End Time:	14:18	**Well Volumes Purged (total):**	7.71	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:27	0	150	mL/min	14.12	7.82	0.012	60.17	9.13	15.7	106.9	Reddish brown	No Odor
13:32	5	150	mL/min	14.15	7.22	1.32	165.02	5.25	15.5	108.8	Clear	No Odor
13:37	10	150	mL/min	14.15	7.09	1.316	151.38	3.09	15.5	75.1	Clear	No Odor
13:42	15	150	mL/min	14.15	7.09	1.313	40.41	2.87	15.6	70.6	Clear	No Odor
13:47	20	150	mL/min	14.20	7.1	1.304	27.48	2.61	15.4	71.7	Clear	No Odor
13:52	25	150	mL/min	14.22	7.11	1.292	18.45	2.37	15.4	74.1	Clear	No Odor
13:57	30	150	mL/min	14.28	7.11	1.285	15.45	2.31	15.3	76.1	Clear	No Odor
14:02	35	150	mL/min	14.28	7.12	1.277	8.36	2.17	15.3	76	Clear	No Odor
14:07	40	150	mL/min	14.28	7.15	1.271	5.65	2.03	15.4	75.8	Clear	No Odor
14:12	45	150	mL/min	14.28	7.13	1.269	5.18	2.01	15.4	75.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-147	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:49.66 °F, rH:70%, Clouds: 10%, Wind:1.99mph W-NW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	7.50-12.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.67	**Total Depth (ft-bmp):**	12.5	**Water Column(ft):**	2.83	**Gallons in Well:**	0.46
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:53	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	MW-22-147_110425	**Sample Time:**	10:40
Purge End Time:	10:50	**Well Volumes Purged (total):**	3.80	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-13_110425	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:54	0	150	mL/min	9.77	7.02	1.258	250.52	3.43	15.6	56.1	Clear	No Odor
09:59	5	150	mL/min	9.87	7.03	1.254	195.43	3.43	15.6	57.9	Clear	No Odor
10:04	10	150	mL/min	9.96	7.05	1.238	53.58	3.41	15.8	72.3	Clear	No Odor
10:08	14	150	mL/min	9.90	7.06	1.236	39.85	3.41	15.7	82.7	Clear	No Odor
10:13	19	150	mL/min	9.95	7.07	1.244	31.2	3.48	15.7	79	Clear	No Odor
10:18	24	150	mL/min	10.00	7.07	1.233	31.93	3.49	15.9	71.3	Clear	No Odor
10:23	29	150	mL/min	10.11	7.08	1.236	26.8	3.5	15.9	72.1	Clear	No Odor
10:28	34	150	mL/min	10.17	7.08	1.241	5.29	3.53	16	73.3	Clear	No Odor
10:33	39	150	mL/min	10.22	7.12	1.248	5.41	3.55	15.9	66.6	Clear	No Odor
10:38	44	150	mL/min	10.25	7.1	1.249	5.12	3.54	16	71.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-148	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:43.25 °F, rH:78%, Clouds: 12%, Wind:9.91mph W-SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.50-29.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	25.14	**Total Depth (ft-bmp):**	29.5	**Water Column(ft):**	4.36	**Gallons in Well:**	0.71
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:56	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-22-148_110425	**Sample Time:**	09:45
Purge End Time:	09:48	**Well Volumes Purged (total):**	2.82	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:03	0	150	mL/min	25.52	7.04	0.929	66.9	1.6	12.9	173.6	Clear	No Odor
09:09	6	150	mL/min	25.78	6.89	0.918	40.36	0.82	12.9	167.4	Clear	No Odor
09:14	11	150	mL/min	25.90	6.95	0.915	17.39	0.59	12.7	160.4	Clear	No Odor
09:19	16	150	mL/min	26.08	6.98	0.913	11.48	0.52	12.8	156	Clear	No Odor
09:24	21	150	mL/min	29.12	7	0.912	8.77	0.51	12.9	153.8	Clear	No Odor
09:29	26	150	mL/min	26.10	7	0.913	7.8	0.65	13	151.3	Clear	No Odor
09:34	31	150	mL/min	26.18	7	0.913	6.83	0.66	13.1	150.3	Clear	No Odor
09:39	36	150	mL/min	26.19	7.01	0.914	7	0.68	13.1	149.3	Clear	No Odor
09:44	41	150	mL/min	26.22	7.01	0.914	6.74	0.72	13.2	148.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-149	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:55.22 °F, rH:53%, Clouds: 0%, Wind:13.8mph W			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.50-10.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.95	**Total Depth (ft-bmp):**	10.5	**Water Column(ft):**	3.55	**Gallons in Well:**	0.58
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:14	**Total Volume Purged (gallons):**	0.65	**Sample ID:**	MW-22-149_110425	**Sample Time:**	11:33
Purge End Time:	11:42	**Well Volumes Purged (total):**	1.12	**Replicate Type / Replicate ID:**	**MS/MSD** / MW-22-159_110425	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:16	0	150	mL/min	7.00	7.21	0.602	4.77	6.43	16.6	142.7	Clear	No Odor
11:21	5	150	mL/min	7.20	7.18	0.605	2.49	6.16	16.5	143.8	Clear	No Odor
11:26	10	150	mL/min	7.28	7.2	0.608	2.17	5.97	16.6	144.2	Clear	No Odor
11:31	15	150	mL/min	7.32	7.2	0.608	2.07	5.9	16.6	144.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-150	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLEAR, T:57.7 °F, rH:40%, Clouds: 0%, Wind:13.8mph W			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-18.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.95	**Total Depth (ft-bmp):**	18.5	**Water Column(ft):**	11.55	**Gallons in Well:**	1.88
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:15	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-22-150_110425	**Sample Time:**	13:10
Purge End Time:	13:16	**Well Volumes Purged (total):**	1.06	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:18	0	150	mL/min	6.98	7.39	3.99	37.48	0.82	16.1	103.1	Clear	No Odor
12:23	5	150	mL/min	7.00	7.32	3.981	33.1	0.63	16.1	98.3	Clear	No Odor
12:28	10	150	mL/min	7.58	7.36	3.906	28.88	0.35	16.1	88.1	Clear	No Odor
12:33	15	150	mL/min	7.63	7.37	3.865	26.14	0.29	16	83.8	Clear	No Odor
12:37	19	150	mL/min	7.65	7.38	3.856	22.85	0.37	16	77.5	Clear	No Odor
12:42	24	150	mL/min	7.68	7.39	3.85	22.03	0.49	16.1	71.7	Clear	No Odor
12:47	29	150	mL/min	7.72	7.39	3.852	18.62	0.56	16	63.8	Clear	No Odor
12:52	34	150	mL/min	7.75	7.46	3.857	17.72	0.59	16	50.9	Clear	No Odor
12:57	39	150	mL/min	7.70	7.4	3.863	15.99	0.59	15.9	66.7	Clear	No Odor
13:02	44	150	mL/min	7.78	7.39	3.87	17.3	0.57	15.8	70.3	Clear	No Odor
13:07	49	150	mL/min	7.79	7.39	3.872	17.36	0.55	15.8	70	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-151	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:56.91 °F, rH:42%, Clouds: 100%, Wind:14.97mph W-SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-18.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.97	**Total Depth (ft-bmp):**	18	**Water Column(ft):**	11.03	**Gallons in Well:**	1.8
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:45	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-22-151_110425	**Sample Time:**	14:40
Purge End Time:	14:44	**Well Volumes Purged (total):**	1.11	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:47	0	150	mL/min	7.21	6.76	3.195	630.86	1.11	17.1	-31.3	Clear	No Odor
13:52	5	150	mL/min	7.53	6.76	3.187	278.63	0.39	17	-33.9	Clear	No Odor
13:57	10	150	mL/min	7.60	6.77	3.161	183.77	0.25	17	-35.6	Clear	No Odor
14:02	15	150	mL/min	7.62	6.78	3.135	157.75	0.15	17.1	-36.8	Clear	No Odor
14:07	20	150	mL/min	7.68	6.79	3.101	86.47	0.1	17.1	-38.2	Clear	No Odor
14:12	25	150	mL/min	7.68	6.79	3.094	45.7	0.07	17.2	-40.3	Clear	No Odor
14:17	30	150	mL/min	7.70	6.82	3.105	39.24	0.06	17.2	-40.9	Clear	No Odor
14:22	35	150	mL/min	7.72	6.79	3.123	29.25	0.05	17.3	-41	Clear	No Odor
14:27	40	150	mL/min	7.75	6.79	3.144	23.99	0.04	17.3	-41.3	Clear	No Odor
14:32	45	150	mL/min	7.77	6.79	3.153	23.27	0.03	17.4	-41.8	Clear	No Odor
14:37	50	150	mL/min	7.79	6.79	3.161	21.7	0.03	17.3	-41.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-152	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:56.7 °F, rH:45%, Clouds: 75%, Wind:11.5mph SW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	10.00-15.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.63	**Total Depth (ft-bmp):**	10.5	**Water Column(ft):**	1.87	**Gallons in Well:**	0.31
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:53	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	MW-22-152_110425	**Sample Time:**	15:25
Purge End Time:	15:25	**Well Volumes Purged (total):**	3.55	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:54	0	150	mL/min	8.50	7.4	0.488	61.33	6.39	16.6	112.9	Clear	No Odor
14:59	5	150	mL/min	8.52	7.14	0.977	20.88	0.61	16.3	128.6	Clear	No Odor
15:04	10	150	mL/min	8.53	7.12	0.965	31.77	0.31	16.3	138.4	Clear	No Odor
15:09	15	150	mL/min	8.55	7.12	0.965	15.8	0.22	16.3	143.8	Clear	No Odor
15:12	18	150	mL/min	8.59	7.11	0.964	19.12	0.15	16.3	150.7	Clear	No Odor
15:17	23	150	mL/min	8.62	7.11	0.964	18.85	0.14	16.3	152.8	Clear	No Odor
15:22	28	150	mL/min	8.65	7.11	0.963	18.26	0.13	16.3	154.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None
VOCs (8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-153	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:12.59 °C, rH:56%, Clouds: 0%, Wind:0.89m/s E-SE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.91	**Total Depth (ft-bmp):**	31.15	**Water Column(ft):**	20.24	**Gallons in Well:**	3.3
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:02	**Total Volume Purged (gallons):**	0.476	**Sample ID:**	MW-22-153_102825	**Sample Time:**	13:25
Purge End Time:	13:25	**Well Volumes Purged (total):**	0.14	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-01_102825	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:05	0	100	mL/min	10.93	7.22	1.171	8	1.19	16.5	-124.4	Clear	No Odor
13:10	5	100	mL/min	10.93	7.22	1.173	8.95	0.31	16.3	-136.2	Clear	No Odor
13:15	10	100	mL/min	10.93	7.23	1.172	14.59	0.14	16.3	-139.9	Clear	No Odor
13:20	15	100	mL/min	10.93	7.23	1.172	14.94	0.09	16.4	-141.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (8260),VOCs (SW8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-154	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:54.9 °F, rH:57%, Clouds: 75%, Wind:14.97mph NE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	6.00-11.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.54	**Total Depth (ft-bmp):**	10.5	**Water Column(ft):**	3.96	**Gallons in Well:**	0.65
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:47	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-22-154	**Sample Time:**	16:25
Purge End Time:	16:56	**Well Volumes Purged (total):**	3.08	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-14_102925	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:49	0	100	mL/min	6.12	6.72	14.458	94.57	1.6	16.4	-5.5	Clear	No Odor
15:55	6	150	mL/min	6.37	6.87	13.11	11.9	1.24	16.5	9.1	Clear	No Odor
16:00	11	150	mL/min	6.42	6.93	13.057	6.9	20.8	16.5	3.9	Clear	No Odor
16:05	16	200	mL/min	6.43	6.94	13.152	5.26	1.92	16.4	7.5	Clear	No Odor
16:10	21	200	mL/min	6.42	6.93	13.461	3.6	1.69	16.3	14.4	Clear	No Odor
16:15	26	200	mL/min	6.42	6.93	13.525	3.75	1.66	16.4	15.2	Clear	No Odor
16:20	31	200	mL/min	6.42	6.97	13.714	3.6	1.61	16.4	22	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (8260)	Clear Glass	6	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-155	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:13.01 °C, rH:53%, Clouds: 0%, Wind:8.23m/s E-SE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.50-30.50	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.18	**Total Depth (ft-bmp):**	31.44	**Water Column(ft):**	19.26	**Gallons in Well:**	3.14
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	17	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:58	**Total Volume Purged (gallons):**	0.581	**Sample ID:**	MW-22-155_102825	**Sample Time:**	14:25
Purge End Time:	14:25	**Well Volumes Purged (total):**	0.19	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:00	0	100	mL/min	12.25	6.95	2.064	88.42	2.37	16	-144	Clear	No Odor
14:05	5	100	mL/min	12.25	6.98	2.066	46.94	0.38	15.5	-116.8	Clear	No Odor
14:10	10	100	mL/min	12.25	6.98	2.067	54	0.2	15.5	-115.8	Clear	No Odor
14:15	15	100	mL/min	12.25	6.99	2.066	48.82	1.1	15.3	-117.8	Clear	No Odor
14:20	20	100	mL/min	12.25	6.99	2.064	50.04	0.06	15.3	-118.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-156	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:10.78 °C, rH:71%, Clouds: 0%, Wind:1.34m/s E-SE			**Field Technician:**		Emma Giem	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.37	**Total Depth (ft-bmp):**	31.07	**Water Column(ft):**	17.7	**Gallons in Well:**	2.89
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	20	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:01	**Total Volume Purged (gallons):**	0.898	**Sample ID:**	MW-22-156_102825	**Sample Time:**	12:40
Purge End Time:	12:40	**Well Volumes Purged (total):**	0.31	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:05	0	100	mL/min	13.40	7.25	1.163	11.21	1.43	16.5	-144.3	Clear	No Odor
12:10	5	100	mL/min	13.40	7.28	1.178	69.41	0.3	16.3	-161.9	Clear	No Odor
12:15	10	100	mL/min	13.40	7.3	1.173	116.2	0.13	16.3	-167.3	Clear	No Odor
12:20	15	100	mL/min	13.40	7.3	1.169	175.97	0.8	16.2	-169.6	Clear	No Odor
12:25	20	100	mL/min	13.40	7.3	1.165	183.44	0.04	16.3	-171.9	Clear	No Odor
12:30	25	100	mL/min	13.40	7.3	1.167	215	0.02	16.2	-173.4	Clear	No Odor
12:35	30	100	mL/min	13.40	7.29	1.193	254.8	0	16.1	-174.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (8260),VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-157	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	Sunny 35 degrees			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-29.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.91	**Total Depth (ft-bmp):**	27.65	**Water Column(ft):**	23.74	**Gallons in Well:**	3.87
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:49	**Total Volume Purged (gallons):**	2.5	**Sample ID:**	MW-22-157_102825	**Sample Time:**	11:45
Purge End Time:	11:42	**Well Volumes Purged (total):**	0.65	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / 8887
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:51	0	200	mL/min	2.98	6.78	1.514	2.86	0.63	16.5	194.4	Clear	No Odor
10:56	5	180	mL/min	3.04	6.82	1.515	2.95	0.27	16.4	182.2	Clear	No Odor
11:01	10	180	mL/min	2.99	6.88	1.515	2.52	0.15	16.3	106.1	Clear	No Odor
11:06	15	180	mL/min	3.02	6.84	1.516	2.65	0.09	16.2	115.3	Clear	No Odor
11:11	20	180	mL/min	2.98	6.84	1.516	2.8	0.07	16.2	104.5	Clear	No Odor
11:16	25	180	mL/min	2.98	6.63	1.588	13.2	0.04	16	-68.9	Clear	No Odor
11:21	30	180	mL/min	2.98	6.59	1.613	14.02	1.615	16	-71.1	Clear	No Odor
11:26	35	180	mL/min	3.00	6.54	1.664	12.82	0	16	-79.6	Clear	No Odor
11:31	40	180	mL/min	3.00	6.54	1.681	17.71	0	16	-81.5	Clear	No Odor
11:36	45	180	mL/min	3.00	6.61	1.685	16.19	0.01	16	-83.7	Clear	No Odor
11:41	50	180	mL/min	3.00	6.56	1.697	16.28	0.02	16	-90.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-158	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	Sunny 53 degrees			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	16.00-21.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.21	**Total Depth (ft-bmp):**	21	**Water Column(ft):**	5.79	**Gallons in Well:**	0.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:28	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-22-158_110325	**Sample Time:**	12:20
Purge End Time:	12:22	**Well Volumes Purged (total):**	2.13	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:28	0	150	mL/min	15.72	6.95	4.067	39.1	1.04	14.4	4.2	Clear	No Odor
11:33	5	150	mL/min	15.72	6.98	3.915	27.06	0.69	14.4	-0.8	Clear	No Odor
11:46	18	150	mL/min	15.55	7.03	3.789	18.61	0.51	14.4	-11.6	Clear	No Odor
11:56	28	150	mL/min	15.55	7.06	3.63	6.42	0.09	15.1	-27.3	Clear	No Odor
12:01	33	150	mL/min	15.55	7.11	3.585	5.28	0.08	15.1	-29.8	Clear	No Odor
12:06	38	150	mL/min	15.55	7.07	3.519	3.62	0.06	15	-33.3	Clear	No Odor
12:11	43	150	mL/min	15.55	7.07	3.514	3.23	0.04	15.1	-35.3	Clear	No Odor
12:16	48	150	mL/min	15.50	7.07	3.517	3.17	0.04	15	-35.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-22-160	**Date(s):**	2025-11-03	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	Sunny 60 degrees			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	14.00-19.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.93	**Total Depth (ft-bmp):**	19	**Water Column(ft):**	14.07	**Gallons in Well:**	2.3
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:41	**Total Volume Purged (gallons):**	1	**Sample ID:**	MW-22-160_110325	**Sample Time:**	15:10
Purge End Time:	15:15	**Well Volumes Purged (total):**	0.43	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:42	0	150	mL/min	14.93	6.98	1.54	8.66	0.75	15.7	-19.5	Clear	No Odor
14:47	5	150	mL/min	14.93	6.93	1.15	5.8	0.33	15.7	-28.5	Clear	No Odor
14:52	10	150	mL/min	14.93	6.94	1.15	5.18	0.25	15.7	-32.6	Clear	No Odor
14:57	15	150	mL/min	14.95	6.94	1.15	3.59	0.13	15.6	-36.5	Clear	No Odor
15:02	20	150	mL/min	14.95	6.95	1.147	3.39	0.1	15.6	-37.4	Clear	No Odor
15:07	25	150	mL/min	14.95	6.95	1.146	3.45	0.08	15.7	-39.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-23	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLEAR, T:11.39 °C, rH:80%, Clouds: 0%, Wind:5.14m/s SW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	52.00-62.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	48.97	**Total Depth (ft-bmp):**	65.64	**Water Column(ft):**	16.67	**Liters in Well:**	10.3
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63.14	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:05	**Total Volume Purged (liters):**	9	**Sample ID:**	MW-23_110525	**Sample Time:**	10:50
Purge End Time:	10:55	**Well Volumes Purged (total):**	0.87	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (µS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:10	0	200	mL/min	49.46	8.16	0.93	51.44	6.32	13.8	44.4	Clear	No Odor
10:15	5	200	mL/min	49.56	7.64	1.24	73.12	4.73	13.8	28.6	Clear	No Odor
10:20	10	200	mL/min	49.74	7.08	1.864	69.65	2.48	13.8	-35.5	Clear	No Odor
10:25	15	200	mL/min	49.79	7.09	1.811	59.82	2.01	13.8	-45.6	Clear	No Odor
10:30	20	200	mL/min	49.81	7.09	1.76	40.35	1.58	13.8	-59.5	Clear	No Odor
10:35	25	200	mL/min	49.81	7.08	1.762	38.73	1.53	13.7	-60.7	Clear	No Odor
10:40	30	200	mL/min	49.81	7.07	1.793	35.12	1.41	13.8	-62.7	Clear	No Odor
10:45	35	200	mL/min	49.82	7.06	1.833	34.93	1.37	13.8	-64.3	Clear	No Odor
10:50	40	200	mL/min	49.82	7.03	1.838	33.86	1.37	13.8	-65.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-23-161	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:55.42 °F, rH:53%, Clouds: 0%, Wind:18.41mph E-SE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.22	**Total Depth (ft-bmp):**	27.6	**Water Column(ft):**	16.38	**Gallons in Well:**	2.67
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	22	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:47	**Total Volume Purged (gallons):**	1.5	**Sample ID:**	MW-23-161_102825	**Sample Time:**	14:25
Purge End Time:	14:29	**Well Volumes Purged (total):**	0.56	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:51	0	150	mL/min	11.40	6.77	1.243	14.53	1.36	15	1.242	Clear	No Odor
13:56	5	150	mL/min	11.40	6.76	1.241	12.8	0.33	14.8	-80.6	Clear	No Odor
14:01	10	150	mL/min	11.40	6.76	1.242	11.77	0.2	14.8	-84	Clear	No Odor
14:06	15	150	mL/min	11.40	6.76	1.243	11.11	0.17	14.8	-85	Clear	No Odor
14:11	20	150	mL/min	11.40	6.77	1.244	8.94	0.1	14.7	-87.3	Clear	No Odor
14:16	25	150	mL/min	11.40	6.77	1.244	8.39	0.09	14.7	-88.5	Clear	No Odor
14:21	30	150	mL/min	11.40	6.77	1.245	8.97	0.08	14.7	-89.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-23-162	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:56.17 °F, rH:49%, Clouds: 0%, Wind:16.11mph E-SE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	29.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.86	**Total Depth (ft-bmp):**	37	**Water Column(ft):**	22.14	**Gallons in Well:**	3.61
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:35	**Total Volume Purged (gallons):**	1	**Sample ID:**	MW-23-162_102825	**Sample Time:**	15:10
Purge End Time:	15:13	**Well Volumes Purged (total):**	0.28	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:38	0	200	mL/min	15.95	6.37	3.143	29.06	0.47	13.9	-44	Clear	No Odor
14:43	5	100	mL/min	16.20	6.4	3.144	26.35	0.28	14.1	-49.9	Clear	No Odor
14:53	15	100	mL/min	16.30	6.42	3.149	27.94	0.16	14.1	-55	Clear	No Odor
14:58	20	100	mL/min	16.36	6.42	3.147	27.64	0.12	14.1	-56	Clear	No Odor
15:03	25	100	mL/min	16.38	6.43	3.148	24.64	0.09	14	-57.6	Clear	No Odor
15:08	30	100	mL/min	16.38	6.43	3.147	26.42	0.08	14	-58.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-23-163	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:51.87 °F, rH:66%, Clouds: 0%, Wind:10.36mph E			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.22	**Total Depth (ft-bmp):**	17.21	**Water Column(ft):**	2.99	**Gallons in Well:**	0.49
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	17	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:06	**Total Volume Purged (gallons):**	2	**Sample ID:**	MW-23-163_102825	**Sample Time:**	13:15
Purge End Time:	13:12	**Well Volumes Purged (total):**	4.08	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:11	0	150	mL/min	14.45	6.6	0.992	69.45	6.95	14.7	88.2	Clear	No Odor
12:16	5	100	mL/min	14.45	6.65	90.2	49.8	4.05	14.7	89.9	Clear	No Odor
12:21	10	100	mL/min	14.45	6.83	0.986	47.2	2.88	14.7	88.5	Clear	No Odor
12:26	15	100	mL/min	14.45	6.82	0.985	39.45	0.85	14.6	82	Clear	No Odor
12:31	20	100	mL/min	14.45	6.88	0.984	24.75	0.17	14.5	38.1	Clear	No Odor
12:36	25	100	mL/min	14.45	6.83	0.985	24.24	0.16	14.4	32.5	Clear	No Odor
12:41	30	100	mL/min	14.45	6.83	0.984	24.76	0.17	14.4	-18.5	Clear	No Odor
12:46	35	100	mL/min	14.45	6.83	0.983	24.08	0.16	14.4	-22.3	Clear	No Odor
12:51	40	100	mL/min	14.45	6.83	0.985	24.1	0.15	14.4	-30.8	Clear	No Odor
12:56	45	100	mL/min	14.45	6.86	0.99	27.43	1.6	14.7	-55	Clear	No Odor
13:01	50	100	mL/min	14.45	6.84	0.992	24.6	0.89	14.8	-63.3	Clear	No Odor
13:06	55	100	mL/min	14.45	6.85	1.005	17.48	0.24	14.7	-81.3	Clear	No Odor
13:11	60	100	mL/min	14.45	6.86	1.013	17.05	1.013	14.7	-87.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	MW-91-2R	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	RAIN, T:12.93 °C, rH:62%, Clouds: 100%, Wind:7.72m/s W-NW			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-80.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	58.1	**Total Depth (ft-bmp):**	83.73	**Water Column(ft):**	25.63	**Liters in Well:**	63.33
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	81.23	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:20	**Total Volume Purged (liters):**	11	**Sample ID:**	MW-91-2R_110525	**Sample Time:**	14:15
Purge End Time:	14:20	**Well Volumes Purged (total):**	0.17	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:25	0	200	mL/min	58.50	7.05	1.688	379.39	0.92	14.1	-80.9	Clear	No Odor
13:30	5	200	mL/min	58.50	7.05	1.697	299.88	0.57	14.1	-84.4	Clear	No Odor
13:35	10	200	mL/min	58.50	7.06	1.694	198.16	0.36	14.1	-86.5	Clear	No Odor
13:40	15	200	mL/min	58.50	7.07	1.687	113.63	0.29	14.1	-89.1	Clear	No Odor
13:45	20	200	mL/min	58.50	7.07	1.682	78.64	0.24	14.1	-89.9	Clear	No Odor
13:50	25	200	mL/min	58.50	7.07	1.682	45.66	0.23	14.1	-90.5	Clear	No Odor
13:55	30	200	mL/min	58.50	7.07	1.681	41.79	0.22	14.1	-91.3	Clear	No Odor
14:00	35	200	mL/min	58.50	7.07	1.683	25.14	0.2	14	-92.3	Clear	No Odor
14:05	40	200	mL/min	58.50	7.07	1.682	17.69	0.19	14.1	-92.7	Clear	No Odor
14:10	45	200	mL/min	58.50	7.07	1.681	16.51	0.19	14	-93	Clear	No Odor
14:15	50	200	mL/min	58.50	7.07	1.681	16.07	0.19	14	-93.1	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	P2-MW-02	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLOUDS, T:55.11 °F, rH:57%, Clouds: 20%, Wind:17.27mph NE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	31.00-41.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	36.05	**Total Depth (ft-bmp):**	41	**Water Column(ft):**	4.95	**Gallons in Well:**	0.81
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:46	**Total Volume Purged (gallons):**	3.5	**Sample ID:**	P2-MW-02	**Sample Time:**	14:52
Purge End Time:	15:00	**Well Volumes Purged (total):**	4.32	**Replicate Type / Replicate ID:**	**Duplicate** / DUP-02_102925	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:49	0	300	mL/min	36.30	7.35	1.222	203.42	11.6	14.3	-50.3	Clear	No Odor
13:54	5	200	mL/min	36.30	7.17	1.167	127.5	1.1	14.5	-34.7	Clear	No Odor
14:02	13	200	mL/min	37.10	7.18	1.105	78.4	0.89	14.4	-18.3	Clear	No Odor
14:07	18	200	mL/min	37.25	7.16	1.093	65.45	0.31	14	-17.4	Clear	No Odor
14:12	23	200	mL/min	37.95	7.17	1.079	71.29	0.16	13.8	-21.4	Clear	No Odor
14:17	28	200	mL/min	38.00	7.17	1.072	38.47	0.14	14.1	-38.6	Clear	No Odor
14:22	33	200	mL/min	37.98	7.22	1.073	33.49	0.13	14.1	-41.2	Clear	No Odor
14:27	38	200	mL/min	37.73	7.18	1.075	24.91	0.1	13.7	-35.8	Clear	No Odor
14:32	43	200	mL/min	37.72	7.18	1.072	20.75	0.23	13.7	-32.5	Clear	No Odor
14:37	48	200	mL/min	37.73	7.18	1.07	16.68	0.33	13.7	-31.4	Clear	No Odor
14:42	53	200	mL/min	37.58	7.18	1.069	17.94	0.43	13.8	-31.9	Clear	No Odor
14:46	57	200	mL/min	37.50	7.18	1.07	14.95	0.46	13.9	-33.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	6	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	P2-MW-04	**Date(s):**	2025-10-29	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:51.75 °F, rH:69%, Clouds: 0%, Wind:11.5mph NE			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	26.00-36.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.21	**Total Depth (ft-bmp):**	37	**Water Column(ft):**	25.79	**Gallons in Well:**	4.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:12	**Total Volume Purged (gallons):**	1.5	**Sample ID:**	P2-MW-04_102925	**Sample Time:**	12:55
Purge End Time:	13:01	**Well Volumes Purged (total):**	0.36	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:16	0	150	mL/min	11.70	7.29	1.206	11.6	1.19	15	-95.8	Clear	No Odor
12:21	5	150	mL/min	11.62	7.29	1.249	5.78	1.25	15.5	-95.8	Clear	No Odor
12:26	10	150	mL/min	11.62	7.29	1.253	25.73	0.31	15.7	-99.7	Clear	No Odor
12:31	15	150	mL/min	11.62	7.3	1.258	10.17	0.2	15.3	-100.3	Clear	No Odor
12:36	20	150	mL/min	11.62	7.3	1.256	8.78	0.13	15.1	-101	Clear	No Odor
12:41	25	150	mL/min	11.62	7.3	1.253	17.29	0.1	15.3	-100.9	Clear	No Odor
12:46	30	150	mL/min	11.62	7.32	1.253	14.05	0.07	15.4	-102.1	Clear	No Odor
12:49	33	150	mL/min	11.62	7.3	1.253	13.88	0.05	15	-103.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	P6-SB-07	**Date(s):**	2025-10-31	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	6
Weather:	CLOUDS, T:47.17 °F, rH:74%, Clouds: 100%, Wind:10.36mph W-NW			**Field Technician:**		Karly Wogenstahl	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-20.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.5	**Total Depth (ft-bmp):**	20	**Water Column(ft):**	12.5	**Gallons in Well:**	2.04
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:25	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	P6-SB-07_103125	**Sample Time:**	12:00
Purge End Time:	12:04	**Well Volumes Purged (total):**	0.64	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:27	0	150	mL/min	7.32	7.79	0.729	2.91	0.85	15	-83.3	Clear	No Odor
11:33	6	150	mL/min	7.30	7.69	0.727	4.79	0.3	15	-96.8	Clear	No Odor
11:38	11	150	mL/min	7.30	7.7	0.718	6.94	0.19	14.9	-102.4	Clear	No Odor
11:43	16	150	mL/min	7.30	7.71	0.699	10.83	0.18	14.8	-108.4	Clear	No Odor
11:48	21	150	mL/min	7.30	7.69	0.68	10.37	0.08	14.9	-121.8	Clear	No Odor
11:53	26	150	mL/min	7.30	7.69	0.676	10.18	0.06	14.8	-127.3	Clear	No Odor
11:58	31	150	mL/min	7.30	7.68	0.677	10.59	0.06	14.7	-129.5	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	PW-14-01	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:13.59 °C, rH:50%, Clouds: 0%, Wind:7.2m/s E-NE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	71.60-76.80	**Casing Diameter (in):**	6.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	65.48	**Total Depth (ft-bmp):**	76.8	**Water Column(ft):**	11.32	**Liters in Well:**	62.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	15:30	**Total Volume Purged (liters):**	6	**Sample ID:**	PW-14-01_102825	**Sample Time:**	16:00
Purge End Time:	16:05	**Well Volumes Purged (total):**	0.10	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:35	0	200	mL/min	66.00	6.54	3.306	94.69	0.44	14.4	22	Clear	No Odor
15:40	5	200	mL/min	66.20	6.54	3.333	81.12	0.38	14.5	37.2	Clear	No Odor
15:45	10	200	mL/min	66.31	6.55	3.34	79.55	0.41	14.4	41.8	Clear	No Odor
15:50	15	200	mL/min	66.36	6.54	3.351	76.59	0.39	14.4	46.7	Clear	No Odor
15:55	20	200	mL/min	66.39	6.55	3.359	75.13	0.39	14.4	48.7	Clear	No Odor
16:00	25	200	mL/min	66.39	6.55	3.37	74.92	0.39	14.4	53.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	PW-14-02	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:13.01 °C, rH:53%, Clouds: 0%, Wind:8.23m/s E-SE			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-80.00	**Casing Diameter (in):**	6.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	67.88	**Total Depth (ft-bmp):**	80	**Water Column(ft):**	12.12	**Liters in Well:**	67.39
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	13:40	**Total Volume Purged (liters):**	7	**Sample ID:**	PW-14-02_102825	**Sample Time:**	14:15
Purge End Time:	14:20	**Well Volumes Purged (total):**	0.10	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:45	0	200	mL/min	67.88	6.81	1.904	24.7	1.44	14.7	10.8	Clear	No Odor
13:50	5	200	mL/min	68.41	6.77	1.897	17.61	1.09	14.6	15.8	Clear	No Odor
13:55	10	200	mL/min	68.43	6.77	1.901	15.22	1.14	14.6	17.4	Clear	No Odor
14:00	15	200	mL/min	68.43	6.77	1.898	15.02	1.19	14.7	19.5	Clear	No Odor
14:05	20	200	mL/min	68.44	6.77	1.897	13.58	1.23	14.7	22.8	Clear	No Odor
14:10	25	200	mL/min	68.44	6.78	1.898	13.51	1.21	14.7	27.2	Clear	No Odor
14:15	30	200	mL/min	68.44	6.79	1.898	13.02	1.21	14.8	27.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	PW-14-03R	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:55.62 °F, rH:48%, Clouds: 100%, Wind:12.66mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	6.00	**Well Casing Material:**	Stainless Steel
Static Water Level (ft-bmp):	73.16	**Total Depth (ft-bmp):**	94.3	**Water Column(ft):**	21.14	**Gallons in Well:**	31.05
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:00	**Total Volume Purged (gallons):**	2.904	**Sample ID:**	PW-14-03R_110425	**Sample Time:**	17:00
Purge End Time:	17:00	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:10	0	200	mL/min	73.16	2.27	5.318	6.6	1.41	14.9	378	Clear	No Odor
16:15	5	200	mL/min	73.16	2.26	5.341	7.14	1.14	14.9	397.8	Clear	No Odor
16:20	10	200	mL/min	73.16	2.26	5.353	12.15	0.95	14.9	417.8	Clear	No Odor
16:25	15	200	mL/min	73.16	2.26	5.361	13.52	0.85	14.9	433	Clear	No Odor
16:30	20	200	mL/min	73.16	2.26	5.362	9.82	0.79	14.9	443.3	Clear	No Odor
16:35	25	200	mL/min	73.16	2.25	5.37	23	0.67	14.8	452.7	Clear	No Odor
16:40	30	200	mL/min	73.16	2.25	5.365	20	0.57	14.8	461.1	Clear	No Odor
16:45	35	200	mL/min	73.16	2.25	5.365	32.75	0.51	14.8	465.2	Clear	No Odor
16:50	40	200	mL/min	73.16	2.25	5.369	35	0.49	14.8	466.5	Clear	No Odor
16:55	45	200	mL/min	73.16	2.25	5.368	7.32	0.46	14.7	467.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	TW-14-02	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:13.5 °C, rH:48%, Clouds: 0%, Wind:6.69m/s E			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	67.00-72.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	59.78	**Total Depth (ft-bmp):**	72	**Water Column(ft):**	12.22	**Liters in Well:**	7.55
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	16:20	**Total Volume Purged (liters):**	6	**Sample ID:**	TW-14-02_102825	**Sample Time:**	16:50
Purge End Time:	16:55	**Well Volumes Purged (total):**	0.79	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:25	0	200	mL/min	62.95	6.6	4.157	55.53	0.38	14.7	-55.7	Clear	No Odor
16:30	5	200	mL/min	63.21	6.59	4.202	51.28	0.3	14.7	-61.2	Clear	No Odor
16:35	10	200	mL/min	63.70	6.59	4.235	49.83	0.22	14.8	-62.6	Clear	No Odor
16:40	15	200	mL/min	63.70	6.58	4.257	46.72	0.2	14.7	-58.1	Clear	No Odor
16:45	20	200	mL/min	63.73	6.57	4.271	45.18	0.19	14.7	-54.4	Clear	No Odor
16:50	25	200	mL/min	63.74	6.57	4.273	44.62	0.19	14.7	-49.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	TW-15-11	**Date(s):**	2025-11-05	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	CLOUDS, T:54.07 °F, rH:79%, Clouds: 75%, Wind:13.8mph W-SW			**Field Technician:**		Donald Richmond	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	72.28	**Total Depth (ft-bmp):**	87.1	**Water Column(ft):**	14.82	**Gallons in Well:**	2.42
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	10:50	**Total Volume Purged (gallons):**	4.228	**Sample ID:**	TW-15-11_110525	**Sample Time:**	11:30
Purge End Time:	11:30	**Well Volumes Purged (total):**	1.75	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:00	0	200	mL/min	72.28	6.64	3.251	30	2.19	14.5	205.7	Clear	No Odor
11:05	5	200	mL/min	72.28	6.64	3.253	22.68	1.75	14.5	204.8	Clear	No Odor
11:10	10	200	mL/min	72.28	6.65	3.254	18	1.42	14.4	203.5	Clear	No Odor
11:15	15	200	mL/min	72.28	6.65	3.252	14	1.21	14.4	202.3	Clear	No Odor
11:20	20	200	mL/min	72.28	6.65	3.249	14	1.15	14.4	201	Clear	No Odor
11:25	25	2001	mL/min	72.23	6.65	3.247	13	1.06	14.5	200.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	TW-15-12	**Date(s):**	2025-10-28	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	2
Weather:	CLEAR, T:12.18 °C, rH:60%, Clouds: 0%, Wind:6.85m/s E			**Field Technician:**		Austin Westhuis	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	73.00-78.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	66	**Total Depth (ft-bmp):**	72	**Water Column(ft):**	6	**Liters in Well:**	14.83
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Bladder Pump
Purge Start Time:	12:35	**Total Volume Purged (liters):**	7	**Sample ID:**	TW-15-12_102825	**Sample Time:**	13:10
Purge End Time:	13:15	**Well Volumes Purged (total):**	0.47	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:40	0	200	mL/min	66.32	7.25	2.174	74.06	9.46	14.6	125.6	Clear	No Odor
12:45	5	200	mL/min	66.32	7.23	2.183	52.61	9.16	14.8	123.3	Clear	No Odor
12:50	10	200	mL/min	66.32	7.2	2.194	39.11	9.4	14.5	121.3	Clear	No Odor
12:55	15	200	mL/min	66.32	7.22	2.206	19.67	9.51	14.5	121.3	Clear	No Odor
13:00	20	200	mL/min	66.32	7.2	2.213	17.54	9.42	14.5	121.4	Clear	No Odor
13:05	25	200	mL/min	66.32	7.19	2.221	17.11	9.31	14.5	121.6	Clear	No Odor
13:10	30	200	mL/min	66.32	7.19	2.224	16.69	9.25	14.5	121.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
VOCs (SW8260)	Clear Glass	3	40 mL	HCl

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Groundwater Sampling Form

Location ID:	UNK-15	**Date(s):**	2025-11-04	**Work Order(s):**		Q4 2025 GWS (Annual event)	
Client:	RACER	**Facility:**	Lansing	**Facility Location:**	2801 W. Saginaw St., Lansing, MI	**Area:**	3
Weather:	40s overcast			**Field Technician:**		Robert Prigge	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	11.00-16.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	NA	**Water Column(ft):**		**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:27	**Total Volume Purged (liters):**	4	**Sample ID:**	UNK-15_110425	**Sample Time:**	15:00
Purge End Time:	15:08	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	N/A	**Water Quality Meter/ ID:**	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:37	0	100	mL/min	0.80	7.98	0.605	0.91	0.67	16.4	1.7	Clear	No Odor
14:42	5	100	mL/min	1.00	7.96	0.605	1.24	0.62	16.4	-0.7	Clear	No Odor
14:47	10	100	mL/min	1.24	7.95	0.605	0.98	0.58	16.3	1.98	Clear	No Odor
14:52	15	100	mL/min	1.43	7.95	0.605	0.69	0.56	16.2	-3.6	Clear	No Odor
14:58	21	100	mL/min	1.60	7.95	0.605	1.13	0.613	16.3	-4.9	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFASs (E537M)	HDPE Plastic	3	250 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
gpm = gallons per minute

Appendix C-2

Soil Vapor Sampling Logs

Soil Vapor Collection Log Sheet

Office Name & Address (Reporting Information): Lansing 300 S. Washington Square, Suite 315, Lansing, MI 49426			Project Name: RACER Lansing 2025
Field Manager: Tiffany Linder			Project Number: 30267725
Phone: 810-225-1928	Special Instructions: TO-15		Site Address: Lansing, MI
Email Address for Result Reporting: Tiffany.linder@arcadis.com			Sampler Name: Austin Westhuis — Phone Number: 517-719-0214
			Email: Tiffany.linder@arcadis.com
Helium Detector Used: Fibertec Environmental Services quantitative helium shroud kit	Helium Leak Method: Helium Tracer Test		Summa Canister Size (1L, 2.7 L, 6L): 1 L — Lab: Metiri/Fibertec Environmental Services

Sample ID	Sample Location Description	Date	Leak/Tracer Test completed prior to sample collection						Canister Number	Flow Controller Number	Sample Collection Start Time	Beginning Canister Pressure (in. Hg)	Sample Collection End Time	Ending Canister Pressure (in. Hg)	Notes
			Shut in Test Pass/Fail?	Purge Reading (ppm)	Shroud Helium Concentration	Helium Test Pass/Fail?	Purge Volume (mL)	Purge Rate (mL/min)							
SVMP-20-01_102925	Plant 6 entrance near off-site park	10/29/2025	Pass	0.0%	51.5	Pass	120	100	0885	3411	13:45	-26	13:55	-5	Bottle Vac #0885 is SVMP-20-01.
DUP-01_102925	Plant 6 entrance near off-site park	10/29/2025	Pass	0.0%	51.5	Pass	120	100	2737	3411	13:45	-26	13:55	-5	Bottle Vac #2737 is DUP-01. DUP-01_102925 collected at SVMP-20-01. Duplicate splitter #3815

Meteorological Data

Date	Time	Temp		Relative Humidity (%)	Barometric Pressure (in.Hg)	Weather source	**General Notes or Observations**
		Indoor	Outdoor				
10/29/2025	13:25	-	57°F	51	29.99	-	None

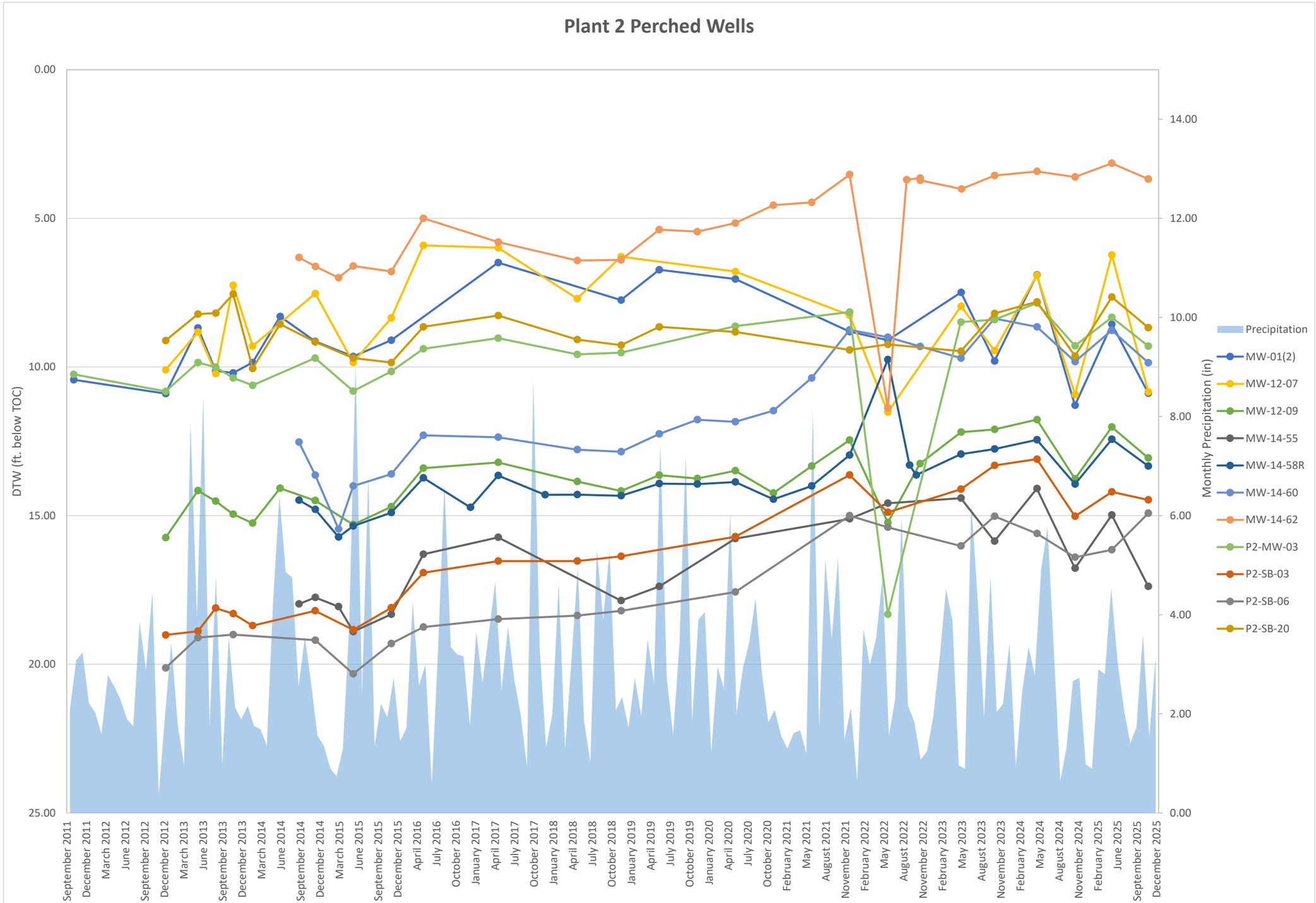
Air Parameters (completed after sample collection)

Location ID	CH4 %	CH4 LEL %	O2 %	CO2 %	PID (ppm)	Differential Pressure (in. Water Column)
SVMP-20-01_102925	0	0	16.3	4.1	NM	NM
DUP-01_102925	0	0	16.3	4.1	NM	NM

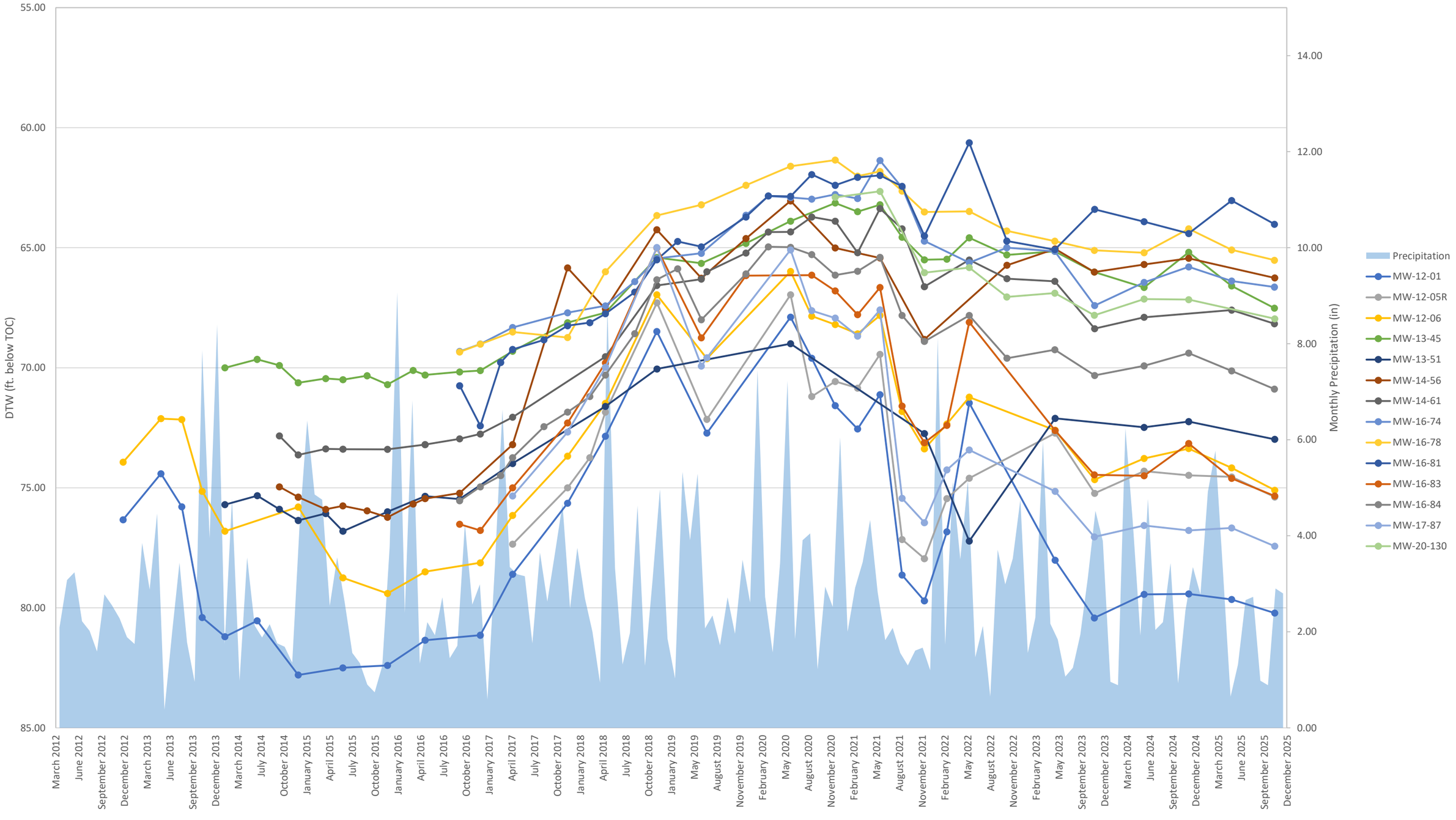
Appendix D

Groundwater Elevation Trend Hydrographs

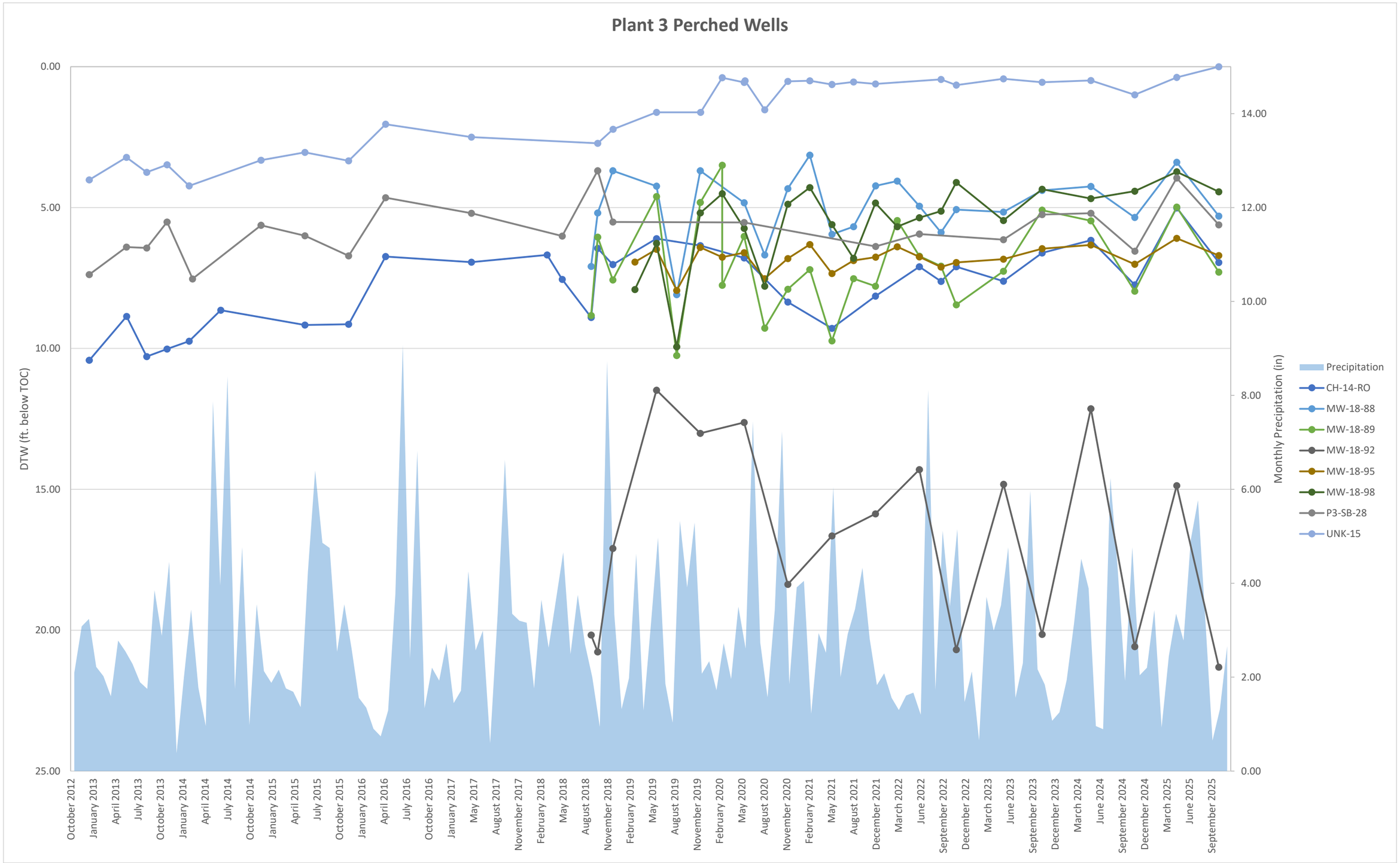
Plant 2 Perched Wells



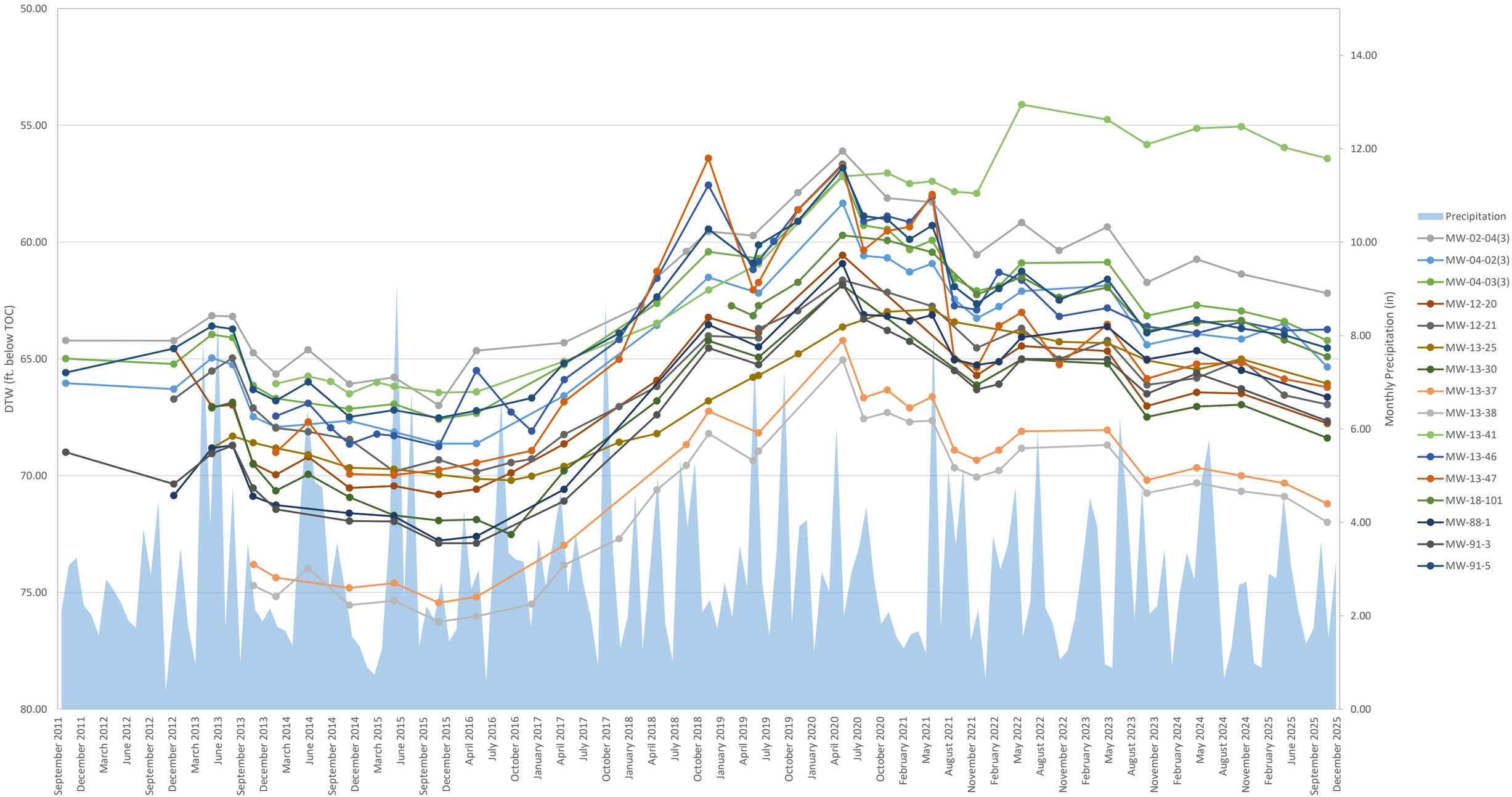
Plant 2 Deep Wells



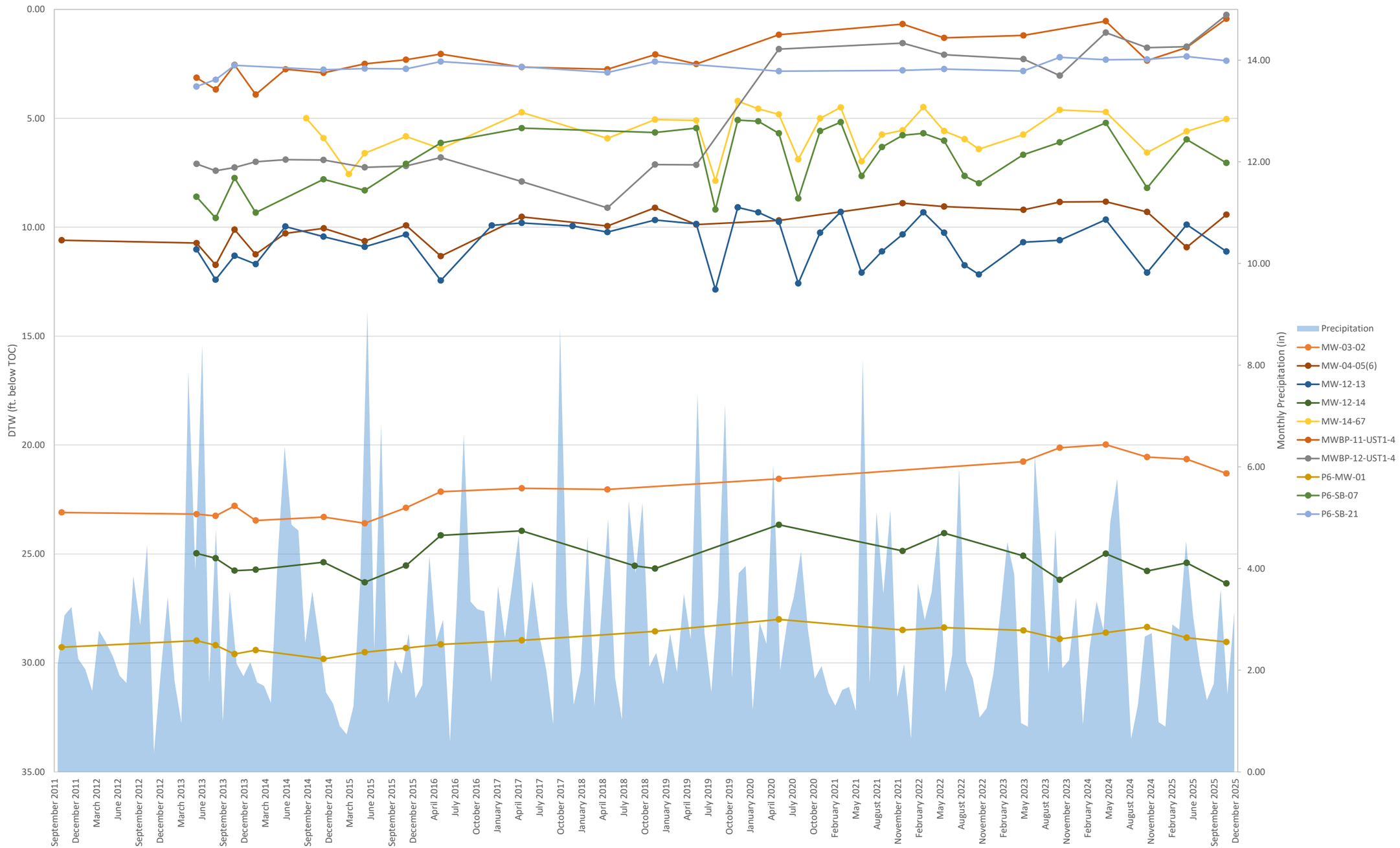
Plant 3 Perched Wells



Plant 3 Deep Wells



Plant 6 Perched Wells



Appendix E

Mann-Kendall Stability Analysis Trend Plots

TABLE E-1
Summary Statistics and Trend Results
RACER Lansing
Lansing, MI
April 2026

Plant ID	Well ID	Analyte	Date Range	Figure	FOD	Detected Results Summary [1]				Mann-Kendall Test [2]			
						Range	Mean	Median	SD	Result[4]	MK Result Note	P-Value	S Value
Perched													
Plant 2	MW-12-09	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-1	11 / 11	11.9 - 20.7	15.3	15	2.6	UP	--	0.002	38
Plant 2	MW-14-58R	1,4-Dioxane	12/21 - 10/25	E-2	13 / 13	173 - 520	276	250	113	NST	--	0.111	-21
Plant 2	MW-14-59	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-3	10 / 11	6.7 - 42.5	13.2	8.9	10.7	UP	--	0.007	32
Plant 2	MW-14-59	1,4-Dioxane	09/14 - 10/25	E-4	15 / 15	6 - 280	106	60	99.7	DWN	--	<0.001	-96
Plant 2	MW-14-60	Perfluorooctane sulfonic acid (PFOS)	05/18 - 10/25	E-5	11 / 12	5.6 - 52	29.2	32	15.9	UP	--	0.008	36
Plant 2	MW-14-60	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	E-6	12 / 12	14.7 - 41	29.5	30.1	9.4	UP	--	0.0495	25
Plant 2	MW-14-60	1,4-Dioxane	09/14 - 10/25	E-7	15 / 15	5 - 200	98.5	115	70.1	DWN	--	<0.001	-96
Plant 2	MW-14-62	Perfluorononanoic acid (PFNA)	05/18 - 10/25	E-8	12 / 12	5.1 - 11.9	8	7.7	1.7	NST	--	0.339	-7
Plant 2	MW-14-62	Perfluorooctane sulfonic acid (PFOS)	05/18 - 10/25	E-9	12 / 12	42.8 - 86.8	60.2	54	14.1	DWN	--	0.007	-37
Plant 2	MW-14-62	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	E-10	12 / 12	36.5 - 94.3	56.8	52.5	14.9	NST	--	0.527	0
Plant 2	MW-14-62	1,4-Dioxane	09/14 - 10/25	E-11	15 / 15	27 - 230	88.9	67	59	NST	--	0.500	-1
Plant 2	MW-21-139	Perfluorohexanesulfonic acid (PFHxS)	12/21 - 10/25	E-12	10 / 10	180 - 410	270	266	59.4	NST	--	0.168	12
Plant 2	MW-21-139	Perfluorononanoic acid (PFNA)	12/21 - 10/25	E-13	10 / 10	6.5 - 27	18.1	18	5.8	NST	--	0.398	4
Plant 2	MW-21-139	Perfluorooctane sulfonic acid (PFOS)	12/21 - 10/25	E-14	10 / 10	680 - 2100	1580	1700	438	NST	--	0.146	13
Plant 2	MW-21-139	Perfluorooctanoic acid (PFOA)	12/21 - 10/25	E-15	10 / 10	49 - 130	89.3	86.15	21.4	NST	--	0.216	10
Plant 2	MW-22-153	1,4-Dioxane	04/22 - 10/25	E-16	13 / 13	16 - 101	55.8	52	28.2	DWN	--	0.044	-29
Plant 2	MW-22-155	1,4-Dioxane	09/22 - 10/25	E-17	11 / 11	36 - 410	195	159	119	DWN	--	0.012	-30
Plant 2	MW-22-156	1,1-Dichloroethene	02/23 - 10/25	E-18	9 / 9	10 - 38	20.3	20	7.9	DWN	--	0.002	-27
Plant 2	MW-22-156	1,4-Dioxane	09/22 - 10/25	E-19	10 / 10	42 - 144	93.6	91	37.3	NST	--	0.431	3
Plant 2	MW-22-157	1,4-Dioxane	09/22 - 10/25	E-20	10 / 10	3 - 123	53.4	52.5	43.4	UP	--	0.045	20
Plant 2	P2-MW-04	1,4-Dioxane	08/11 - 10/25	E-21	16 / 17	11 - 62	38.6	35.5	15.7	DWN	--	0.005	-63
Deep Overburden and Weathered Bedrock													
Plant 2	MW-13-45	1,4-Dioxane	12/13 - 10/25	E-22	30 / 31	17 - 58	39.1	39	12.1	DWN	--	0.044	-101
Plant 2	MW-14-56	1,4-Dioxane	09/14 - 10/25	E-23	18 / 20	6 - 20	10.4	9	4.5	UP	--	<0.001	142
Plant 2	MW-14-61	1,4-Dioxane	09/14 - 10/25	E-24	23 / 26	3 - 152	38.8	13	53.9	NST	--	0.254	-31
Plant 2	MW-15-72	1,4-Dioxane	03/16 - 10/25	E-25	29 / 29	11 - 310	171	165	95.1	DWN	--	0.003	-150
Plant 2	MW-16-80	1,4-Dioxane	06/16 - 10/25	E-26	17 / 18	7 - 46	24	23	7.6	NST	--	0.085	-37
Plant 2	MW-16-81	1,4-Dioxane	06/16 - 10/25	E-27	30 / 30	32 - 3200	853	495	976	DWN	--	0.005	-146
Plant 2	MW-16-84	1,4-Dioxane	09/16 - 10/25	E-28	29 / 29	14 - 81	47	47	17.4	NST	--	0.062	-83
Plant 2	MW-16-85	1,4-Dioxane	12/16 - 10/25	E-29	19 / 19	1 - 28	9.7	8	6.9	NST	--	0.052	47
Plant 2	MW-17-86	1,4-Dioxane	04/17 - 10/25	E-30	22 / 22	10 - 106	49.3	43.5	33.9	DWN	--	0.002	-106
Plant 2	MW-19-115	1,4-Dioxane	03/20 - 10/25	E-31	16 / 16	2 - 13	7.3	7	2.8	DWN	--	0.036	-40
Plant 2	MW-19-116	1,4-Dioxane	03/20 - 10/25	E-32	16 / 16	54 - 148	76.5	69	24.1	UP	--	0.019	47
Plant 2	MW-19-120	1,4-Dioxane	12/19 - 10/25	E-33	17 / 17	4 - 198	54.9	15	69.6	DWN	--	<0.001	-104
Plant 2	MW-19-123	1,4-Dioxane	12/19 - 11/25	E-35	22 / 22	19 - 76	42.7	42.5	17.4	DWN	--	0.017	-76
Plant 2	MW-19-124	1,4-Dioxane	12/19 - 11/25	E-36	16 / 16	90 - 420	197	183	74	DWN	--	0.026	-44
Plant 2	MW-20-126	1,4-Dioxane	07/20 - 11/25	E-37	19 / 19	4 - 370	131	88	114	DWN	--	<0.001	-157
Plant 2	MW-20-127	1,4-Dioxane	07/20 - 11/25	E-38	19 / 19	85 - 180	140	140	23.7	NST	--	0.086	40
Plant 2	MW-20-129	1,4-Dioxane	07/20 - 11/25	E-39	20 / 20	60 - 140	86.1	76	23.8	DWN	--	<0.001	-112
Plant 2	MW-20-130	1,4-Dioxane	12/20 - 10/25	E-40	9 / 9	6 - 170	55.2	38	56.9	NST	--	0.238	-8
Plant 2	MW-21-142	1,4-Dioxane	12/21 - 11/25	E-41	10 / 10	55 - 112	79.3	79.5	16.9	NST	--	0.431	-3
Plant 2	PW-14-02	1,4-Dioxane	09/14 - 10/25	E-42	33 / 33	5 - 580	137	84	149	DWN	--	<0.001	-330
Plant 2	TW-14-02	1,4-Dioxane	06/15 - 10/25	E-43	34 / 41	2 - 3500	883	226	1170	DWN	--	<0.001	-427
Perched													
Plant 3	CH-14-RO	Perfluorohexanesulfonic acid (PFHxS)	12/16 - 11/25	E-44	14 / 14	922 - 2520	1710	1640	481	DWN	--	0.004	-50
Plant 3	CH-14-RO	Perfluorooctane sulfonic acid (PFOS)	12/16 - 11/25	E-45	14 / 14	7100 - 13000	10900	11100	1660	DWN	--	0.011	-43
Plant 3	CH-14-RO	Perfluorooctanoic acid (PFOA)	12/16 - 11/25	E-46	14 / 14	69.2 - 190	110	115	30.8	NST	--	0.330	-9
Plant 3	MW-18-88	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	E-47	22 / 22	46.1 - 860	213	180.5	168	UP	--	<0.001	118
Plant 3	MW-18-88	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	E-48	22 / 22	3.1 - 17	7.1	6.9	3	UP	--	<0.001	113
Plant 3	MW-18-89	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	E-49	20 / 20	74 - 289	147	141.5	43.2	NST	--	0.113	-38
Plant 3	MW-18-89	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	E-50	20 / 20	10 - 21.4	13.5	13	2.8	NST	--	0.121	-37
Plant 3	MW-18-90	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	E-51	20 / 20	230 - 1200	949	965.5	186	NST	--	0.313	-16
Plant 3	MW-18-90	Perfluorooctanoic acid (PFOA)	12/18 - 11/25	E-52	20 / 20	8.1 - 21.3	16.1	16	3	DWN	--	0.020	-64
Plant 3	MW-18-91	Perfluorooctane sulfonic acid (PFOS)	12/18 - 11/25	E-53	20 / 20	34 - 89	54.4	51.8	13.4	DWN	--	<0.001	-99
Plant 3	MW-18-95	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	E-54	22 / 22	27 - 115	48.1	41.5	22	NST	--	0.054	-58
Plant 3	MW-18-98	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	E-55	23 / 23	33 - 440	143	114	104	NST	--	0.178	36
Plant 3	MW-18-99	Perfluorooctane sulfonic acid (PFOS)	03/19 - 11/25	E-56	23 / 23	46.7 - 170	85.7	75	33.1	NST	--	0.128	-44
Plant 3	MW-18-103	Perfluorohexanesulfonic acid (PFHxS)	03/19 - 11/25	E-57	20 / 20	16.8 - 190	61.5	49.85	48.7	UP	--	<0.001	124
Plant 3	UNK-15	Perfluorooctane sulfonic acid (PFOS)	06/19 - 11/25	E-58	20 / 20	810 - 1530	1170	1185	176	NST	--	0.290	-18
Plant 3	UNK-15	Perfluorooctanoic acid (PFOA)	06/19 - 11/25	E-59	20 / 20	21 - 49.1	32.6	32	7.9	DWN	--	<0.001	-128
Deep Overburden and Weathered Bedrock													
Plant 3	MW-12-21	1,4-Dioxane	02/13 - 11/25	E-60	32 / 33	118 - 510	255	200	121	DWN	--	<0.001	-327
Plant 3	MW-13-22	1,4-Dioxane	03/13 - 11/25	E-61	40 / 40	45 - 270	147	153	53.2	DWN	--	0.003	-241
Plant 3	MW-13-29	1,4-Dioxane	04/13 - 11/25	E-62	25 / 25	1 - 130	22.2	18	24.6	DWN	--	<0.001	-212
Plant 3	MW-13-34	1,4-Dioxane	08/13 - 11/25	E-63	37 / 37	17 - 127	79.5	81	22.5	UP	--	<0.001	350
Plant 3	MW-13-48	1,4-Dioxane	12/13 - 11/25	E-64	30 / 30	24 - 380	136	122.5	86.3	DWN	--	0.017	-120
Plant 3	TW-15-11	1,4-Dioxane	06/15 - 11/25	E-65	26 / 26	5 - 250	101	72.5	86.6	DWN	--	0.025	-90
Perched													
Plant 6	MW-02-02(6)	1,4-Dioxane	10/11 - 11/25	E-66	11 / 11	11 - 30	21.1	21	4.7	NST	--	0.089	18
Plant 6	MW-04-05(6)	Perfluorooctanoic acid (PFOA)	06/19 - 11/25	E-67	7 / 7	22.4 - 36	30.5	32	5.2	NST	5	0.094	10
Plant 6	MW-12-12	Perfluorononanoic acid (PFNA)	06/19 - 10/25	E-68	21 / 21	3.6 - 12.6	7.9	7.8	2.4	DWN	--	<0.001	-121
Plant 6	MW-12-12	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	E-69	21 / 21	19 - 67.5	42.2	43	12.6	DWN	--	<0.001	-120
Plant 6	MW-12-12	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-70	21 / 21	52 - 150	87.2	83	21.3	NST	--	0.216	27
Plant 6	MW-12-13	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-71	18 / 21	1.1 - 20.5	5.1	2.3	5.4	UP	--	<0.001	174
Plant 6	MW-13-36R	Perfluorononanoic acid (PFNA)	06/19 - 10/25	E-72	21 / 21	11 - 16.5	13.3	13	1.5	NST	--	0.427	-7
Plant 6	MW-13-36R	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	E-73	21 / 21	35 - 56.7	45.5	45.5	5.1	DWN	--	0.005	-86
Plant 6	MW-13-36R	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-74	21 / 21	56 - 81.1	67.2	65	7.2	NST	--	0.464	-4
Plant 6	MW-14-67	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-75	19 / 19	10.3 - 27.7	16.3	15	5.7	UP	--	0.018	61

TABLE E-1
Summary Statistics and Trend Results
RACER Lansing
Lansing, MI
April 2026

Plant ID	Well ID	Analyte	Date Range	Figure	FOD	Detected Results Summary [1]				Mann-Kendall Test [2]			
						Range	Mean	Median	SD	Result[4]	MK Result Note	P-Value	S Value
Plant 6	MW-14-70	Perfluorooctanoic acid (PFOA)	05/18 - 10/25	E-76	20 / 20	6.6 - 51.9	27.8	31	12.6	NST	--	0.142	-34
Plant 6	MW-20-131	Perfluorooctanoic acid (PFOA)	02/21 - 10/25	E-77	11 / 11	27 - 45	35.9	37.3	5.1	NST	--	0.195	-12
Plant 6	MW-20-132	Perfluorononanoic acid (PFNA)	02/21 - 10/25	E-78	11 / 11	2.1 - 8.4	6.4	7.2	2	NST	--	0.438	-3
Plant 6	MW-20-132	Perfluorooctane sulfonic acid (PFOS)	02/21 - 10/25	E-79	11 / 11	6.9 - 20.9	16.1	19	4.7	NST	--	0.239	-10
Plant 6	MW-20-132	Perfluorooctanoic acid (PFOA)	02/21 - 10/25	E-80	11 / 11	13 - 50	36.1	39	10.8	NST	--	0.175	-13
Plant 6	MW-21-133	Perfluorooctanoic acid (PFOA)	03/21 - 10/25	E-81	11 / 11	16 - 110	62.8	55	30.8	NST	--	0.407	4
Plant 6	MW-21-134	Perfluorooctanoic acid (PFOA)	03/21 - 10/25	E-82	11 / 11	22.6 - 55	38	37.6	11.9	NST	--	0.060	21
Plant 6	MW-22-144	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	E-83	10 / 10	5 - 17	10.9	11.5	3.9	NST	--	0.093	16
Plant 6	MW-22-145	Perfluorooctane sulfonic acid (PFOS)	08/22 - 11/25	E-84	5 / 10	1.1 - 18	11.1	14	6.8	NST	--	0.146	13
Plant 6	MW-22-145	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	E-85	10 / 10	11 - 37	23.8	22.5	9	NST	--	0.466	2
Plant 6	MW-22-151	Perfluorooctanoic acid (PFOA)	08/22 - 11/25	E-86	10 / 10	6.9 - 15	8.9	8.35	2.2	NST	--	0.146	13
Plant 6	P6-SB-07	Perfluorononanoic acid (PFNA)	06/19 - 10/25	E-87	19 / 19	74.6 - 220	135	133	46.9	NST	--	0.417	7
Plant 6	P6-SB-07	Perfluorooctane sulfonic acid (PFOS)	06/19 - 10/25	E-88	19 / 19	30 - 126	71	62	27.2	NST	--	0.147	-31
Plant 6	P6-SB-07	Perfluorooctanoic acid (PFOA)	06/19 - 10/25	E-89	19 / 19	610 - 1930	1210	1200	403	NST	--	0.390	-9

Abbreviations:

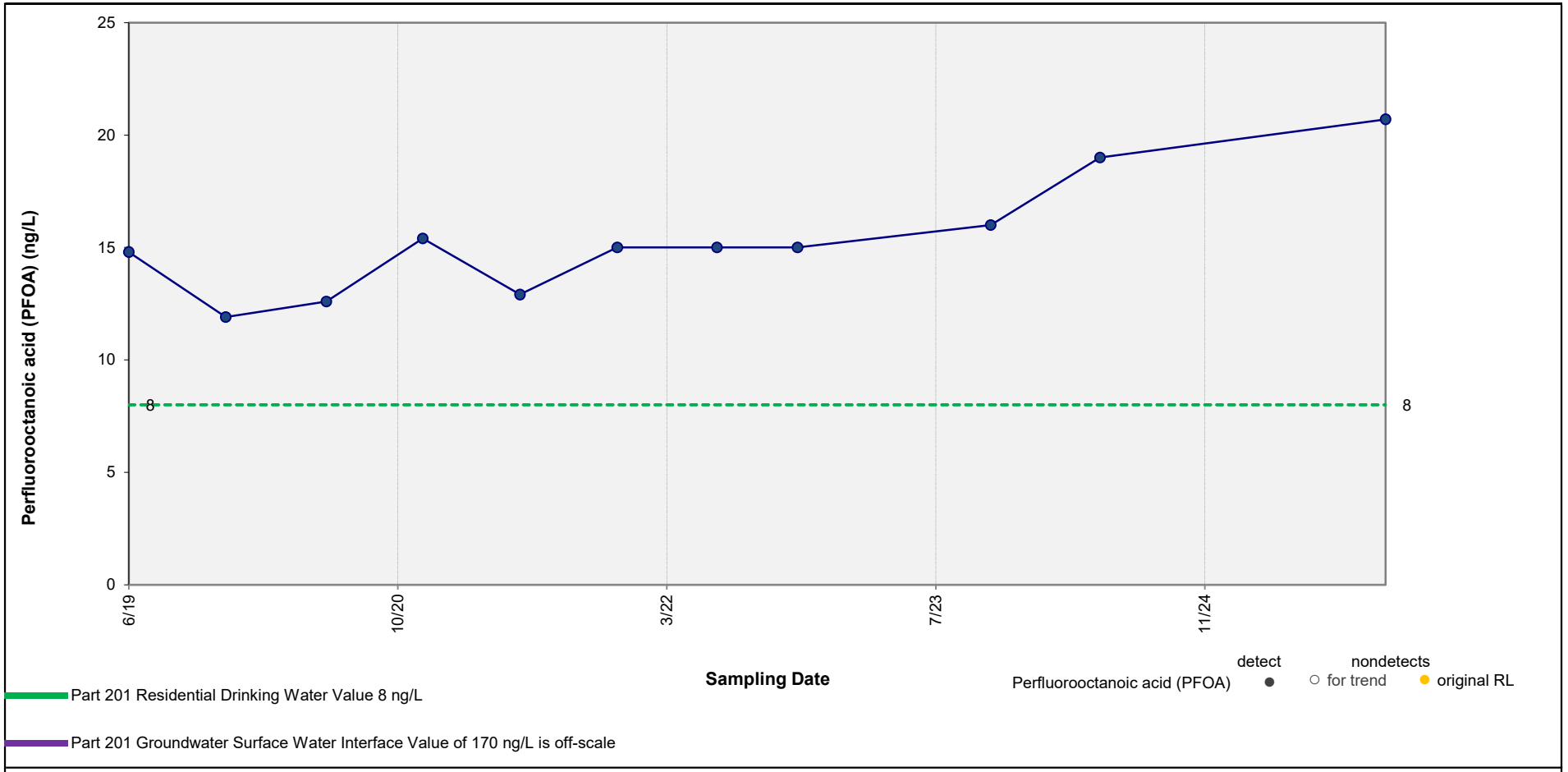
-- = not applicable
FOD = frequency of detection (# detects / # samples)
mean = arithmetic mean
SD = standard deviation
MK = Mann-Kendall
NST = no significant trend
DWN = downward trend
UP = upward trend

Notes:

1. All analytical results for VOCs are in µg/L and PFAS are in ng/L.
2. Trend results are presented for well-analyte pairs sampled in 2025 when at least 7 samples and 50% detected values are available, and at least 25% criteria exceedances in the last six samples.
   Perched wells are compared to the Groundwater Surface Water Interface Criteria (GSI) and Residential Drinking Water Criteria (RDW), all other wells are compared to the RDW.
3. Non-detects were assigned a common value less than the minimum detected value, equal to half the minimum reporting limit (RL) in the dataset (USEPA, 2009).
   If half the minimum RL was greater than the minimum detected value, then half the minimum detect was assigned.
4. Statistically significant trend defined as having p-value ≤ 0.05, or 95% confidence.
5. MK Trend results for datasets with fewer than 8 samples may not be reliable and should be treated with caution.

Reference:

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Unified Guidance. EPA/530/R-09/007, 2009.



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

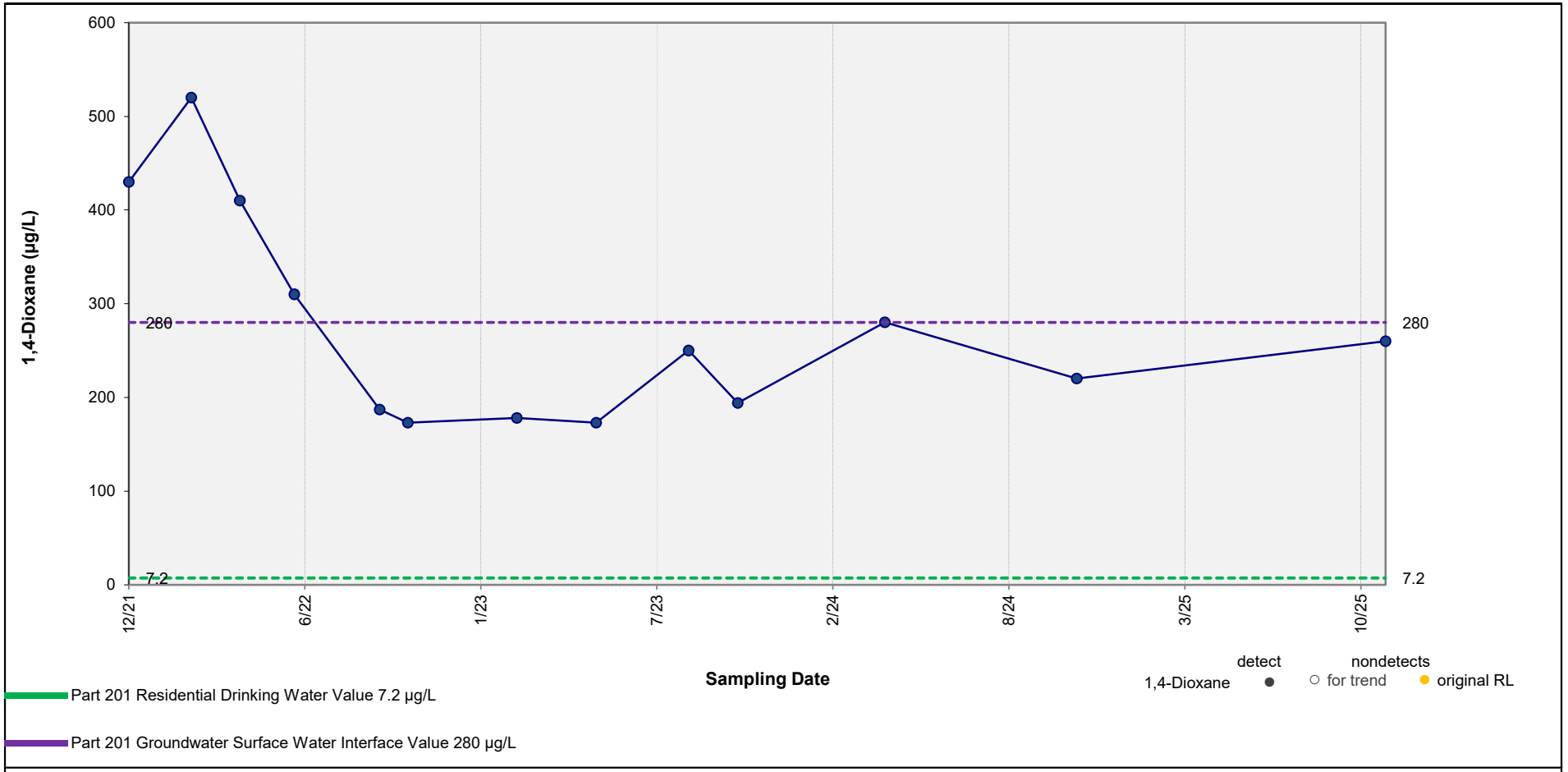
p value = 0.002 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-12-09

RACER Lansing

Figure E-1



Results of Mann-Kendall Test for Trend: **No Significant Trend**

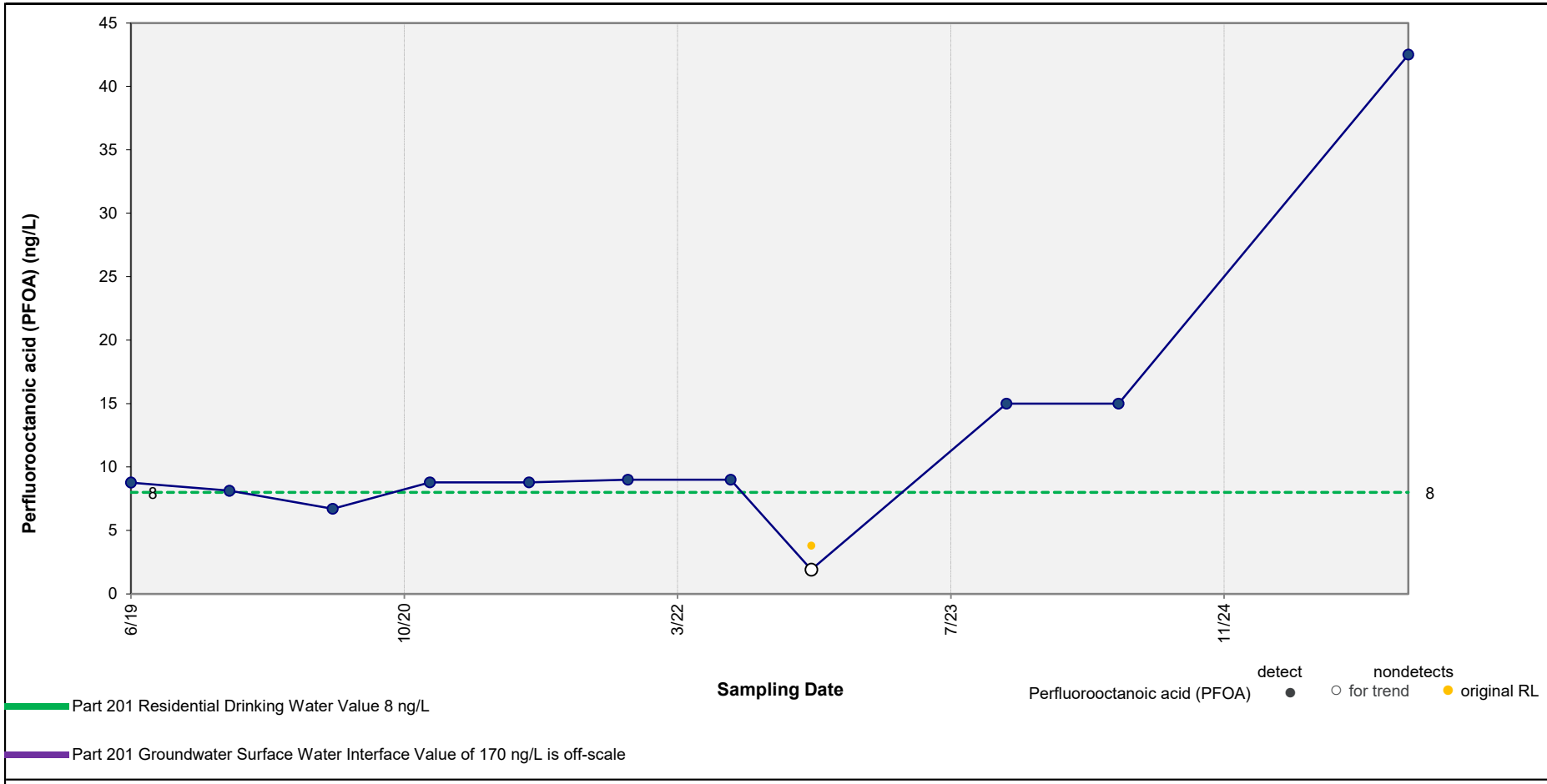
p value = 0.111 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-58R

RACER Lansing

Figure E-2



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

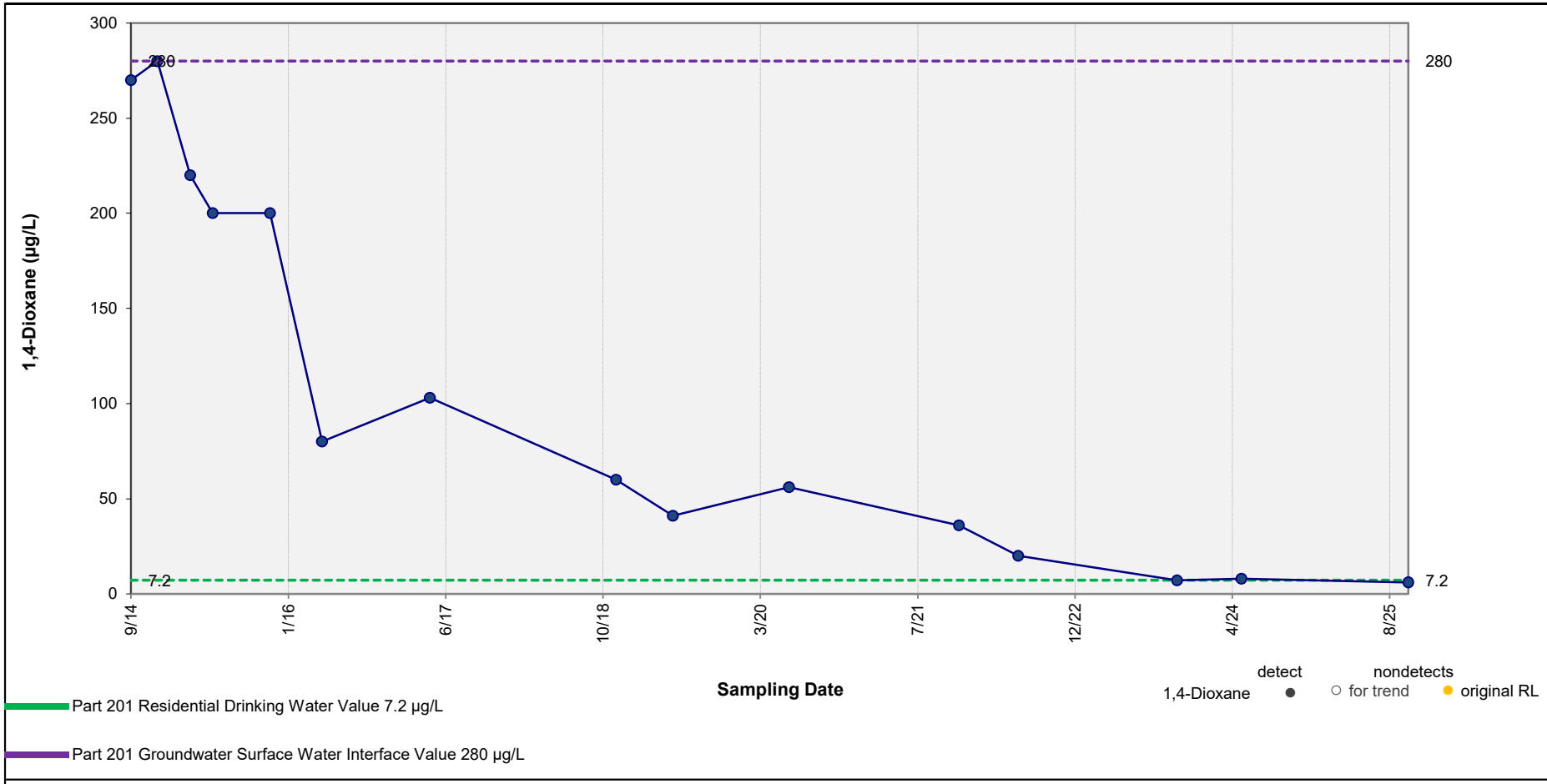
p value = 0.007 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-14-59

RACER Lansing

Figure E-3



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

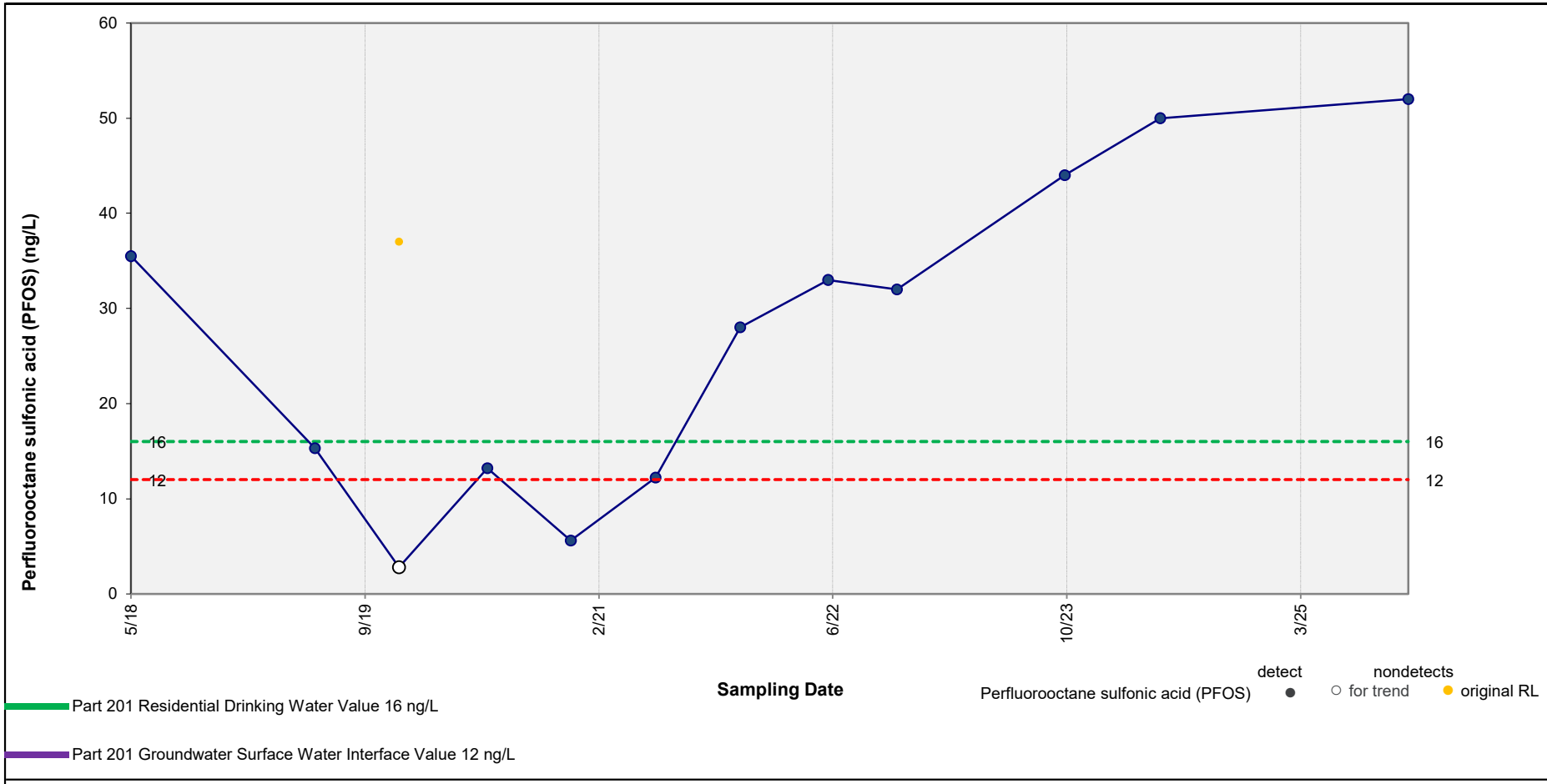
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-59

RACER Lansing

Figure E-4



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

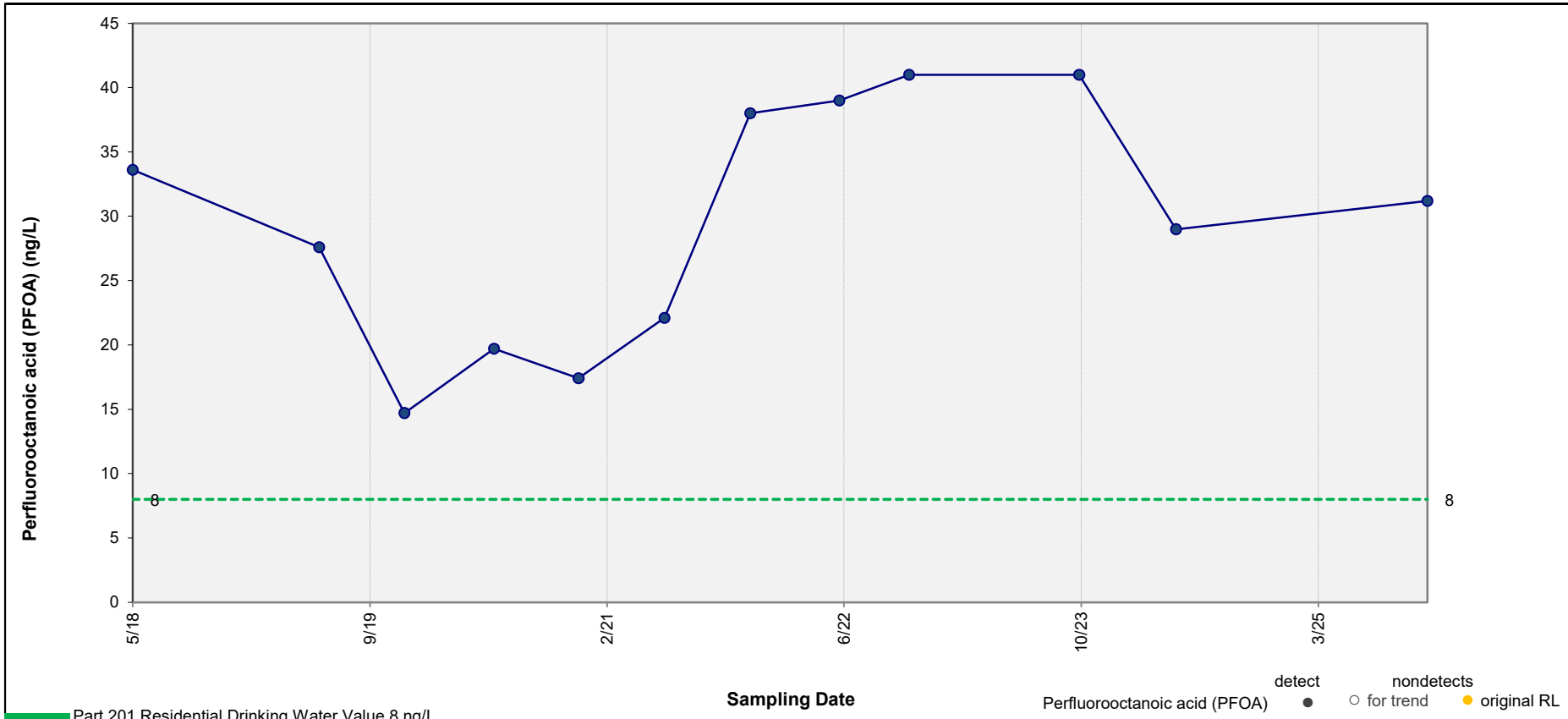
p value = 0.008 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-14-60

RACER Lansing

Figure E-5



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

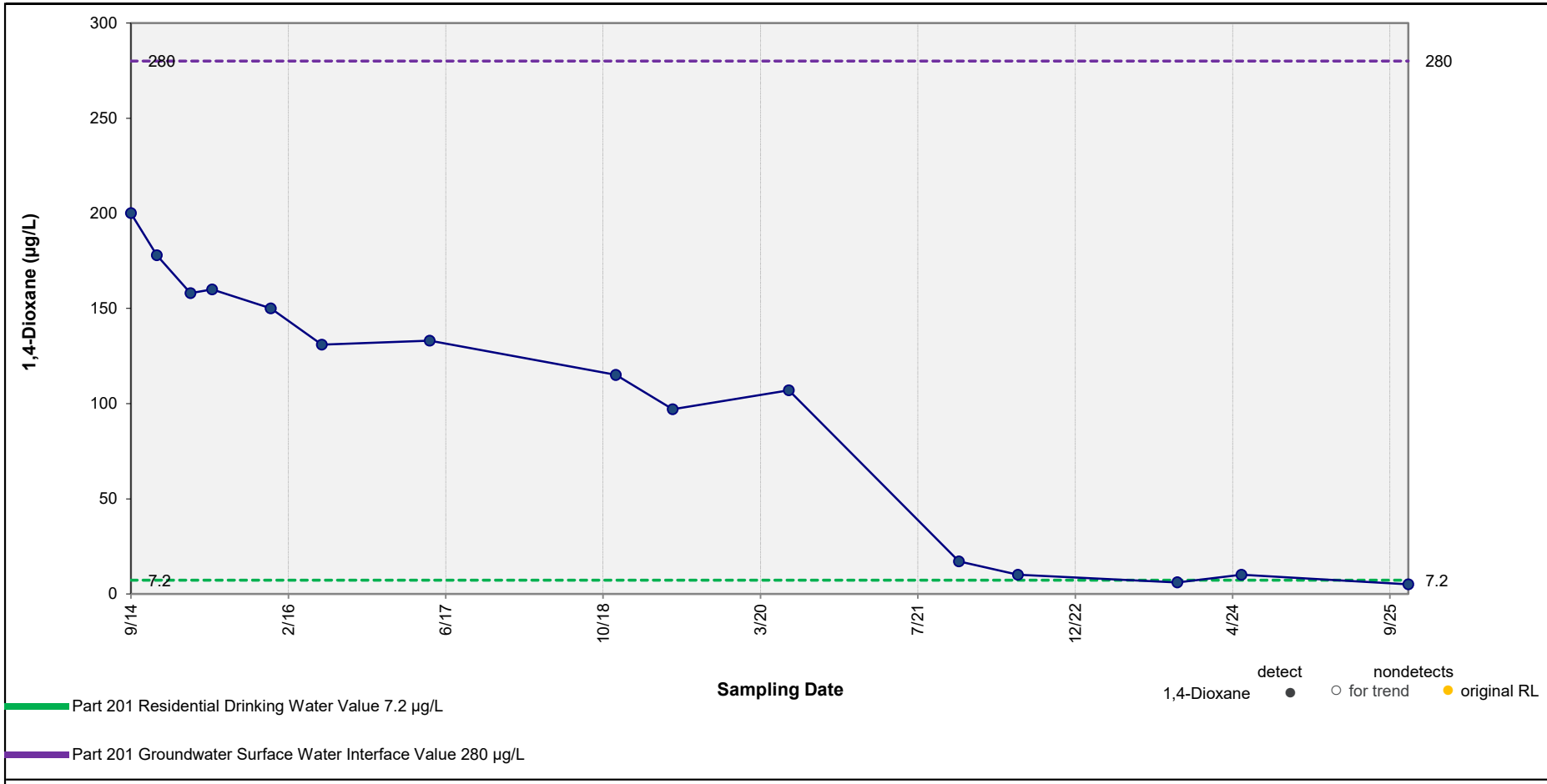
p value = 0.050 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-14-60

RACER Lansing

Figure E-6



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

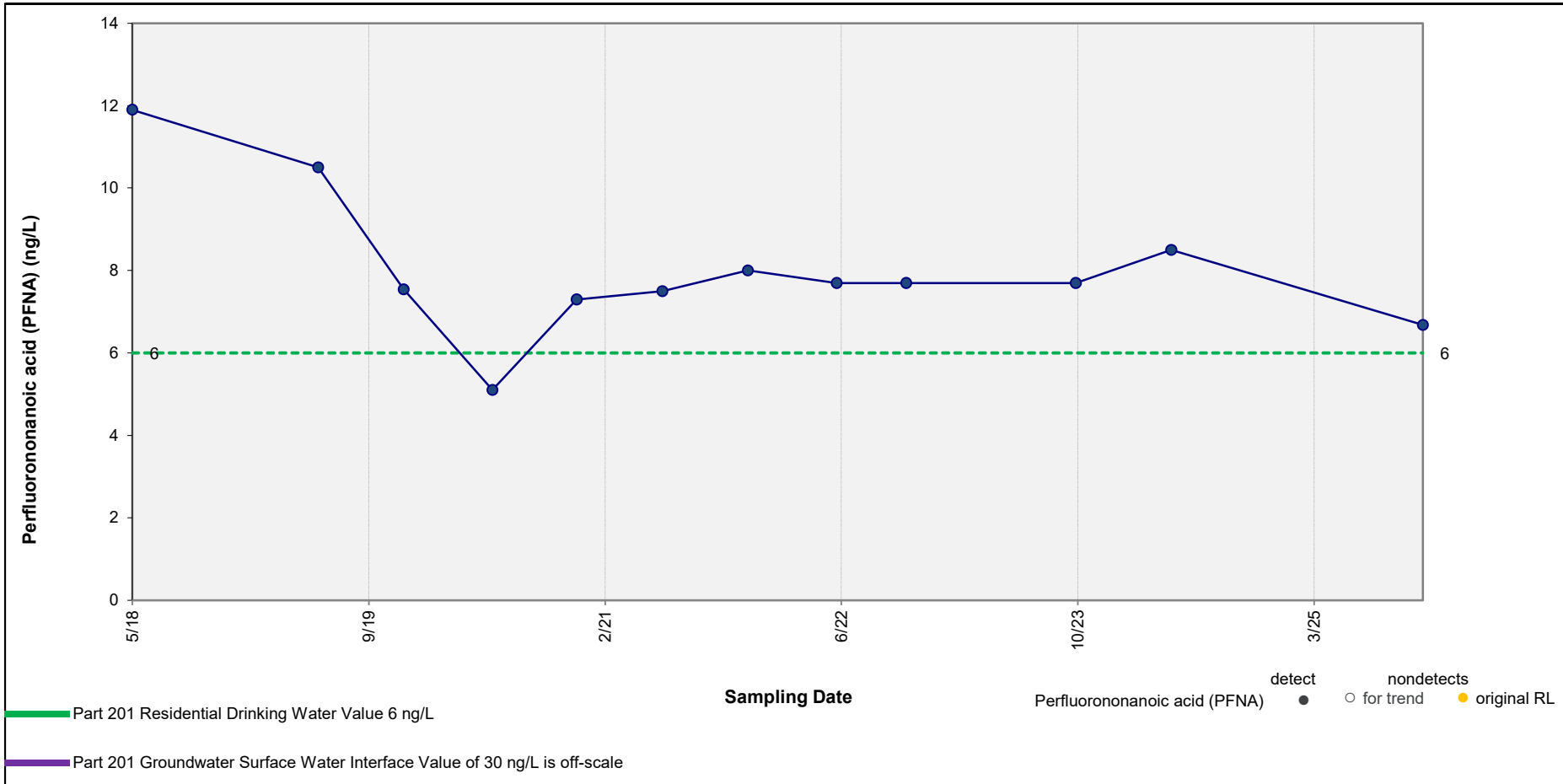
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-60

RACER Lansing

Figure E-7



Results of Mann-Kendall Test for Trend: **No Significant Trend**

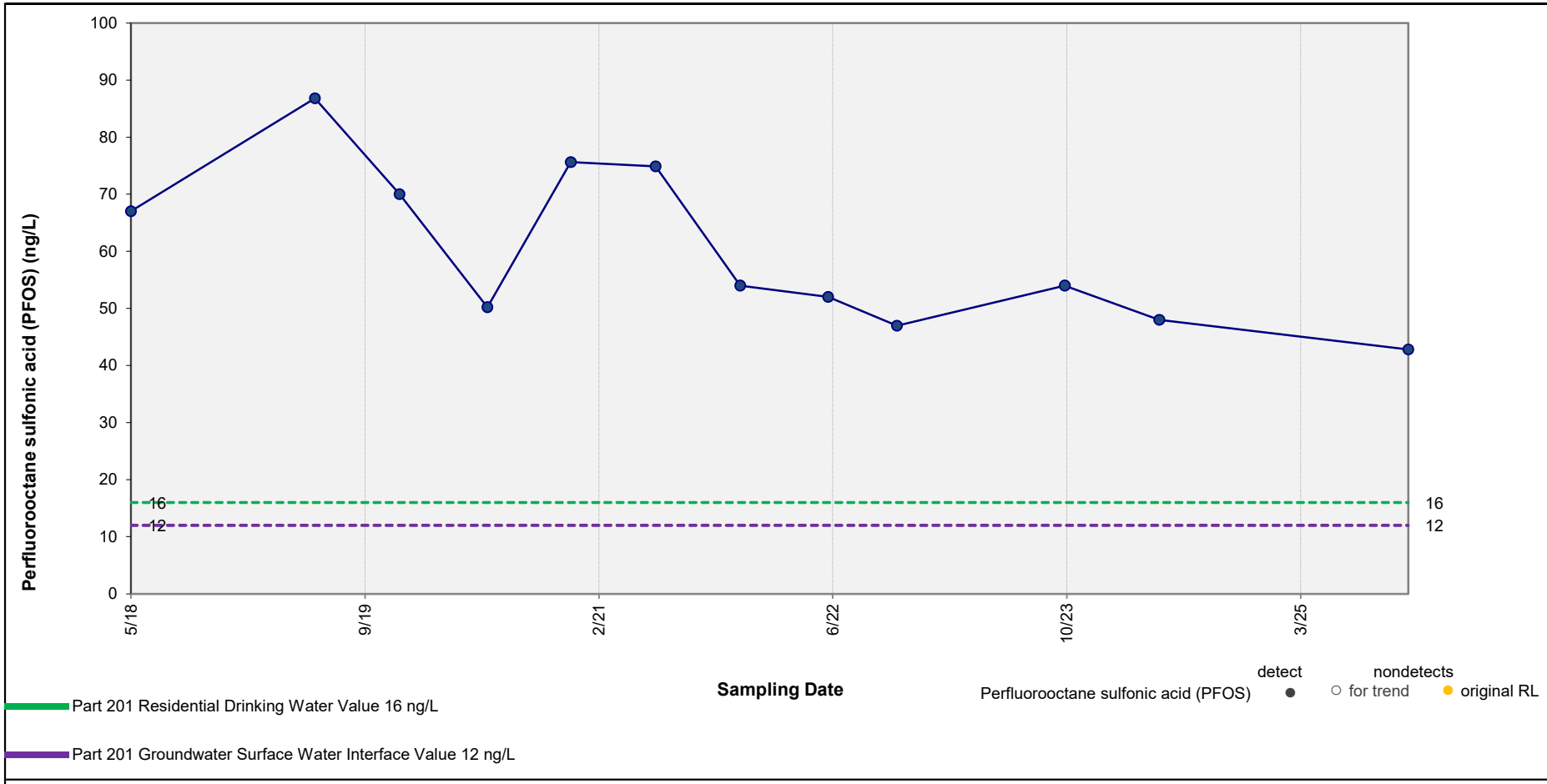
p value = 0.339 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well MW-14-62

RACER Lansing

Figure E-8



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

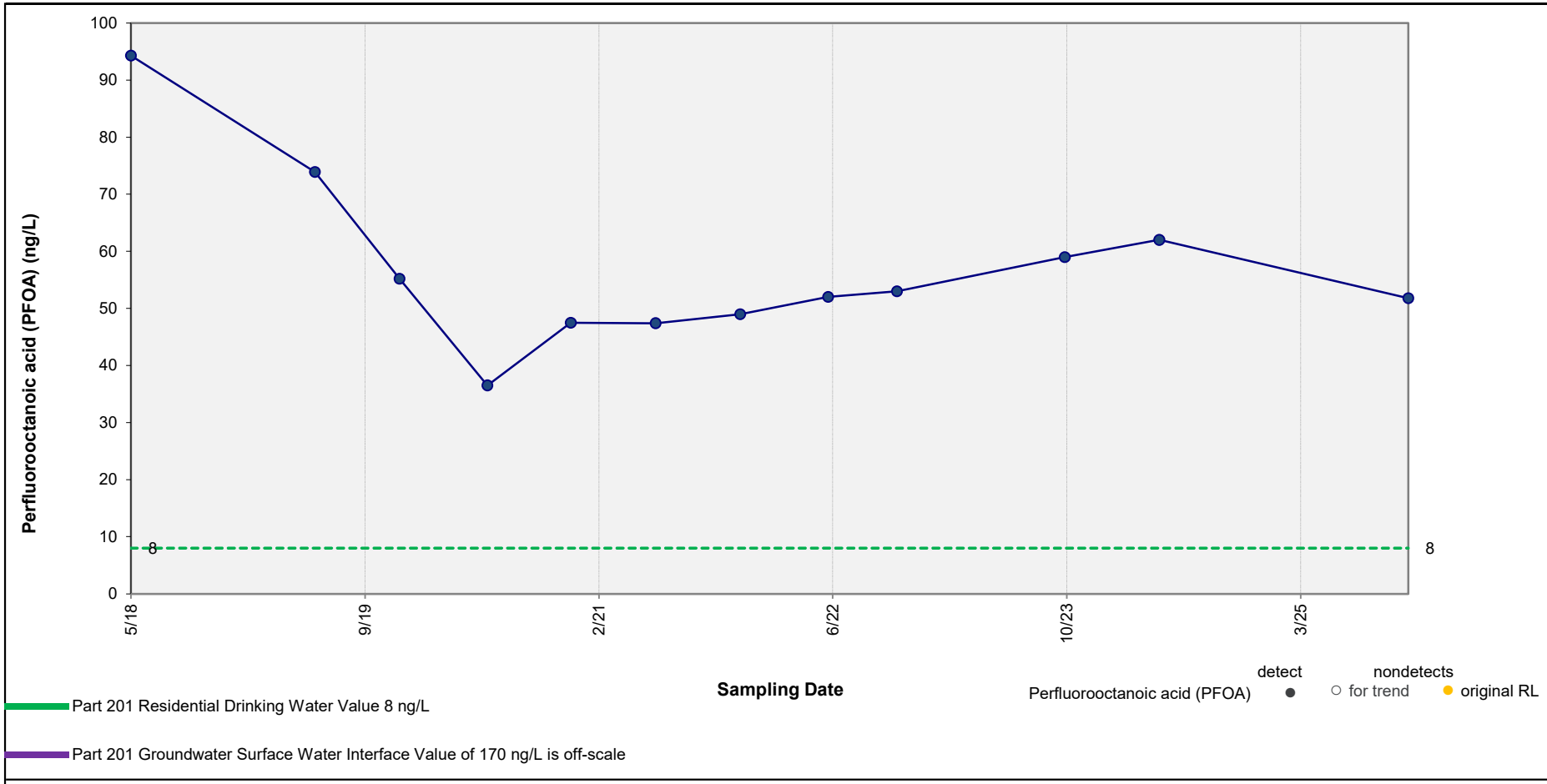
p value = 0.007 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-14-62

RACER Lansing

Figure E-9



Results of Mann-Kendall Test for Trend: **No Significant Trend**

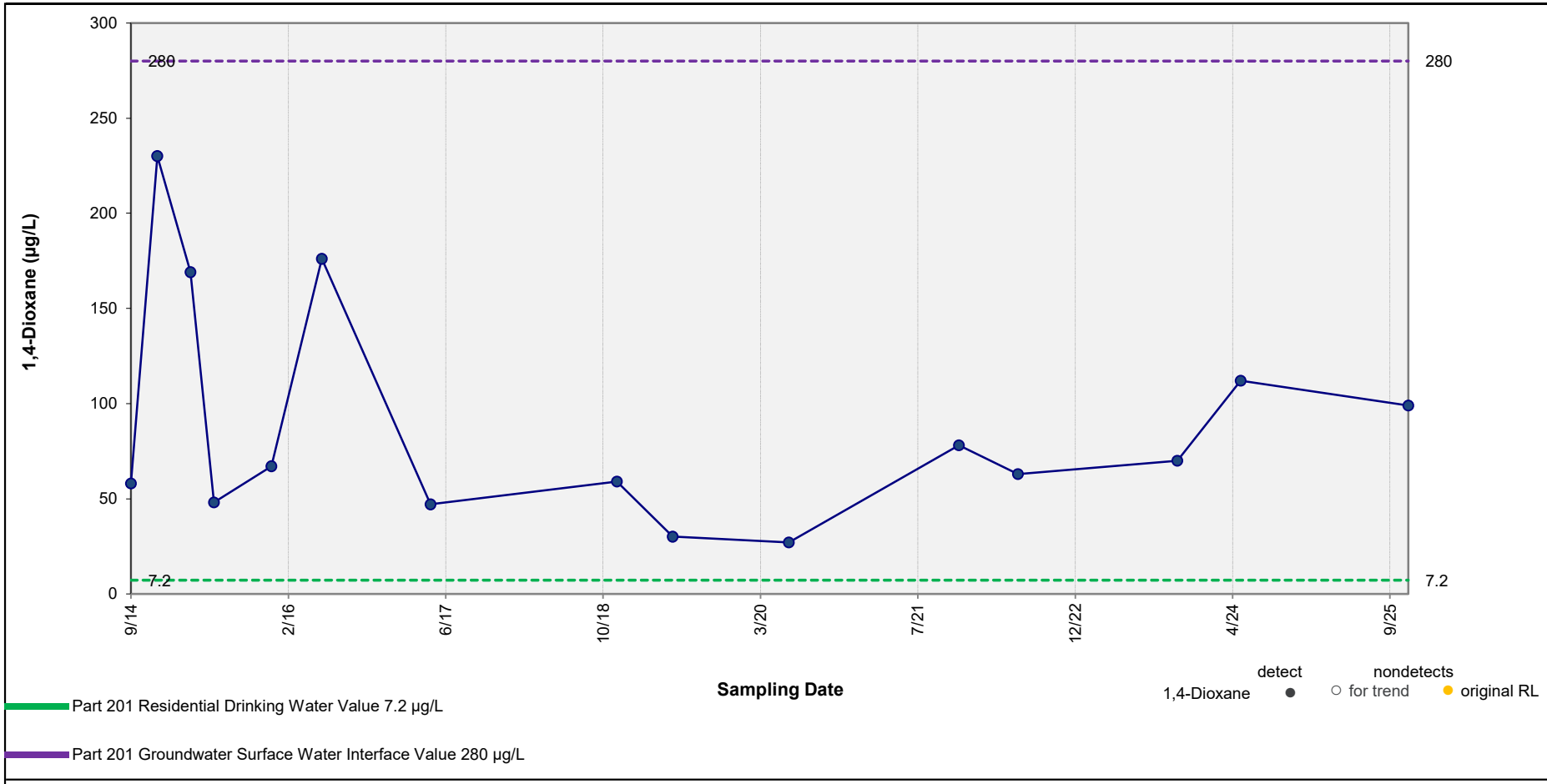
p value = 0.527 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-14-62

RACER Lansing

Figure E-10



Results of Mann-Kendall Test for Trend: **No Significant Trend**

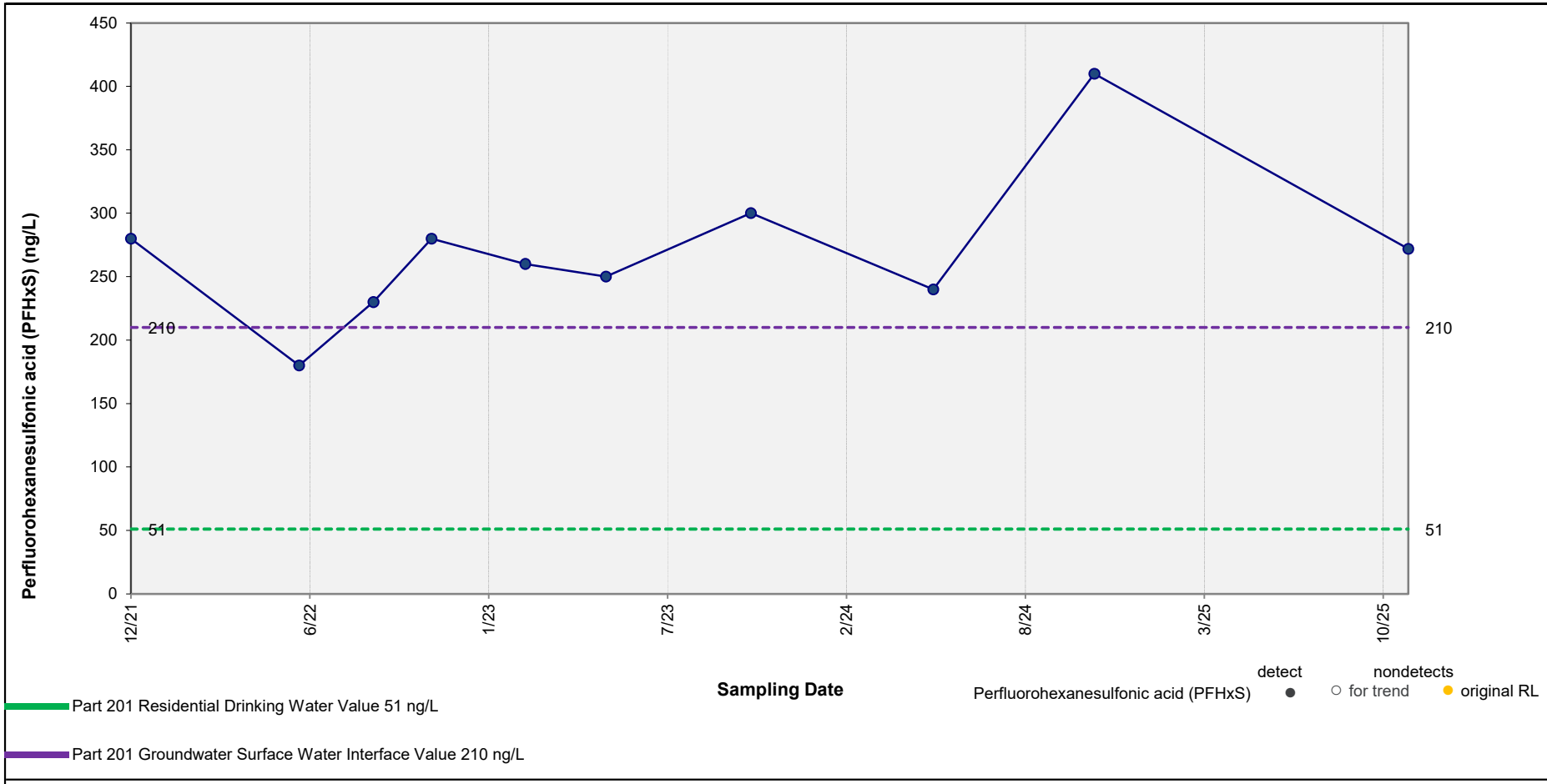
p value = 0.500 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-62

RACER Lansing

Figure E-11



Results of Mann-Kendall Test for Trend: **No Significant Trend**

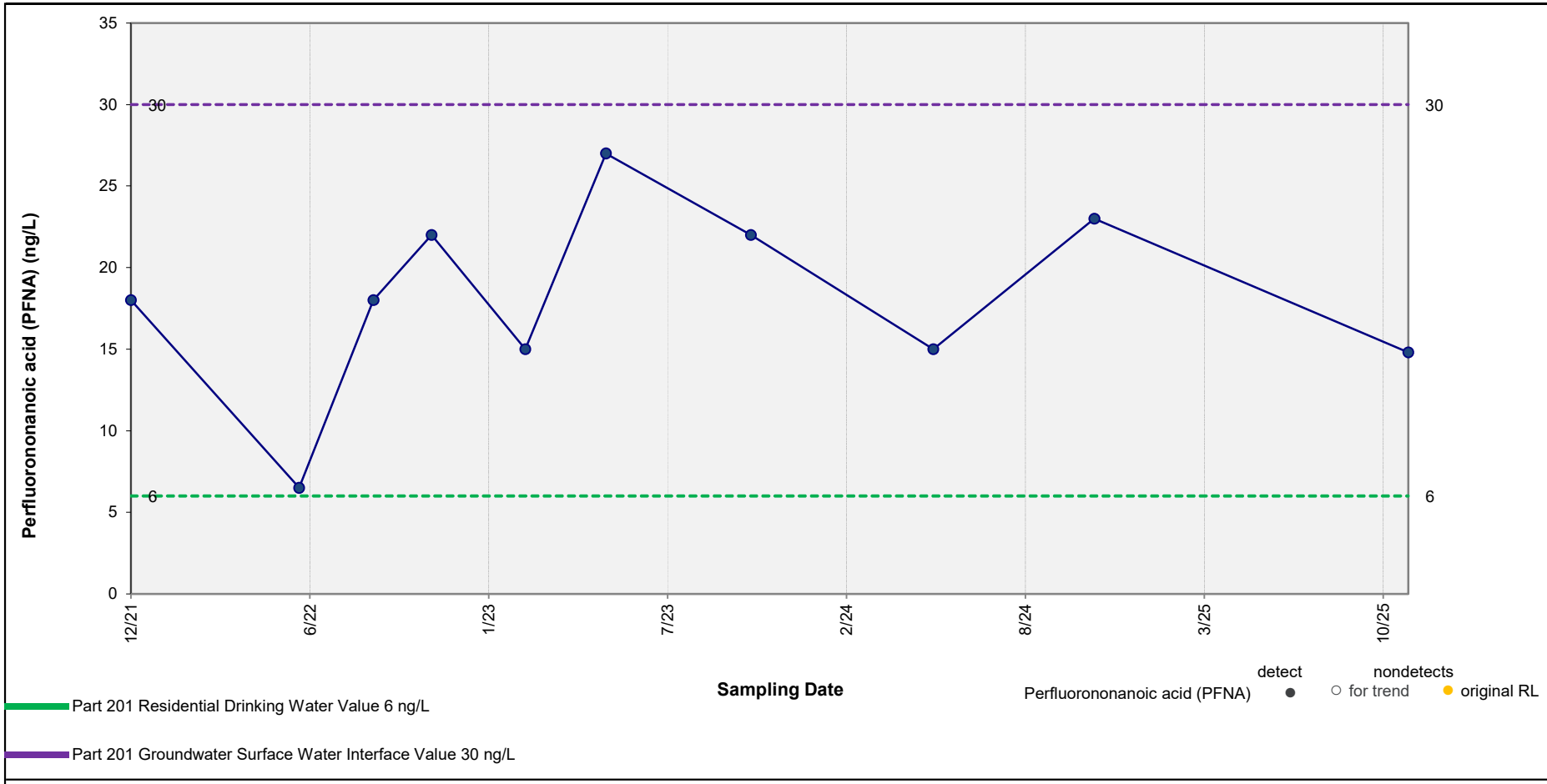
p value = 0.168 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorohexanesulfonic acid (PFHxS) in Well MW-21-139

RACER Lansing

Figure E-12



Results of Mann-Kendall Test for Trend: **No Significant Trend**

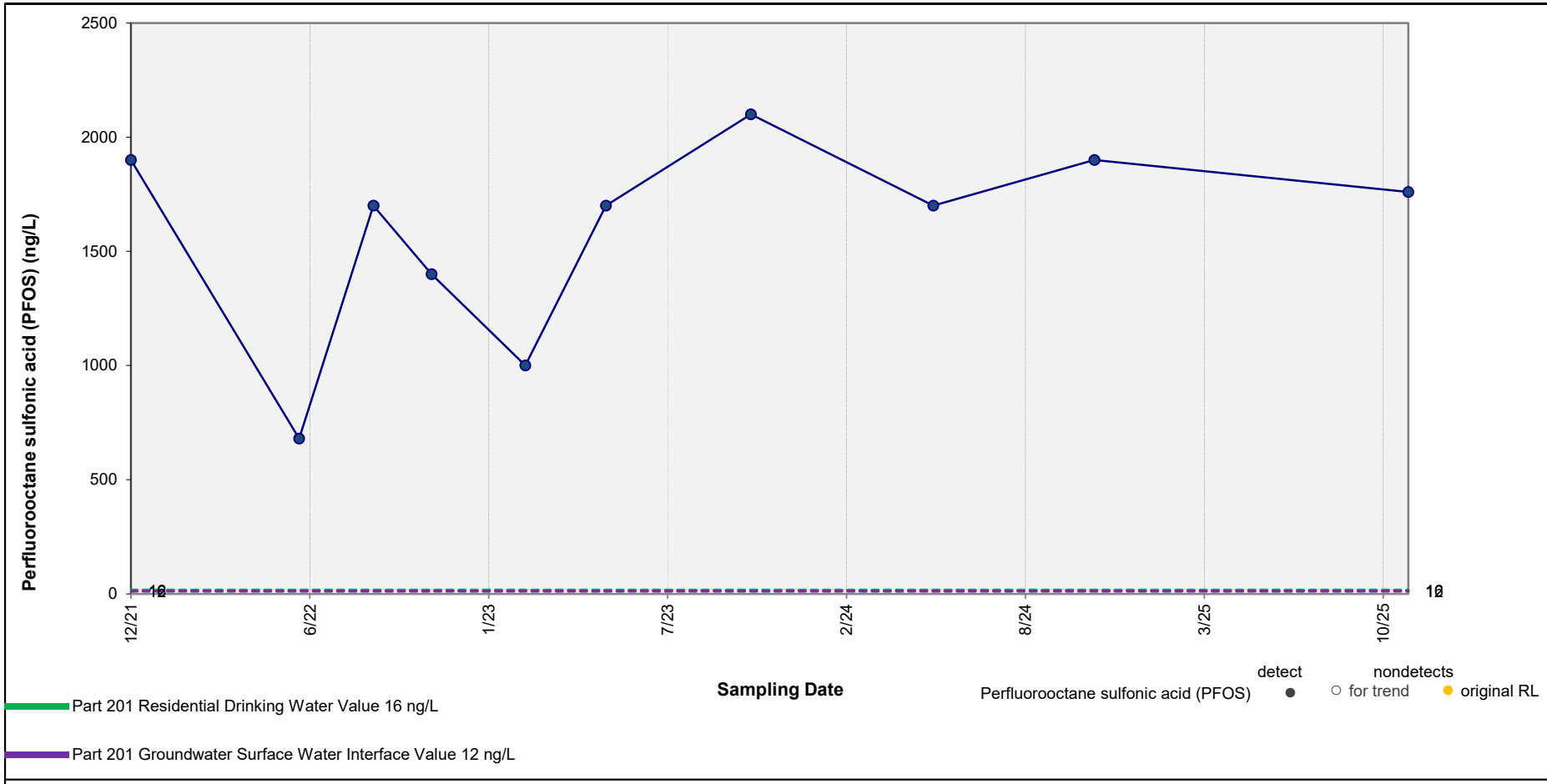
p value = 0.398 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well MW-21-139

RACER Lansing

Figure E-13



Results of Mann-Kendall Test for Trend: **No Significant Trend**

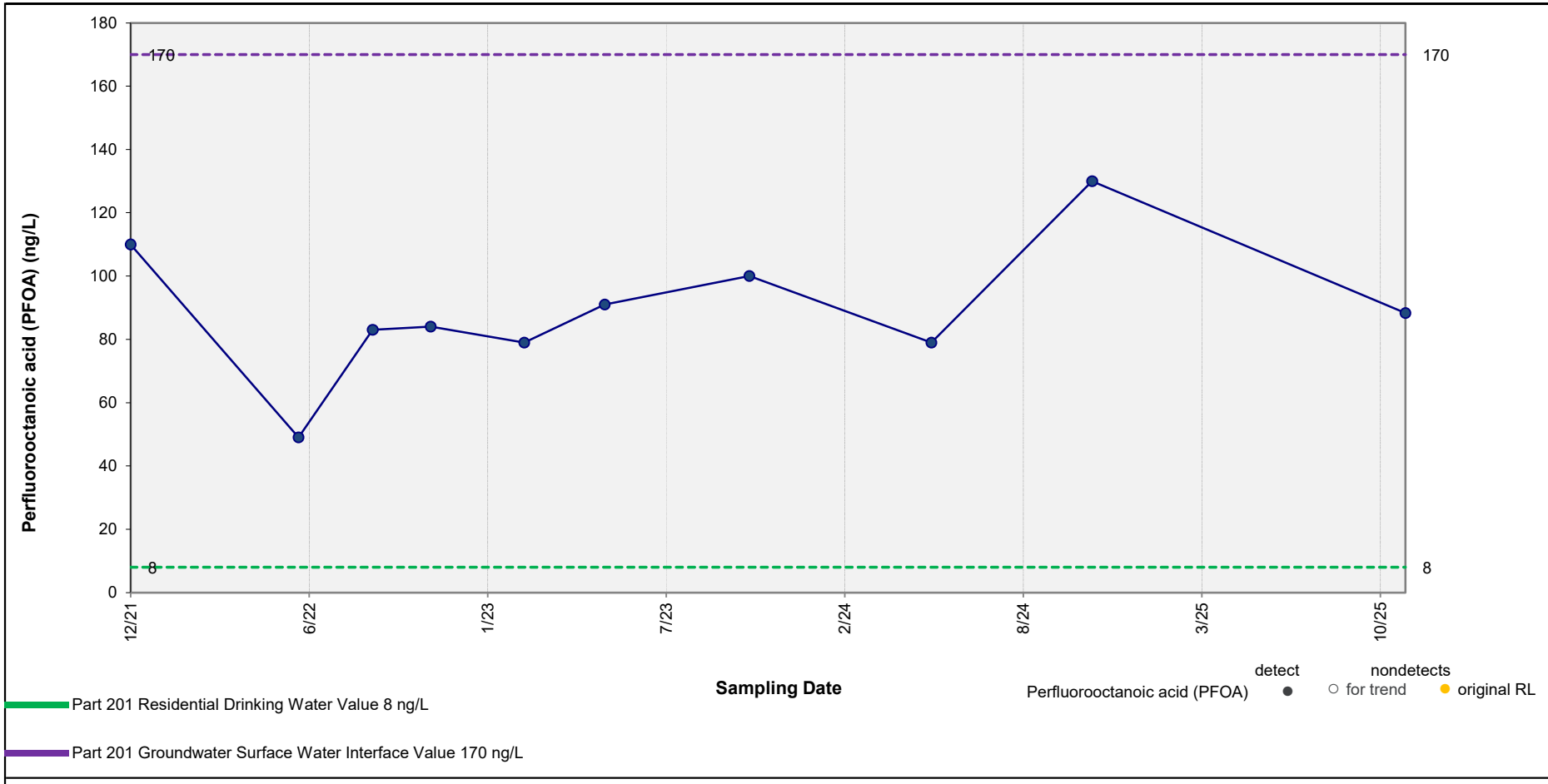
p value = 0.146 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-21-139

RACER Lansing

Figure E-14



Results of Mann-Kendall Test for Trend: **No Significant Trend**

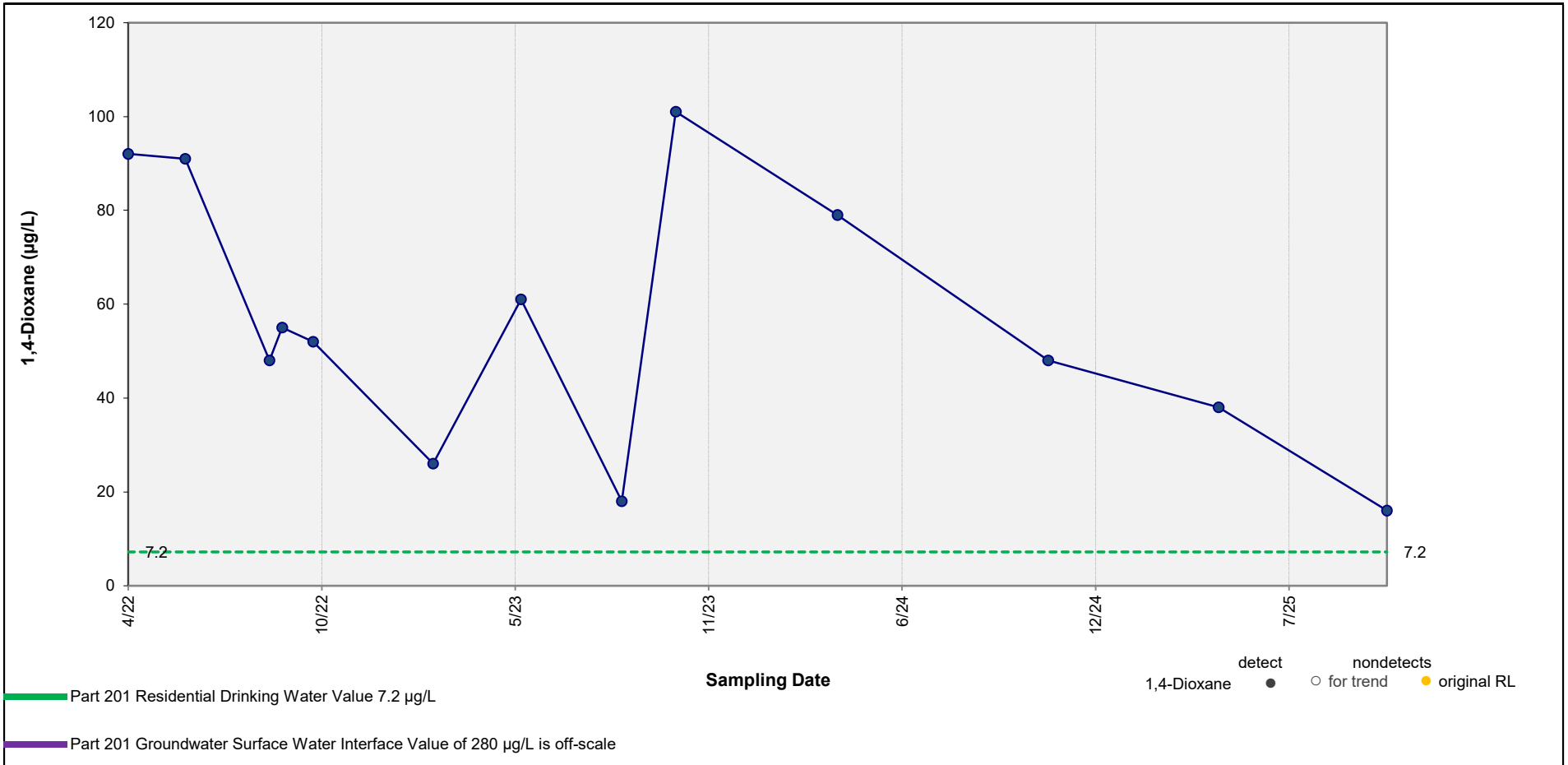
p value = 0.216 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-21-139

RACER Lansing

Figure E-15



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

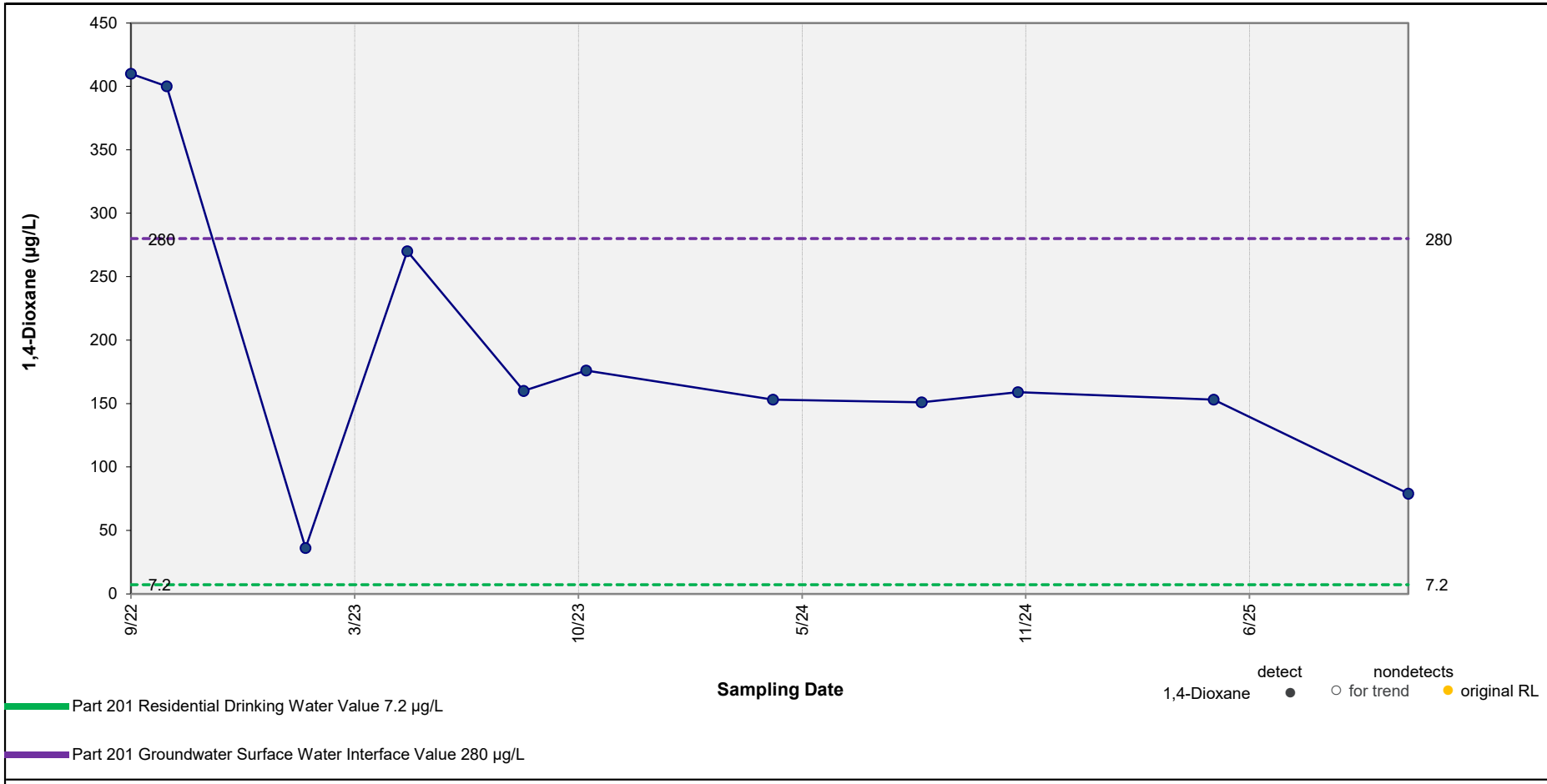
p value = 0.044 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-22-153

RACER Lansing

Figure E-16



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

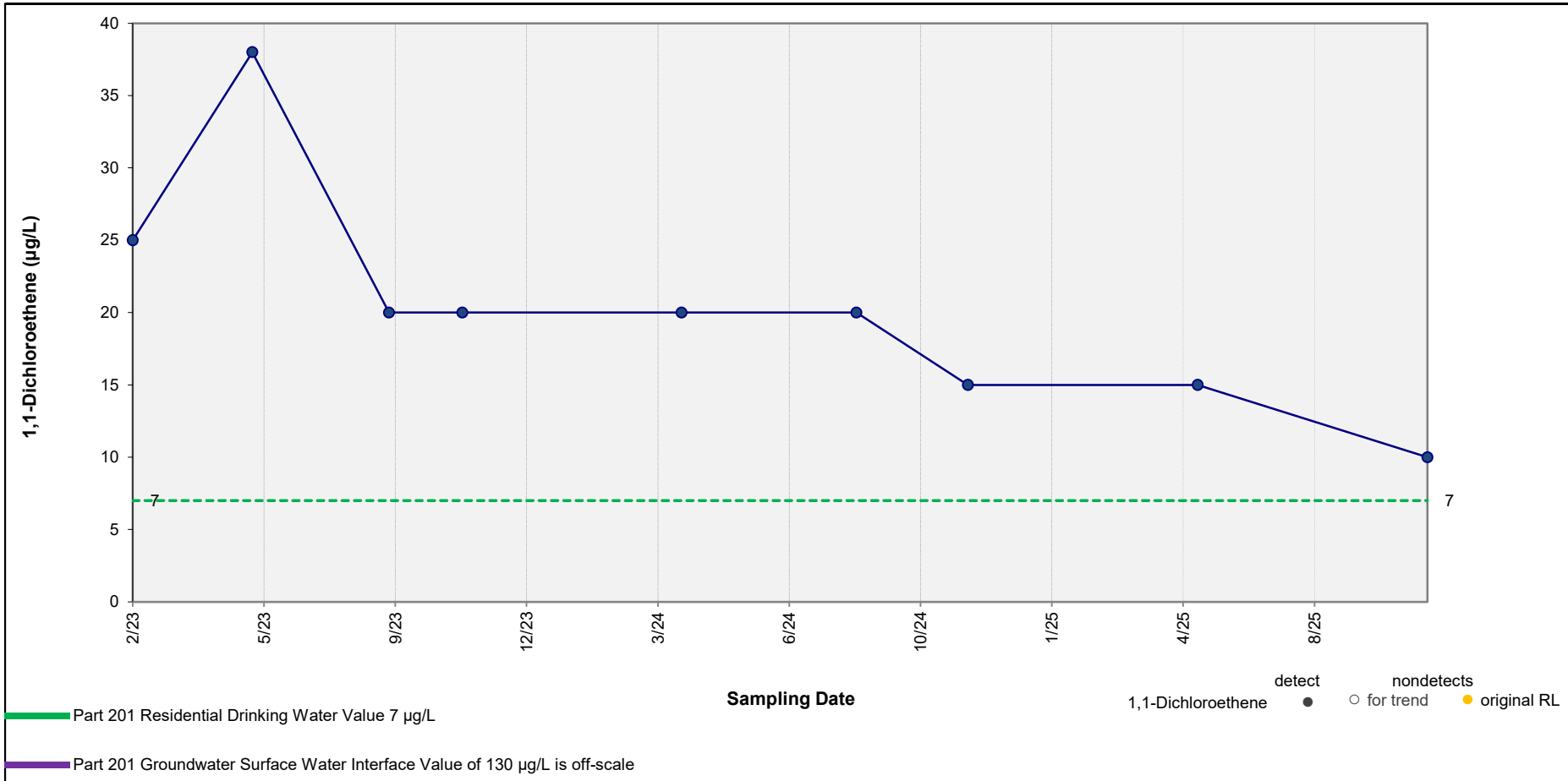
p value = 0.012 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-22-155

RACER Lansing

Figure E-17



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

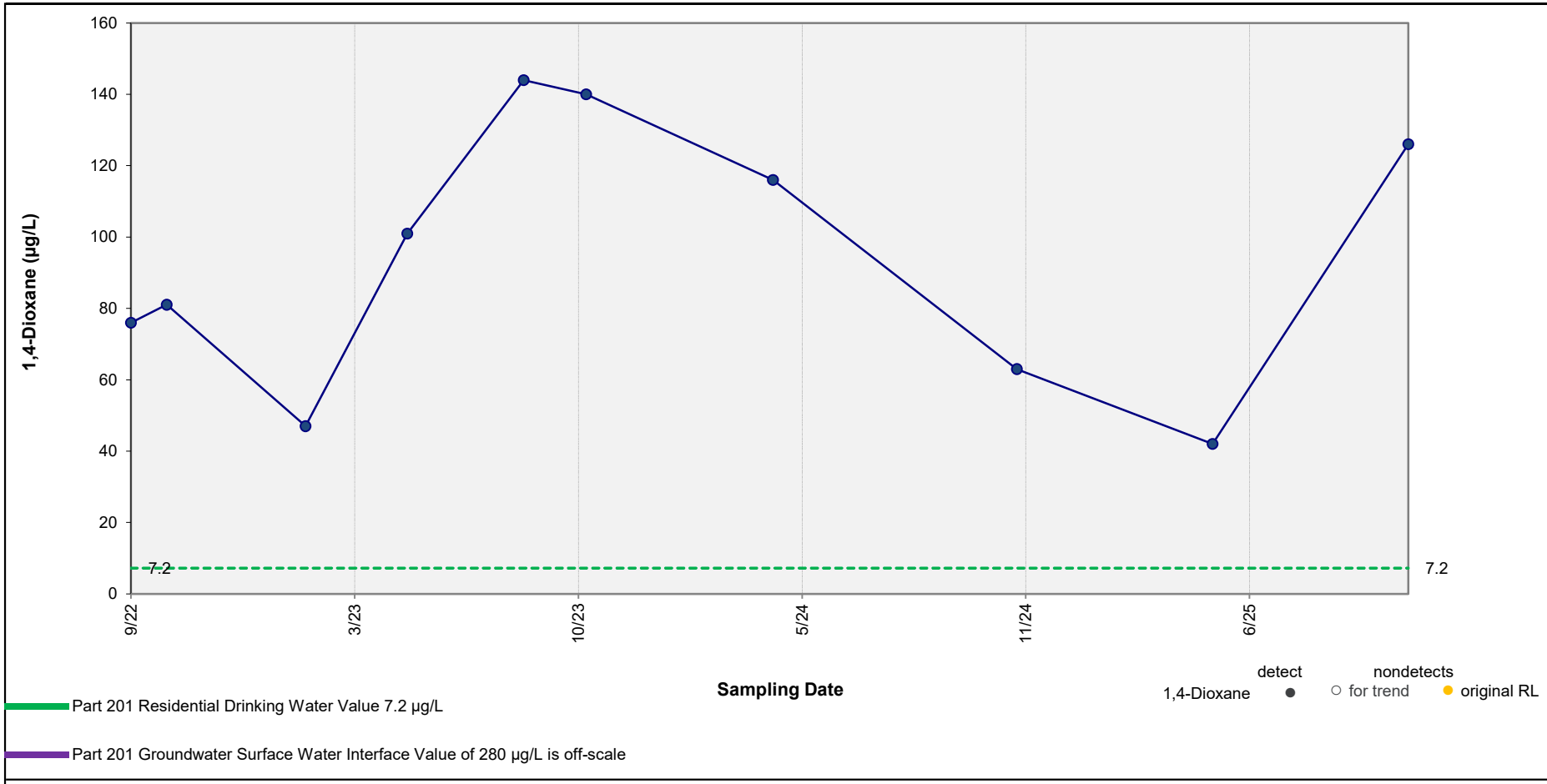
p value = 0.002 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,1-Dichloroethene in Well MW-22-156

RACER Lansing

Figure E-18



Results of Mann-Kendall Test for Trend: **No Significant Trend**

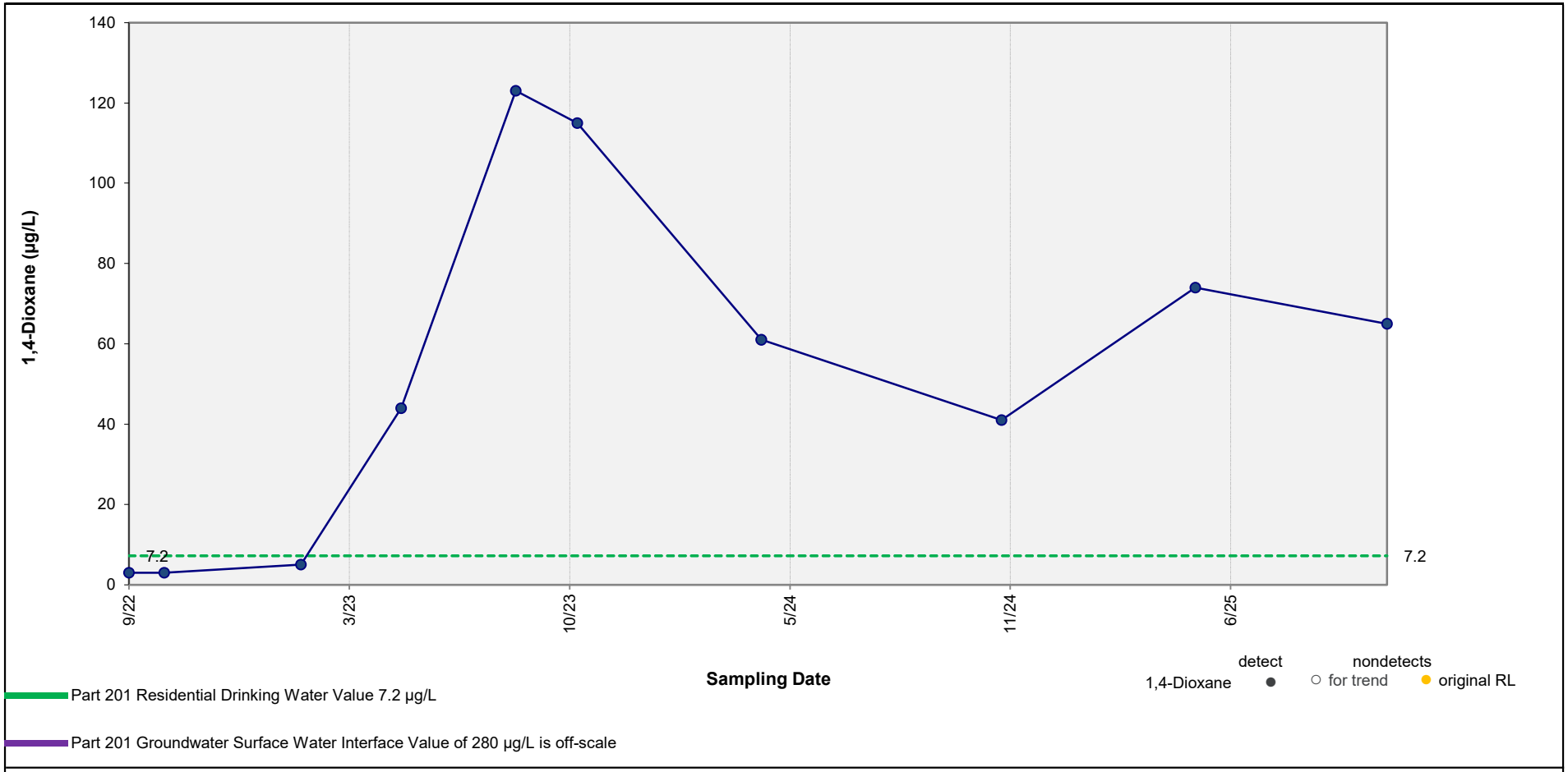
p value = 0.431 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-22-156

RACER Lansing

Figure E-19



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

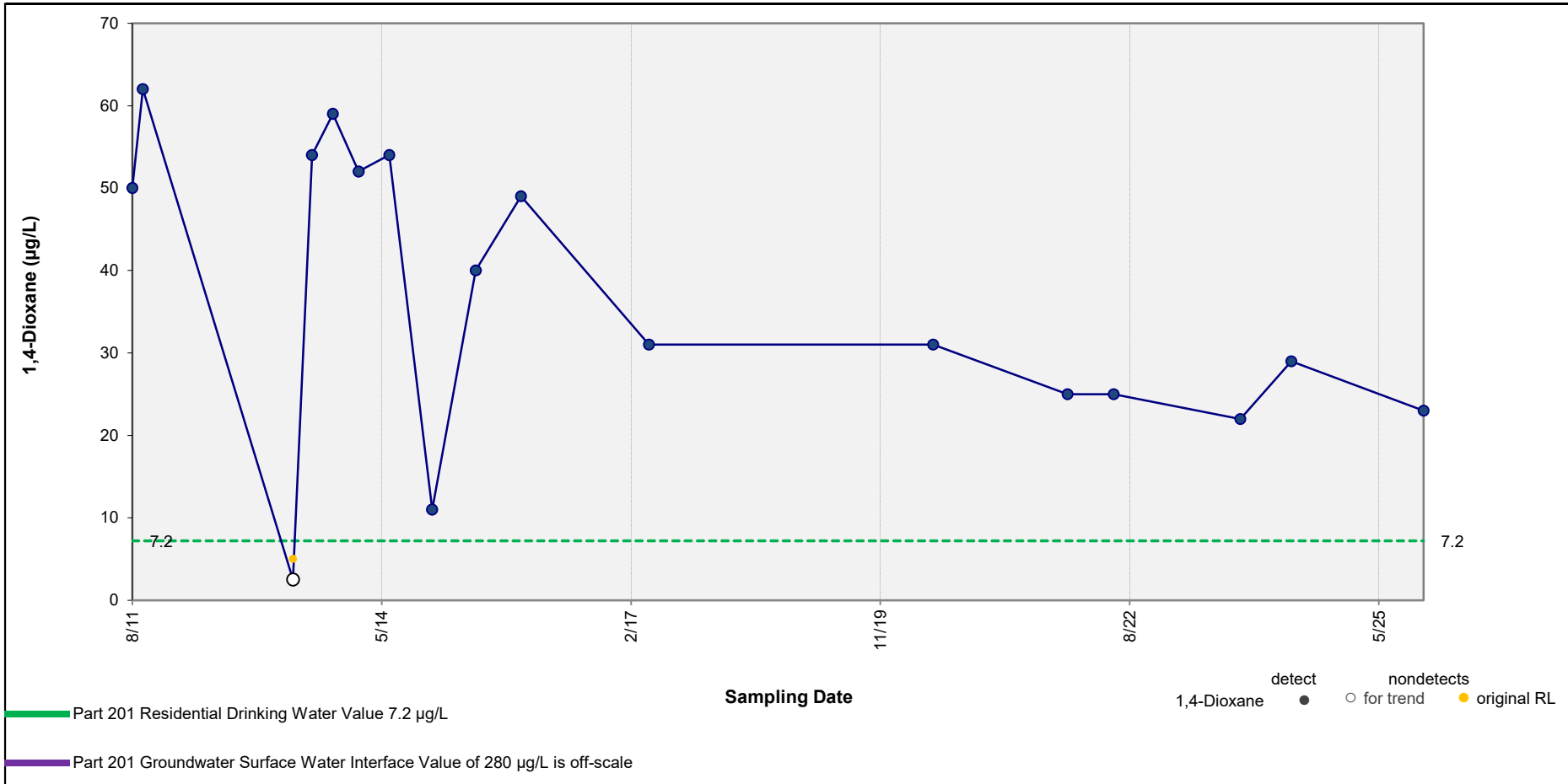
p value = 0.045 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-22-157

RACER Lansing

Figure E-20



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

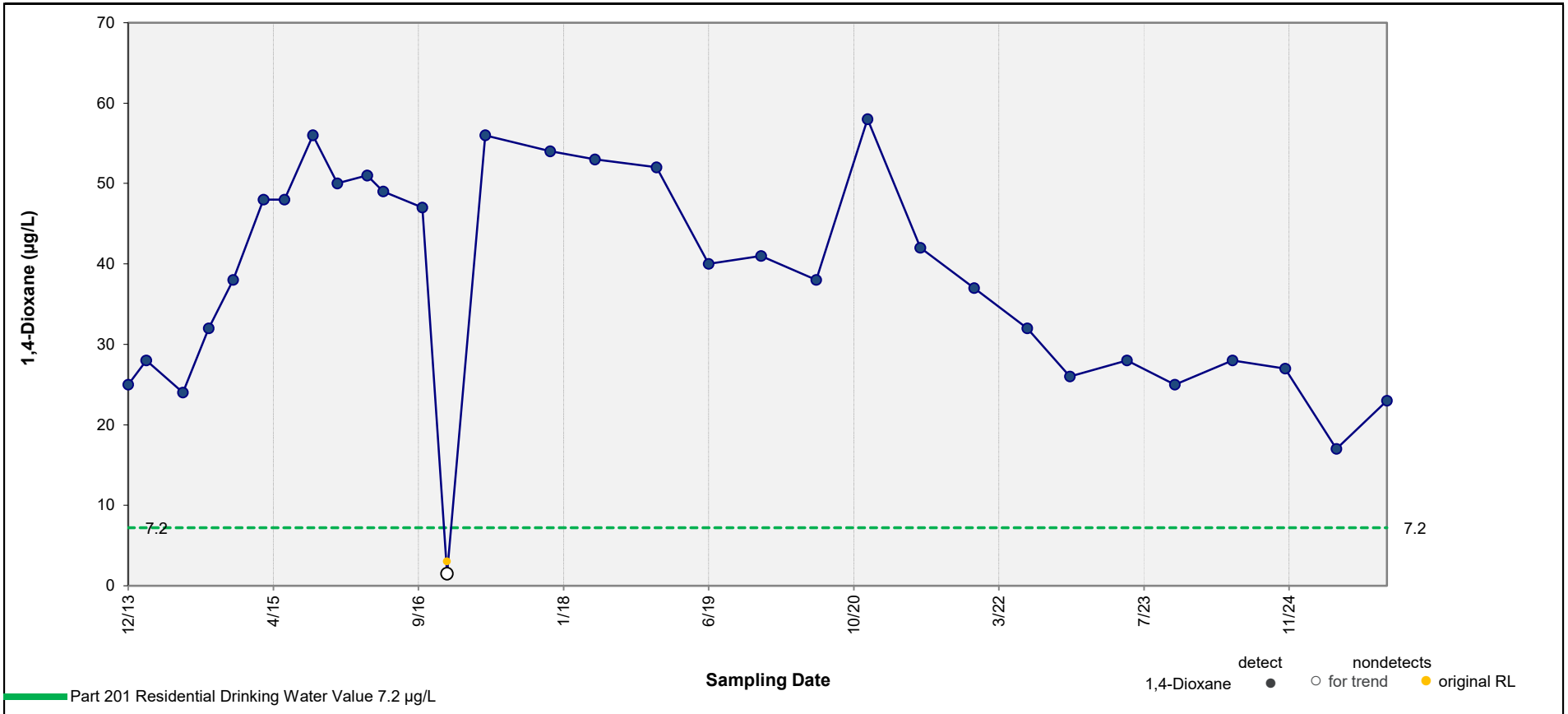
p value = 0.005 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well P2-MW-04

RACER Lansing

Figure E-21



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

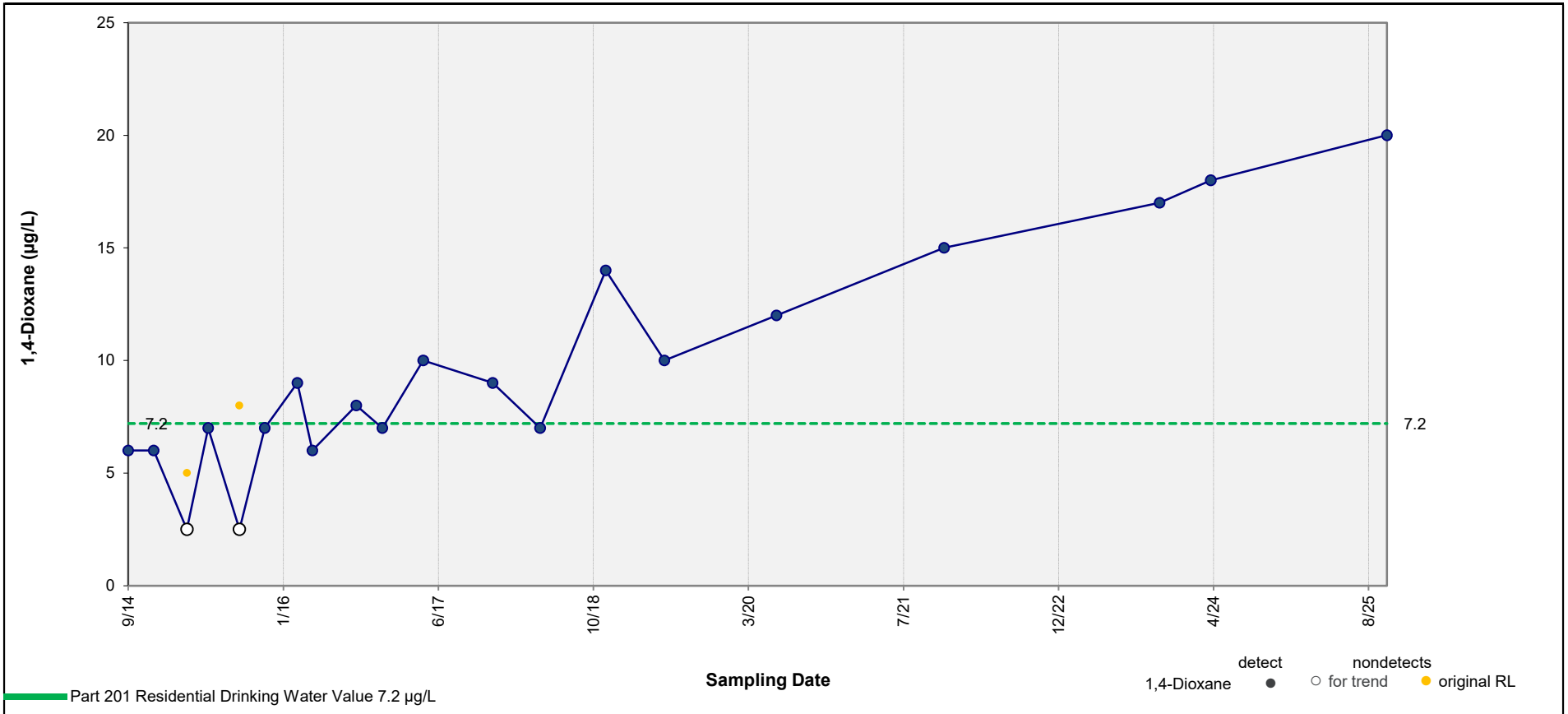
p value = 0.044 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-13-45

RACER Lansing

Figure E-22



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

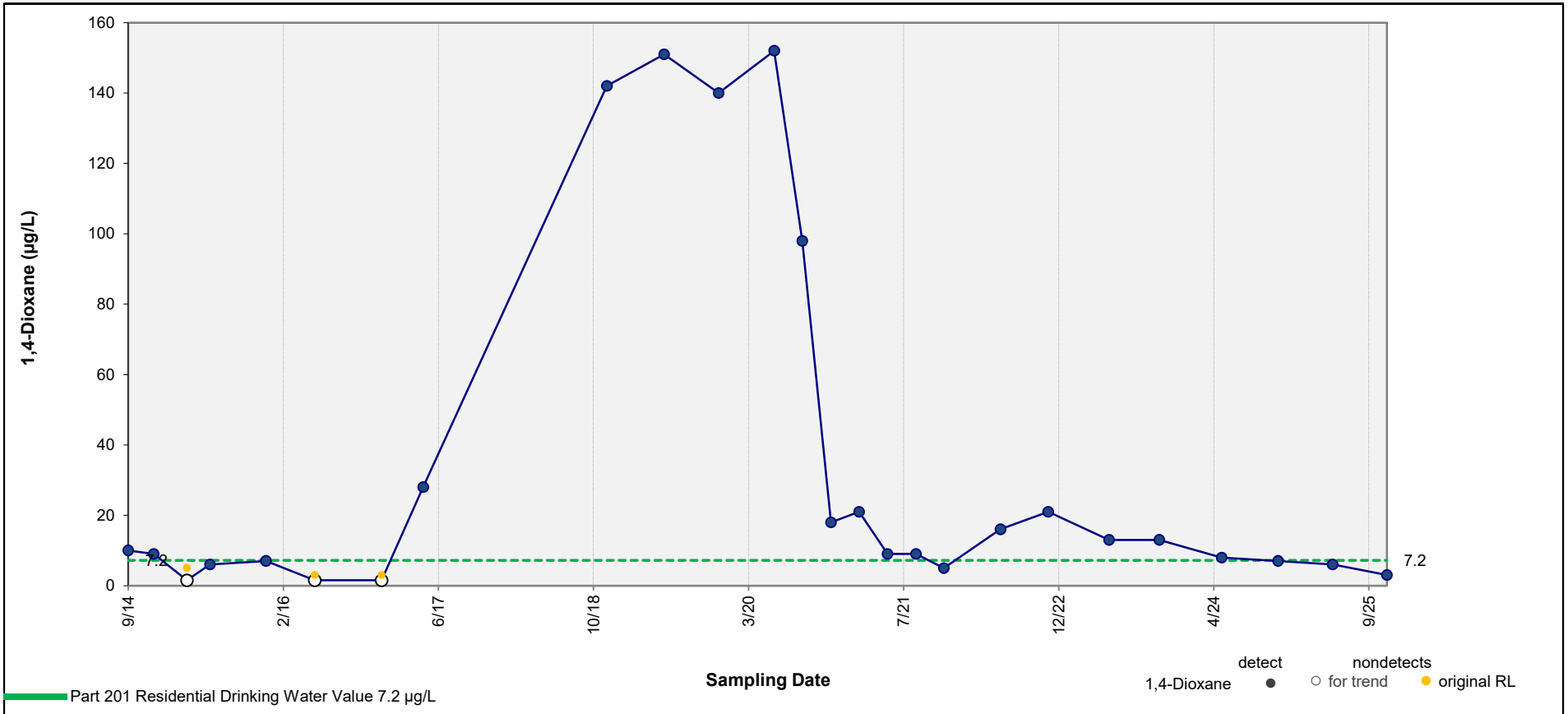
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-56

RACER Lansing

Figure E-23



Results of Mann-Kendall Test for Trend: **No Significant Trend**

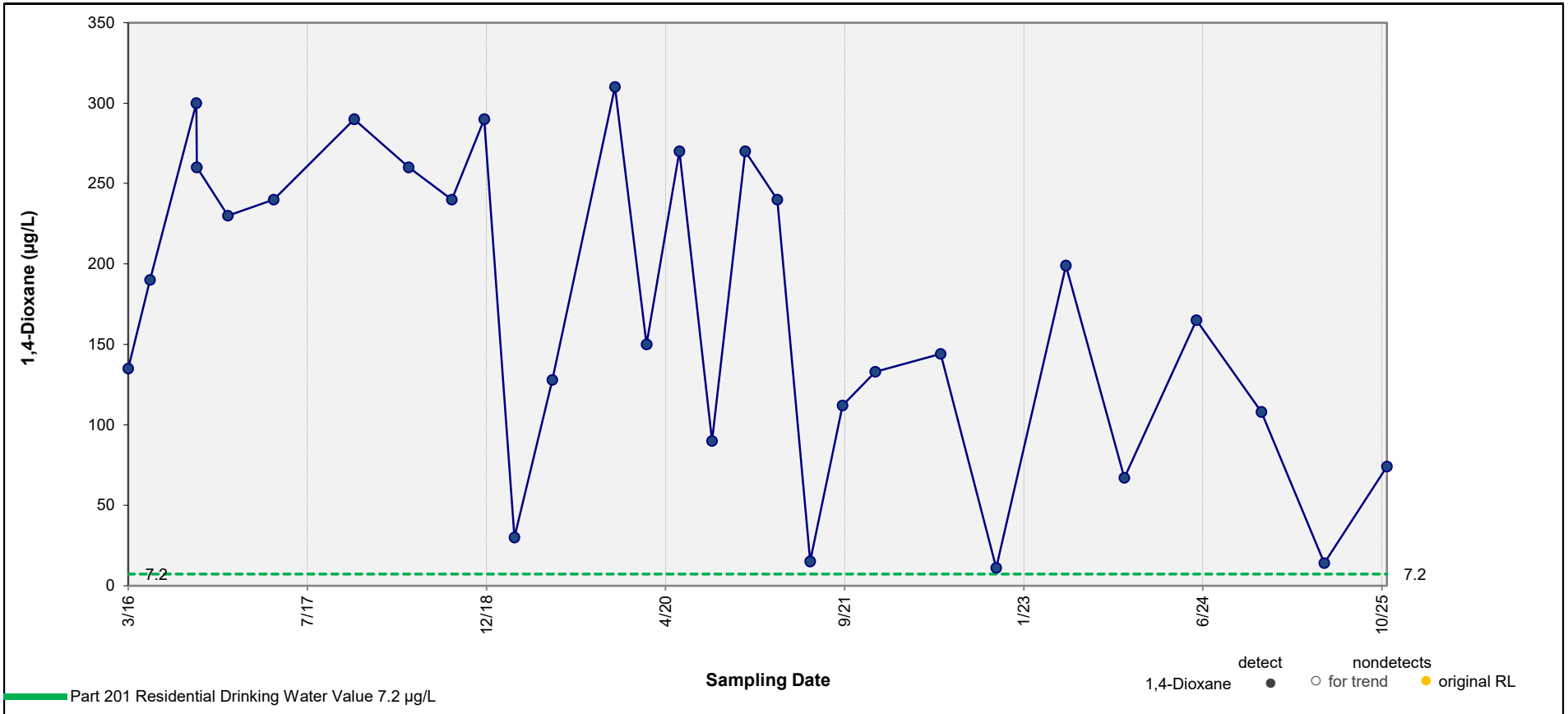
p value = 0.254 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-14-61

RACER Lansing

Figure E-24



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

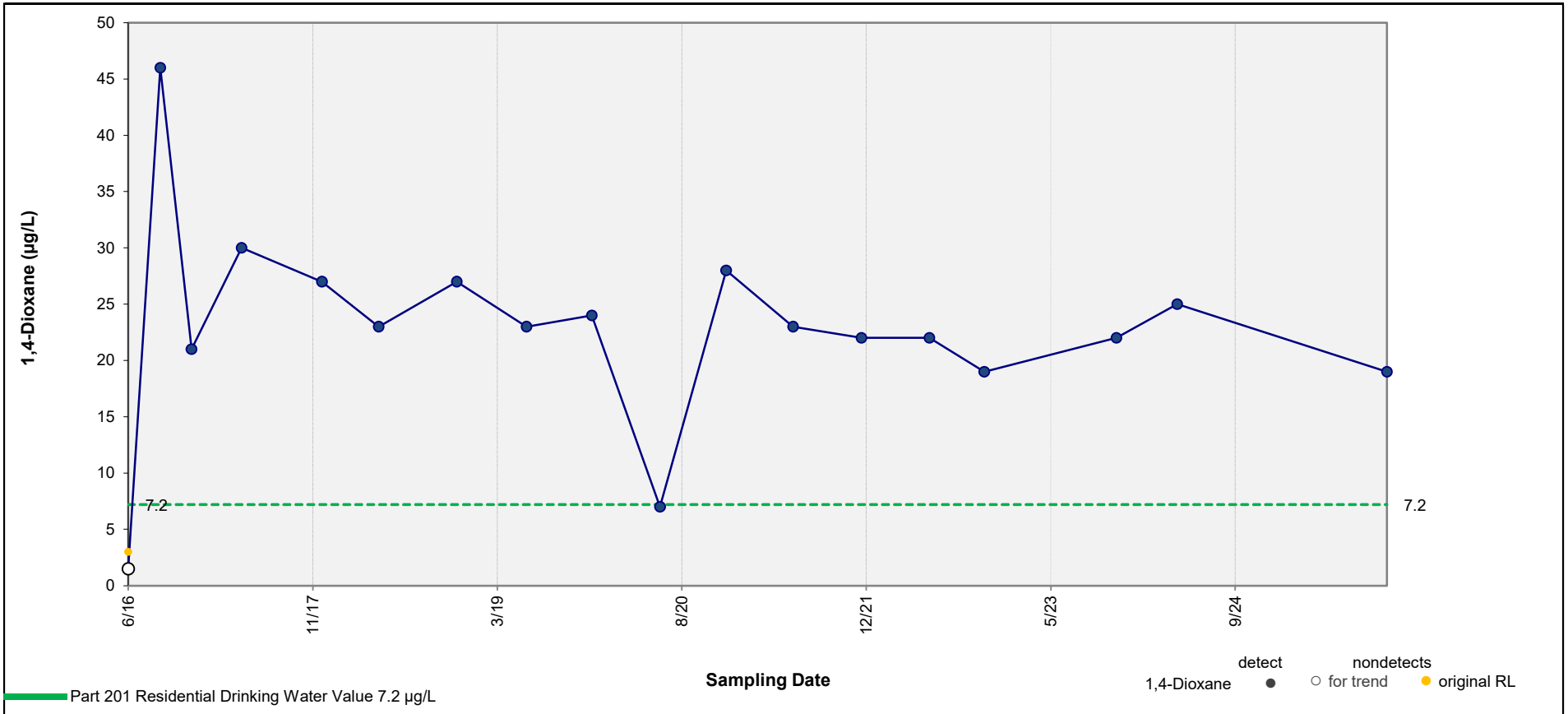
p value = 0.003 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-15-72

RACER Lansing

Figure E-25



Results of Mann-Kendall Test for Trend: **No Significant Trend**

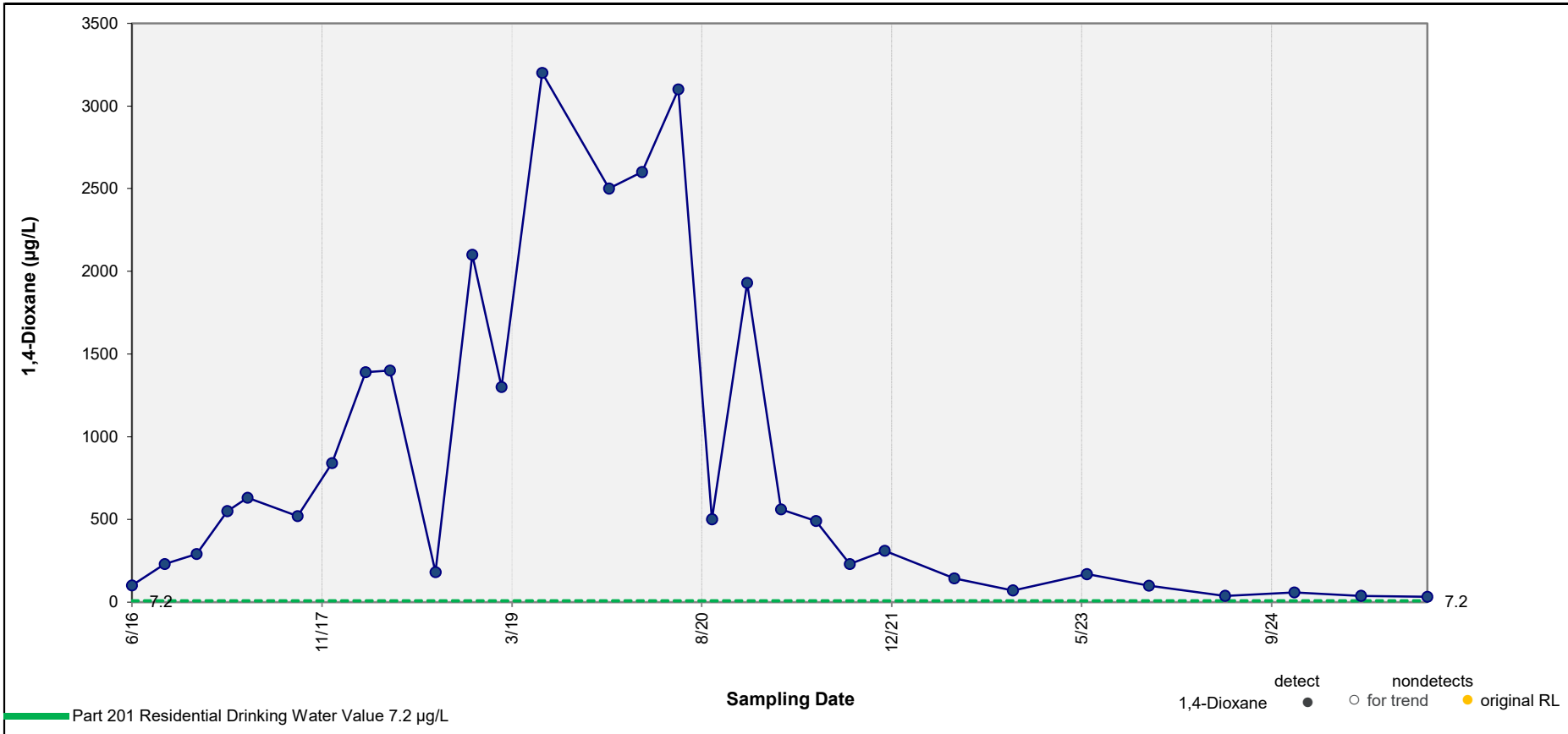
p value = 0.085 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-16-80

RACER Lansing

Figure E-26



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

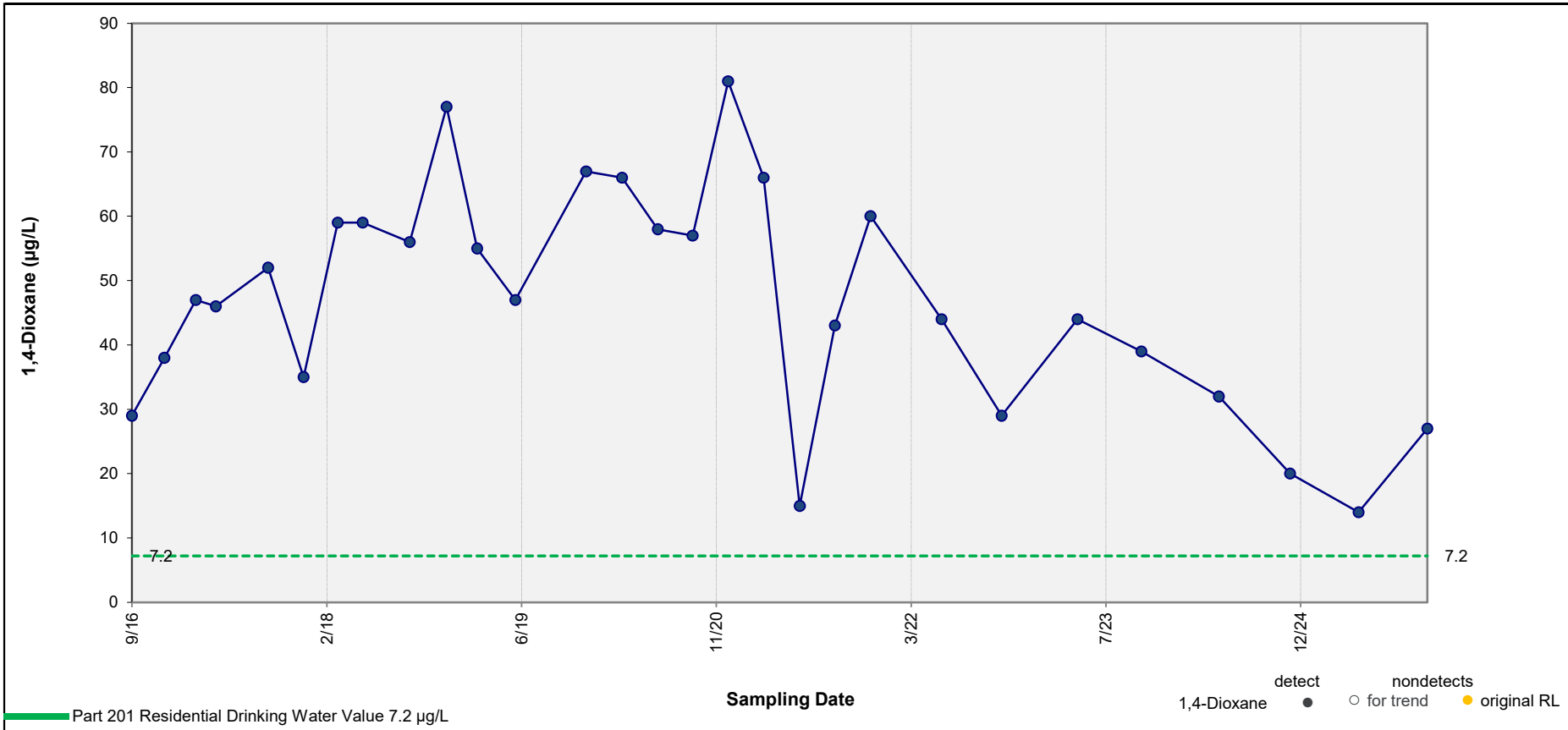
p value = 0.005 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-16-81

RACER Lansing

Figure E-27



Results of Mann-Kendall Test for Trend: **No Significant Trend**

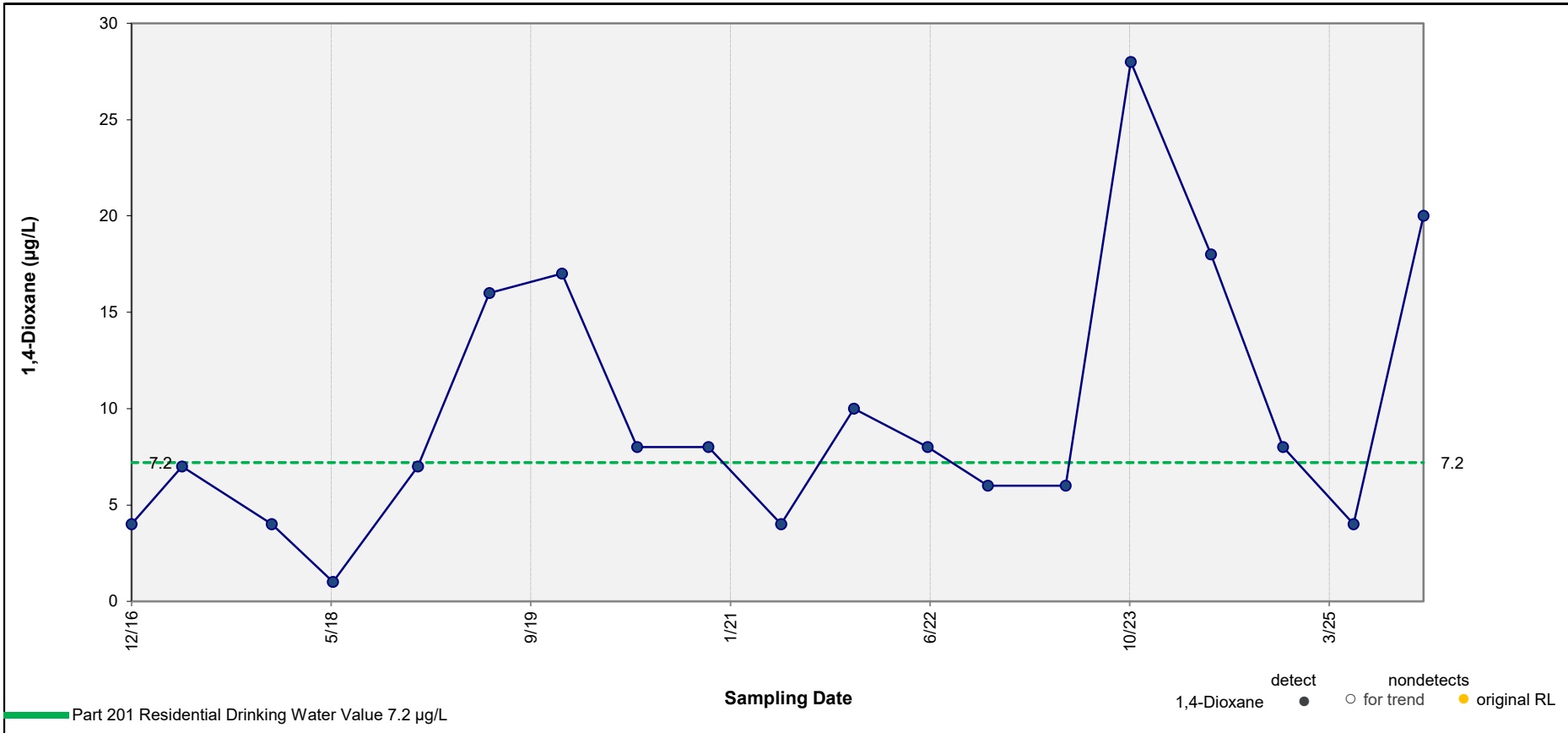
p value = 0.062 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-16-84

RACER Lansing

Figure E-28



Results of Mann-Kendall Test for Trend: **No Significant Trend**

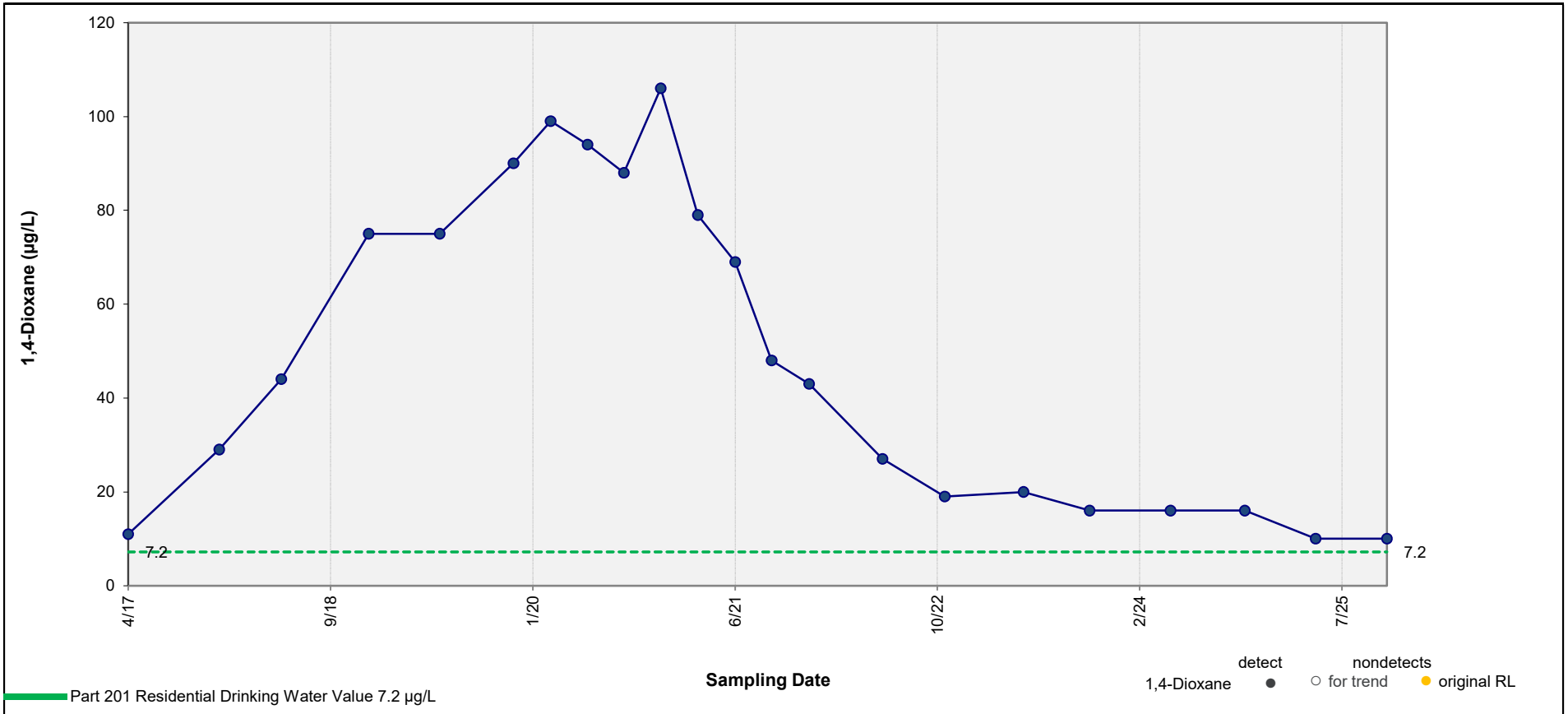
p value = 0.052 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-16-85

RACER Lansing

Figure E-29



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

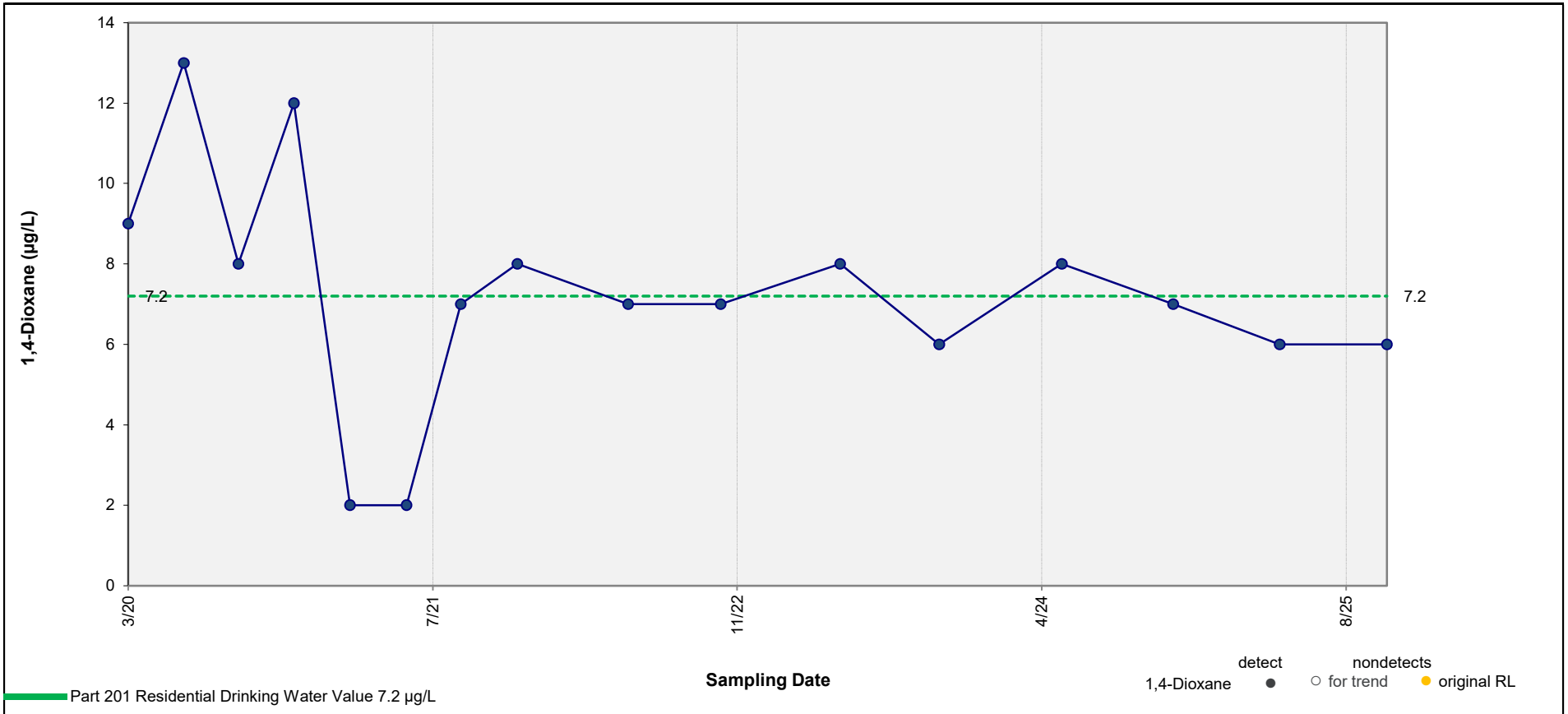
p value = 0.002 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-17-86

RACER Lansing

Figure E-30



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

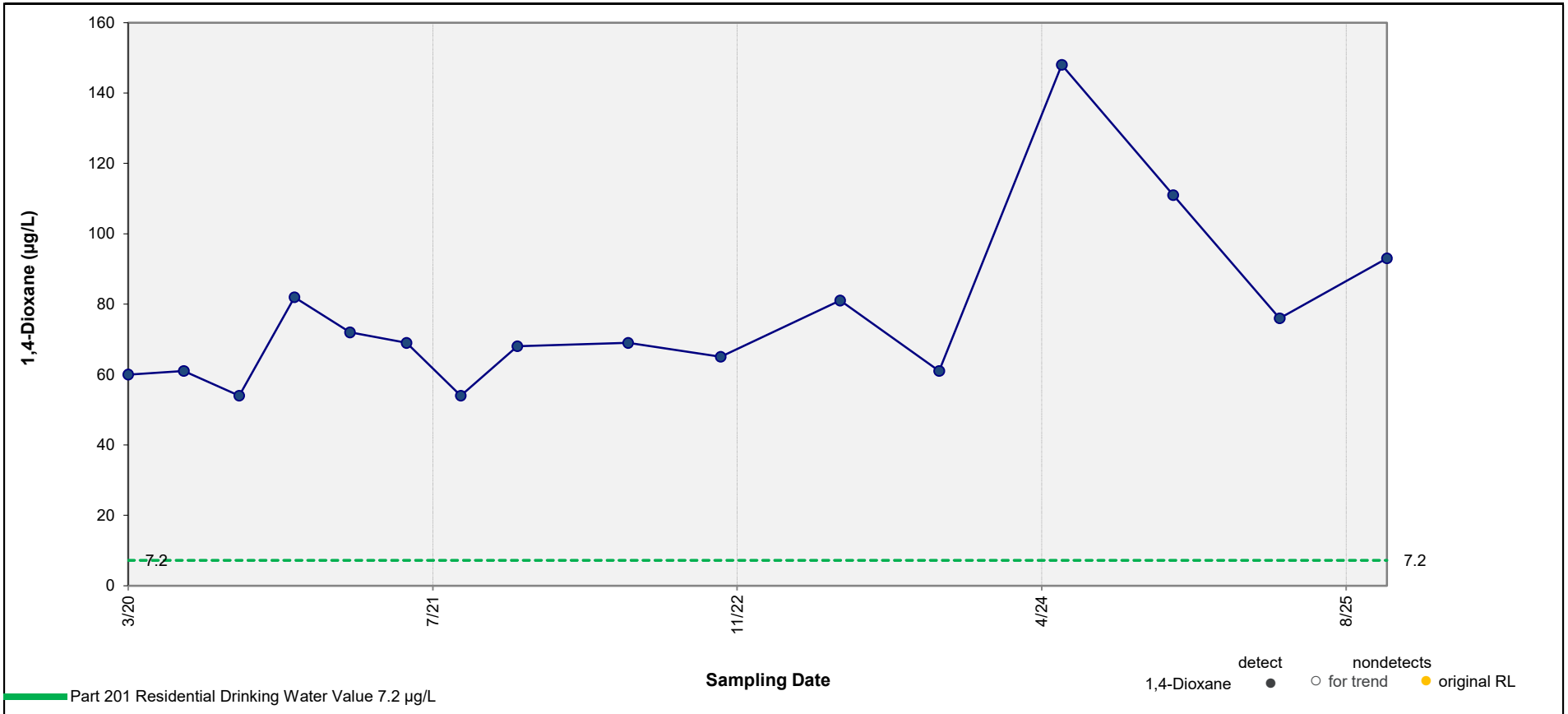
p value = 0.036 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-19-115

RACER Lansing

Figure E-31



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

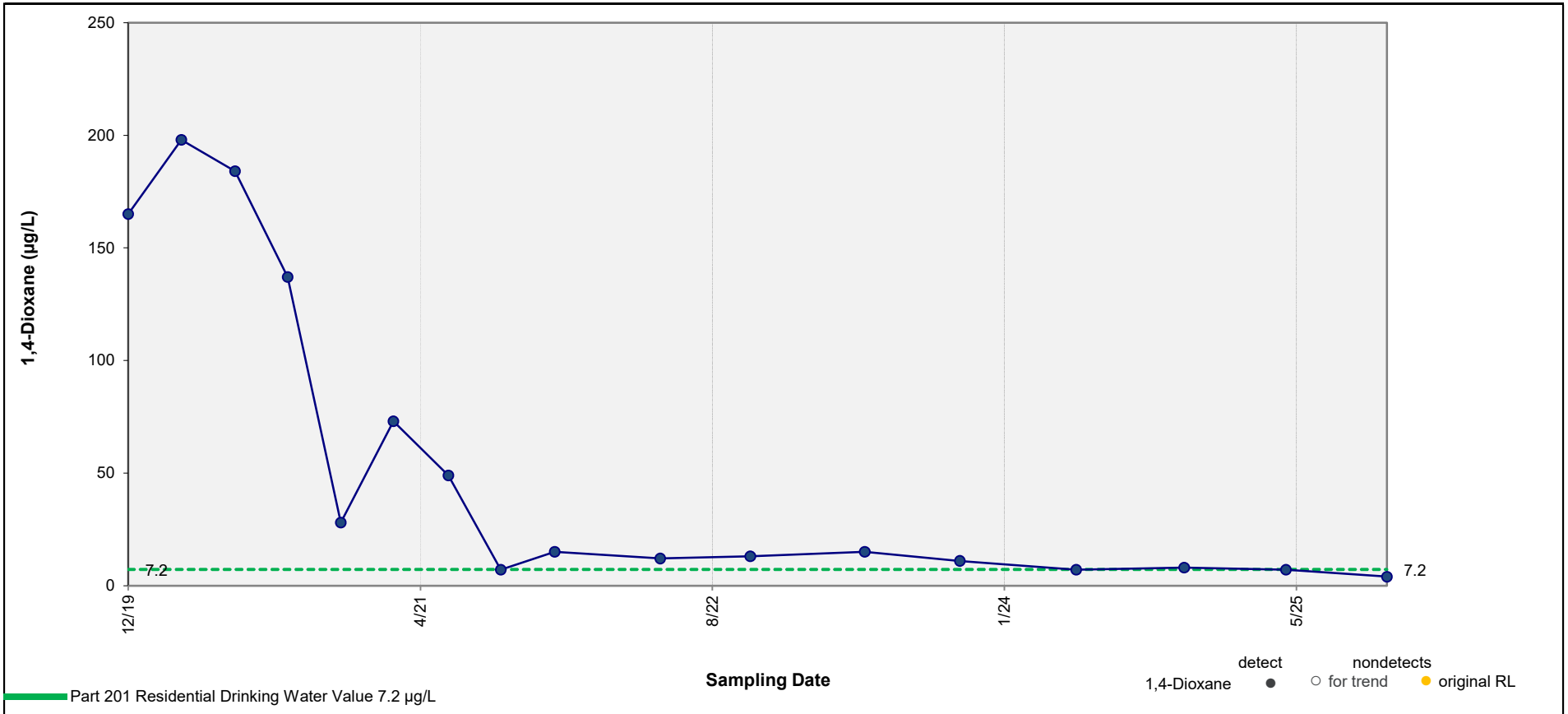
p value = 0.019 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-19-116

RACER Lansing

Figure E-32



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

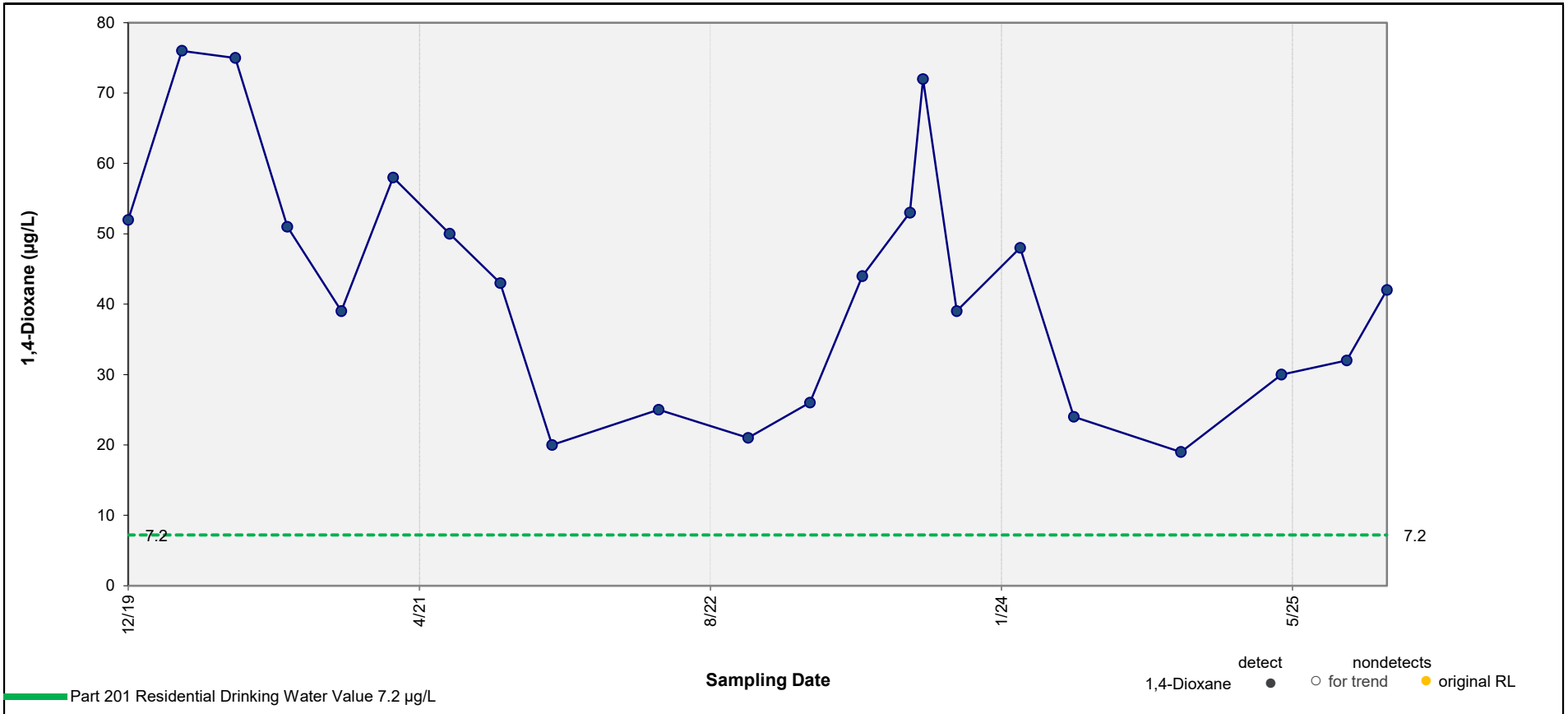
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-19-120

RACER Lansing

Figure E-33



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

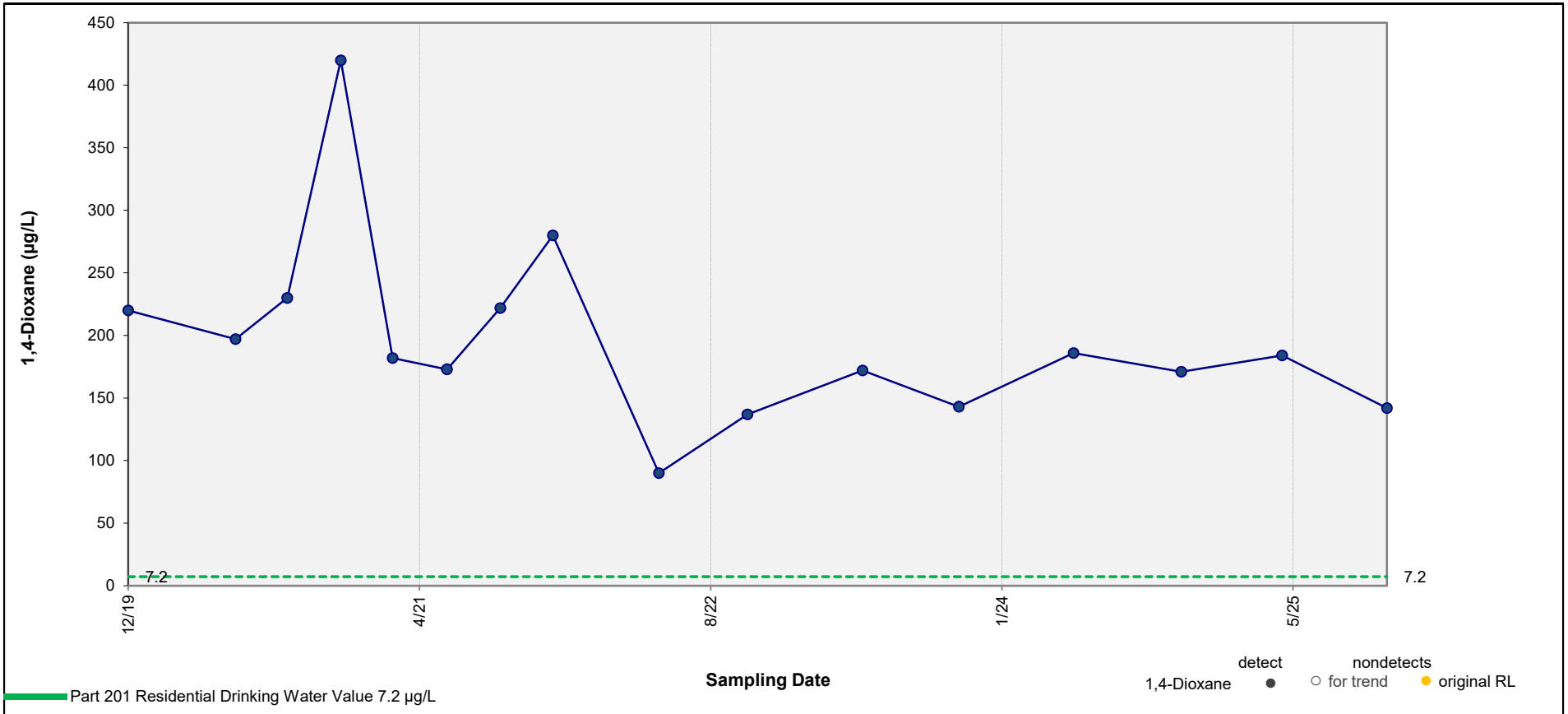
p value = 0.017 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-19-123

RACER Lansing

Figure E-35



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

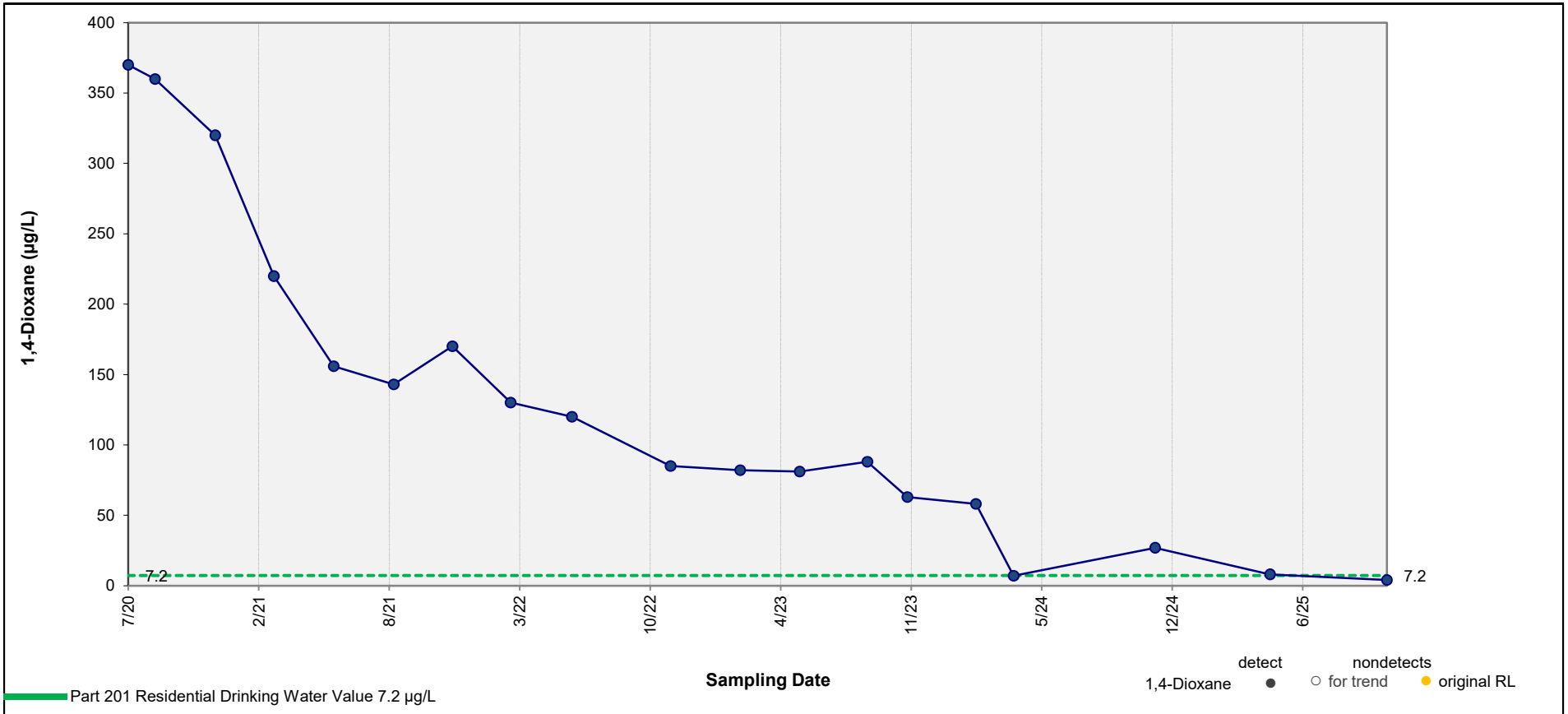
p value = 0.026 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-19-124

RACER Lansing

Figure E-36



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

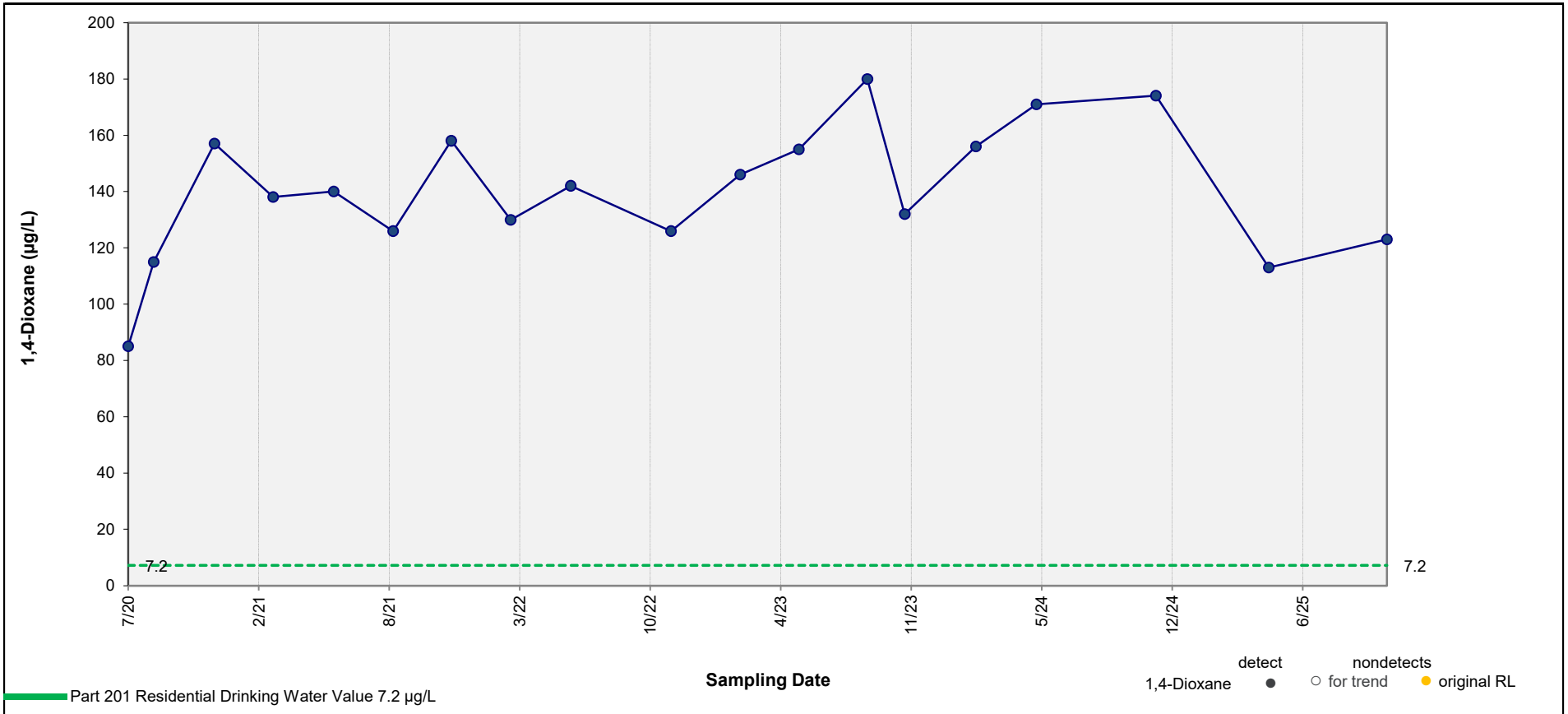
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-20-126

RACER Lansing

Figure E-37



Results of Mann-Kendall Test for Trend: **No Significant Trend**

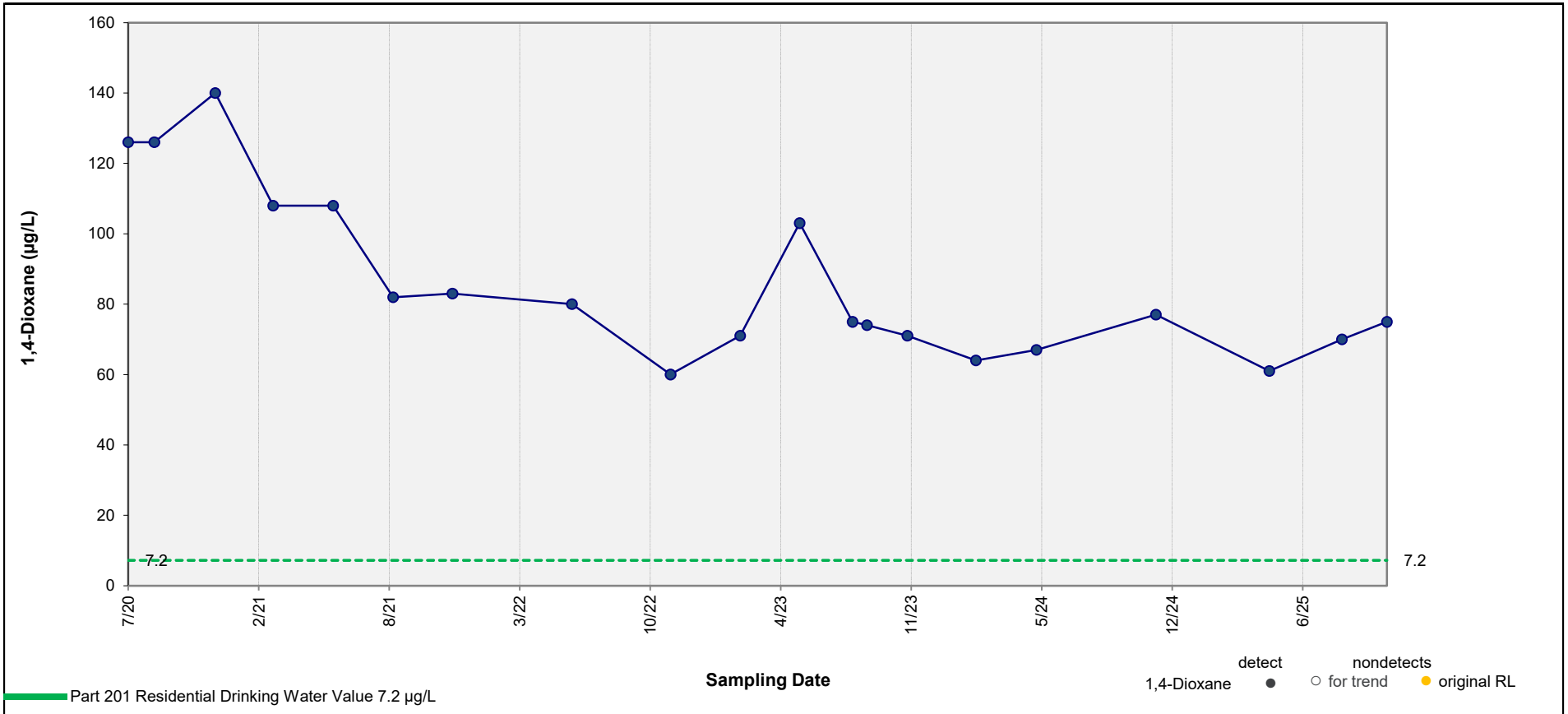
p value = 0.086 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-20-127

RACER Lansing

Figure E-38



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

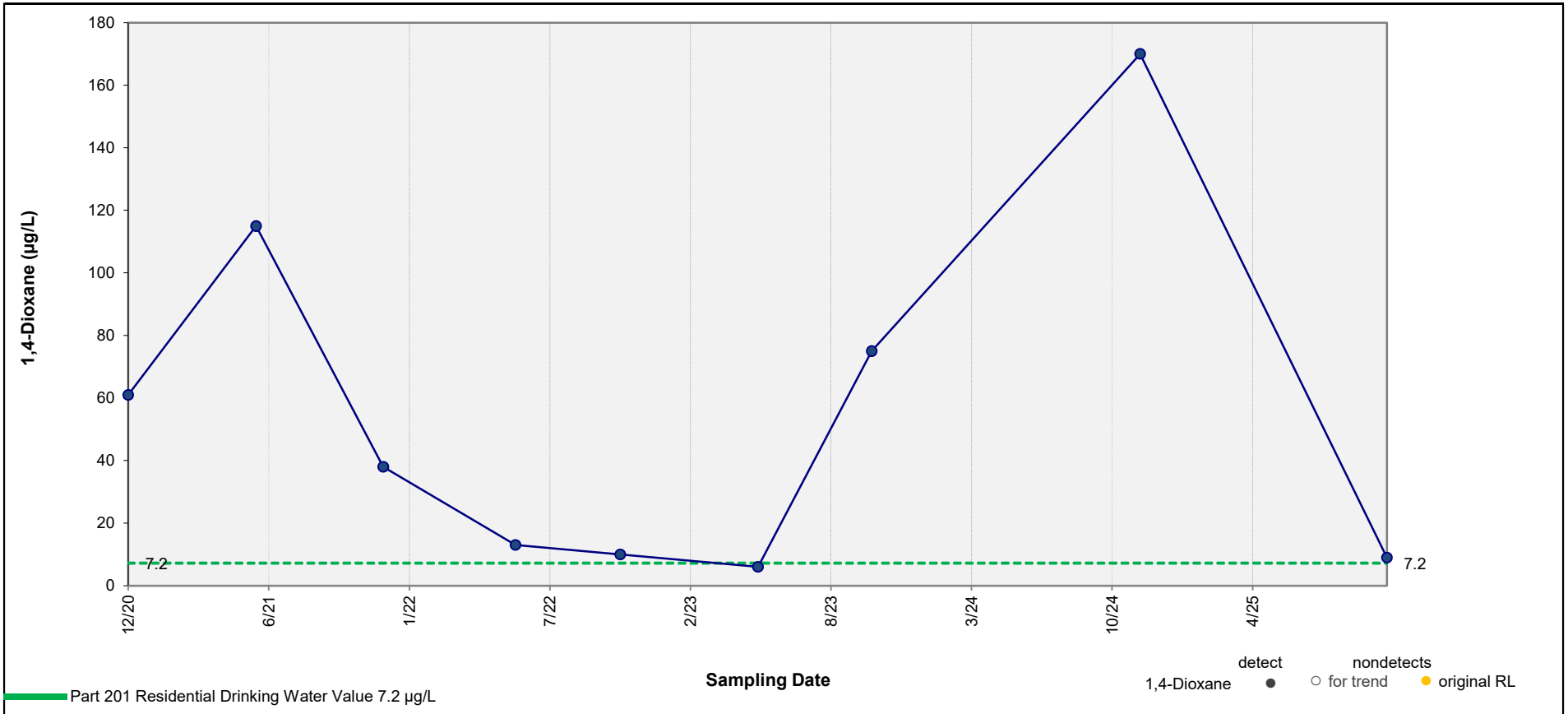
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-20-129

RACER Lansing

Figure E-39



Results of Mann-Kendall Test for Trend: **No Significant Trend**

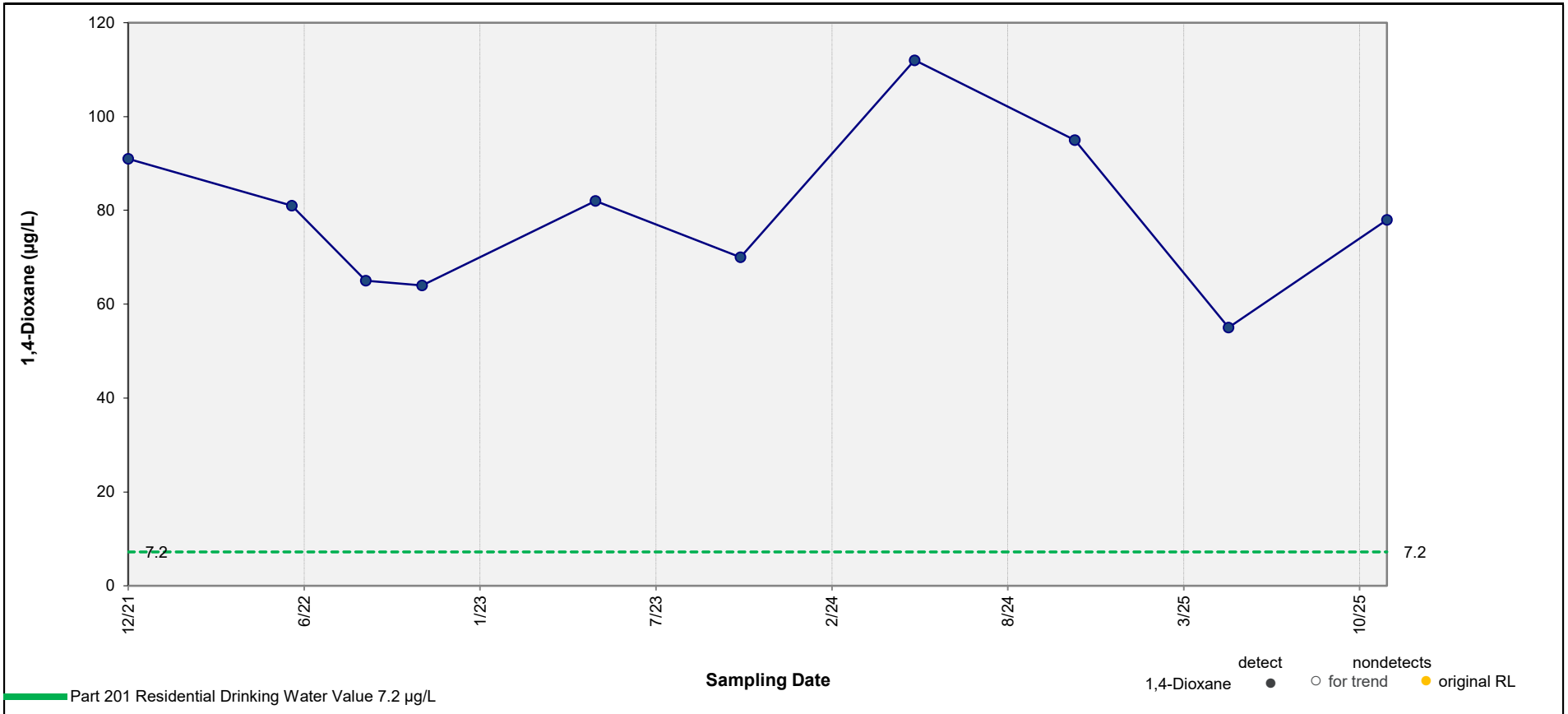
p value = 0.238 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-20-130

RACER Lansing

Figure E-40



Results of Mann-Kendall Test for Trend: **No Significant Trend**

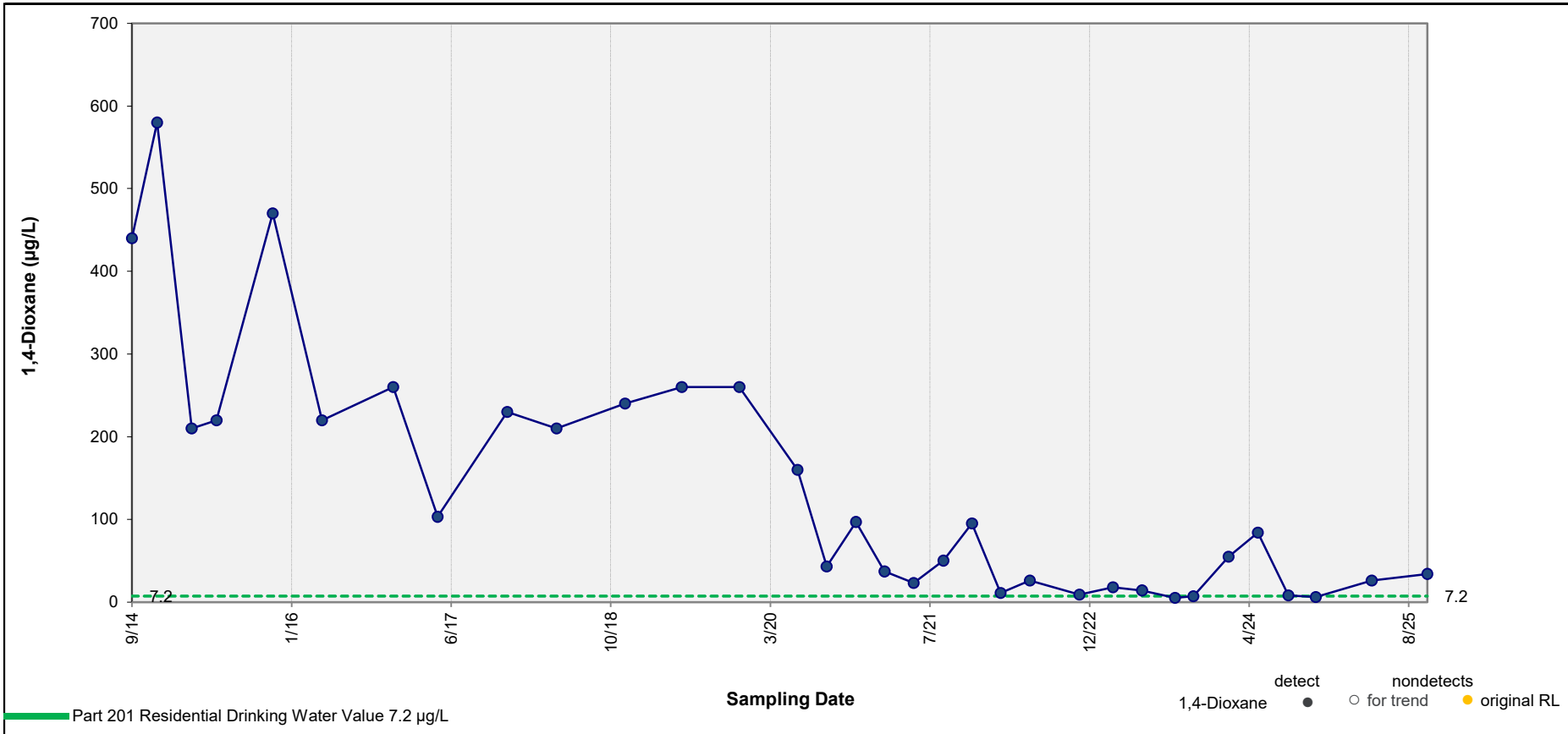
p value = 0.431 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-21-142

RACER Lansing

Figure E-41



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

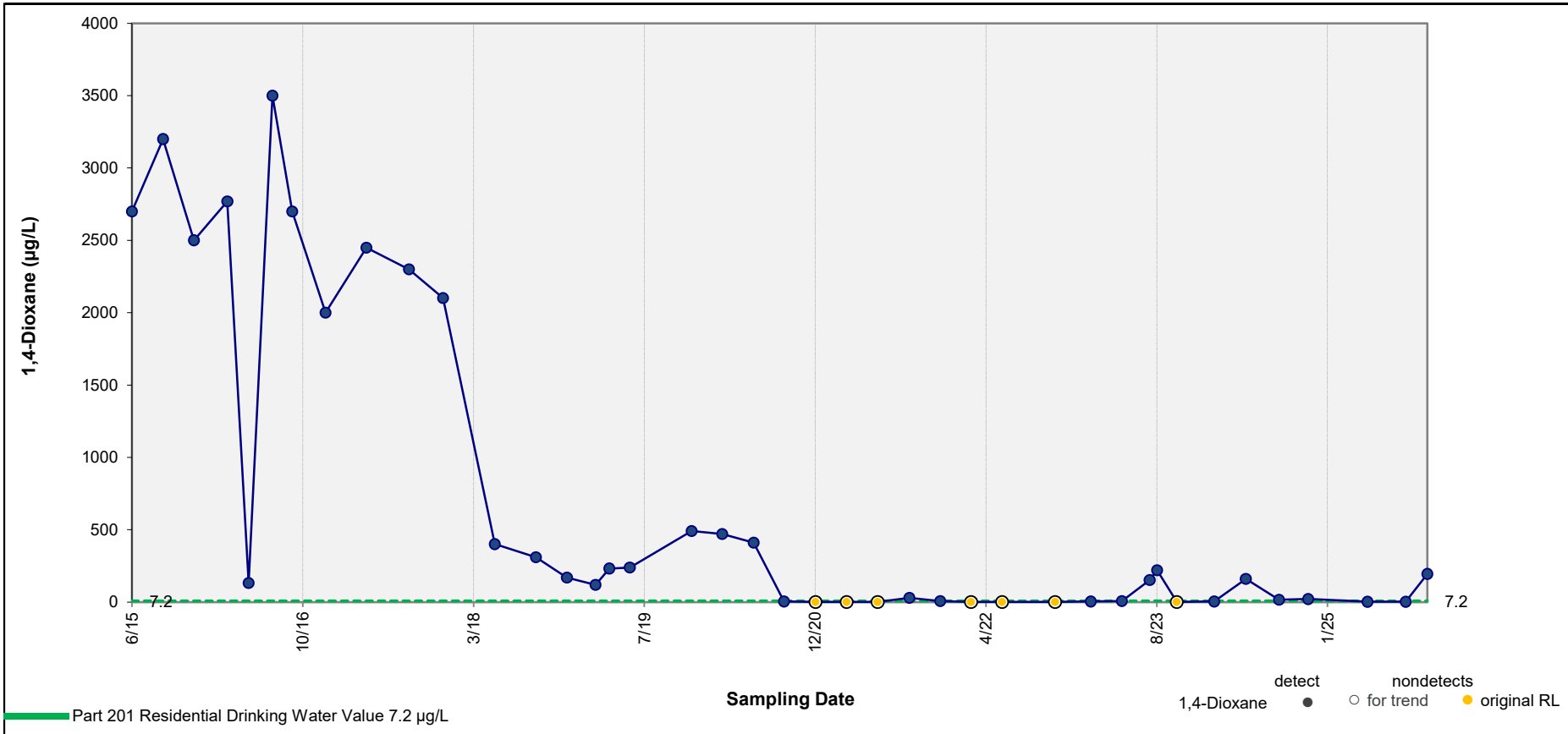
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well PW-14-02

RACER Lansing

Figure E-42



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

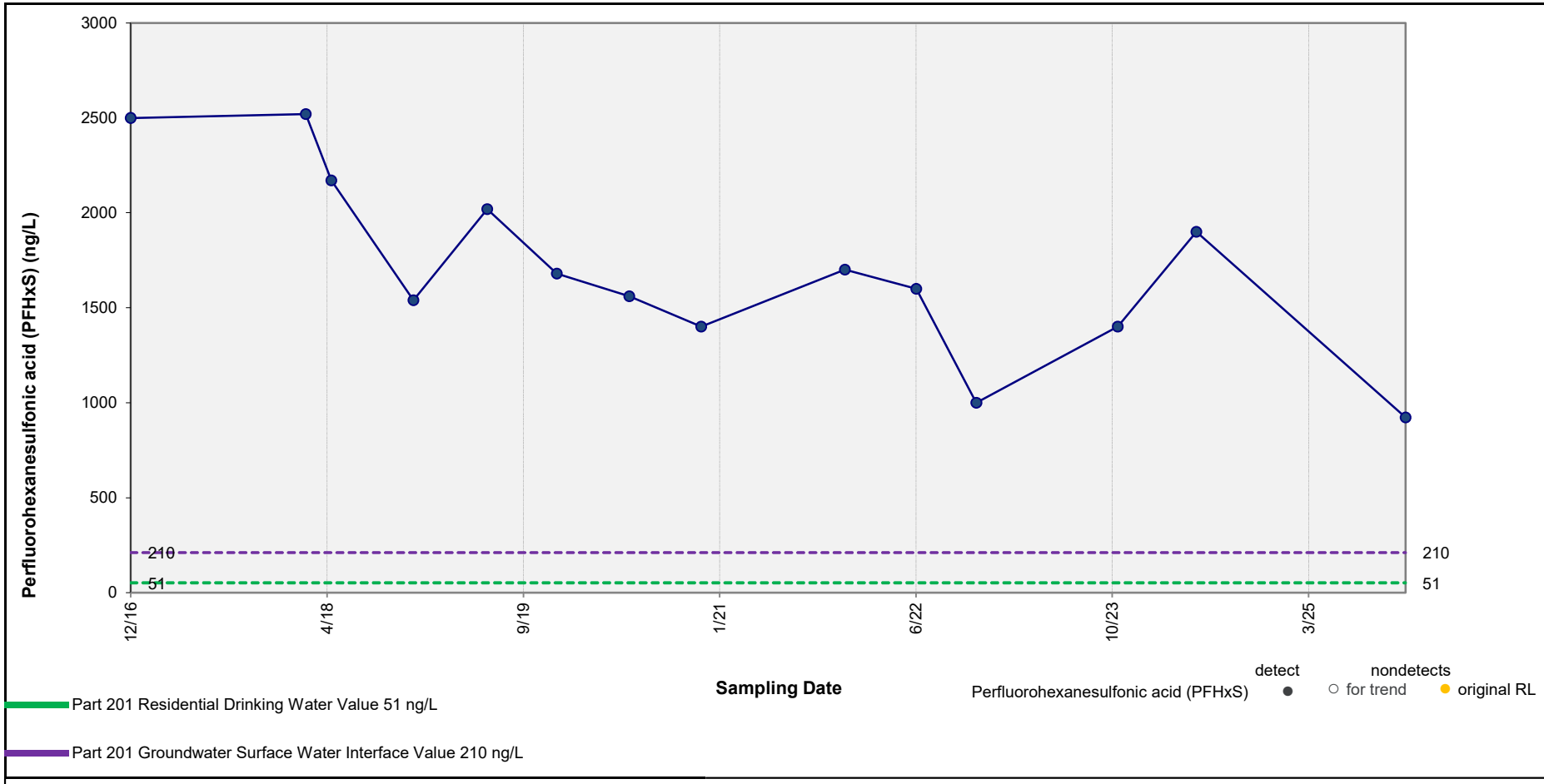
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well TW-14-02

RACER Lansing

Figure E-43



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

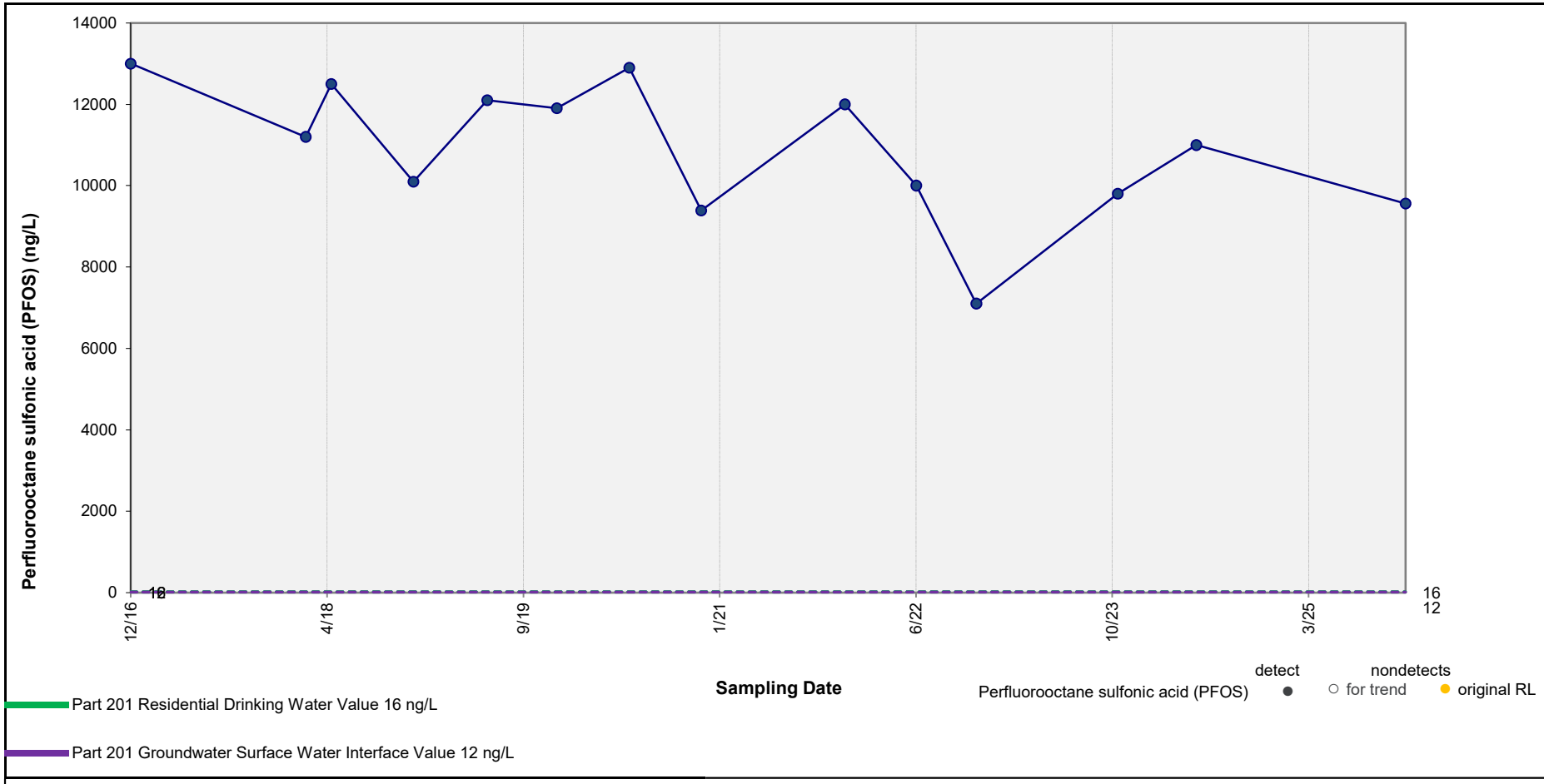
p value = 0.004 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorohexanesulfonic acid (PFHxS) in Well CH-14-RO

RACER Lansing

Figure E-44



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

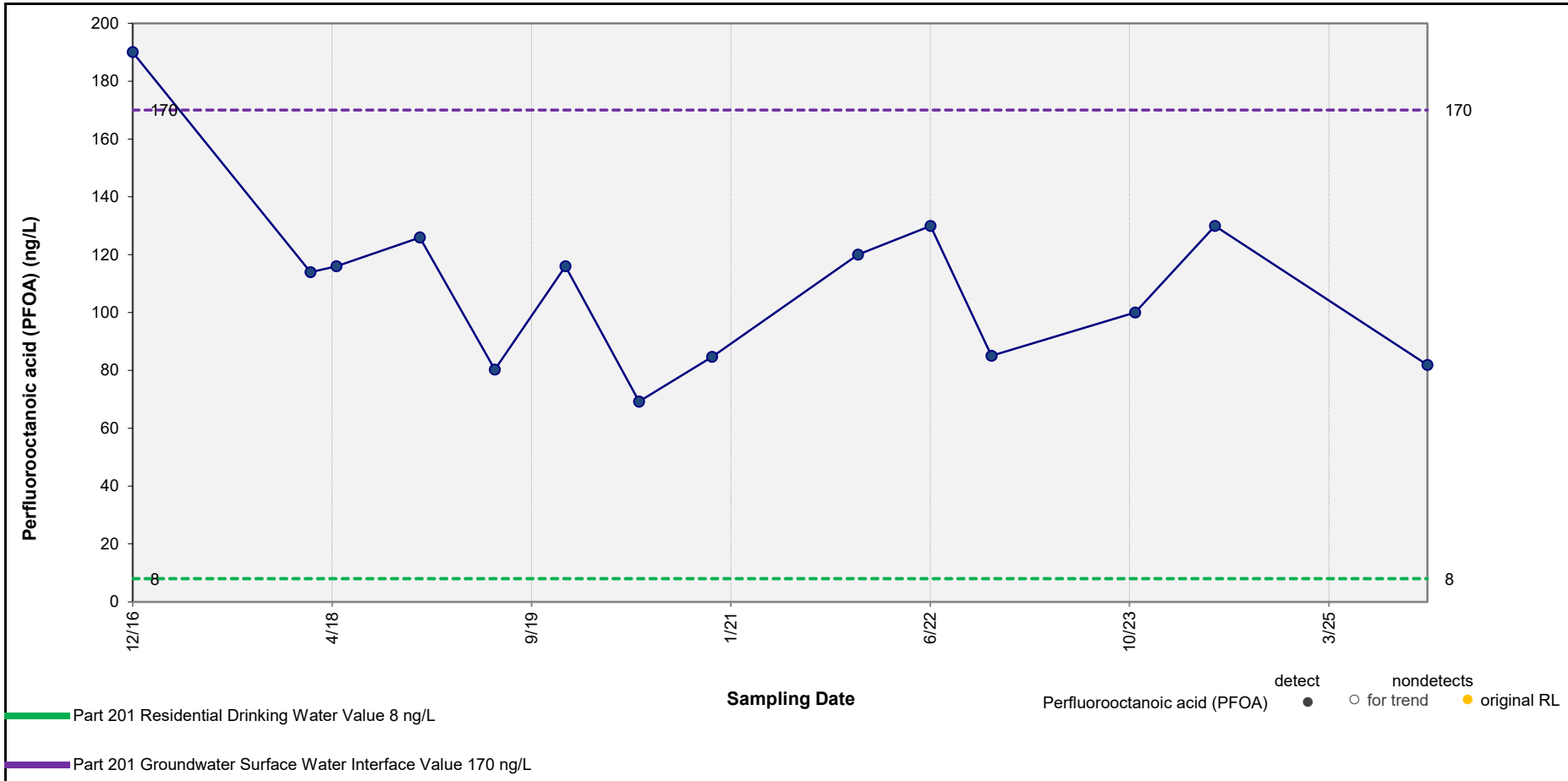
p value = 0.011 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well CH-14-RO

RACER Lansing

Figure E-45



Results of Mann-Kendall Test for Trend: **No Significant Trend**

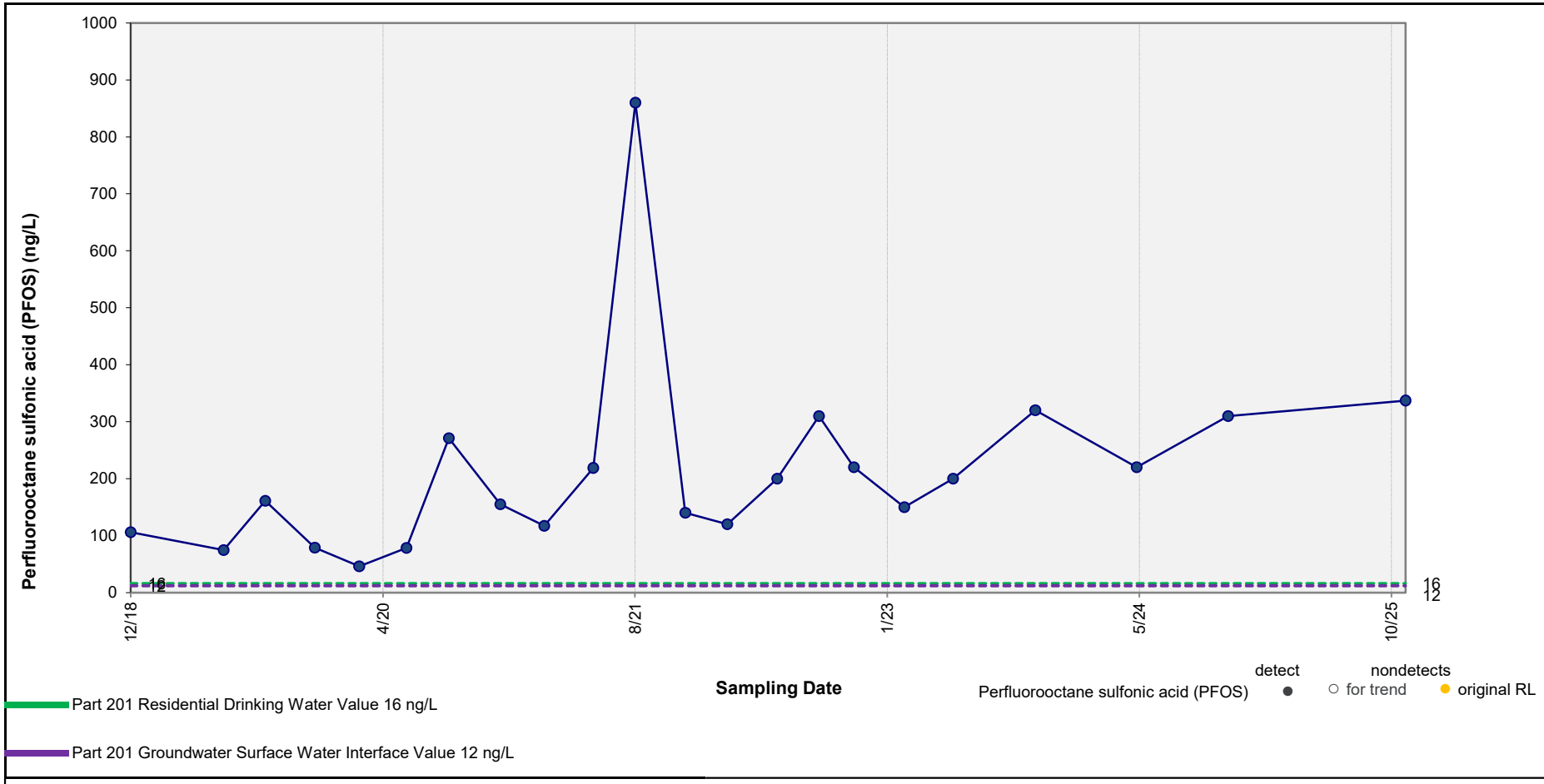
p value = 0.330 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well CH-14-RO

RACER Lansing

Figure E-46



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

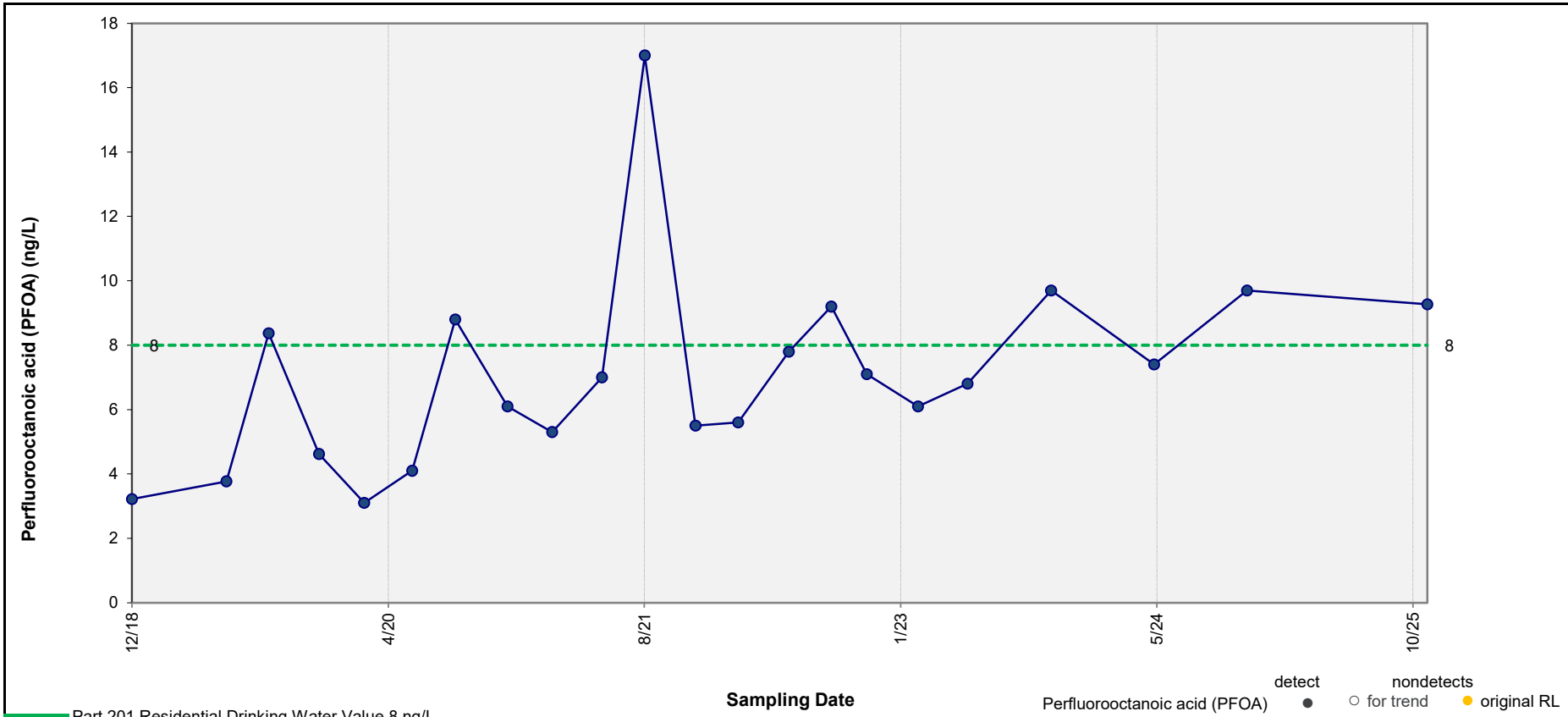
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-88

RACER Lansing

Figure E-47



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

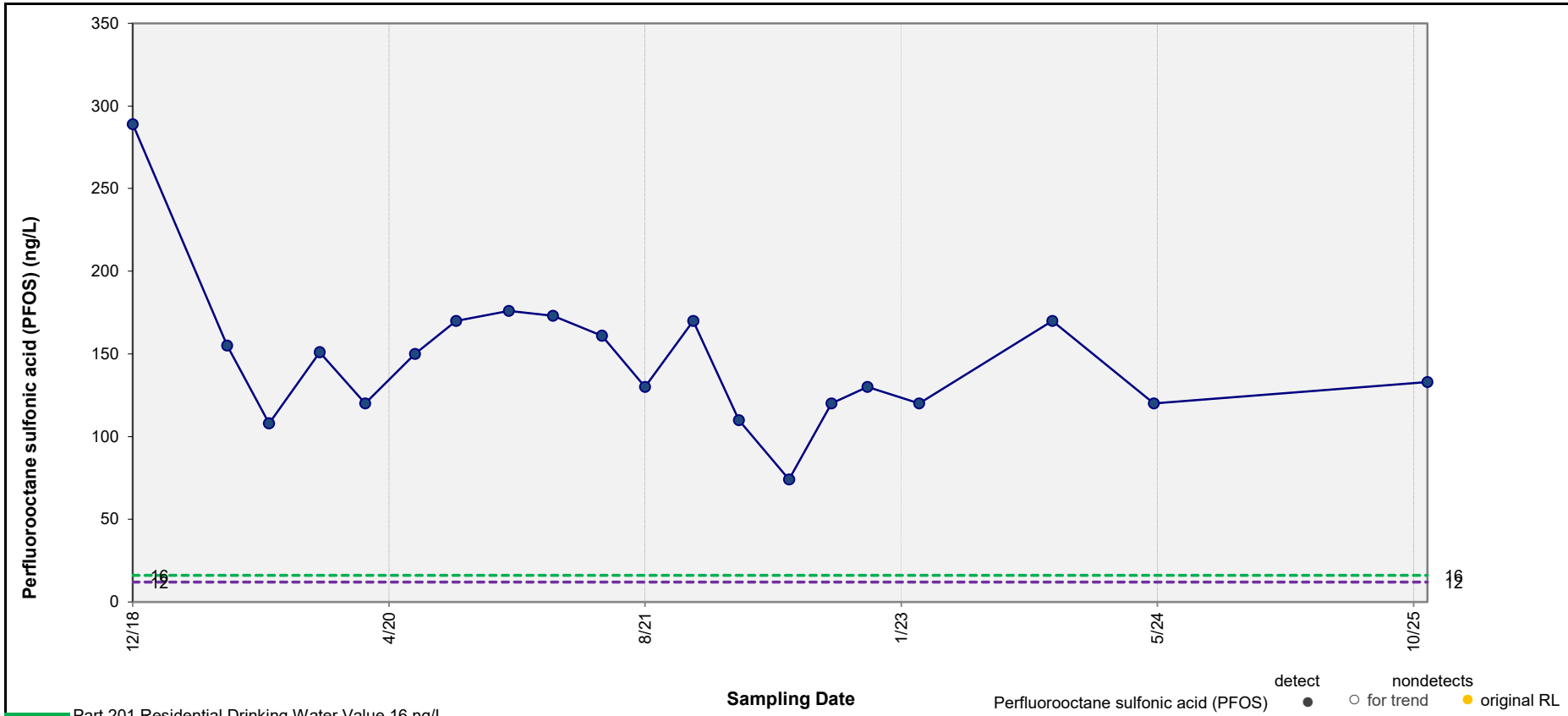
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-18-88

RACER Lansing

Figure E-48



Results of Mann-Kendall Test for Trend: **No Significant Trend**

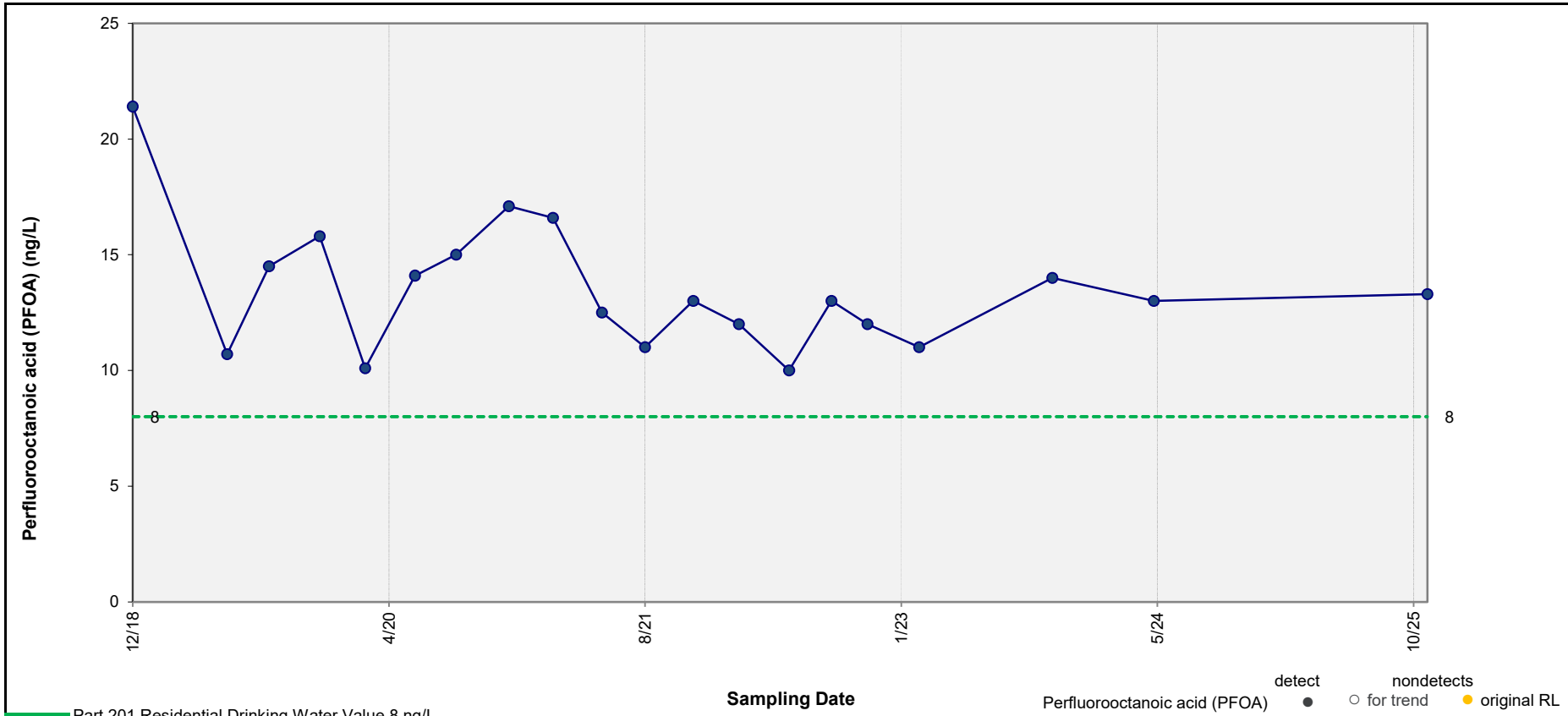
p value = 0.113 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-89

RACER Lansing

Figure E-49



Results of Mann-Kendall Test for Trend: **No Significant Trend**

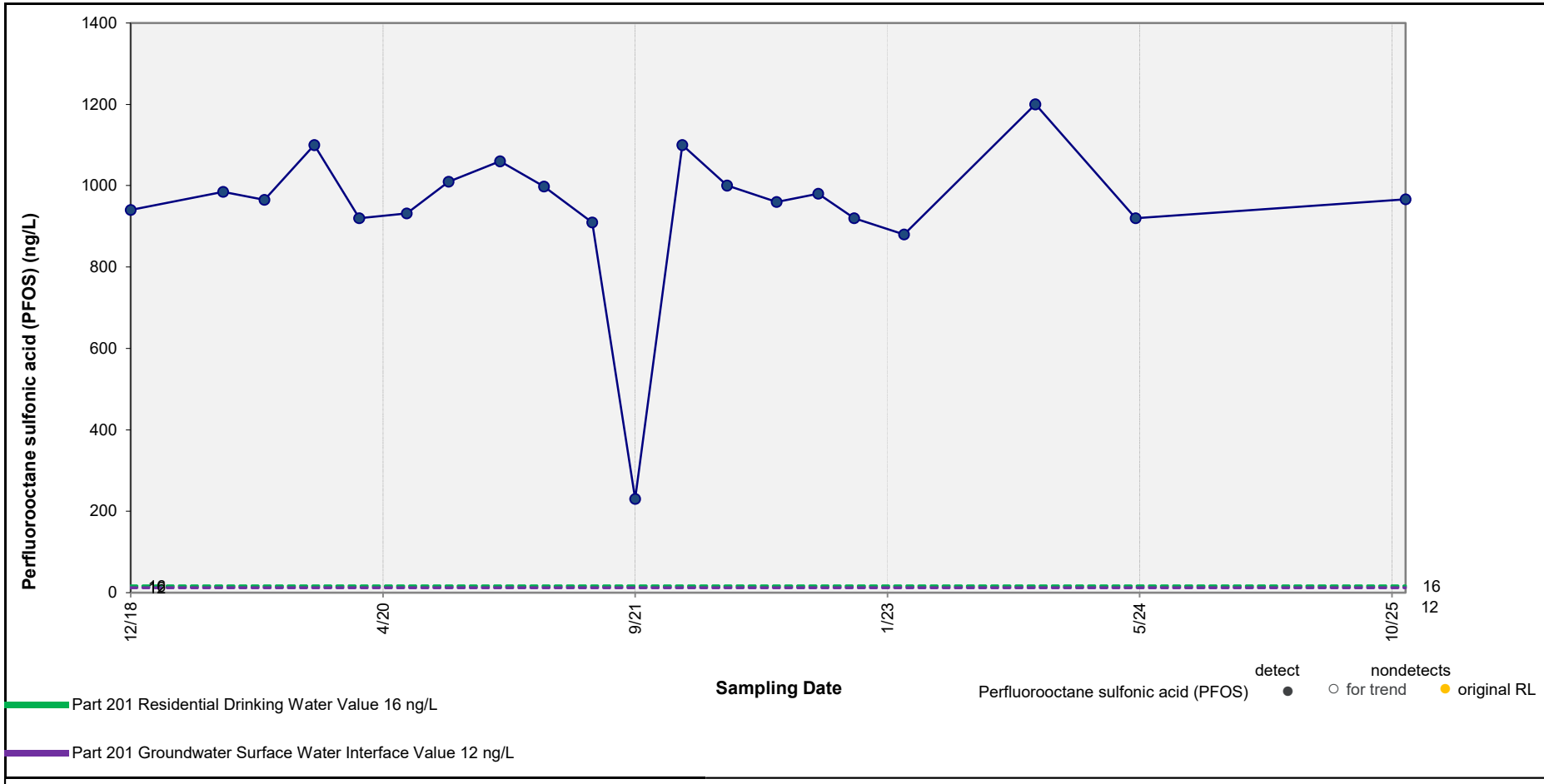
p value = 0.121 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-18-89

RACER Lansing

Figure E-50



Results of Mann-Kendall Test for Trend: **No Significant Trend**

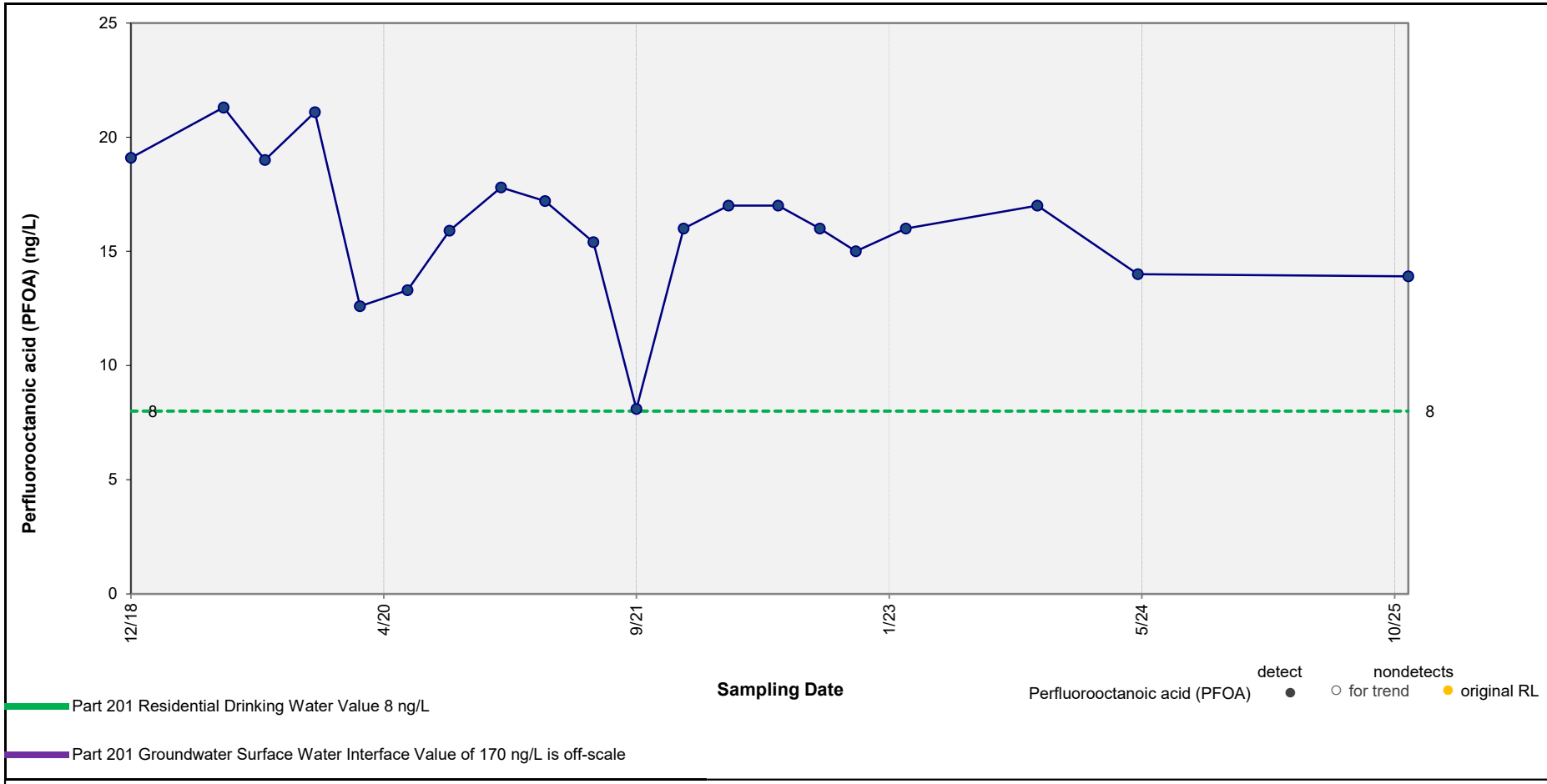
p value = 0.313 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-90

RACER Lansing

Figure E-51



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

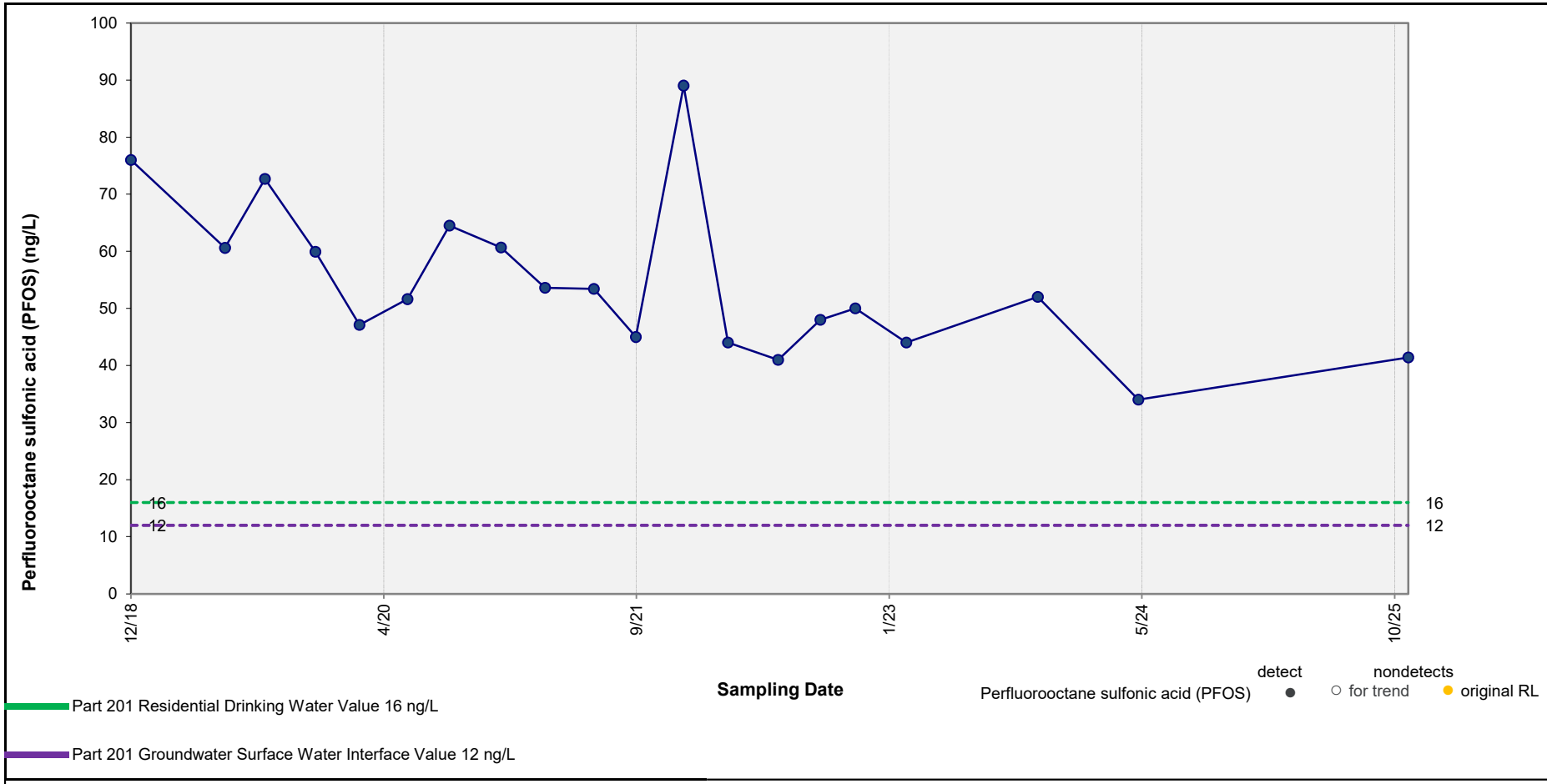
p value = 0.020 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-18-90

RACER Lansing

Figure E-52



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

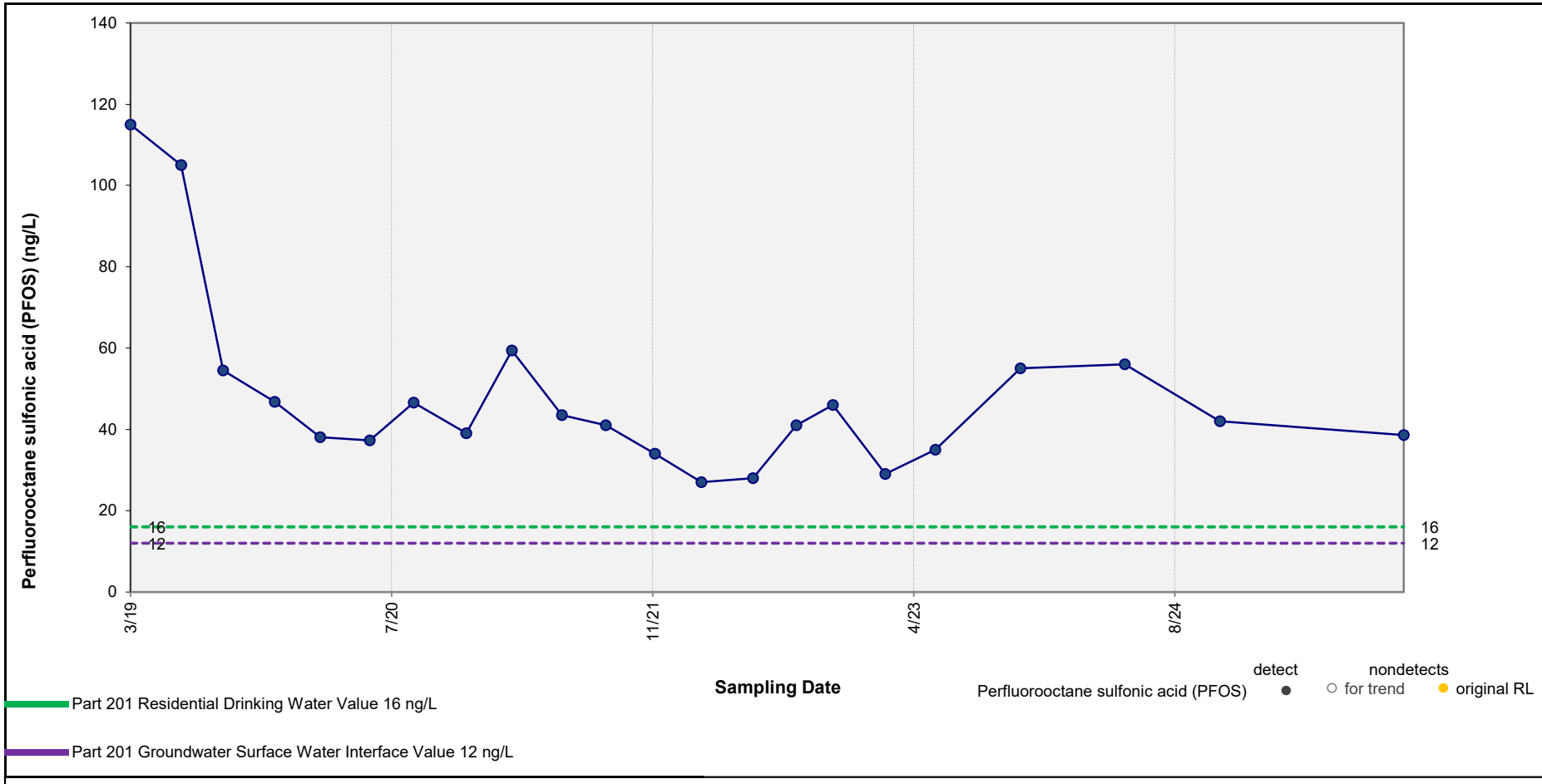
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-91

RACER Lansing

Figure E-53



Results of Mann-Kendall Test for Trend: **No Significant Trend**

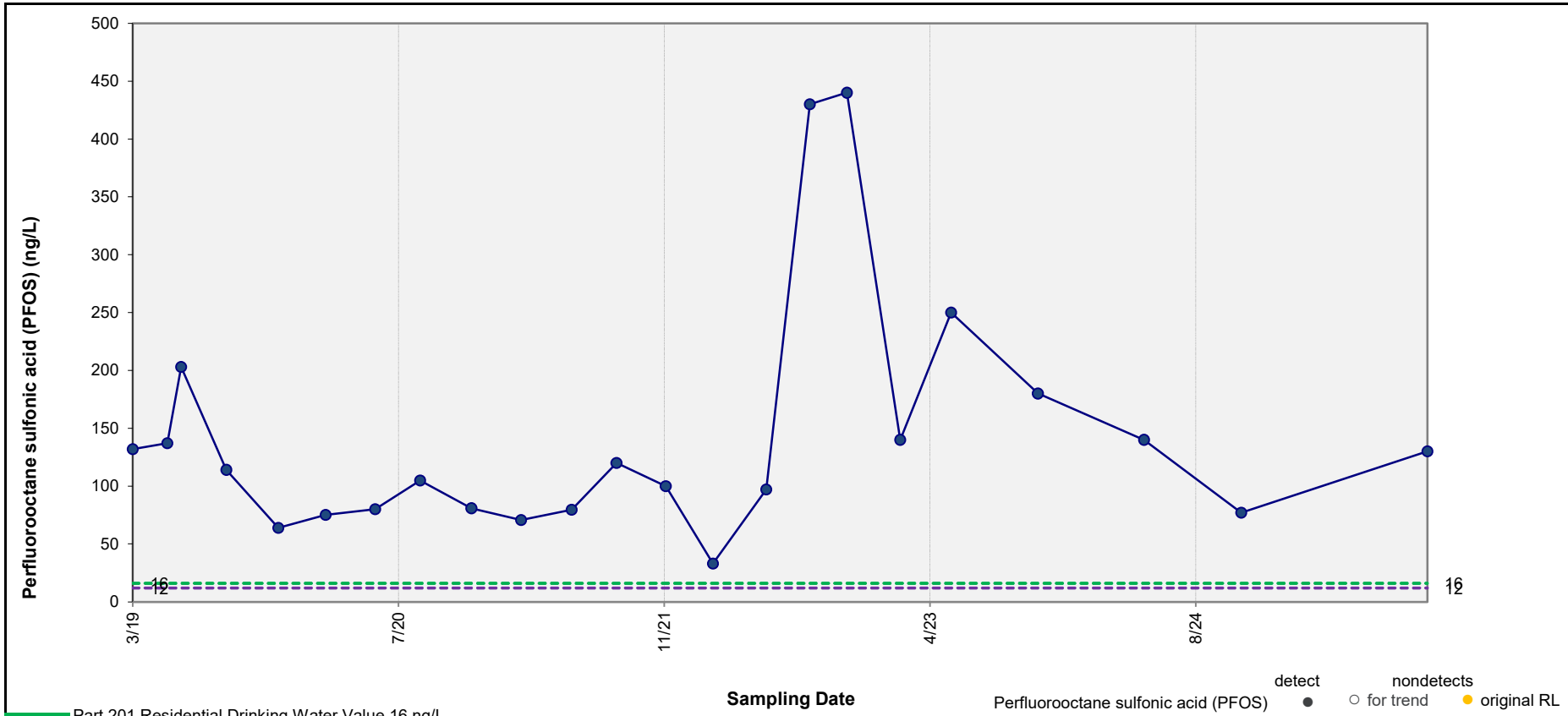
p value = 0.054 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-95

RACER Lansing

Figure E-54



Results of Mann-Kendall Test for Trend: **No Significant Trend**

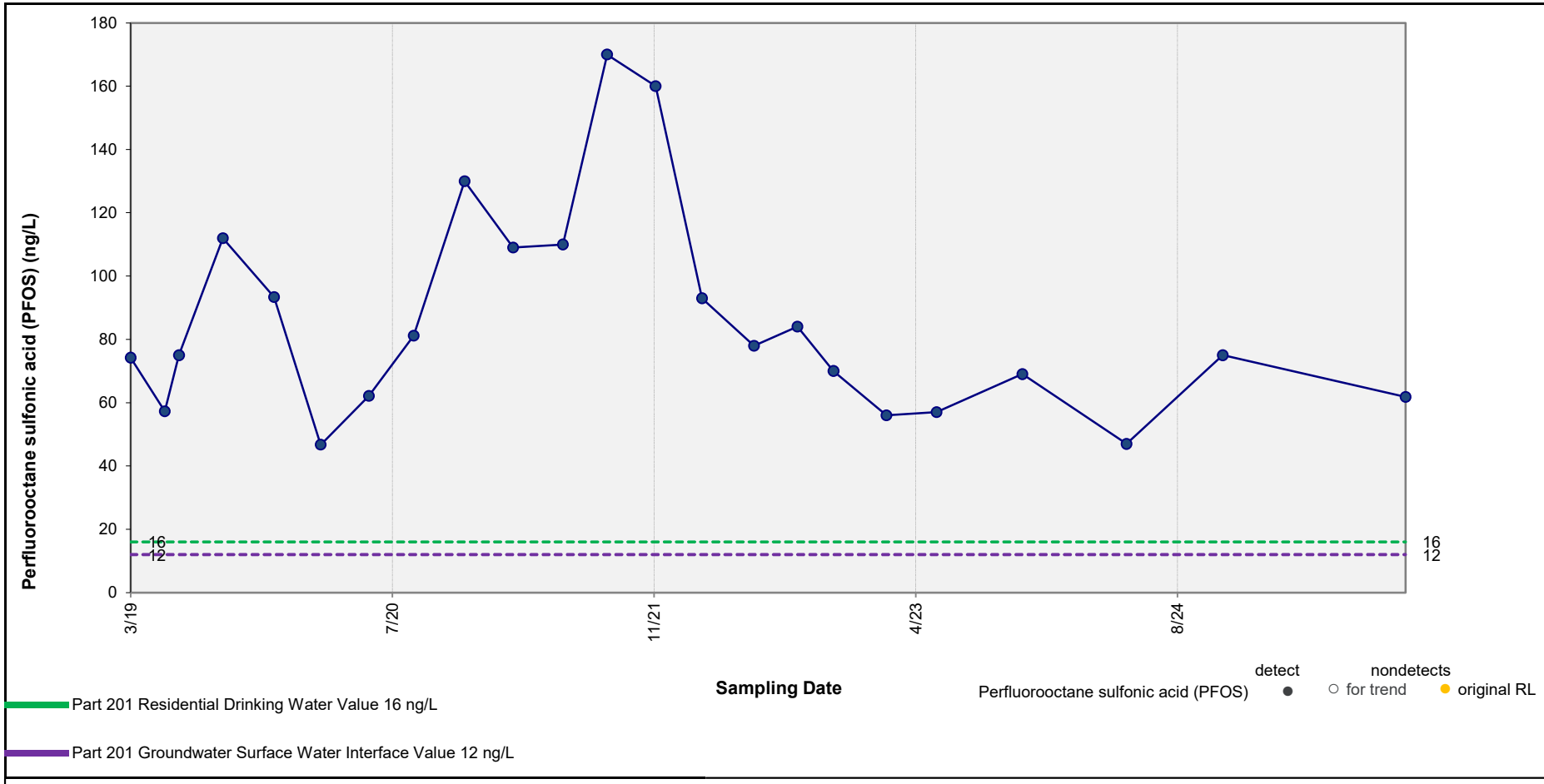
p value = 0.178 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-98

RACER Lansing

Figure E-55



Results of Mann-Kendall Test for Trend: **No Significant Trend**

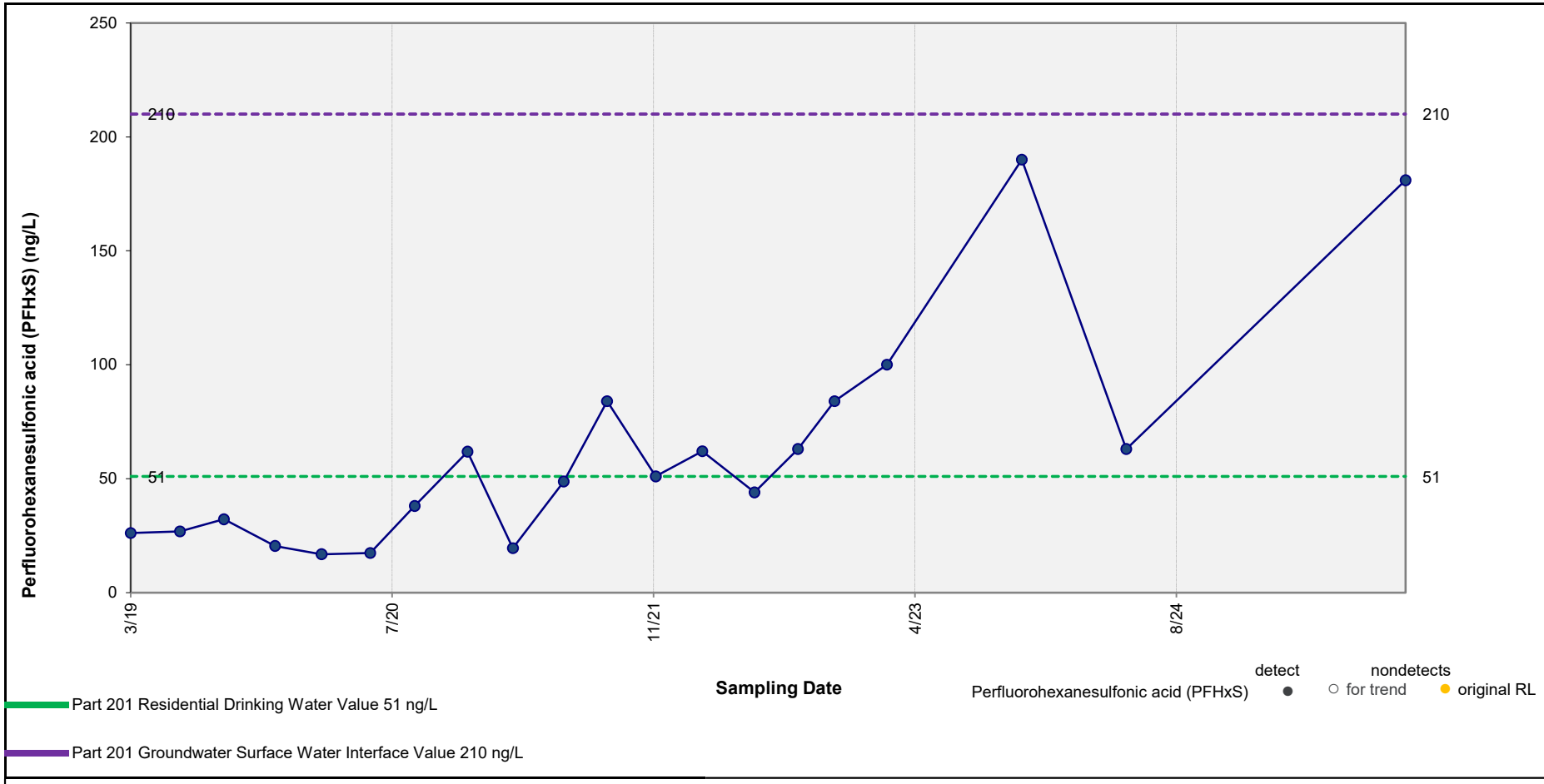
p value = 0.128 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-18-99

RACER Lansing

Figure E-56



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

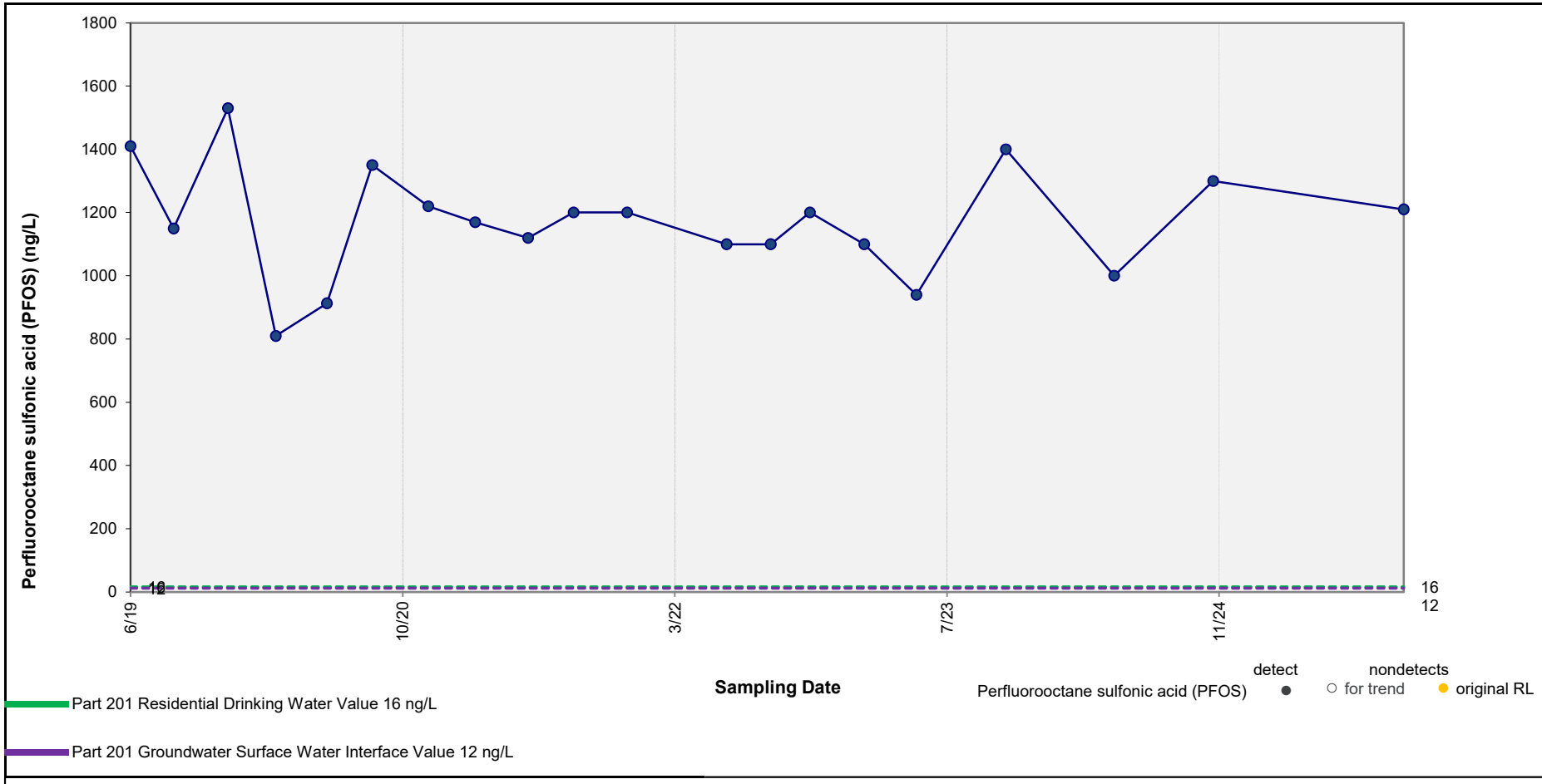
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorohexanesulfonic acid (PFHxS) in Well MW-18-103

RACER Lansing

Figure E-57



Results of Mann-Kendall Test for Trend: **No Significant Trend**

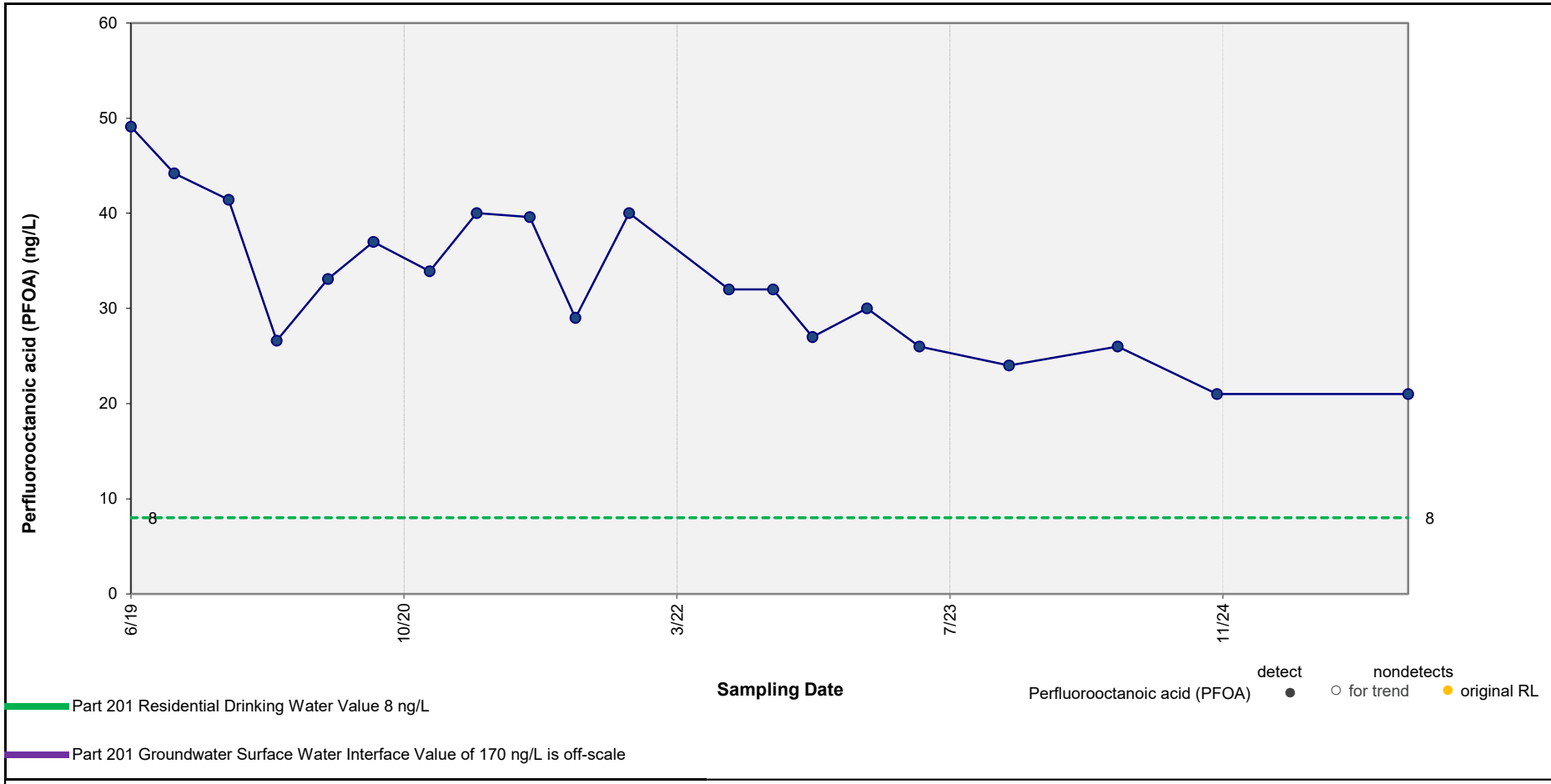
p value = 0.290 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well UNK-15

RACER Lansing

Figure E-58



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

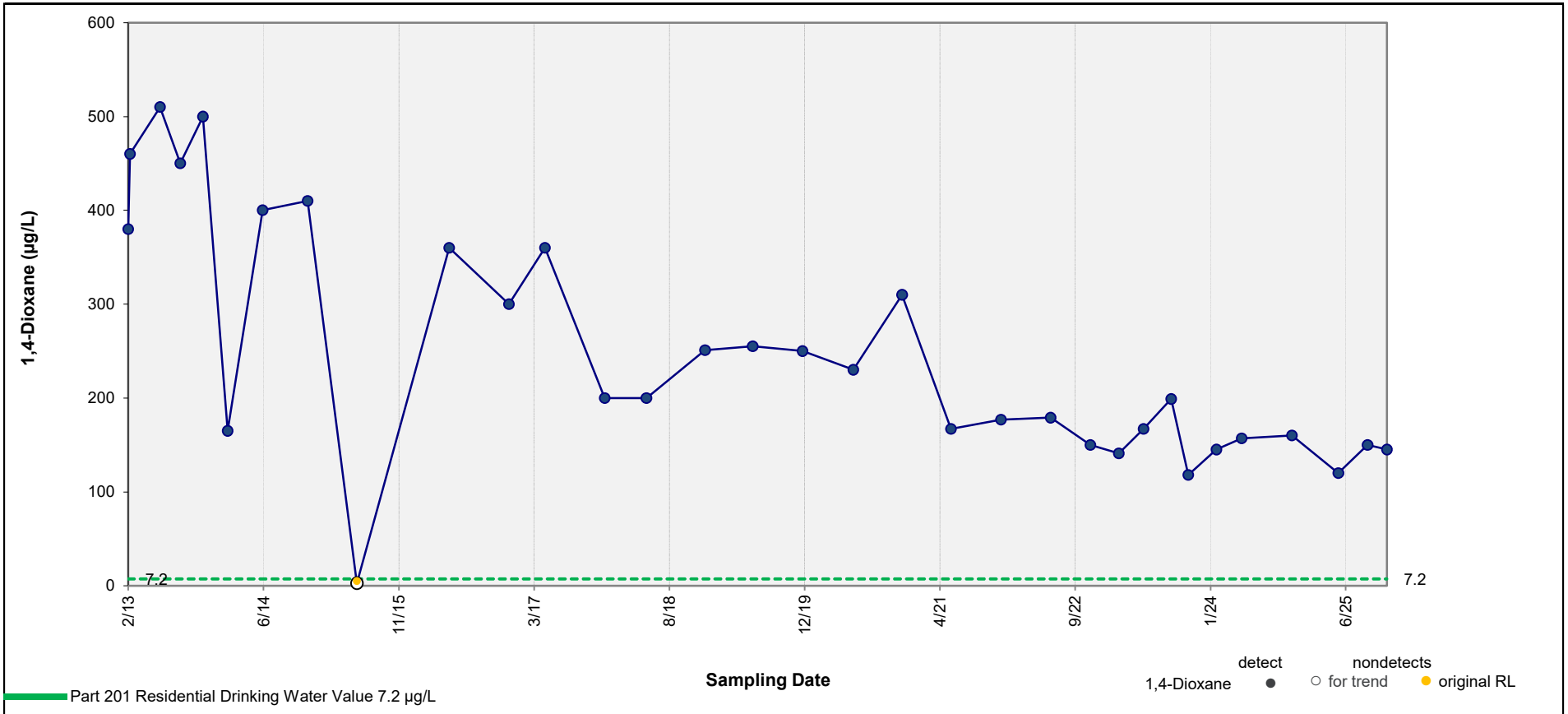
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well UNK-15

RACER Lansing

Figure E-59



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

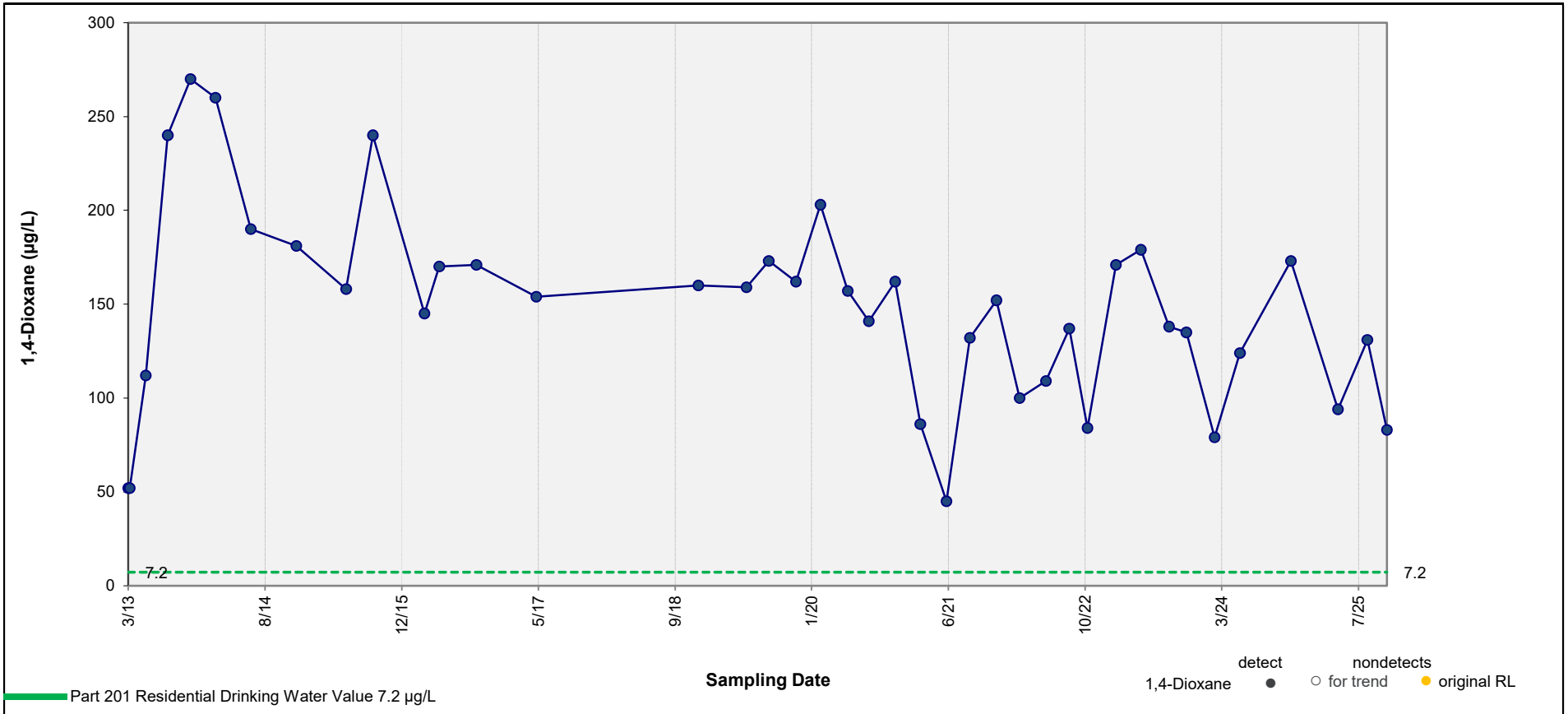
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-12-21

RACER Lansing

Figure E-60



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

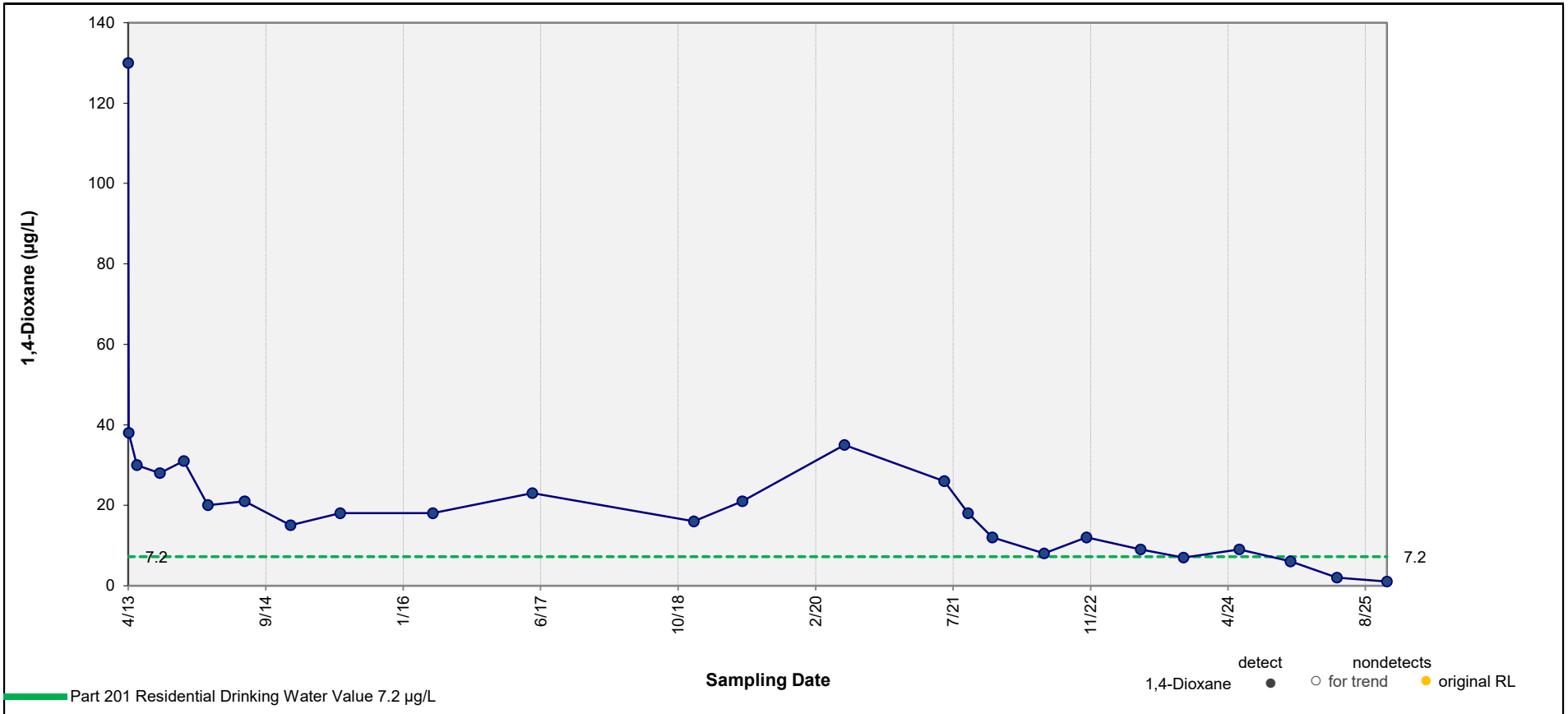
p value = 0.003 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-13-22

RACER Lansing

Figure E-61



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

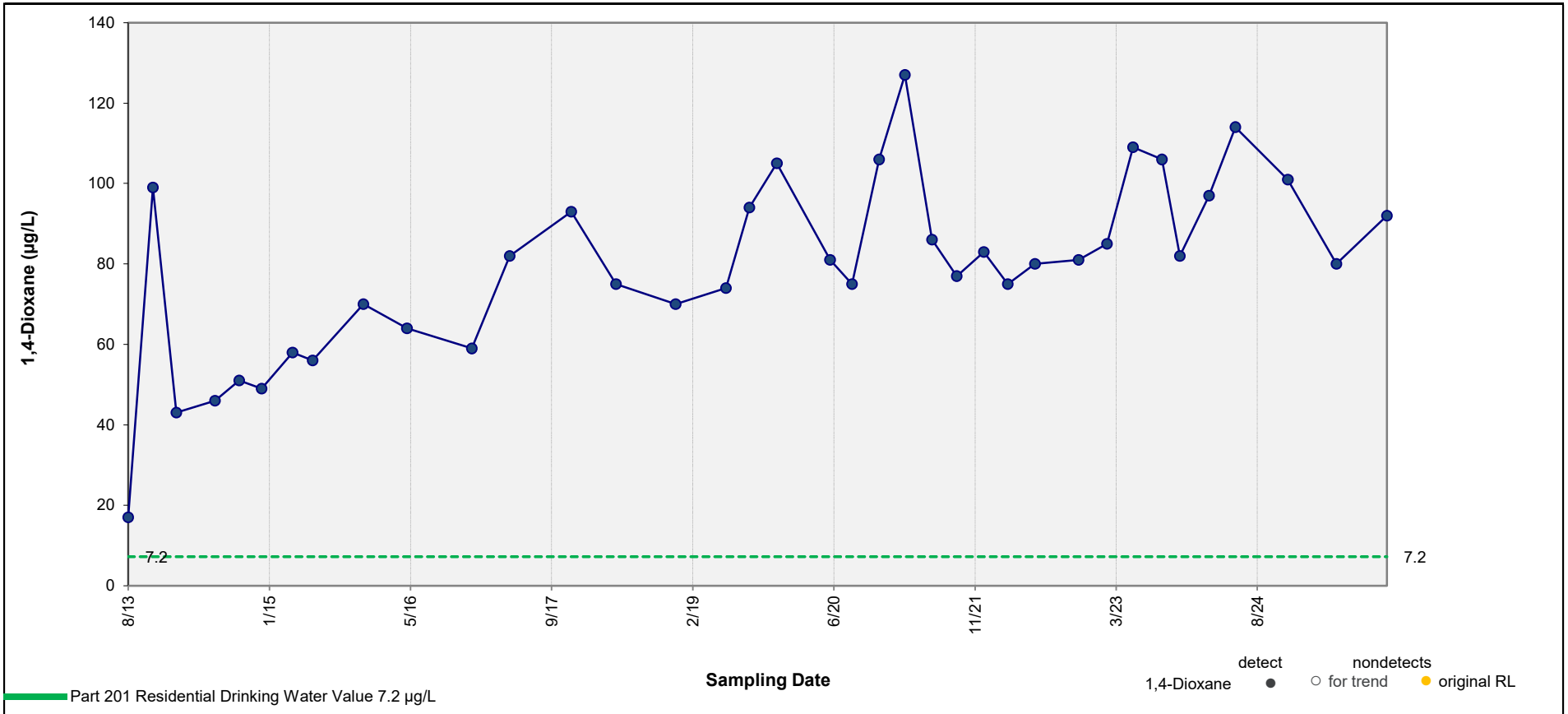
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-13-29

RACER Lansing

Figure E-62



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

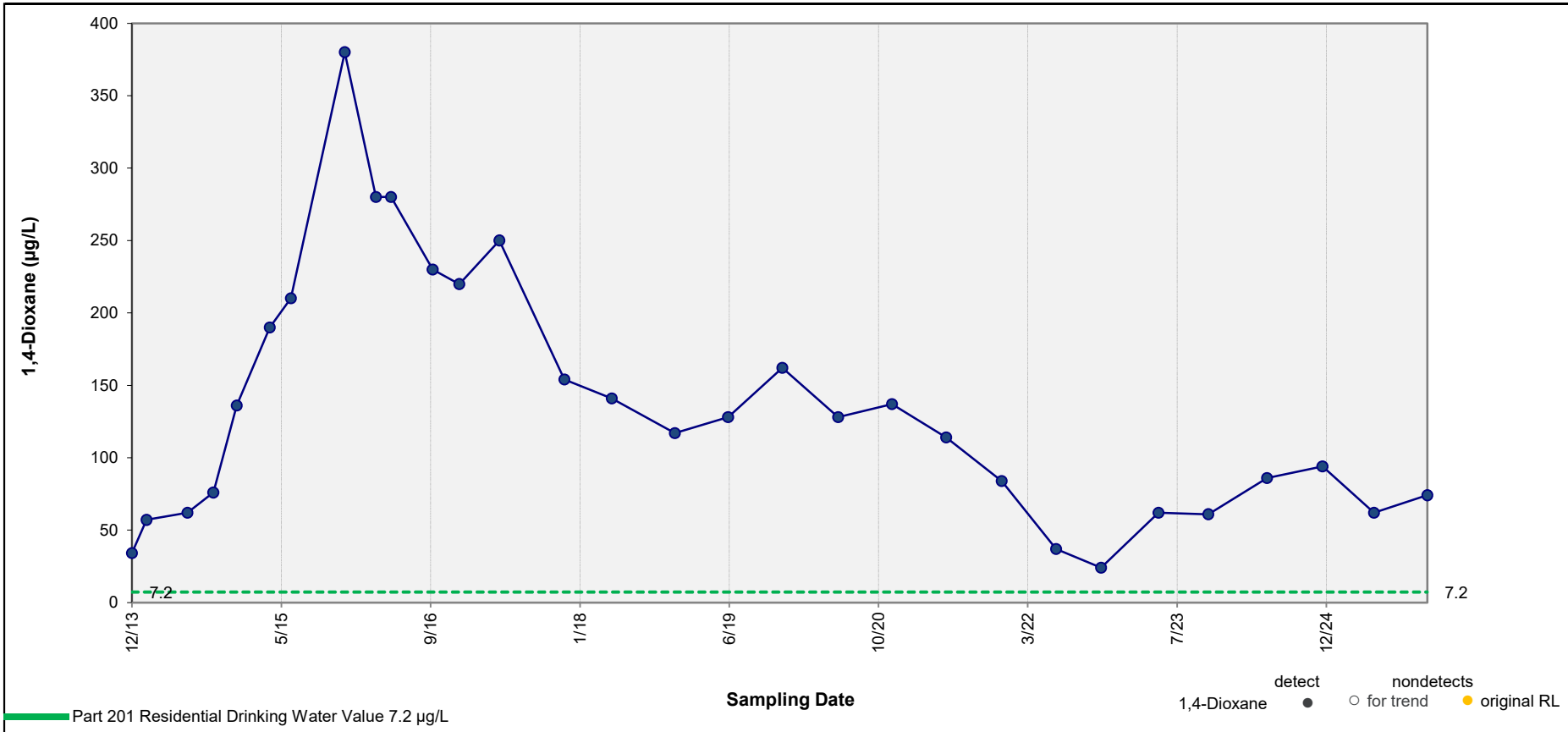
p value = <0.001 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-13-34

RACER Lansing

Figure E-63



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

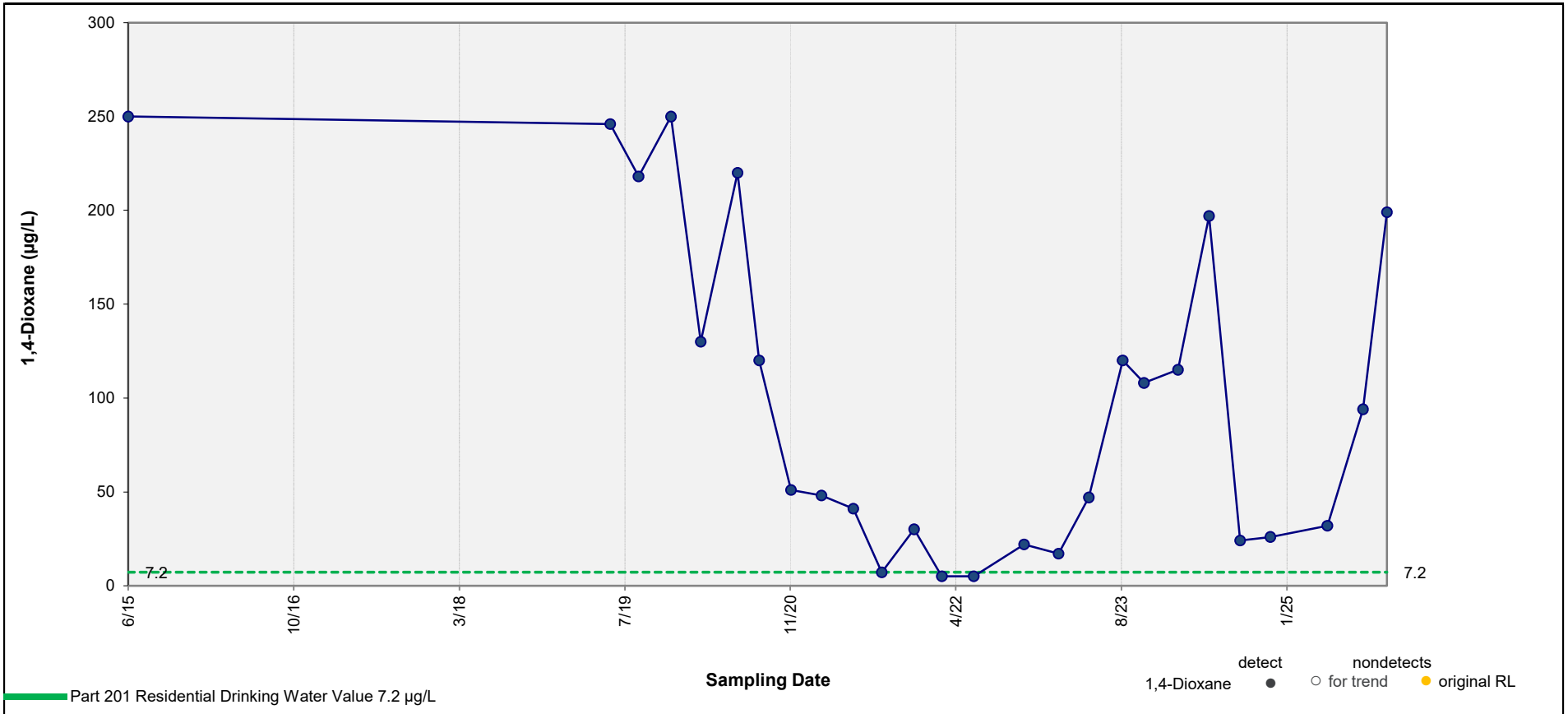
p value = 0.017 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-13-48

RACER Lansing

Figure E-64



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

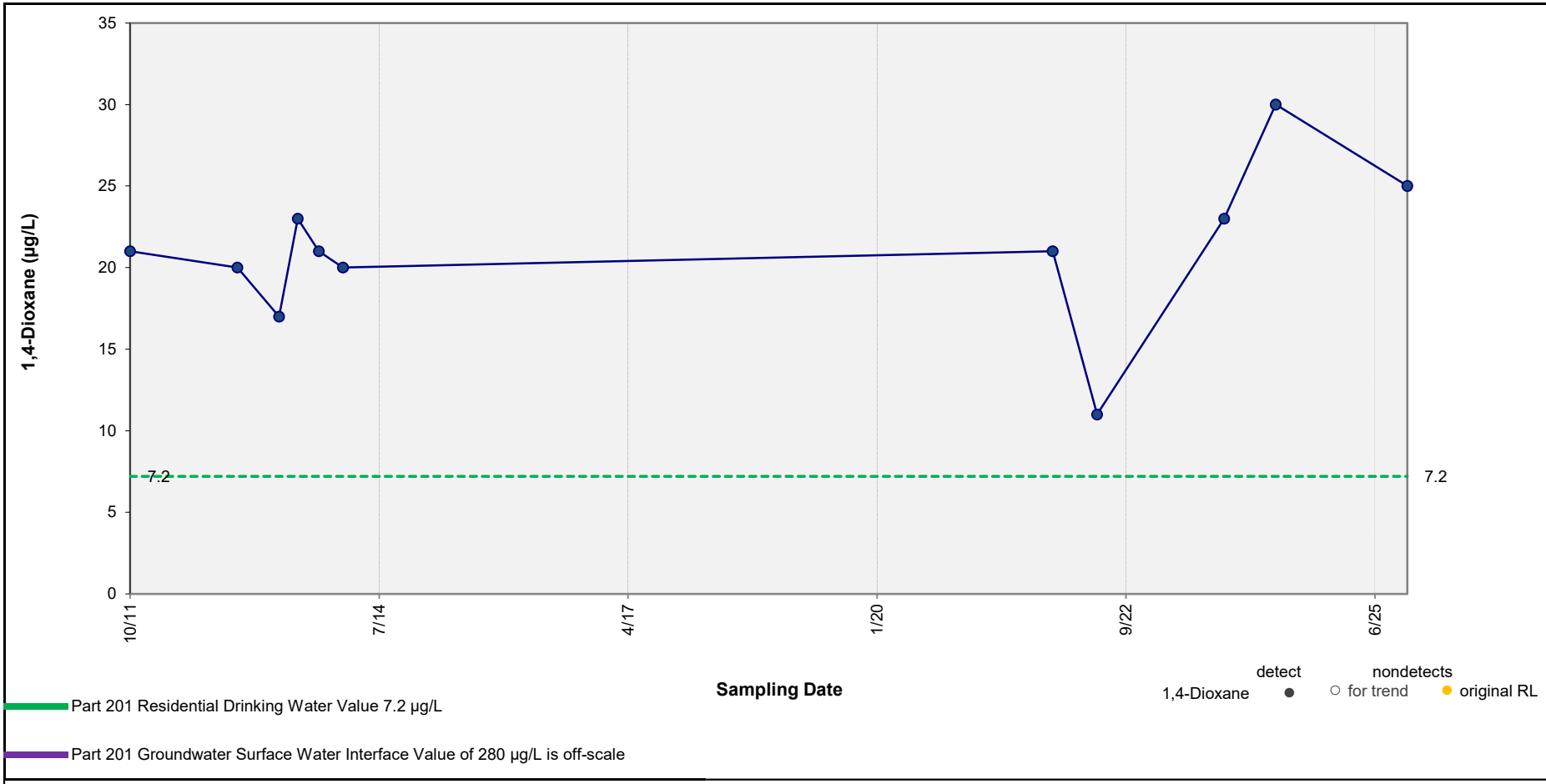
p value = 0.025 Note: p value < 0.1 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well TW-15-11

RACER Lansing

Figure E-65



Results of Mann-Kendall Test for Trend: **No Significant Trend**

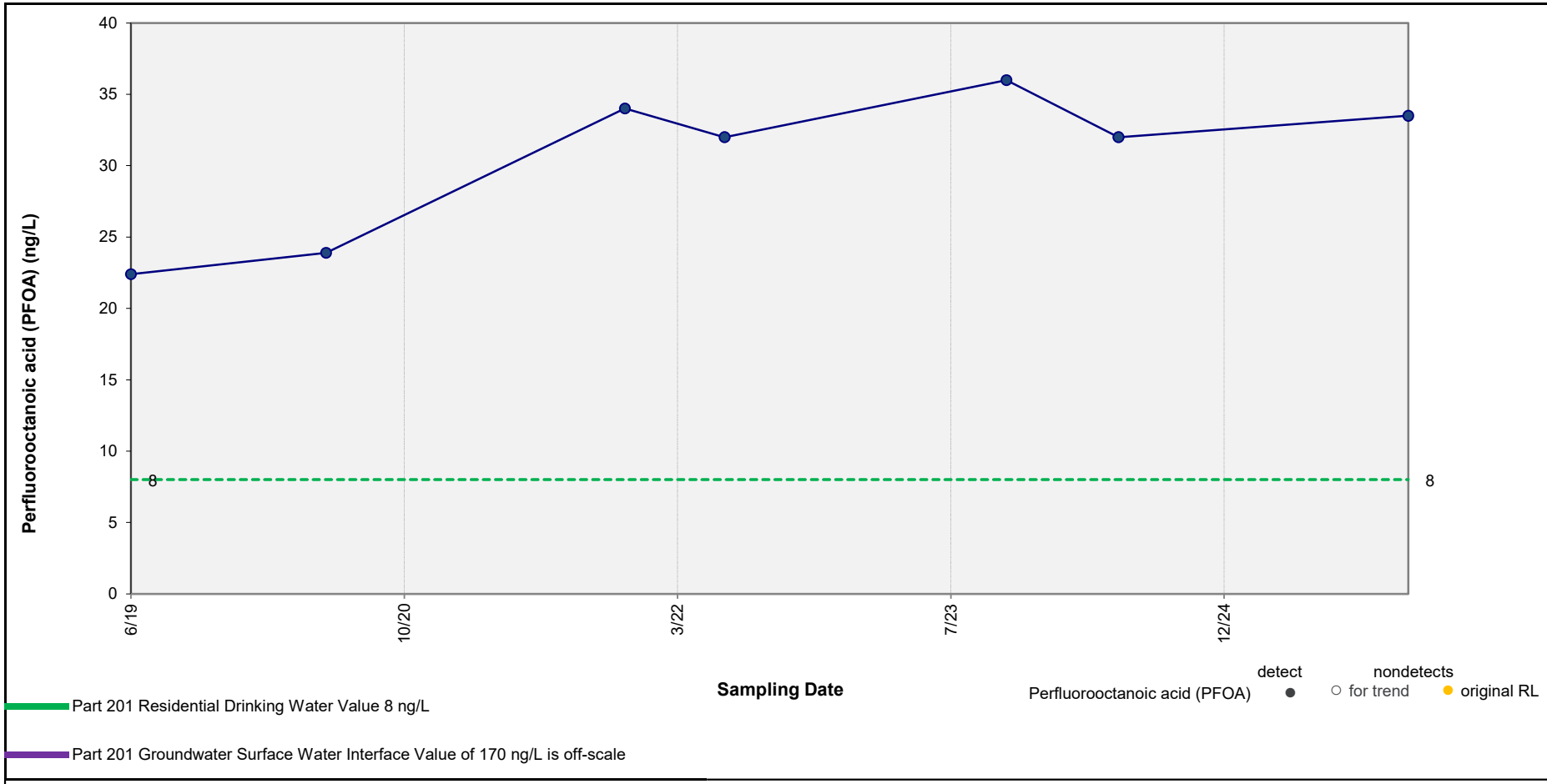
p value = 0.089 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – 1,4-Dioxane in Well MW-02-02(6)

RACER Lansing

Figure E-66



Results of Mann-Kendall Test for Trend: **No Significant Trend**

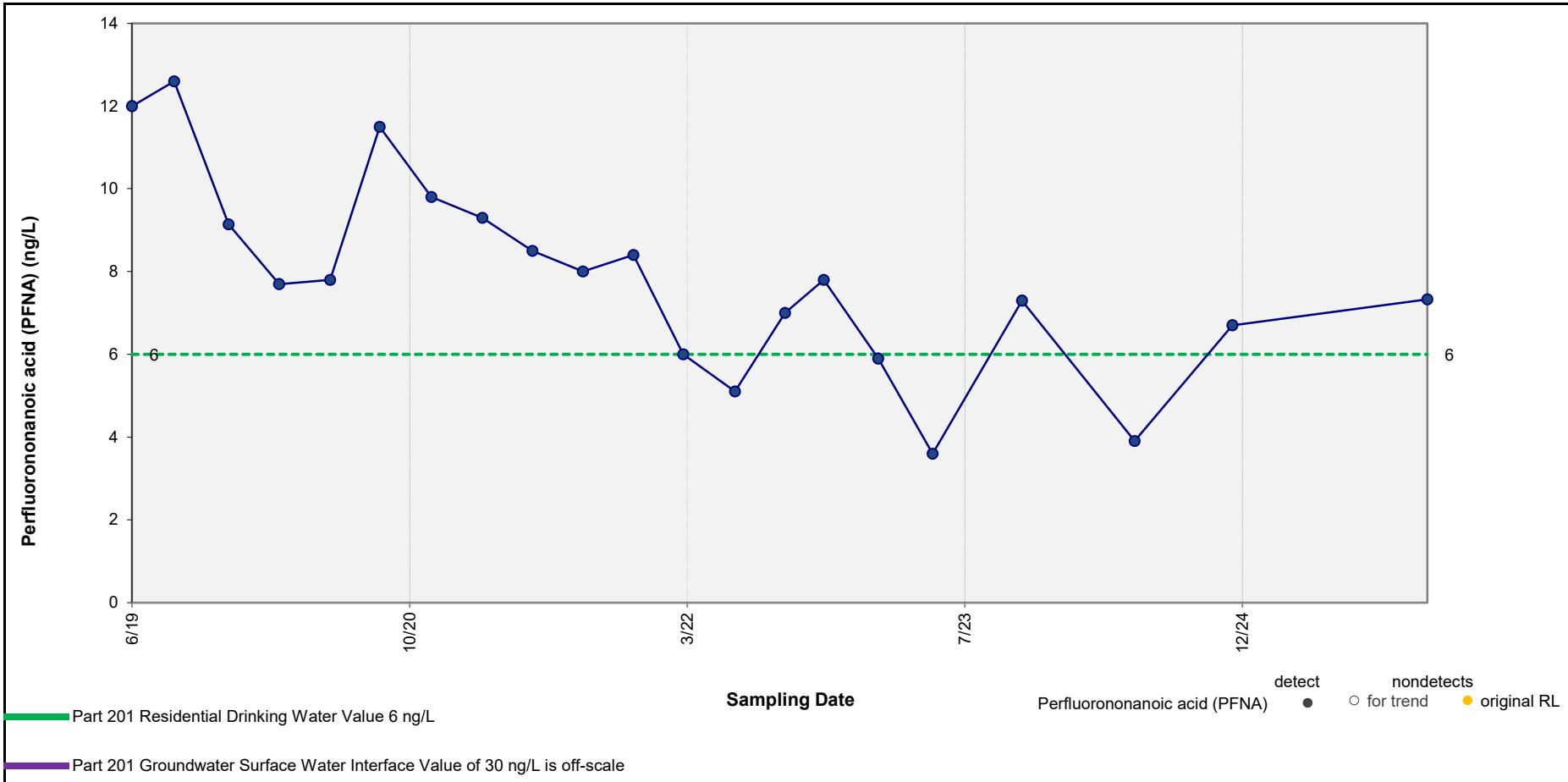
p value = 0.094 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-04-05(6)

RACER Lansing

Figure E-67



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

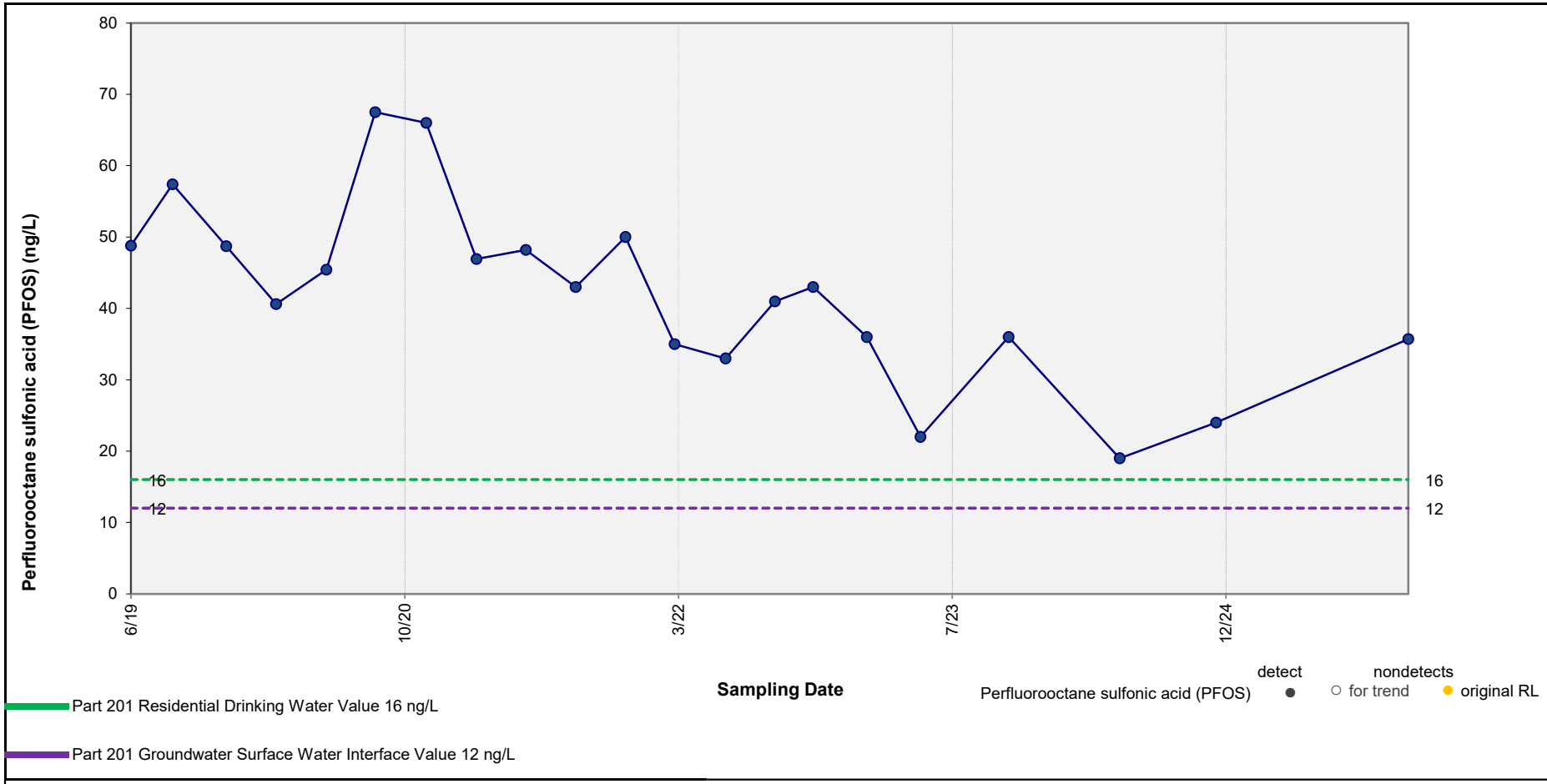
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well MW-12-12

RACER Lansing

Figure E-68



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

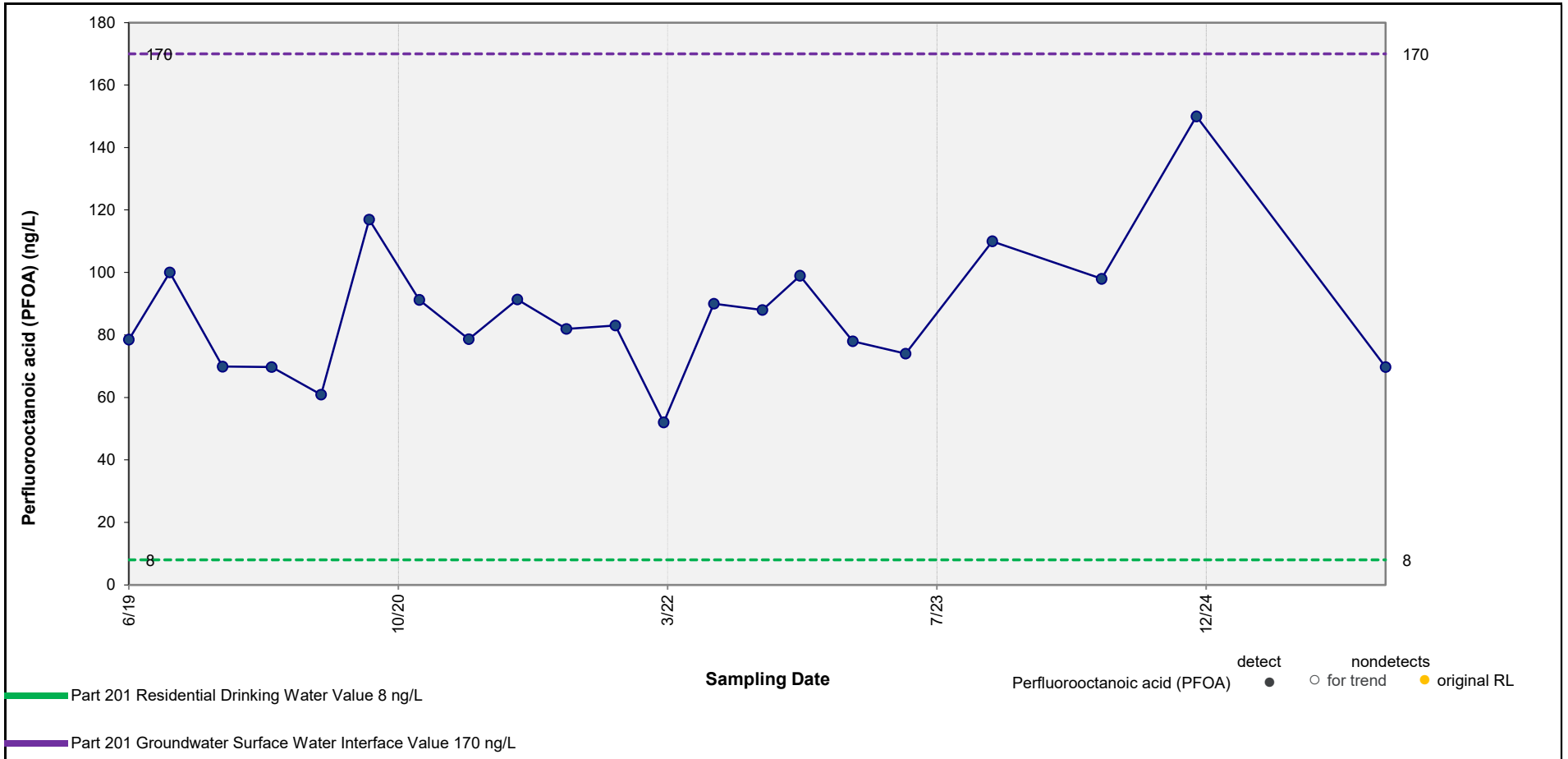
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-12-12

RACER Lansing

Figure E-69



Results of Mann-Kendall Test for Trend: **No Significant Trend**

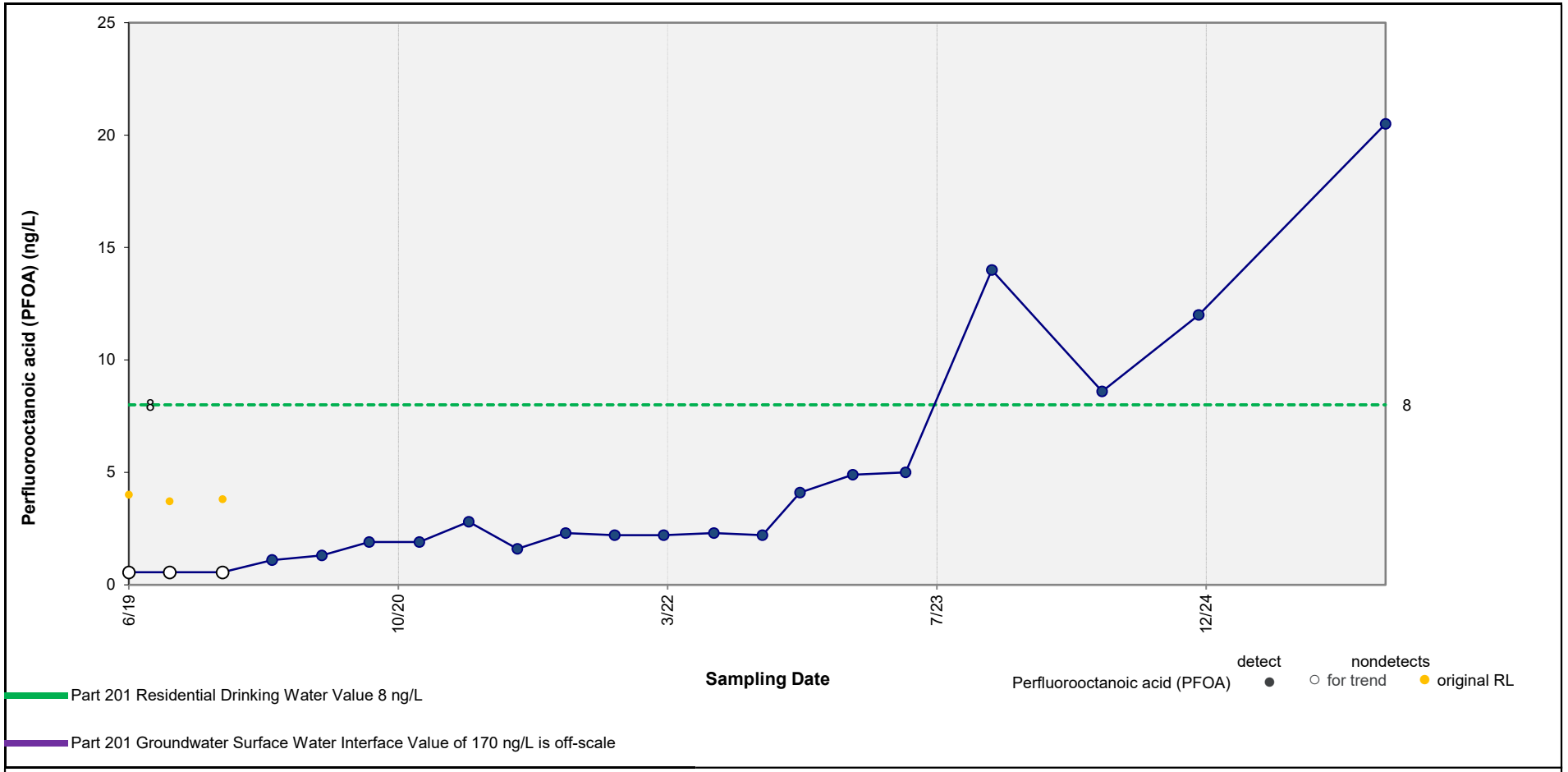
p value = 0.216 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-12-12

RACER Lansing

Figure E-70



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

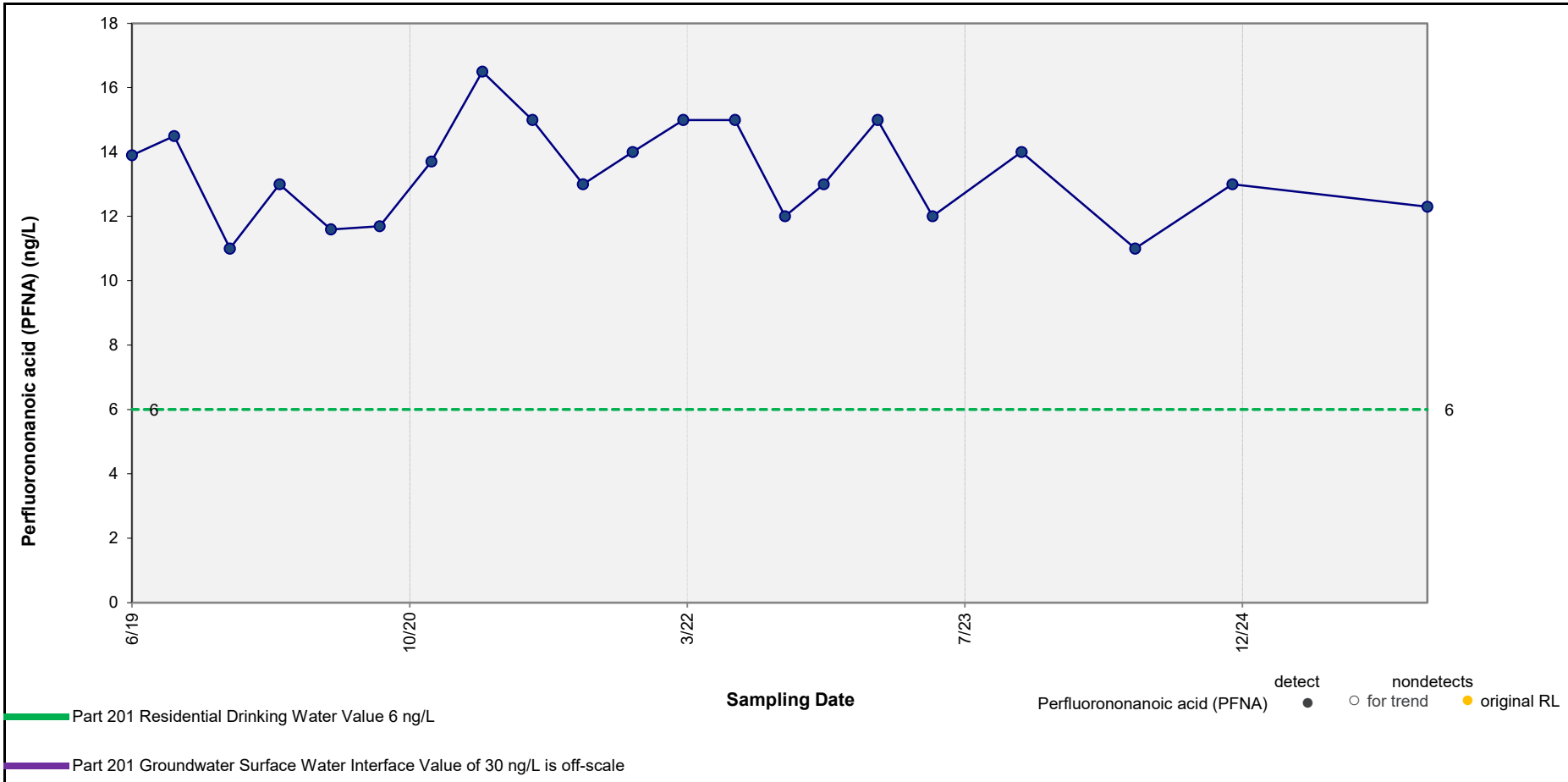
p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-12-13

RACER Lansing

Figure E-71



Results of Mann-Kendall Test for Trend: **No Significant Trend**

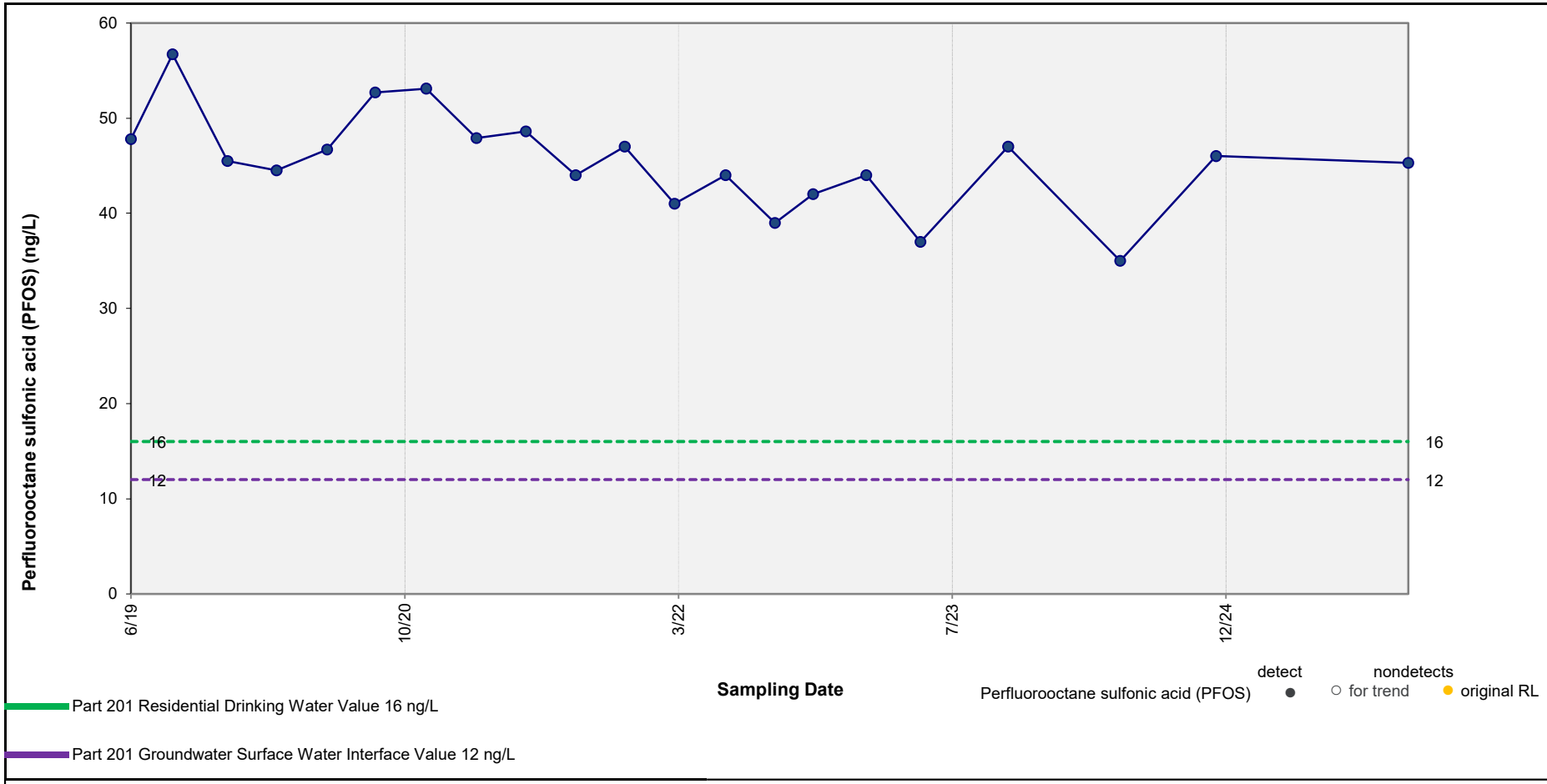
p value = 0.427 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well MW-13-36R

RACER Lansing

Figure E-72



Results of Mann-Kendall Test for Trend: **DECREASING TREND**

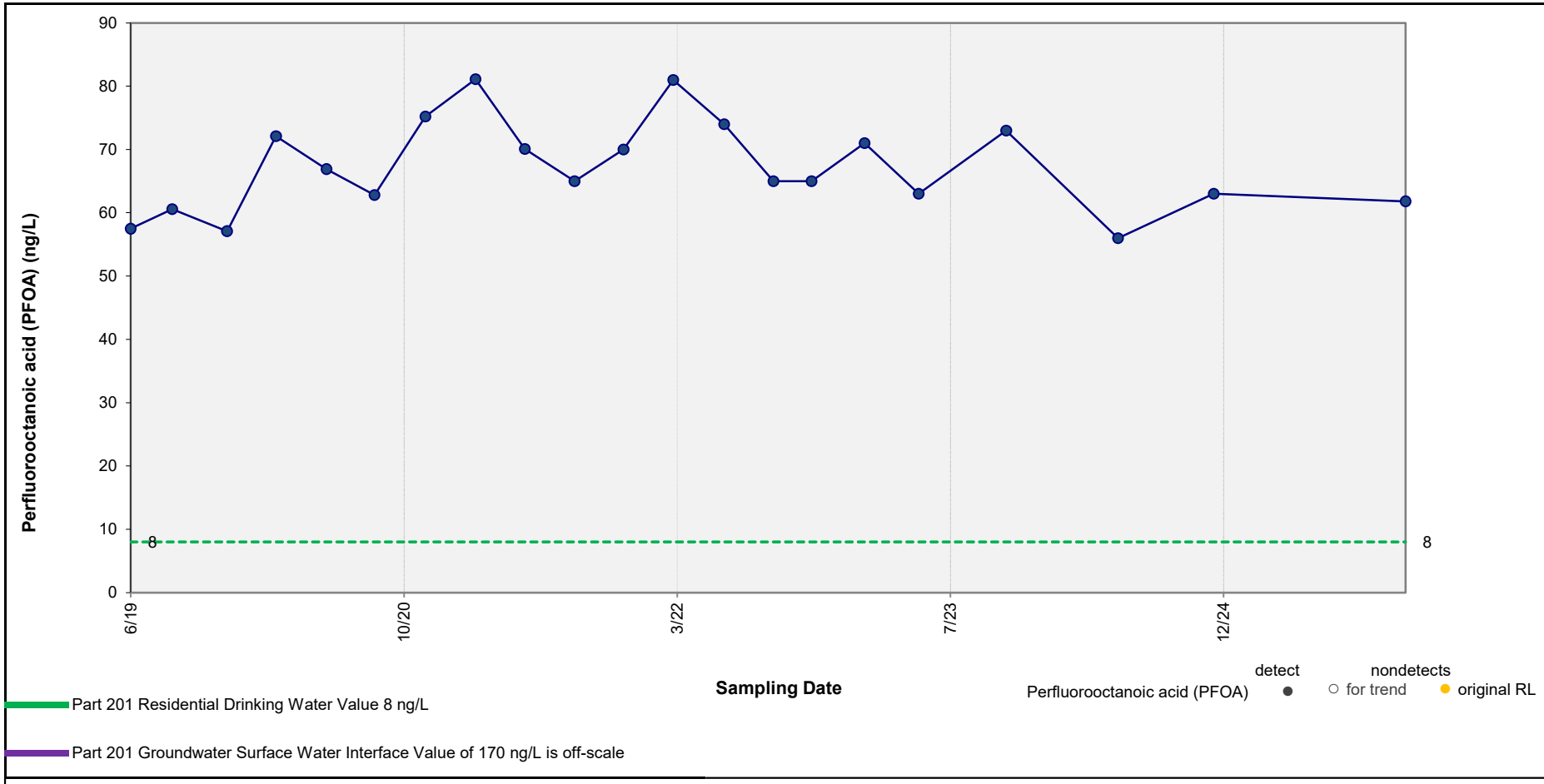
p value = 0.005 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-13-36R

RACER Lansing

Figure E-73



Results of Mann-Kendall Test for Trend: **No Significant Trend**

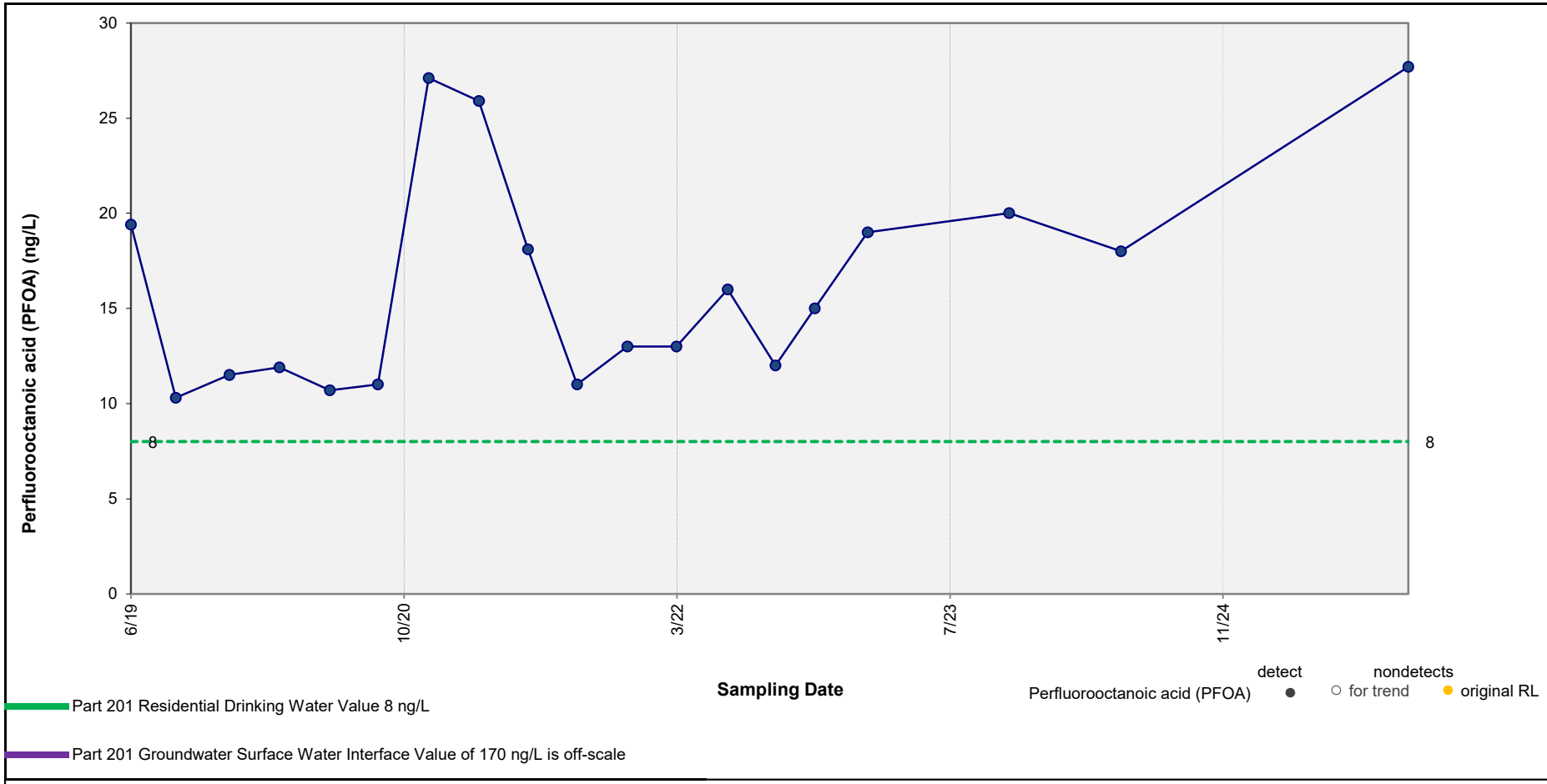
p value = 0.464 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-13-36R

RACER Lansing

Figure E-74



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

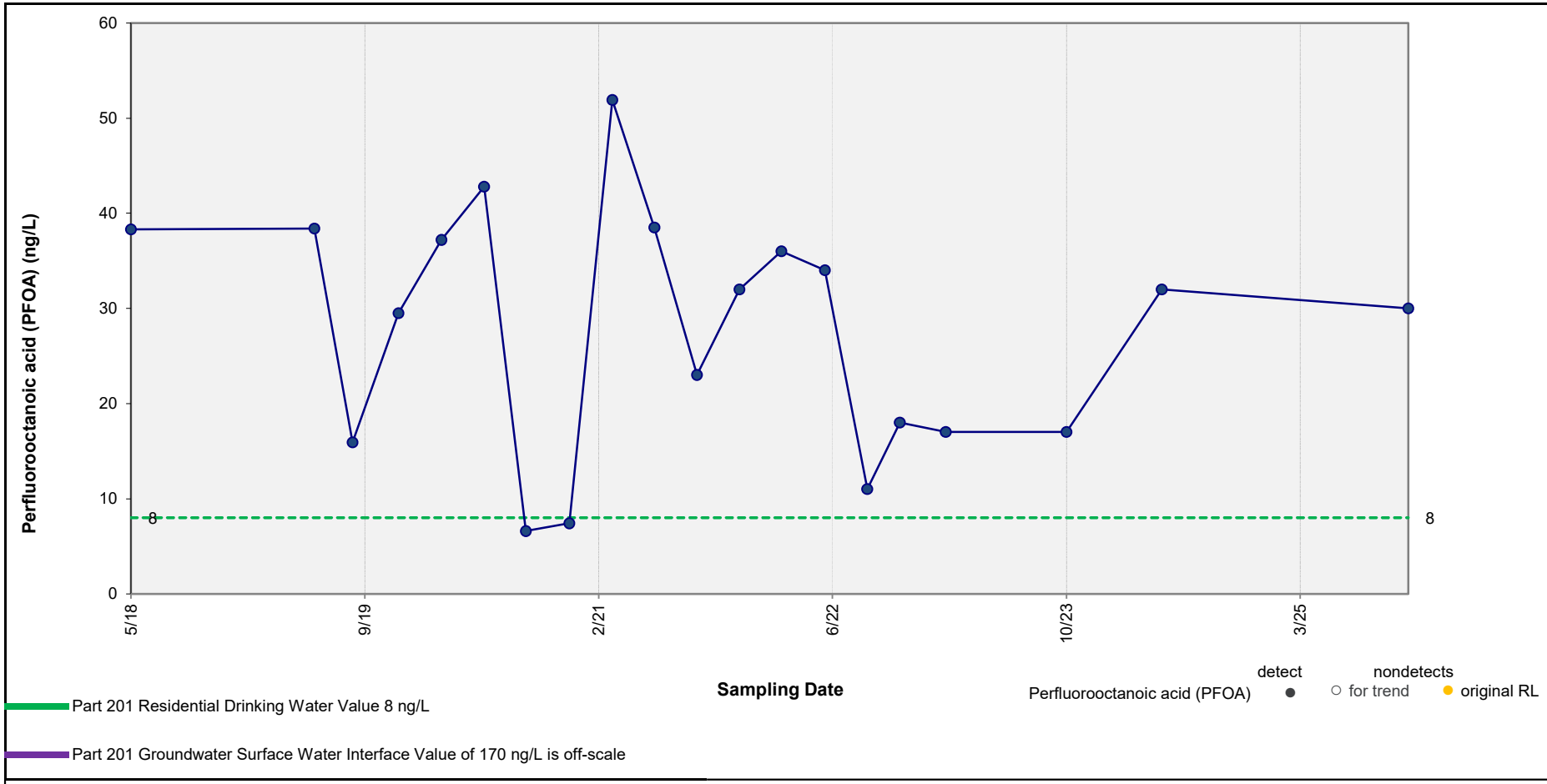
p value = 0.018 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-14-67

RACER Lansing

Figure E-75



Results of Mann-Kendall Test for Trend: **No Significant Trend**

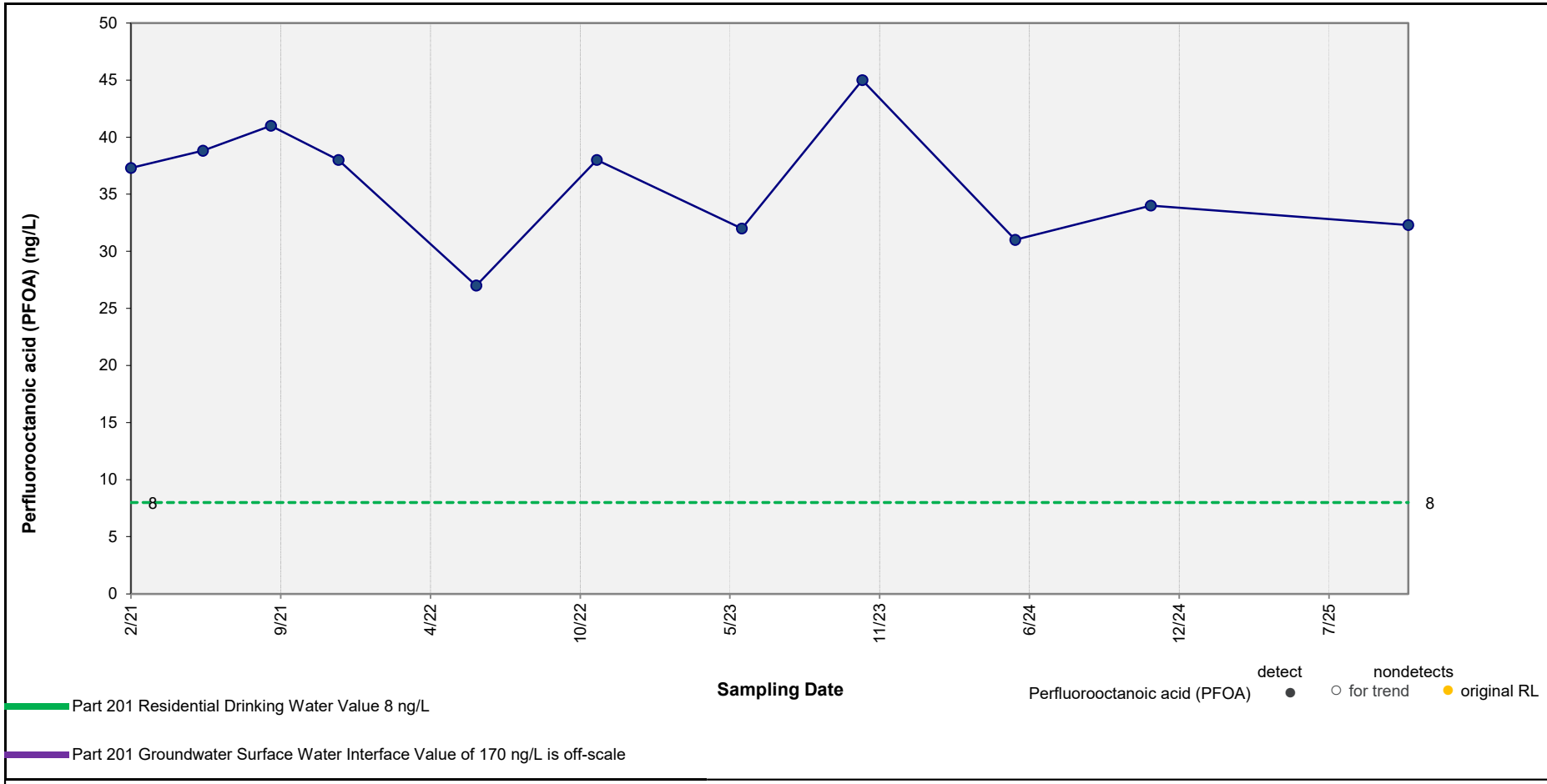
p value = 0.142 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-14-70

RACER Lansing

Figure E-76



Results of Mann-Kendall Test for Trend: **No Significant Trend**

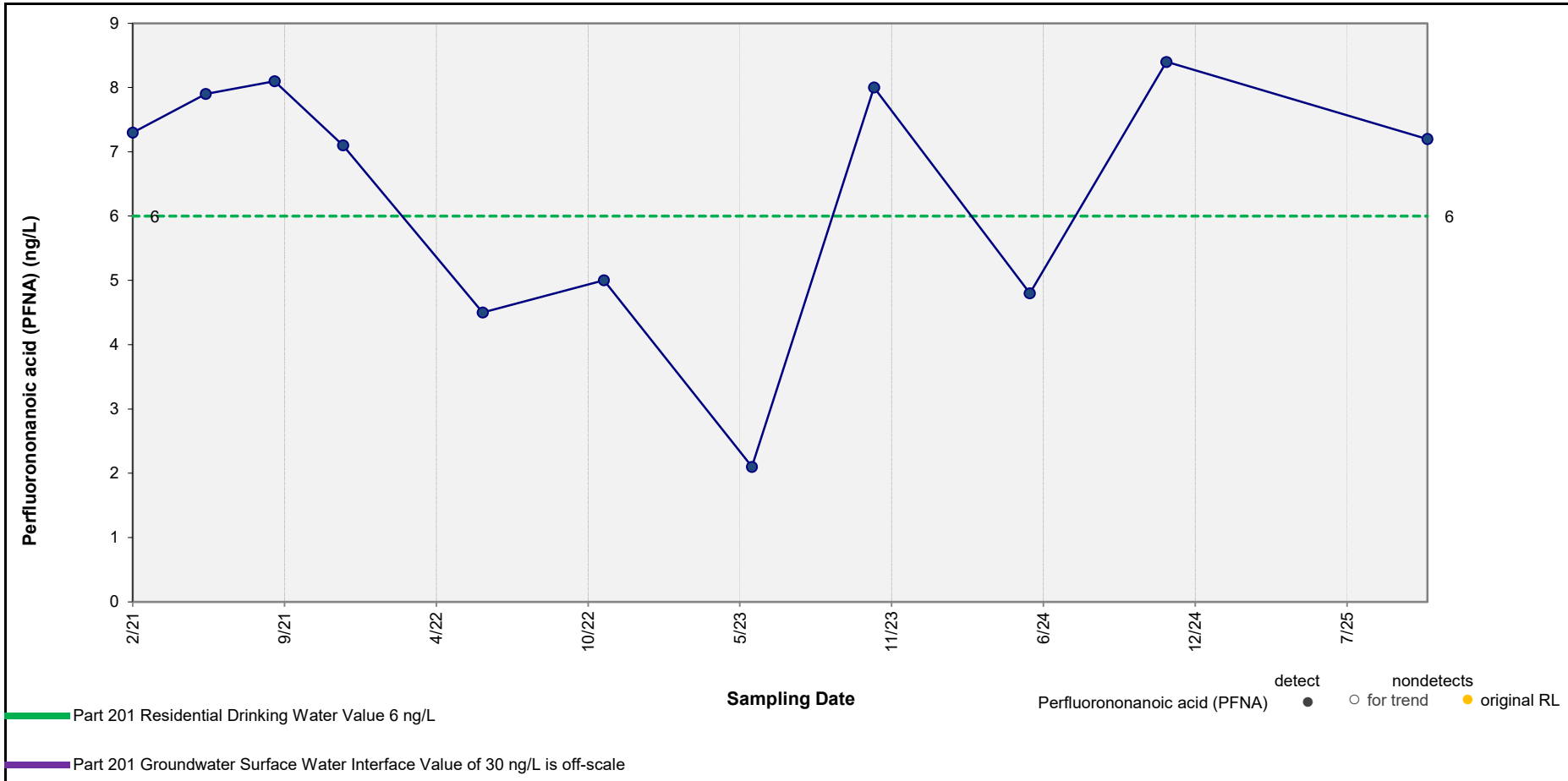
p value = 0.195 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-20-131

RACER Lansing

Figure E-77



Results of Mann-Kendall Test for Trend: **No Significant Trend**

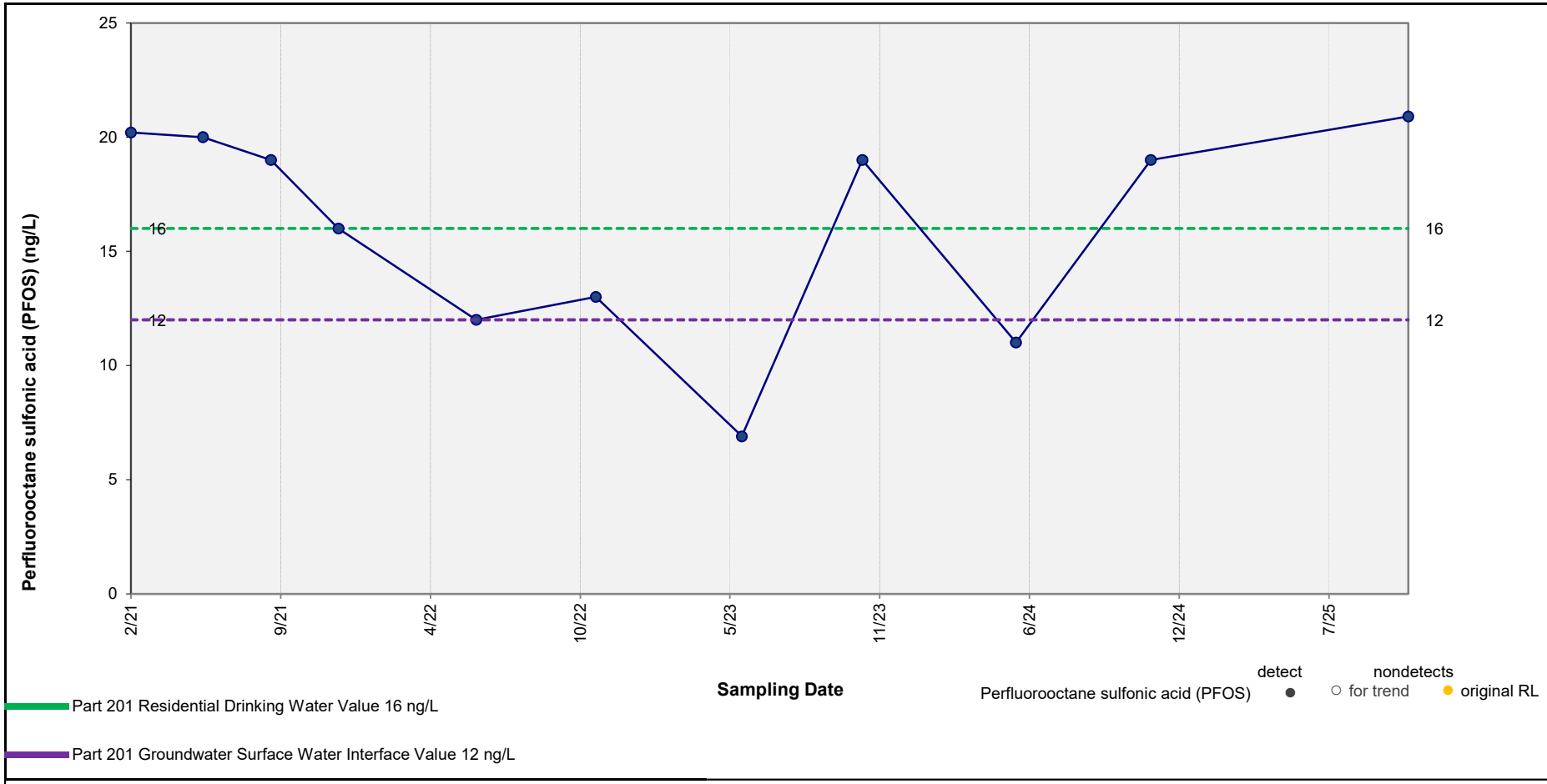
p value = 0.438 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well MW-20-132

RACER Lansing

Figure E-78



Results of Mann-Kendall Test for Trend: **No Significant Trend**

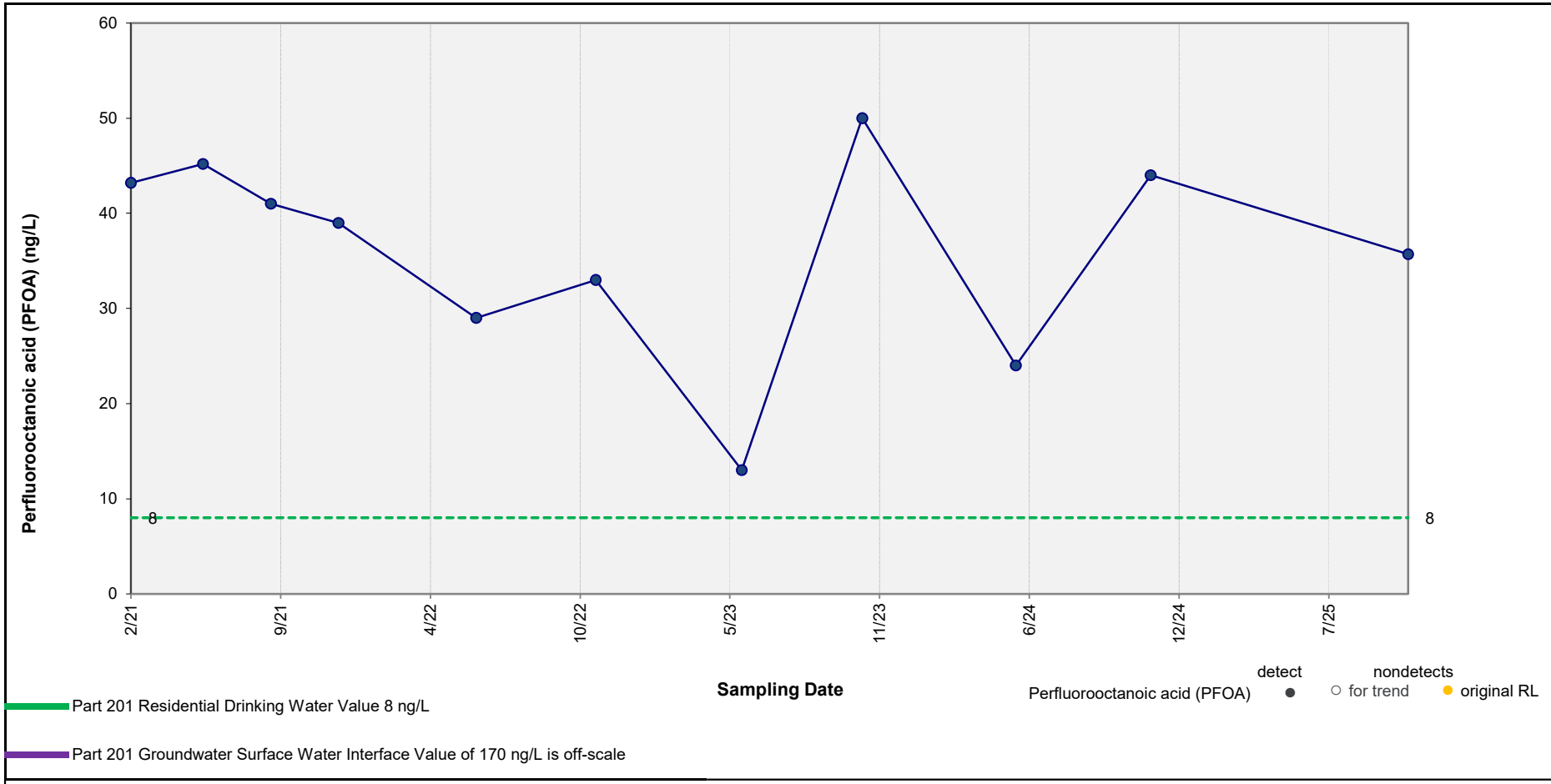
p value = 0.239 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-20-132

RACER Lansing

Figure E-79



Results of Mann-Kendall Test for Trend: **No Significant Trend**

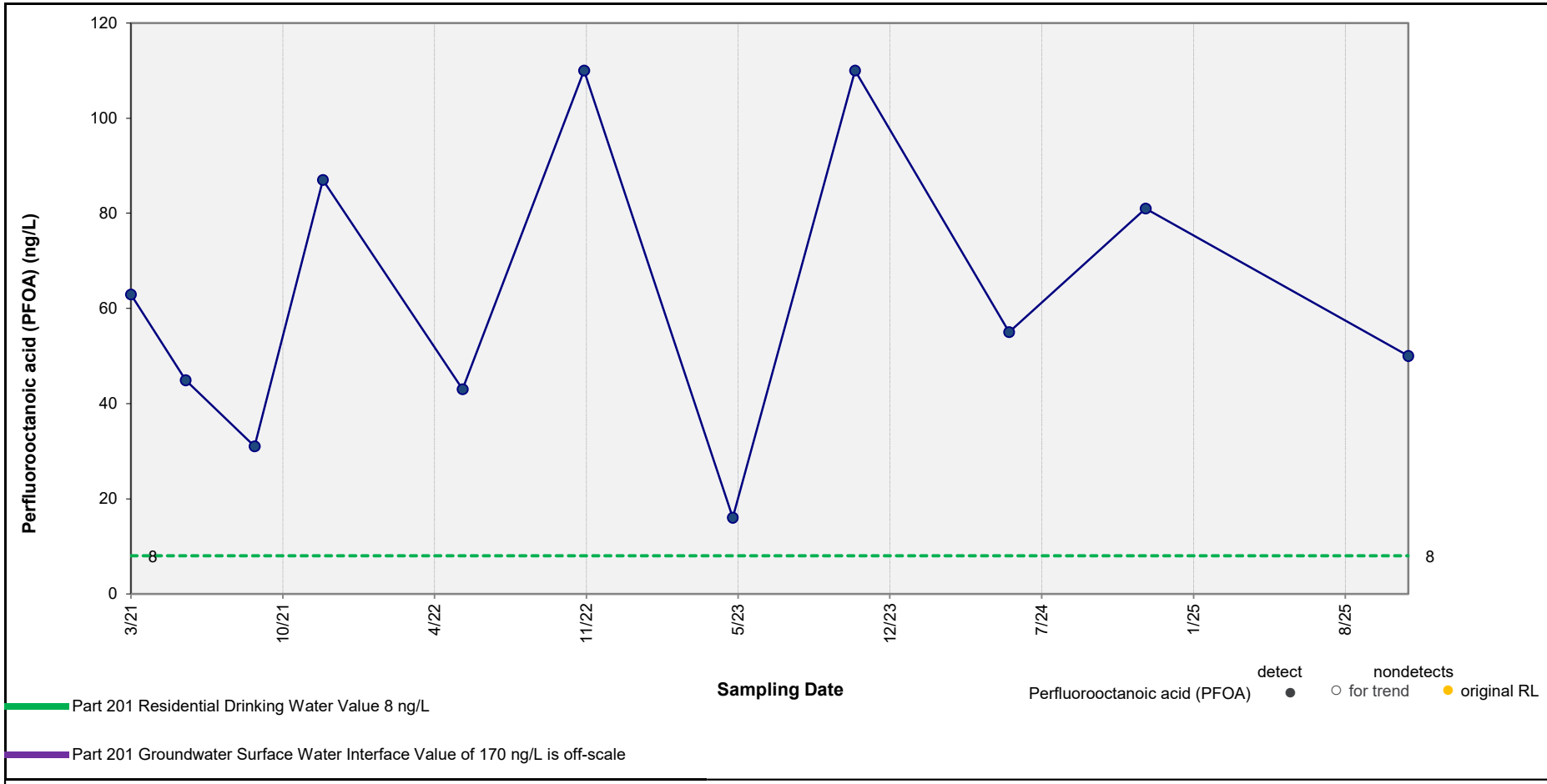
p value = 0.175 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-20-132

RACER Lansing

Figure E-80



Results of Mann-Kendall Test for Trend: **No Significant Trend**

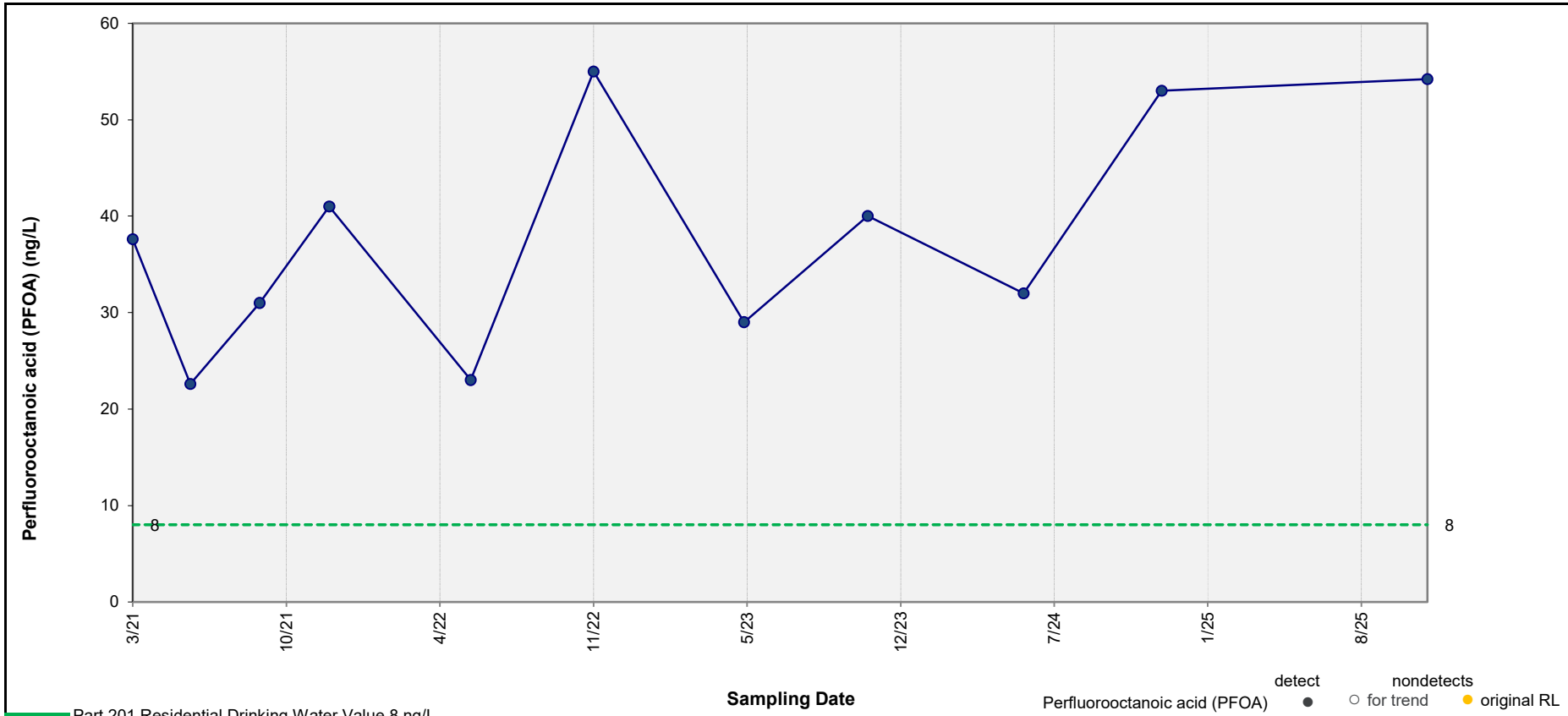
p value = 0.407 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-21-133

RACER Lansing

Figure E-81



Results of Mann-Kendall Test for Trend: **No Significant Trend**

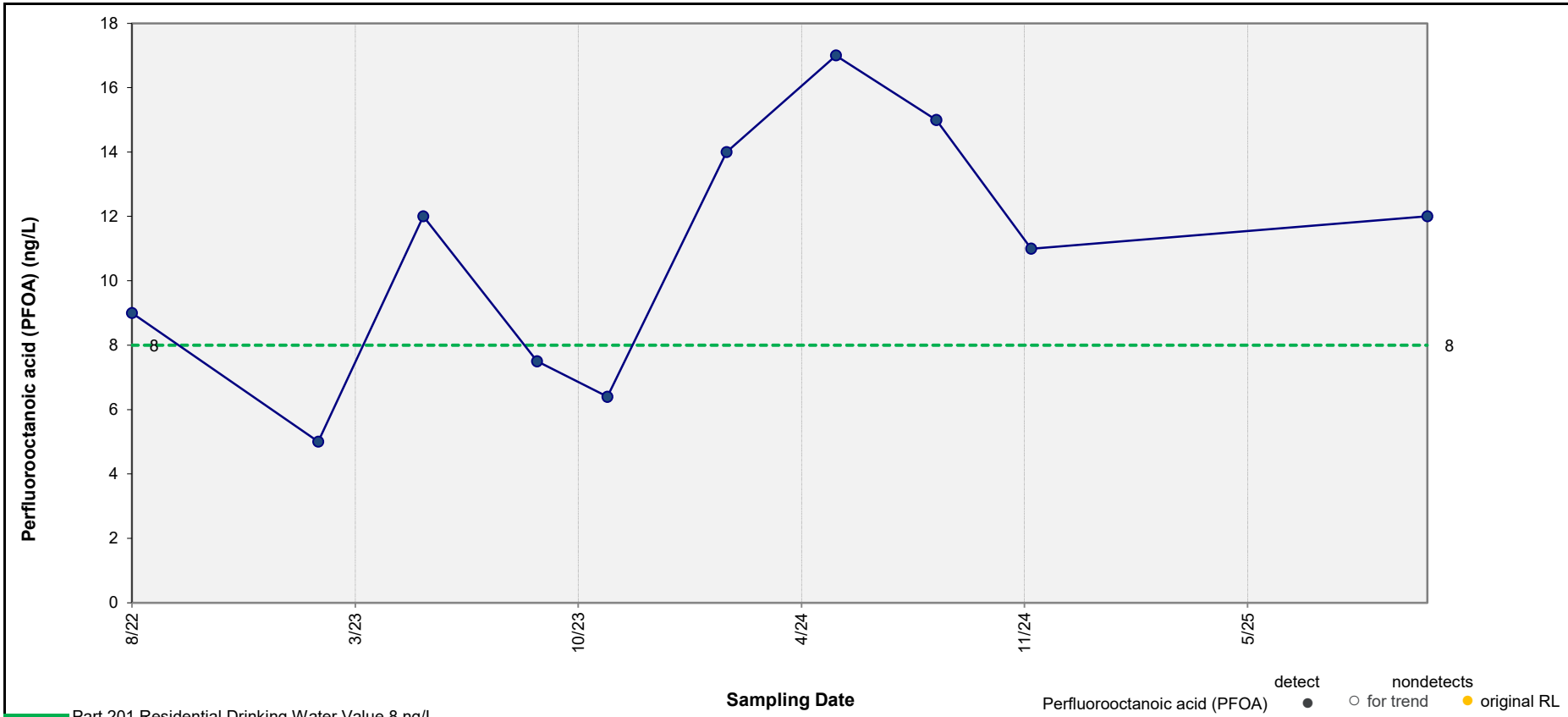
p value = 0.060 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-21-134

RACER Lansing

Figure E-82



Results of Mann-Kendall Test for Trend: **No Significant Trend**

p value = 0.093 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

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Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-22-144

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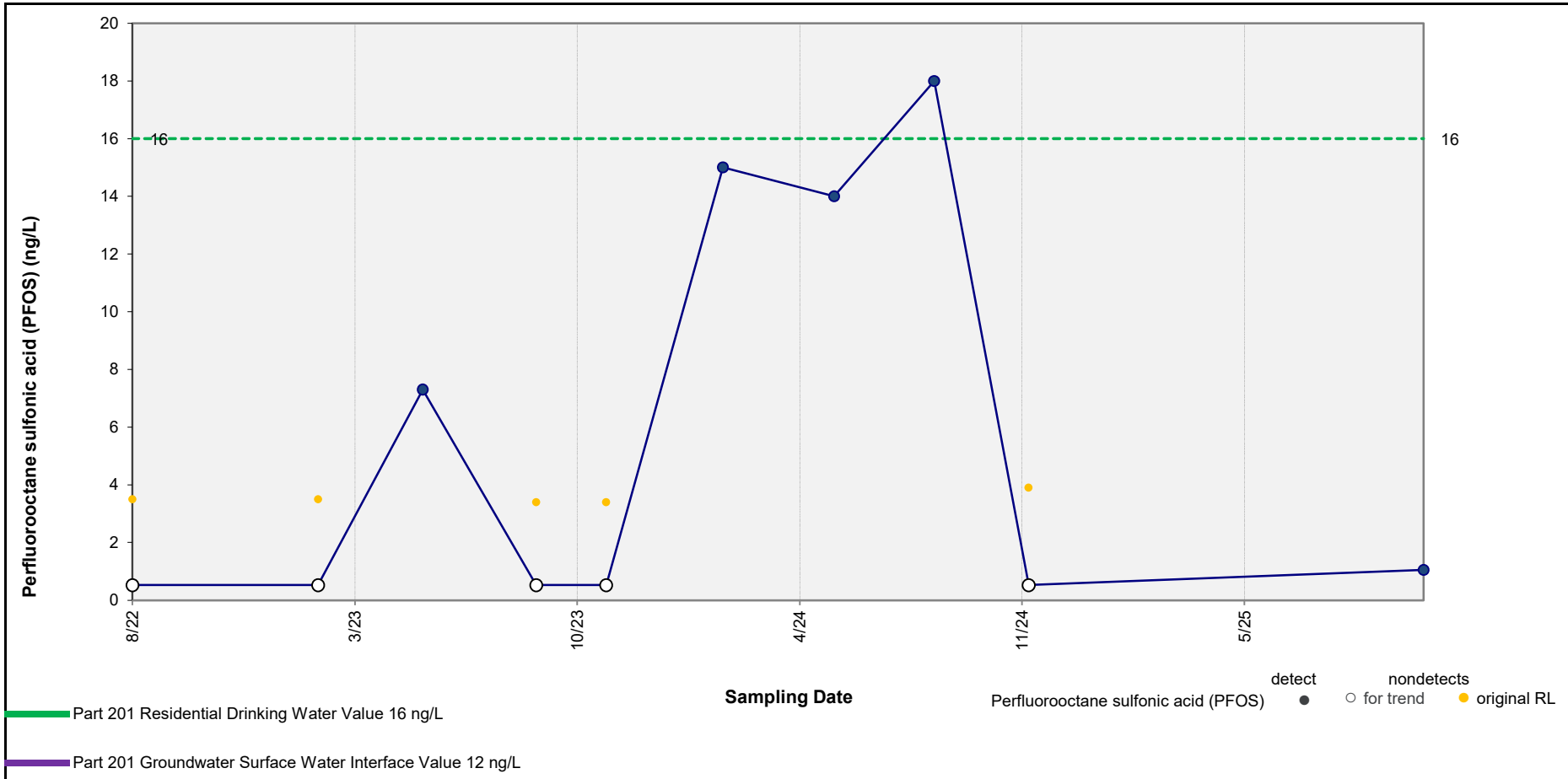
Figure E-83



Results of Mann-Kendall Test for Trend: **No Significant Trend**

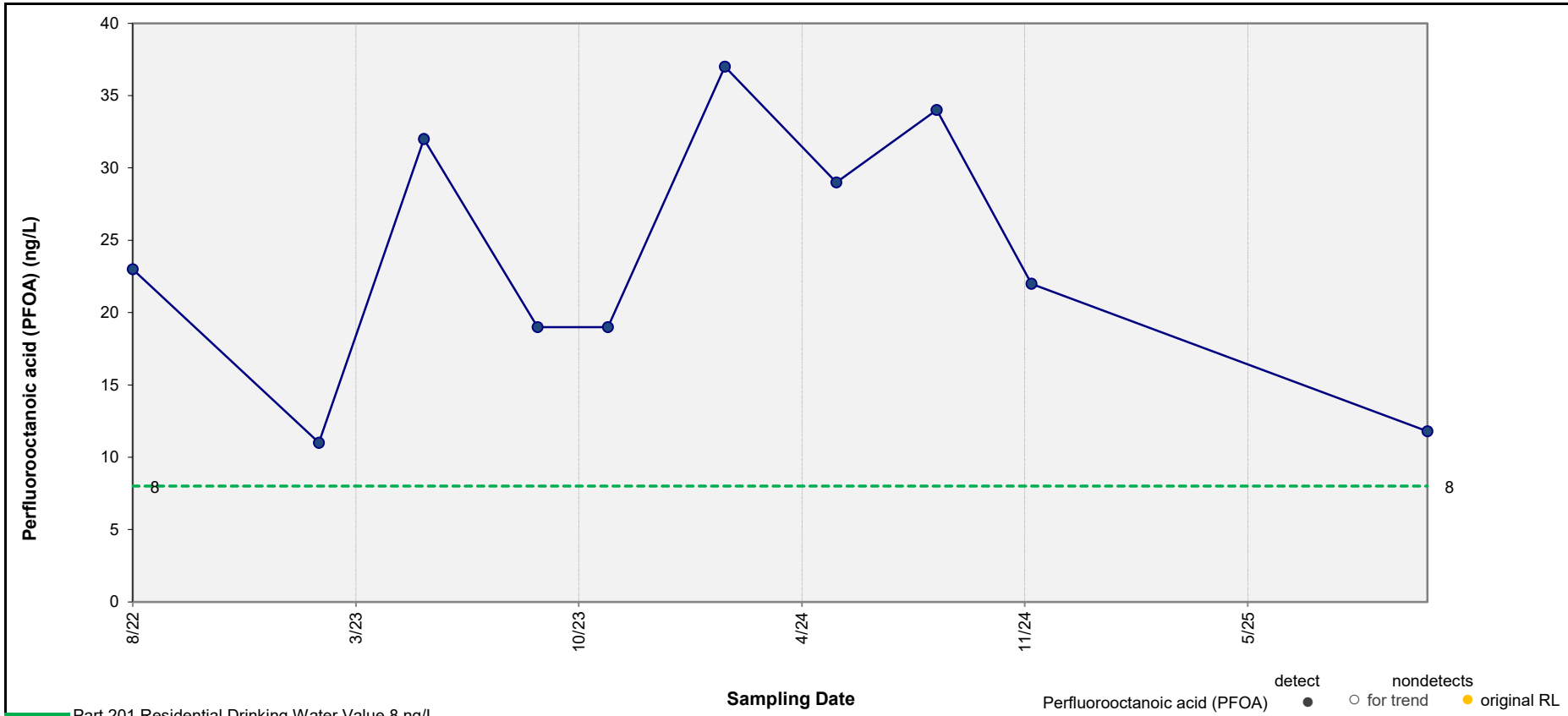
p value = 0.146 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well MW-22-145

RACER Lansing

Figure E-84



Results of Mann-Kendall Test for Trend: **No Significant Trend**

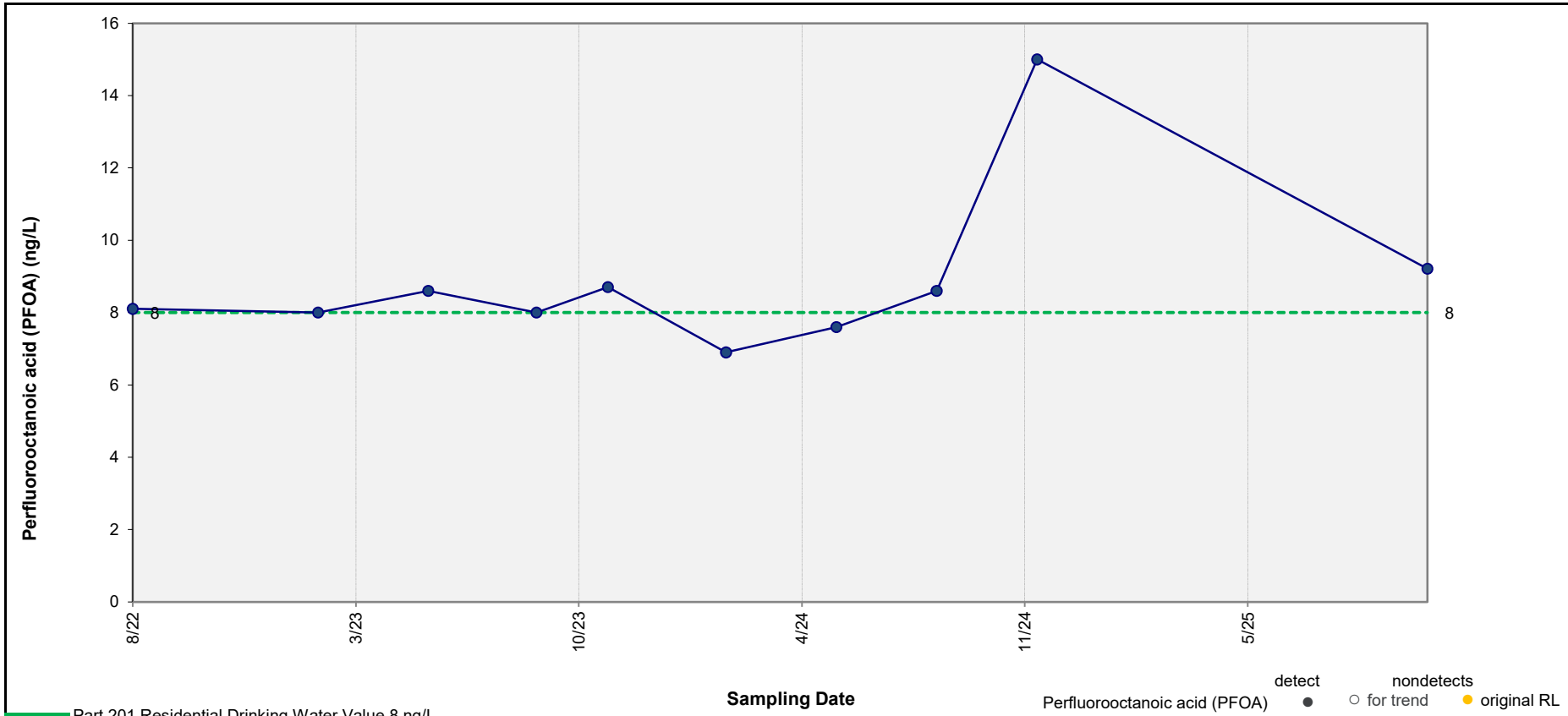
p value = 0.466 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-22-145

RACER Lansing

Figure E-85



Results of Mann-Kendall Test for Trend: **No Significant Trend**

p value = 0.146 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well MW-22-151

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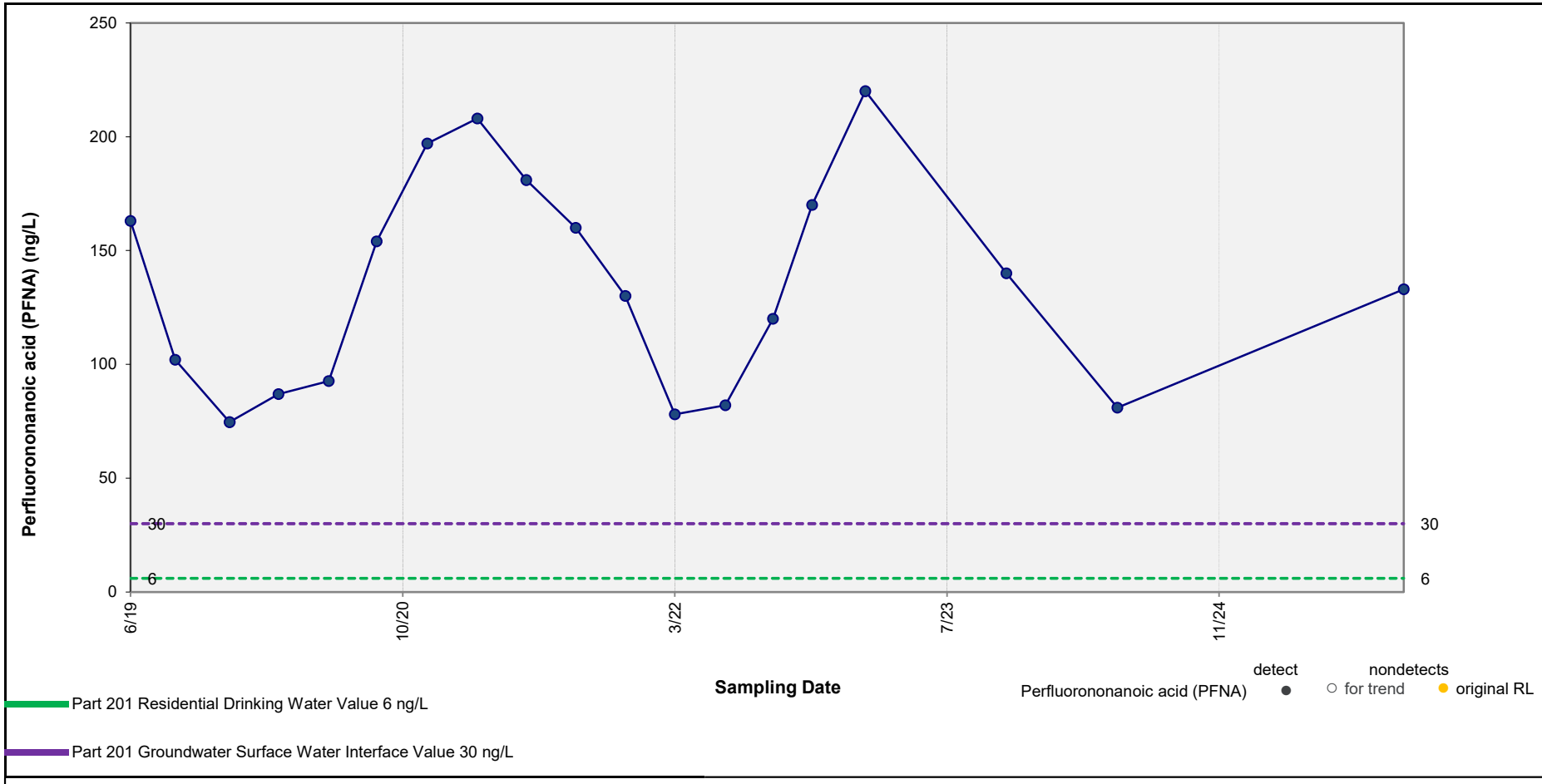
Figure E-86



Results of Mann-Kendall Test for Trend: **No Significant Trend**

p value = 0.417 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorononanoic acid (PFNA) in Well P6-SB-07

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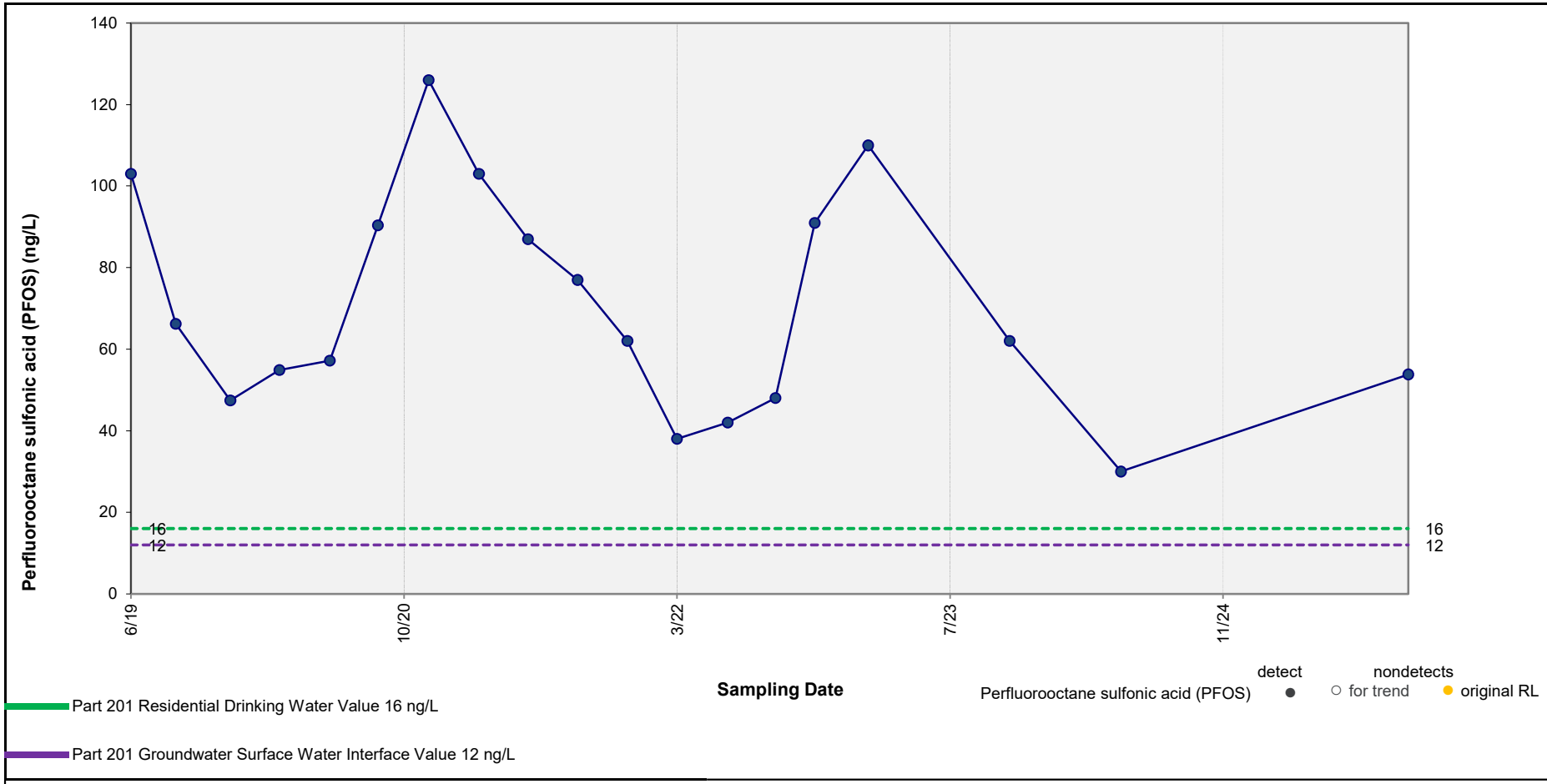
Figure E-87



Results of Mann-Kendall Test for Trend: **No Significant Trend**

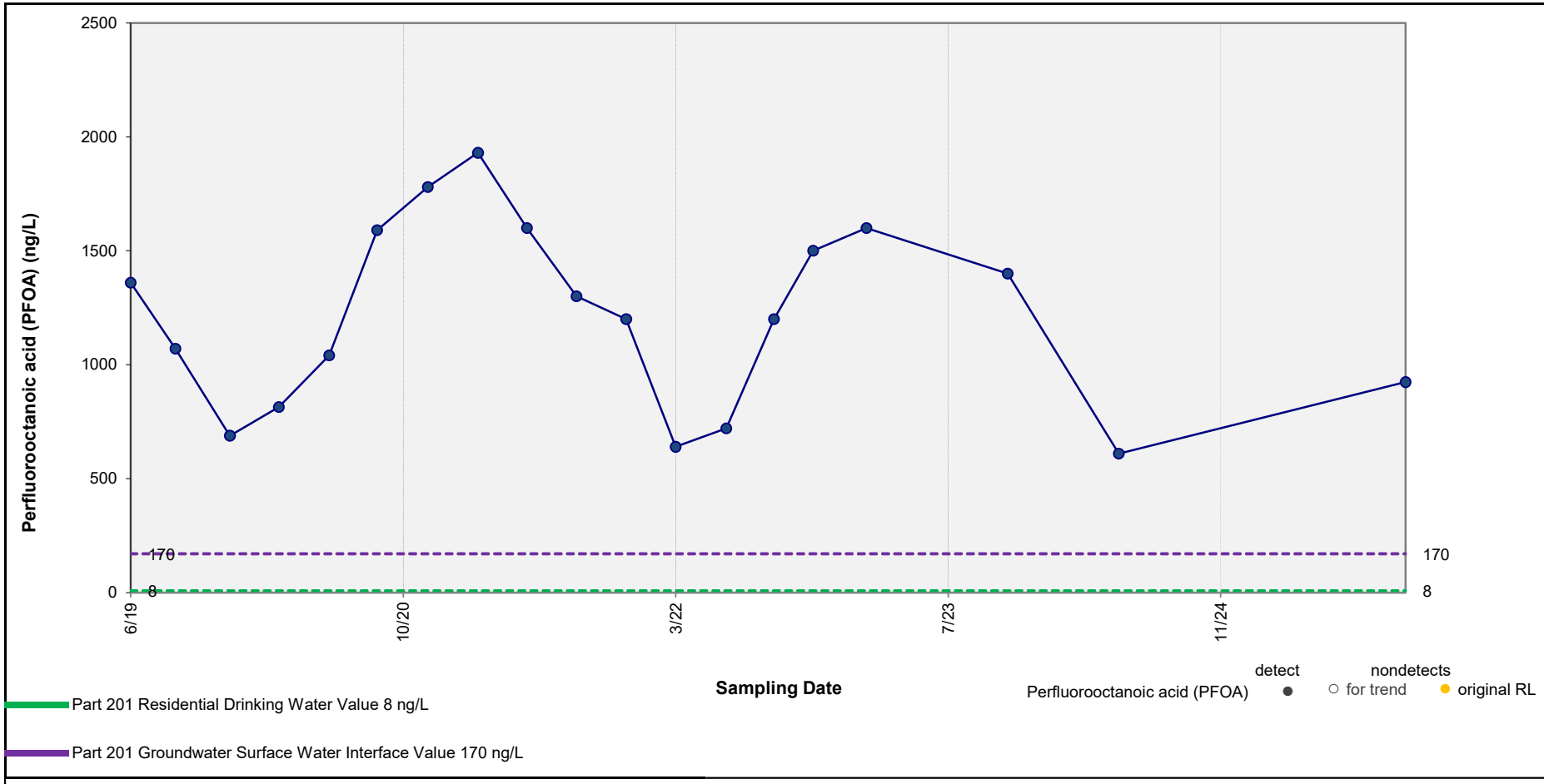
p value = 0.147 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctane sulfonic acid (PFOS) in Well P6-SB-07

RACER Lansing

Figure E-88



Results of Mann-Kendall Test for Trend: **No Significant Trend**

p value = 0.390 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

ARCADIS

Concentration vs. Time Plot – Perfluorooctanoic acid (PFOA) in Well P6-SB-07

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Figure E-89

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