

Mr. Brian Kuberski

Michigan Department of Environment, Great Lakes, and Energy
Remediation and Redevelopment Division
Constitution Hall
525 West Allegan Street
Lansing, MI 48909

RE: ***PFAS Sampling Results – April 2023 Event
RACER Trust – Hemphill Road Industrial Land, Burton, Michigan***

FILE: 1088190/1940103640/Docs

Dear **Mr. Kuberski**:

This technical memorandum has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll), on behalf of the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) to provide the results of the recently completed sampling and analysis for per- and polyfluoroalkyl substances (PFAS) at the Hemphill Road Industrial Land (HRIL) facility located in Burton, Michigan (Site [\(Figure 1\)](#)).

Date August 11, 2023

The work summarized in this letter was completed in response to EGLE’s approval of activities proposed in the Ramboll August 14, 2020 technical memorandum as amended based on comments from EGLE.

Ramboll
2090 Commonwealth Blvd.
Ann Arbor, MI 48105
USA

Sample Collection

T 734-761-4000
F 734-761-2050
<https://ramboll.com>

Groundwater Sample Collection

Groundwater samples for PFAS analysis were collected from the onsite wells listed below. See [Figure 2](#) for sample locations. Groundwater samples from below the light non-aqueous phase liquid (LNAPL) at OBG MW-4S and MW-401 were not attempted during this sampling event.

Six shallow onsite monitoring wells with PFAS detections or surrounding those wells

- MW-403, OBG MW-5S, OBG MW-7S, OBG MW-8, OBG MW-9, and OBG MW-11
- Three deep onsite monitoring wells
 - OBG MW-2D, OBG MW-6D, and OBG MW-7D
- One onsite monitoring well with LNAPL impacts (water samples were collected from beneath LNAPL)
 - OBG MW-10

Special care was taken during sampling and transport of the samples to avoid cross-contamination from clothing, sampling materials, and storage containers due

to the extremely low detection limits for PFAS (<1 ng/L). High-density polyethylene tubing (HDPE) and silicon tubing were utilized for sample collection at each well location. Samples were collected in accordance with the EGLE Groundwater PFAS Sampling Guidance (EGLE, 2018) and Ramboll PFAS Sampling Field Guidance Document (March 2022).

Low flow groundwater sampling was performed in accordance with USEPA, *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA/540/S-95/504) and the USEPA Region 1 (July 30, 1996, Revision 4) *Low Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells*.

Low-flow groundwater sampling was performed using HDPE sample tubing lowered approximately to the midpoint of the well screen and connected to a peristaltic pump utilizing silicon tubing. The tubing was then attached to a flow-through cell connected to a physical parameter measurement instrument capable of measuring temperature, conductivity, pH, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Turbidity was measured with a separate turbidity meter.

The DO probe on one of the water quality meters did not appear to be working while monitoring at OBG MW-11 and after attempts to recalibrate/repair the unit it was subsequently replaced with a different meter by the rental company.

The wells were purged at rates that produced less than 0.3 ft of drawdown in the wells, except for wells OBG MW-5S, OBG MW-6D, OBG MW-7S, OBG MW-8, OBG MW-9, and OBG MW-10. For these wells, the purge rate was maintained at a maximum of 100 milliliters per minute [ml/min]; however, a drawdown of more than 0.3 ft was observed.

Purging continued until the water quality parameters stabilized over three consecutive 5-minute periods pursuant to USEPA's Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. Purge water was discharged to the ground surface onsite, except for well OBG MW-10 where the purged groundwater was poured back down the well after sample collection.

Once stabilized, the flow-through cell was disconnected, and samples were collected directly into laboratory supplied containers. The sample container selection and preservation techniques followed EGLE Remediation and Redevelopment Division (RRD) Standard Operating Procedure for Sample Preservation, Sample Handling, and Holding Time (RRD-34).

The samples were labeled, packed on ice, and shipped via courier under routine chain-of-custody protocols to Merit Laboratories, Inc. (Merit) of East Lansing, Michigan. The groundwater samples were analyzed for PFAS by method ASTM D7979-19 (no preservative).

Quality Assurance/Quality Control (QA/QC) samples consisted of a field duplicate (OBG-MW-5S) and a field (ambient) blank to check for cross contamination. A peristaltic pump was used for sample collection with tubing dedicated to each well; therefore, no equipment blank was collected.

Sanitary Sewer Sample Collection

Two PFAS samples were collected from the sanitary sewers during this event. One sample (SAN-02) was collected upstream of SAN-01 manhole located at the southwest corner of the Site near monitoring well OBG MW-3. Sample SAN-02 was collected from the downstream outlet within the manhole, which was the combined flow coming from the east and the flow being discharged into the manhole via a drainage

pipe that appears to be associated with the medical facility to the southwest. The second sample (SAN-03) was collected from within the SAN-02 manhole, from the flow being discharged into the manhole via a drainage pipe that appears to be associated with the medical facility to the southwest that entered the manhole approximately 6 feet from the bottom of the manhole. At the time of sampling SAN-02 and SAN-03 there was a moderate flow from the drainage pipe that appears to be associated with discharge from the direction of the medical facility.

A sample was planned to be collected from the manhole located just southeast of the Site from both the north and south sewer lines entering the manhole. During the sampling event there was no flow from the sewer lines and the manhole was dry. See [Figure 5](#) for sample locations.

Sanitary sewer sampling was performed in accordance with the methods specified in EGLE's Wastewater PFAS Sampling Guidance. Personnel did not enter confined space areas (manholes) and samples were collected remotely. SAN-02 was collected with a peristaltic pump and HDPE tubing that was weighted down with a stainless-steel weight and lowered into the manhole. SAN-03 was collected by lowering a sample bottle tied to a line to the discharge pipe within the manhole. The sanitary sewer sample were analyzed for PFAS by method ASTM D7979-19 (no preservative).

PFAS Analytical Results

A review of the analytical data presented in the attached tables indicates for those wells sampled previously, analytical results are similar to the previous sampling events, a summary of the data is provided below. For further detail please refer to [Table 1](#) for groundwater, [Table 2](#) for LNAPL results, and [Table 3](#) for the sanitary sewer result. The laboratory analytical reports are provided in [Attachment A](#).

Groundwater PFAS Sample Results

Overall results from this event were consistent with the results from previous events. Analytical results for the following samples were either not detected above the reporting limits or were below the EGLE Part 201 PFAS drinking water criteria, if established:

- Four shallow onsite monitoring wells
 - OBG MW-5S (and OBG MW-5S duplicate), OBG MW-8, OBG MW-9, and OBG MW-11
- Three deep onsite monitoring wells
 - OBG MW-2D, OBG MW-6D, and OBG MW-7D

The following monitoring wells contained either perfluorooctanoic acid (PFOA) and/or perfluorooctane sulfonic acid (PFOS) above EGLE drinking water cleanup criteria (8 ng/l and 16 ng/l, respectively).

- Three onsite monitoring wells
 - OBG MW-7S (14 ng/L PFOA / 32 ng/L PFOS), OBG MW-10 (14 ng/L PFOA / 16 ng/L PFOS – water from beneath LNAPL), and MW-403 (12 ng/L PFOA / 400 ng/L PFOS)

The relative percent differences (RPDs) for the duplicate sample results for OBG MW-5S and DUP-042723 (OBG MW-5S) were within acceptable limits except for compound Perfluoroheptanoic Acid (PFHpA) where the RPD was 46%.

Perfluoropentanoic Acid (PFPeA) was detected in OBG MW-2D and OBG MW-6D at estimated (J qualified) concentrations of 2.6 ng/L and 1.3 ng/L, respectively. No drinking water criteria has been established for PFPeA. PFAS were non-detect in monitoring well OBG MW-7D. These results continue to indicate that the deeper groundwater zone is not impacted above criteria.

Shallow groundwater analytical results continue to indicate that the concentrations of PFAS in wells and the extent of PFAS impacted areas are stable. PFAS impacted areas are within waste fill around monitoring well OBG MW-7S on the northeast side of the Site and an area within waste fill between monitoring wells OBG MW-10 and OBG MW-5S on the southeast side of the Site, with the source area or monitoring well with the highest concentrations being MW-403.

Higher detections on the east side of the Site continue to appear related to certain locations within the waste fill along the east side of the Site. However, not all of the waste fill appears to contain PFAS as monitoring wells OBG MW-8, OBG MW-9, and OBG MW-11 which are screened in fill material continue to be non-detect or had detections below the drinking water criteria.

As is discussed in the August 2014 Offsite Groundwater Investigation Report, and the January 2014 Semiannual Groundwater Sampling Report, the non-PFAS groundwater exceedances have been assessed to evaluate whether the groundwater at the Site is potentially the source of impacted groundwater offsite at the adjacent properties. Based on historical comparison of the results of the groundwater samples collected onsite, including beneath the LNAPL, to the groundwater samples collected offsite, the offsite exceedances identified do not appear to be emanating from the Site. Therefore, it is likely the PFAS impacted groundwater at the Site is not the source for groundwater PFAS exceedances offsite to the east.

Figure 3 provides a summary of the sample results on the base map, and **Figure 4** provides a groundwater contour map for the recent sampling event. Shallow groundwater flow is toward the east near OBG MW-7S and is more southeast in the southern portion of the Site.

Sanitary Sewer PFAS Sample Results

PFAS was not detected above the EGLE Rule 57 Surface Water Quality Values for non-drinking water in samples SAN-02 and SAN-03. The analytical results were similar compared to previous sampling events and will continue to be evaluated during future sampling events.

Path Forward

Based on the results from the past eight sampling events (starting in June 2020) which have shown that PFAS impacts are stable, and that the February 10, 2021 Exposure Pathway Evaluation has not changed, we purpose to continue annual PFAS monitoring, which was also proposed in the PFAS Sampling Results, October 2022 Event technical memorandum submitted to EGLE on February 2, 2023. The next annual PFAS sampling event will be scheduled to coincide with the next annual groundwater event at the Site in April 2024.

For the next PFAS sampling event we suggest collecting samples from the same wells as this event - deep monitoring wells OBG MW-2D, OBG MW-6D, and OBG MW-7D, and the monitoring wells with PFAS impacts or surrounding the PFAS impacts. This would include onsite shallow monitoring wells MW-403, OBG MW-5S, OBG MW-7S, OBG MW-8, OBG MW-9, OBG MW-10, and OBG MW-11. In addition, we recommend



sampling from the north and south lines entering the sanitary sewer manhole located just southeast of the Site (if water is present), San-02, and SAN-03.

Following the sampling event, a technical memorandum will be prepared to provide a summary of the sampling activities, the results, and present any recommendations for further activity.

If you have any questions or comments concerning this tech memo, please feel free to contact me at 313.333.0211 or Dave Favero at 217.741.6235.

Yours sincerely

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

Clifford S. Yantz

Project Manager
1943864 - MIDWEST EAST Resources 056

M 313.333.0211
Clifford.yantz@ramboll.com

Enclosures

Table 1 – Groundwater PFAS Sampling Results

Table 2 – LNAPL PFAS Sampling Results

Table 3 – Sanitary Sewer PFAS Sampling Results

Figure 1 – Site Location Map

Figure 2 – PFAS Sample Locations

Figure 3 – PFAS Sample Results

Figure 4 – Interpreted Shallow Groundwater Elevation Contours – April 25, 2023

Figure 5 – Site Utility Layout

Attachment A – Analytical Reports

cc: David Favero – RACER Trust
Kevin Schneider – Ramboll

TABLES



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-1S	OBG MW-1S	OBG MW-2S	OBG MW-2S
	Sample Date:		6/29/2020	10/27/2020	6/30/2020	10/27/2020
Perfluorobutanoic Acid (PFBA)	--	--	32 U	13	31 U	<10
Perfluoropentanoic Acid (PFPeA)	--	--	7.7	9.9	7.6	7.3
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<2.0	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	400,000	5.8	5.8	6.8	4.9	5.2
Perfluorobutane Sulfonic Acid (PFBS)	420	2.4	2.4	3.4	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	2.3	1.8 J	2.0 J	2.0 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorooctanoic Acid (PFOA)	8	3.9	3.6	2.3	2.3	2.2
Perfluorohexane Sulfonic Acid (PFHxS)	51	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	6	<2.1	<2.0	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.2	<4.1	<3.9	<4.1	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	16	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorotridecanoic Acid (PFTTrDA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.2	<4.1	<3.9	<4.1	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.0	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.0	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<2.1	<2.0	<2.0	<2.0	<2.1
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPPrPA (3:3 FTCA))	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	51.8	39.0	47.6	16.7

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-2D	OBG MW-2D	OBG MW-2D	OBG MW-2D	OBG MW-2D	OBG MW-2D	
	Sample Date:		10/27/2020	4/21/2021	11/8/2021	4/28/2022	10/24/2022	4/26/2023	
Perfluorobutanoic Acid (PFBA)	--	--	<9.7	<10	<10	<10	<10	<9.7	<10
Perfluoropentanoic Acid (PFPeA)	--	--	<3.9	<4.0	<4.0	<4.1	<3.9	<3.9	2.6 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<1.9	<2.0	<4.0	<2.1	<1.9	<1.9	<2.0
Perfluorooctanoic Acid (PFOA)	8	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorononanoic Acid (PFNA)	6	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<1.9	<2.0	<4.0	<2.1	<1.9	<1.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<3.9	<4.0	<4.0	<4.1	<3.9	<3.9	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<3.9	<4.0	<4.0	<4.1	<3.9	<3.9	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<1.9	<2.0	<2.0	<2.1	<1.9	<1.9	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<1.9	<2.0	<10	<4.1	<9.7	<9.7	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<2.0
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	0.0	0.0	0.0	0.0	2.6

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
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- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-3	OBG MW-3	OBG MW-4S	OBG MW-4S	OBG MW-4S
	Sample Date:		6/30/2020	10/28/2020	11/2/2020	4/26/2021	11/9/2021
Perfluorobutanoic Acid (PFBA)	--	--	33 U	<10	<150 X	<10	<120 X
Perfluoropentanoic Acid (PFPeA)	--	--	4.1	2.0 J	<4.2	<4.2	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	2.7	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	3.8	3.8	<2.1	<2.1	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	2.2	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<4.0
Perfluorooctanoic Acid (PFOA)	8	4.2	4.4	4.5	2.9	3.8	3.8
Perfluorohexane Sulfonic Acid (PFHxS)	51	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorononanoic Acid (PFNA)	6	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<4.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<3.9	<4.1	<4.2	<4.2	<4.2	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	<1.9	<2.0	3.9	2.2	2.7	2.7
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorotridecanoic Acid (PFTTrDA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.9	<4.1	<4.2	<4.2	<4.2	<4.0
11-chloroeicosaffluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<1.9	<2.0	<2.1	<2.1	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<1.9	<2.0	<2.1	<10	<10	<10
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	50.0	10.2	8.4	5.1	6.5

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-5S	OBG MW-5S (DUP-1)	OBG MW-5S	OBG MW-5S (DUP-1)	OBG MW-5S	OBG MW-5S (DUP-042321)	OBG MW-5S	OBG MW-5S
	Sample Date:		7/1/2020	7/1/2020	10/29/2020	10/29/2020	4/23/2021	4/23/2021	11/8/2021	4/29/2022
Perfluorobutanoic Acid (PFBA)	--	--	<48 X	<38 X	<20 X	<19 X	<20 X	<22 X	<20 X	<40 X
Perfluoropentanoic Acid (PFPeA)	--	--	<3.8	<3.8	<4.0	<3.8	<4.0	<4.0	<4.1	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	<3.8 X	<3.8 X	3.2	3.6	<2.0	<2.0	<2.9 X	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	--	<3.8 X	<3.8 X	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	<1.9	1.8 J	1.7 J	1.6 J	<2.0	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	8.5	<2.0
Perfluorooctanoic Acid (PFOA)	8	--	8.7	9.8	11	11	9.1	9.4	9.3	9.7
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	3.2	3.0	<2.0	<1.9	2.0	2.1	2.7	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	2.0	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<4.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<3.8	<3.8	<4.0	<3.8	<4.0	<4.0	<4.1	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTDA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTEDA)	--	--	<3.8	<3.8	<4.0	<3.8	<4.0	<4.0	<4.1	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<1.9	<1.9	<2.0	<1.9	<9.9	<10	<10	<4.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	11.9	14.6	15.9	16.2	11.1	11.5	20.5	9.7

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-5S (DUP-042922)	OBG MW-5S	OBG MW-5S	OBG MW-5S (DUP-042723)
	Sample Date:		4/29/2022	10/25/2022	4/27/2023	4/27/2023
Perfluorobutanoic Acid (PFBA)		--	<30 X	<20 X	<68 X	<63 X
Perfluoropentanoic Acid (PFPeA)		--	<4.0	<4.0	<4.0	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0	<2.0 I	<2.0 I	<2.0 I
Perfluorohexanoic Acid (PFHxA)		400,000	<2.0	<2.0	7.1	7.6
Perfluorobutane Sulfonic Acid (PFBS)		420	<2.0	<2.0	<3.8 X	<2.0 X
Perfluoroheptanoic Acid (PFHpA)		--	2.0	1.7	2.4	1.5 J
Perfluoropentane Sulfonic Acid (PFPeS)		--	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.0	4.0	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)		8	9.4	9.9	6.9	7.0
Perfluorohexane Sulfonic Acid (PFHxS)		51	<2.0	2.3	2.4	2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<2.0	2.3	<2.0	2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)		6	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.0	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<2.0	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)		--	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.0	<4.0	<4.0	<3.9
Perfluorooctane Sulfonic Acid (PFOS)		16	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	<2.0	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)		--	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)		--	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)		--	<4.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)		--	<2.0	<4.0	<4.0	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.0	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)		370	<4.0	<10	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	<4.0	<3.9
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))		--	--	--	<4.0	<3.9
3-Perfluoropropyl propanoic acid (FPpPA(3:3 FTCA))		--	--	--	<4.0	<3.9
Perfluorobutanesulfonamide (PFBSA)		--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	<2.0	<2.0
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances		--	11.4	17.9	18.8	18.1

Notes

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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-6S	OBG MW-6S	OBG MW-6D	OBG MW-6D	OBG MW-6D	OBG MW-6D	OBG MW-6D	OBG MW-6D	
	Sample Date:		6/30/2020	10/28/2020	10/28/2020	4/22/2021	11/8/2021	4/27/2022	10/24/2022	4/26/2023	
Perfluorobutanoic Acid (PFBA)	--	--	30 U	<10	<10	<10	<10	<9.5	<9.7	<9.6	<10
Perfluoropentanoic Acid (PFPeA)	--	--	4.9	5.0	1.3 J	1.7 J	1.3 J	<3.9	<3.8	<3.8	1.3 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorohexanoic Acid (PFHxA)	400,000	--	5.6	4.5	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	420	--	4.4	4.7	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	--	2.2	2.3	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	2.2	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.0	<2.0	<2.0	<3.8	<1.9	<1.9	<1.9	<2.1
Perfluorooctanoic Acid (PFOA)	8	--	8.8	4.3	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	<2.0	1.8 J	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorononanoic Acid (PFNA)	6	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.0	<2.0	<2.0	<3.8	<1.9	<1.9	<1.9	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.0	<4.0	<4.1	<4.0	<3.8	<3.9	<3.8	<3.8	<4.2
Perfluorooctane Sulfonic Acid (PFOS)	16	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorotridecanoic Acid (PFTDA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.0	<4.0	<4.1	<4.0	<3.8	<3.9	<3.8	<3.8	<4.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.0	<2.0	<2.0	<1.9	<1.9	<1.9	<1.9	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<2.0	<2.0	<2.0	<2.0	<9.5	<3.9	<9.6	<9.6	<2.1
3-Perfluoroheptyl propanoic acid (FHpPA (7:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<4.2
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<4.2
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	--	--	<4.2
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	--	--	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	--	--	<2.1
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	--	--	<2.1
Total Per-and Polyfluoroalkyl Substances	--	--	55.9	24.8	1.3	1.7	1.3	0.0	0.0	0.0	1.3

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) Dup = Duplicate sample.
 - 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
 - 7) Concentration above the drinking water criteria are highlighted in yellow.
 - 8) Light gray header is most recent sampling event result.
 - 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
 - 10) 1 - Biased high due to matrix interference.
 - 11) J - Estimated value less than reporting limit, but greater than MDL.
 - 12) I - Matrix interference with internal standard.
 - 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-7S	OBG MW-7S	OBG MW-7S	OBG MW-7S	OBG MW-7S	OBG MW-7S	OBG MW-7S
	Sample Date:		6/29/2020	10/27/2020	4/22/2021	11/8/2021	4/27/2022	10/24/2022	4/25/2023
Perfluorobutanoic Acid (PFBA)	--	--	33 U	<10	<9.7	<10	<11	<9.6	<9.9
Perfluoropentanoic Acid (PFPeA)	--	--	<3.8	1.3 J	<3.9	<4.0	<4.2	1.2 J	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	1.4 J	1.7 J	1.5 J	2.3	1.9 J	2.3	2.1
Perfluorobutane Sulfonic Acid (PFBS)	420	--	1.5 J	1.7 J	1.7 J	1.9 J	1.6 J	2.3	1.8 J
Perfluoroheptanoic Acid (PFHpA)	--	--	<1.9	1.5 J	1.9 J	<2.0	<2.1	<1.9	1.6 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<1.9	<2.0	<1.9	<4.0	<2.1	7.3	<2.0
Perfluorooctanoic Acid (PFOA)	8	--	19	25	19	20	19	20	14
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	3.7	4.7	3.7	3.9	3.4	5.4	3.4
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	2.8	3.1	2.8	2.9	2.4	4.0	2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorononanoic Acid (PFNA)	6	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<1.9	<2.0	<1.9	<4.0	<2.1	<1.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	6.6	8.4	7.4	4.2	<4.2	6.7	8.7
Perfluorooctane Sulfonic Acid (PFOS)	16	--	54	60	37	37	32	36	32
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	--	26	29	18	17	14	16	16
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	--	27	29	19	20	17	19	15
Perfluoroundecanoic Acid (PFUnDA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<3.8	<4.1	<3.9	<4.0	<4.2	<3.8	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<1.9	<2.0	<1.9	<2.0	<2.1	<1.9	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<1.9	2.2	<9.7	<10	<4.2	<9.6	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	1.8 J
Total Per- and Polyfluoroalkyl Substances	--	--	119.2	106.5	72.2	69.3	57.9	81.2	65.4

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
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- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
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- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-7D	OBG MW-7D	OBG MW-7D	OBG MW-7D	OBG MW-7D	OBG MW-7D	OBG MW-7D	
	Sample Date:		6/29/2020	10/27/2020	4/21/2021	4/21/2021	4/27/2022	10/24/2022	4/25/2023	
Perfluorobutanoic Acid (PFBA)	--		28 U	<11	<9.9	<9.8	<9.8	<9.8	<9.9	<10
Perfluoropentanoic Acid (PFPeA)	--		<3.9	<4.2	<3.9	<3.9	<3.9	<3.9	<3.9	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	400,000		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	420		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--		<1.9	<2.1	<2.0	<3.9	<2.0	<2.0	<2.0	<2.1
Perfluorooctanoic Acid (PFOA)	8		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	51		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	6		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--		<1.9	<2.1	<2.0	<3.9	<2.0	<2.0	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--		<3.9	<4.2	<3.9	<3.9	<3.9	<3.9	<3.9	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	16		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS -LN)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--		<3.9	<4.2	<3.9	<3.9	<3.9	<3.9	<3.9	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--		<1.9	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	370		<1.9	<2.1	<2.0	<9.8	<3.9	<9.9	<9.9	<2.1
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--		--	--	--	--	--	--	--	<4.1
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--		--	--	--	--	--	--	--	<4.1
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--		--	--	--	--	--	--	--	<4.1
Perfluorobutanesulfonamide (PFBSA)	--		--	--	--	--	--	--	--	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--		--	--	--	--	--	--	--	<2.1
Perfluorohexanesulfonamide (PFHxSA)	--		--	--	--	--	--	--	--	<2.1
Total Per-and Polyfluoroalkyl Substances	--		28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-8	OBG MW-8	OBG MW-8	OBG MW-8	OBG MW-8	OBG MW-8
	Sample Date:		6/30/2020	10/29/2020	4/22/2021	11/8/2021	4/28/2022	4/26/2023
Perfluorobutanoic Acid (PFBA)	--	--	25 U	<10	<10	<9.8	<9.9	<10
Perfluoropentanoic Acid (PFPeA)	--	--	<4.1	<4.1	<4.0	<3.9	<4.0	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	<2.1	<2.1	<2.0	<2.0	1.6 J	2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	<2.1	1.8 J	1.6 J	1.9 J	1.6 J	1.7 J	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<2.1	<2.0	<2.0	<3.9	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	<2.1	1.8 J	1.7 J	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.1	<2.0	<3.9	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.1	<4.1	<4.0	<3.9	<4.0	<4.0	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	16	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.1	<4.0	<3.9	<4.0	<4.0	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<2.0	<2.0	<2.0	<2.0	<2.2
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<2.1	<2.1	<10	<9.8	<4.0	<4.0	<2.3
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0
Total Per-and Polyfluoroalkyl Substances	--	--	25.0	3.6	3.3	3.5	3.6	1.7

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) I - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.

TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-9	OBG MW-9	OBG MW-9	OBG MW-9	OBG MW-9	OBG MW-9
	Sample Date:		10/29/2020	4/22/2021	11/8/2021	4/28/2022	10/24/2022	4/26/2023
Perfluorobutanoic Acid (PFBA)	--	--	<10.0	<10.0	<10	<10	<9.4	<20 X
Perfluoropentanoic Acid (PFPeA)	--	--	<4.0	<4.0	<5.4 X	<4.1	<3.7	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	<2.0	<2.0	2.4	<2.1	1.5 J	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	2.2	2.3	2.0 J	1.9 J	2.7	2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<2.0	8.3	<2.1	4.0	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	<2.0	<2.0	2.6	<2.1	1.6 J	2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	51	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<2.0	<4.2	<2.1	<1.9	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.0	<4.0	<4.2	<4.1	<3.7	<3.9	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	16	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.0	<4.0	<4.2	<4.1	<3.7	<3.9	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<2.1	<2.1	<1.9	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<2.0	<10.0	<10	<4.1	<9.4	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	<3.9	<3.9
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	<3.9	<3.9
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	<3.9	<3.9
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	<2.0	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances	--	2.2	2.3	15.3	1.9	9.8	4.1	

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-10	OBG MW-10	OBG MW-10	OBG MW-10	OBG MW-10	OBG MW-10	OBG MW-10
	Sample Date:		7/2/2020	11/2/2020	4/26/2021	11/9/2021	4/29/2022	10/25/2022	4/27/2023
Perfluorobutanoic Acid (PFBA)	--	--	26 U	<49 X	<42 X	<19 X	<58	<100 JX	<51 X
Perfluoropentanoic Acid (PFPeA)	--	--	<3.9	1.4 J	<4.2	1.5 J	<3.8	<3.9	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	--	<2.0	1.6 J	<2.6 X	2.3	<1.9	2.5	2.5
Perfluorobutane Sulfonic Acid (PFBS)	420	--	1.4	<2.0	1.6 J	1.6 J	<1.9	2.3	1.9 J
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	1.7 J	<2.1	<1.9	<1.9	1.6 J	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.0	<2.1	<3.9	<1.9	5.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	--	9.6	9.6	9.8	11	13	9.8	14
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorononanoic Acid (PFNA)	6	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.0	<2.1	<3.9	<1.9	<1.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	5.6	<4.9 X	6.9	3.1 J	<3.8	<3.9	7.4
Perfluorooctane Sulfonic Acid (PFOS)	16	--	16	17	14	11	14	13	16
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	7.2	7.0	6.5	4.9	5.8	6.3	7.1
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	8.5	8.8	7.1	5.4	7.6	7.0	8.3
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<3.9	<3.9	<4.2	<3.9	<3.8	<3.9	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.0	<2.1	<1.9	<1.9	<1.9	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<2.0	<2.0	<10	<9.7	<3.8	<9.7	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	--	<2.0
Total Per- and Polyfluoroalkyl Substances	--	--	58.6	31.3	32.3	30.5	27.0	34.2	41.8

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
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- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-11	OBG MW-11	OBG MW-11	OBG MW-11	OBG MW-11	OBG MW-11
	Sample Date:		10/29/2020	4/22/2021	11/8/2021	4/27/2022	10/24/2022	4/26/2023
Perfluorobutanoic Acid (PFBA)	--	--	<20 X	<25 X	15	33	<9.6	<41 X
Perfluoropentanoic Acid (PFPeA)	--	--	<4.0	<3.9	<3.9	<4.0	<3.8	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<1.9	<2.0 I	<2.0	<1.9 I	<2.1 I
Perfluorohexanoic Acid (PFHxA)	400,000	--	3.1	<1.9	<2.0	6.1	<1.9	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	420	--	<2.0	<1.9	1.6 J	<2.0	1.8 J	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	1.5 J	<2.0	<2.0	1.5 J	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<1.9	<3.9	<2.0	<1.9	<2.1
Perfluorooctanoic Acid (PFOA)	8	1.9 J	3.8	3.8	2.9	3.3	4.1	2.1
Perfluorohexane Sulfonic Acid (PFHxS)	51	--	<2.0	<1.9	<2.0	<2.0	1.8 J	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	<1.9	<2.0	<2.0	1.8 J	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorononanoic Acid (PFNA)	6	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<1.9	<3.9	<2.0	<1.9	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.0	<3.9	<3.9	<4.0	<3.8	<4.1
Perfluorooctane Sulfonic Acid (PFOS)	16	6.5	3.3	3.8	3.5	4.5	3.6	3.6
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	4.8	2.3	2.6	2.5	3.4	2.4
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.0	<3.9	<3.9	<4.0	<3.8	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<1.9	<2.0	<2.0	<1.9	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	370	--	<2.0	<1.9	<9.9	<4.0	<9.6	<2.1
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	<4.1
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.1
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.1
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	<2.1
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.1
Total Per-and Polyfluoroalkyl Substances	--	--	11.5	8.6	23.3	45.9	13.7	5.7

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
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- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	MW-401	MW-401	MW-401	MW-401	MW-401
	Sample Date:		11/2/2020	4/27/2021	11/9/2021	4/29/2022	10/26/2022
Perfluorobutanoic Acid (PFBA)		--	<18 X	<10	12	<23 X	<10
Perfluoropentanoic Acid (PFPeA)		--	<4.1	<4.1	<4.0	<4.1	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorohexanoic Acid (PFHxA)		400,000	<2.0	2.0 J	<2.0	<2.1	2.4
Perfluorobutane Sulfonic Acid (PFBS)		420	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.0	<2.1	<4.0	<2.1	<2.0
Perfluorooctanoic Acid (PFOA)		8	<2.0	<2.1	<2.0	<2.1	1.9 J
Perfluorohexane Sulfonic Acid (PFHxS)		51	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorononanoic Acid (PFNA)		6	<2.0	<2.1	<2.0	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.0	<2.1	<4.0	<2.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.1	<4.1	<4.0	<4.1	<4.0
Perfluorooctane Sulfonic Acid (PFOS)		16	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorotridecanoic Acid (PFTrDA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.1	<4.1	<4.0	<4.1	<4.0
11-chloroeicosaffluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)		--	<2.0	<2.1	<2.0	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<2.1	<2.0	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)		370	<2.0	<10	<10	<4.1	<10
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))		--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances		--	0.0	2.0	12.0	0.0	4.3

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	MW-403	MW-403	MW-403	MW-403 (DUP-110921)
	Sample Date:		11/2/2020	4/23/2021	11/9/2021	11/9/2021
Perfluorobutanoic Acid (PFBA)	--	--	<16 X	<10	<9.8	<9.6
Perfluoropentanoic Acid (PFPeA)	--	--	<4.1	<4.2	<3.9	<3.8
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<2.1	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	400,000	1.6 J	<2.1	<2.1	<2.0	<1.9
Perfluorobutane Sulfonic Acid (PFBS)	420	<2.1	<2.1	1.5 J	1.8 J	1.8 J
Perfluoroheptanoic Acid (PFHpA)	--	2.1	2.0 J	<2.0	1.3 J	1.3 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<2.0	<1.9	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	240	<3.9	<3.8	<3.8
Perfluorooctanoic Acid (PFOA)	8	25	19	14	15	15
Perfluorohexane Sulfonic Acid (PFHxS)	51	3.6	2.2	3.9	3.7	3.7
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	3.5	<2.1	3.2	2.8	2.8
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorononanoic Acid (PFNA)	6	<2.1	2.1	<2.0	<1.9	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.1	<3.9	<3.8	<3.8
Perfluoroheptane Sulfonic Acid (PFHpS)	--	7.3	2.7	3.8	3.8	3.8
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<2.0	<1.9	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	2.5	1.9	1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	75	61	82	78	78
Perfluorooctane Sulfonic Acid (PFOS)	16	960	450	550	580	580
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	710	350	430	460	460
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	250	100	120	120	120
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	32	33	59	60	60
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.2	<3.9	<3.8	<3.8
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<2.0	<1.9	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<2.0	<1.9	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<2.0	<1.9	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<2.1	<10	<9.8	<9.6	<9.6
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA(3:3 FTCA))	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	1106.6	812.0	716.7	745.5	745.5

Notes

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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	MW-403	MW-403 TOPs Analysis	MW-403	MW-403 (DUP-102522)	MW-403
	Sample Date:		4/29/2022	4/29/2022	10/25/2022	10/25/2022	4/27/2023
Perfluorobutanoic Acid (PFBA)	--	--	<14 X	<120 X	<9.3	<9.9	<26 X
Perfluoropentanoic Acid (PFPeA)	--	--	<4.1	<90 IX	1.3 J	0.99 J	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<30 I	<1.9	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	400,000	<2.1	31	<1.9	1.4 J	1.4 J	1.4 J
Perfluorobutane Sulfonic Acid (PFBS)	420	<2.1	<30	1.4 J	1.9 J	1.8 J	1.8 J
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	<30	2.3	2.1	1.9 J	1.9 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<30 I	<1.9	<2.0	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	11	<30	9.3	11	12	12
Perfluorohexane Sulfonic Acid (PFHxS)	51	1.7 J	<30	4.0	4.7	3.8	3.8
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<30	3.3	3.9	2.7	2.7
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	<2.1	<30	<1.9	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<30 I	<1.9	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	2.7	<30	<1.9	2.1	2.5	2.5
Perfluorodecanoic Acid (PFDA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	54	<30 I	45	43	81	81
Perfluorooctane Sulfonic Acid (PFOS)	16	370	260	310	330	400	400
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	280	180	230	250	300	300
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	87	66	76	66	93	93
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	33	<30 I	24	23	42	42
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<30	<3.7	<3.9	<4.0	<4.0
11-chloroheicosaffluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF30NS)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<30	<1.9	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<4.1	<30	<9.3	<9.9	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	<4.0	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	<4.0	<4.0
3-Perfluoropropyl propanoic acid (FPpPA (3:3 FTCA))	--	--	--	--	--	<4.0	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	3.5	3.5
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	2.2	2.2
Total Per-and Polyfluoroalkyl Substances	--	472.4	291.0	397.3	420.2	552.1	552.1

Notes

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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG OS MW-3	OBG OS MW-3	OBG OS MW-3	OBG OS MW-3
	Sample Date:		4/23/2021	11/9/2021	4/28/2022	10/25/2022
Perfluorobutanoic Acid (PFBA)	--	--	<24 X	<20 X	<38 X	<9.5
Perfluoropentanoic Acid (PFPeA)	--	--	<3.9	<4.4 X	<3.8	<3.8
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.0	<1.9	<1.9
Perfluorohexanoic Acid (PFHxA)	400,000	3.6	2.4	<1.9	<1.9	2.9
Perfluorobutane Sulfonic Acid (PFBS)	420	2.2	1.8 J	<1.9	<1.9	1.8 J
Perfluoroheptanoic Acid (PFHpA)	--	2.4	2.2	1.4 J	2.2	2.2
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<4.0	<1.9	<1.9	<1.9
Perfluorooctanoic Acid (PFOA)	8	10	11	9.5	16	16
Perfluorohexane Sulfonic Acid (PFHxS)	51	1.7 J	<2.0	<1.9	<1.9	4.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.0	<1.9	<1.9	2.8
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorononanoic Acid (PFNA)	6	<2.0	<2.0	<1.9	<1.9	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<4.0	<1.9	<1.9	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	13	23	17	5.7	5.7
Perfluorooctane Sulfonic Acid (PFOS)	16	36	34	30	31	31
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	25	25	20	19	19
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	9.2	8.1	9.0	11	11
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	5.4	8.2	9.0	2.7	2.7
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.9	<4.0	<3.8	<3.8	<3.8
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<1.9	<1.9	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<1.9	<1.9	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<9.9	<10	<3.8	<9.5	<9.5
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPPrPA(3:3 FTCA))	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	74.3	82.6	66.9	66.3	66.3

Notes

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- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG OS MW-4	OBG OS MW-4	OBG OS MW-4	OBG OS MW-4
	Sample Date:		4/23/2021	11/9/2021	4/28/2022	10/25/2022
Perfluorobutanoic Acid (PFBA)	--	--	<26 X	<21 X	<50 X	<10
Perfluoropentanoic Acid (PFPeA)	--	--	<4.0	<4.1	<4.0	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.1 I	<2.0 I	<2.0 I
Perfluorohexanoic Acid (PFHxA)	400,000	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	420	<2.0	<2.0	<2.1	<2.0	6.2 1
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<2.0	<4.1	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	8	2.6	2.6	2.4	2.8	5.9
Perfluorohexane Sulfonic Acid (PFHxS)	51	<2.0	<2.0	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	6	<2.0	<2.0	<2.1	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<2.0	<4.1	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	6.3	6.3	6.4	6.0	9.5
Perfluorooctane Sulfonic Acid (PFOS)	16	3.6	3.6	2.7	4.9	4.6
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<2.0	<2.0	<2.1	2.2	2.0 J
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	<2.0	<2.0	<2.1	2.3	2.5
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorotridecanoic Acid (PFTTrDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.0	<4.0	<4.1	<4.0	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<2.1	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<2.1	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<10	<10	<10	<4.0	<10
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPPrPA(3:3 FTCA))	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--		12.5	11.5	13.7	26.2

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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- 11) J - Estimated value less than reporting limit, but greater than MDL.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG OS MW-5	OBG OS MW-5	OBG OS MW-5	OBG OS MW-5
	Sample Date:		4/23/2021	11/9/2021	4/28/2022	10/25/2022
Perfluorobutanoic Acid (PFBA)	--	--	<21 X	<21 X	<39 X	<9.8
Perfluoropentanoic Acid (PFPeA)	--	--	3.6 J	<5.4 X	<3.9	<5 X
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.1	<2.1 I	<1.9	<2.0 I
Perfluorohexanoic Acid (PFHxA)	400,000	3.4	3.5	<1.9	<1.9	5.4
Perfluorobutane Sulfonic Acid (PFBS)	420	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	1.8 J	1.5 J	<1.9	<1.9	1.8 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<4.1	<1.9	<1.9	<2.0
Perfluorooctanoic Acid (PFOA)	8	2.8	2.2	2.8	2.7	2.7
Perfluorohexane Sulfonic Acid (PFHxS)	51	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorononanoic Acid (PFNA)	6	<2.1	<2.1	<1.9	<1.9	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<4.1	<1.9	<1.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.1	<4.1	<3.9	<3.9	<3.9
Perfluorooctane Sulfonic Acid (PFOS)	16	<2.1	<2.1	<1.9	<1.9	2.1
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.1	<3.9	<3.9	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<1.9	<1.9	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<1.9	<1.9	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	370	<10	<10	<3.9	<3.9	<9.8
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPPrPA (3:3 FTCA))	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances	--	--	11.6	7.2	2.8	12.0

Notes

- 1) Detections in **bold**.
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- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	Field Blank-062920	Field Blank-070120	Field Blank-070220	Field Blank-102720
	Sample Date:		6/29/2020	7/1/2020	7/2/2020	10/27/2020
Perfluorobutanoic Acid (PFBA)		--	21	35	16	<10.0
Perfluoropentanoic Acid (PFPeA)		--	<4.0	<3.9	<4.0	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)		400,000	<2.0	<1.9	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)		420	<2.0	<1.9	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)		--	<2.0	<1.9	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)		--	<2.0	<1.9	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)		8	<2.0	<1.9	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)		51	<2.0	<1.9	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<2.0	<1.9	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<2.0	<1.9	<2.0	<2.0
Perfluorononanoic Acid (PFNA)		6	<2.0	<1.9	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.0	<1.9	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<2.0	<1.9	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)		--	<2.0	<1.9	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<1.9	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.0	<3.9	<4.0	<4.0
Perfluorooctane Sulfonic Acid (PFOS)		16	<2.0	<1.9	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)		--	<2.0	<1.9	<2.0	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)		--	<2.0	<1.9	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)		--	<2.0	<1.9	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<1.9	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<1.9	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.0	<3.9	<4.0	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.0	<1.9	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.0	<1.9	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<1.9	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)		370	<2.0	<1.9	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))		--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPPrPA(3:3 FTCA))		--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances		--	21.0	35.0	16.0	0.0

Notes

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- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
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- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	Field Blank-102920	Field Blank-110220	Field Blank-042121	Field Blank-042221	Field Blank-042321	Field Blank-042721
	Sample Date:		10/29/2020	11/2/2020	4/21/2021	4/22/2021	4/23/2021	4/27/2021
Perfluorobutanoic Acid (PFBA)		--	<9.7	<10	<9.8	<9.9	<11	<11
Perfluoropentanoic Acid (PFPeA)		--	<3.9	<4.1	<3.9	<4.0	<4.2	<4.2
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorohexanoic Acid (PFHxA)		400,000	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorobutane Sulfonic Acid (PFBS)		420	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluoroheptanoic Acid (PFHpA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	2.8	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctanoic Acid (PFOA)		8	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)		51	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorononanoic Acid (PFNA)		6	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorodecanoic Acid (PFDA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<3.9	<4.1	<3.9	<4.0	<4.2	<4.2
Perfluorooctane Sulfonic Acid (PFOS)		16	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctane Sulfonic Acid (PFOS -LN)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluoroundecanoic Acid (PFUnDA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorononane Sulfonic Acid (PFNS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorododecanoic Acid (PFDoDA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorodecane Sulfonic Acid (PFDS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorotridecanoic Acid (PFTrDA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorooctane Sulfonamide (FOSA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Perfluorotetradecanoic Acid (PFTeDA)		--	<3.9	<4.1	<3.9	<4.0	<4.2	<4.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<1.9	<2.0	<2.0	<2.0	<2.1	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)		370	<1.9	<2.0	<2.0	<9.9	<11	<11
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	--	--	--	--
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	--	--	--	--
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	--	--	--	--	--	--
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	--
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	--
Total Per-and Polyfluoroalkyl Substances		--	2.8	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) I - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.



TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2023

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	Field Blank-0110821	Field Blank-042822	Field Blank-042922	Field Blank-102422	Field Blank-102422	Field Blank-102422
	Sample Date:		11/8/2021	4/28/2022	4/29/2022	10/24/2022	10/24/2022	4/26/2023
Perfluorobutanoic Acid (PFBA)		--	<10	<10	<10	<10	<10	<10
Perfluoropentanoic Acid (PFPeA)		--	<4.1	<4.1	<4.1	<4.1	<4.1	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexanoic Acid (PFHxA)		400,000	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorobutane Sulfonic Acid (PFBS)		420	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<4.1	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctanoic Acid (PFOA)		8	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)		51	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorononanoic Acid (PFNA)		6	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<4.1	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.1	<4.1	<4.1	<4.1	<4.1	<4.0
Perfluorooctane Sulfonic Acid (PFOS)		16	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorotridecanoic Acid (PFTrDA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.1	<4.1	<4.1	<4.1	<4.1	<4.0
11-chloroeicosaffluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<2.0	<2.1	<2.1	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)		370	<10	<4.1	<4.1	<4.1	<10	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA(5:3 FTCA))		--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPpPA(3:3 FTCA))		--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)		--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	--	--	--	<2.0
Total Per-and Polyfluoroalkyl Substances		--	0.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 10) 1 - Biased high due to matrix interference.
- 11) J - Estimated value less than reporting limit, but greater than MDL.
- 12) I - Matrix interference with internal standard.
- 13) X - Elevated reporting limit due to matrix interference.



TABLE 2
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2021

Hemphill Road Industrial Land - PFAS LNAPL Sample Results

Perfluorinated Compound	Well/Sample ID:	OBG MW-4S	OBG MW-4S	MW-401	MW-401	Field Blank-110220	Field Blank-042721
	Sample Date:	11/2/2020	4/26/2021	11/2/2020	4/27/2021	11/2/2020	4/27/2021
Perfluorobutanoic Acid (PFBA)		<650	<630 1	<920	<970 1	<10	<11
Perfluoropentanoic Acid (PFPeA)		<330	<320 1	<460	<480 1	<4.1	<4.2
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorobutane Sulfonic Acid (PFBS)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)		<330	<320 1	<460	<480 1	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorooctanoic Acid (PFOA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorononanoic Acid (PFNA)		<330	<320 1	<460	<480 1	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)		<330	<320 1	<460	<480 1	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		<330	<320 1	<460	<480 1	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		<330	<320 1	520	<480 1	<4.1	<4.2
Perfluorooctane Sulfonic Acid (PFOS)		<330	<320 1	320 J	99 J1	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS -LN)		<330	<320 1	150 J	<480 1	<2.0	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)		<330	<320 1	130 J	<480 1	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)		<330	<320 1	<460 I	<480 1	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorotridecanoic Acid (PFTTrDA)		<330	<320 1	<460 I	<480 1	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)		<330	<320 1	<460	<480 1	<4.1	<4.2
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		<330	<320 1	<460	<480 1	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		<330	<320 1	<460	<480 1	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		<330	<320 1	<460	<480 1	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)		<330	<320 1	<460	<480 1	<2.0	<11
Total Per-and Polyfluoroalkyl Substances		0.0	0.0	840.0	99.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/kg. Field blank concentration in ng/L
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020 and Rule 57 Surface Water Quality Values.
- 7) Concentration above the drinking water criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) J - Estimated value less than reporting limit, but greater than MDL.
- 10) I - Matrix interference with internal standard.
- 11) 1 - Bottle overfilled, subsample poured off to analyze.



TABLE 3
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2023

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	Sanitary Sewer Southeast of Site	Sanitary Sewer Southeast of Site	Sanitary Sewer Southeast of Site	Sanitary Sewer Southeast of Site	Sanitary Sewer Southeast of Site	Sanitary Sewer Southeast of Site
	Sample Date:		11/2/2020	4/26/2021	11/9/2021	4/28/2022	10/26/2022	4/27/2023
Perfluorobutanoic Acid (PFBA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoropentanoic Acid (PFPeA)		--	DRY	DRY	DRY	DRY	DRY	DRY
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorohexanoic Acid (PFHxA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorobutane Sulfonic Acid (PFBS)		670,000	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoroheptanoic Acid (PFHpA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoropentane Sulfonic Acid (PFPeS)		--	DRY	DRY	DRY	DRY	DRY	DRY
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorooctanoic Acid (PFOA)		170	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorohexane Sulfonic Acid (PFHxS)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorononanoic Acid (PFNA)		--	DRY	DRY	DRY	DRY	DRY	DRY
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoroheptane Sulfonic Acid (PFHpS)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorodecanoic Acid (PFDA)		--	DRY	DRY	DRY	DRY	DRY	DRY
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	DRY	DRY	DRY	DRY	DRY	DRY
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorooctane Sulfonic Acid (PFOS)		12	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorooctane Sulfonic Acid (PFOS-LN)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorooctane Sulfonic Acid (PFOS-BR)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoroundecanoic Acid (PFUnDA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorononane Sulfonic Acid (PFNS)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorododecanoic Acid (PFDoDA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorodecane Sulfonic Acid (PFDS)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorotridecanoic Acid (PFTrDA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorooctane Sulfonamide (FOSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorotetradecanoic Acid (PFTeDA)		--	DRY	DRY	DRY	DRY	DRY	DRY
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	DRY	DRY	DRY	DRY	DRY	DRY
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	DRY	DRY	DRY	DRY	DRY	DRY
4,8-dioxo-3H-perfluorononanoic acid (ADONA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Hexafluoropropylene oxide dimer (HFPO-DA)		--	DRY	DRY	DRY	DRY	DRY	DRY
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	DRY	DRY	DRY	DRY	DRY	DRY
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	DRY	DRY	DRY	DRY	DRY	DRY
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorobutanesulfonamide (PFBSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	DRY	DRY	DRY	DRY	DRY	DRY
Perfluorohexanesulfonamide (PFHxSA)		--	DRY	DRY	DRY	DRY	DRY	DRY
Total Per-and Polyfluoroalkyl Substances		--						

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020 and Rule 57 Surface Water Quality Values.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
- 11) X - Elevated reporting limit due to matrix interference.



TABLE 3
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2023

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	SAN-01 (Sanitary Sewer Sample)	SAN-01 (Sanitary Sewer Sample)	SAN-02 (Sanitary Sewer Sample)	SAN-02 (Sanitary Sewer Sample)	SAN-02 (Sanitary Sewer Sample)	SAN-02 (Sanitary Sewer Sample)	SAN-02 (Sanitary Sewer Sample)
	Sample Date:		11/2/2020	4/26/2021	4/26/2021	11/9/2021	4/28/2022	10/26/2022	4/27/2023
Perfluorobutanoic Acid (PFBA)	--	<10	<10	<10	<10	<10	<9.9	<10	<10
Perfluoropentanoic Acid (PFPeA)	--	3.8 J	3.8 J	4.0 J	3.4 J	3.8 J	4.8	2.5 J	2.5 J
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0 I	<2.0 I	<2.0 I
Perfluorohexanoic Acid (PFHxA)	--	3.1	4.8	2.7	3.3	3.5	5.6	2.5	2.5
Perfluorobutane Sulfonic Acid (PFBS)	670,000	6.0	3.8	4.1	6.6	6.6	2.6	4.8	4.8
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	1.7 J	<2.1	<2.0	<2.0	<2.0	<2.0	1.4 J
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<2.0	<2.1 I	<3.9 I	<2.0	<2.0 I	<2.0	<2.0
Perfluorooctanoic Acid (PFOA)	170	2.6	2.8	2.9	4.1	3.7	2.0	3.0	3.0
Perfluorohexane Sulfonic Acid (PFHxS)	--	2.5	3.8	2.1	3.1	3.0	2.2	3.8	3.8
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	1.7 J	1.8 J	<2.1	1.8	<2.0	<2.0	<2.0	1.9 J
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<2.0	<2.1	<3.9	<2.0	<2.0 I	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.0	<4.1 I	<4.1	<3.9	<4.0	<3.9	<4.0	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	12	9.9	8.4	8.9	8.6	8.3	2.1	6.0	6.0
Perfluorooctane Sulfonic Acid (PFOS-LN)	--	<2.0	<2.0	<2.1	2.9	2.2	2.1	2.5	2.5
Perfluorooctane Sulfonic Acid (PFOS-BR)	--	7.0	6.4	6.6	5.5	6.0	<2.0	3.6	3.6
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	2.8	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.0	<4.1	<4.1	<3.9	<4.0	<3.9	<4.0	<4.0
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<2.0	<10	<10	<9.8	<4.0	<9.9	<2.0	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	<4.0	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0	<4.0
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.0	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	<2.0	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0	<2.0
Total Per-and Polyfluoroalkyl Substances	--	27.9	29.1	24.7	29.1	28.9	22.1	24.0	24.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020 and Rule 57 Surface Water Quality Values.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
- 11) X - Elevated reporting limit due to matrix interference.

TABLE 3
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2023

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results

Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	SAN-03 (Sanitary Sewer Sample)	SAN-03 (Sanitary Sewer Sample)	SAN-03 (Sanitary Sewer Sample)
	Sample Date:		4/29/2022	10/26/2022	4/27/2023
Perfluorobutanoic Acid (PFBA)		--	<50 IX	<9.6	<10
Perfluoropentanoic Acid (PFPeA)		--	<4.0	<3.8	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)		--	<2.0 I	<1.9 I	<2.1 I
Perfluorohexanoic Acid (PFHxA)		--	<2.0	<1.9	1.9 J
Perfluorobutane Sulfonic Acid (PFBS)		670,000	<2.0	<1.9	<2.1
Perfluoroheptanoic Acid (PFHpA)		--	<2.0	<1.9	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)		--	<2.0	<1.9	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)		--	<2.0 I	<1.9 I	<2.1 I
Perfluorooctanoic Acid (PFOA)		170	2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)		--	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)		--	<2.0	<1.9	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)		--	<2.0	<1.9	<2.1
Perfluorononanoic Acid (PFNA)		--	<2.0	<1.9	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)		--	<2.0 I	<1.9 I	<2.1 I
Perfluoroheptane Sulfonic Acid (PFHpS)		--	<2.0	<1.9	<2.1
Perfluorodecanoic Acid (PFDA)		--	<2.0 I	<1.9	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)		--	<2.0	<1.9	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)		--	<4.0 I	<3.8	<4.1
Perfluorooctane Sulfonic Acid (PFOS)		12	<2.0	<1.9	<2.1
Perfluorooctane Sulfonic Acid (PFOS -LN)		--	<2.0	<1.9	<2.1
Perfluorooctane Sulfonic Acid (PFOS -BR)		--	<2.0	<1.9	<2.1
Perfluoroundecanoic Acid (PFUnDA)		--	<2.0 I	<1.9 I	<2.1
Perfluorononane Sulfonic Acid (PFNS)		--	<2.0	<1.9	<2.1
Perfluorododecanoic Acid (PFDoDA)		--	<2.0 I	<1.9 I	<2.1
Perfluorodecane Sulfonic Acid (PFDS)		--	<2.0	<1.9	<2.1
Perfluorotridecanoic Acid (PFTrDA)		--	<2.0 I	<1.9 I	<2.1
Perfluorooctane Sulfonamide (FOSA)		--	<2.0	<1.9	<2.1
Perfluorotetradecanoic Acid (PFTeDA)		--	<4.0	<3.8	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)		--	<2.0	<1.9	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)		--	<2.0	<1.9	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)		--	<2.0	<1.9	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)		--	<4.0	<9.6	<2.1
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))		--	--	--	<4.1
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))		--	--	--	<4.1
3-Perfluoropropyl propanoic acid (FPPrPA (3:3 FTCA))		--	--	--	<4.1
Perfluorobutanesulfonamide (PFBSA)		--	--	--	<2.1
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)		--	--	--	<2.1
Perfluorohexanesulfonamide (PFHxSA)		--	--	--	<2.1
Total Per-and Polyfluoroalkyl Substances		--	2.0	0.0	1.9

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020 and Rule 57 Surface Water Quality Values.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
- 11) X - Elevated reporting limit due to matrix interference.



TABLE 3
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2023

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results





Perfluorinated Compound	Well/Sample ID:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	Field Blank-110220	Field Blank-042721	Field Blank-0110821	Field Blank-042822	Field Blank-042922	Field Blank-102422
	Sample Date:		11/2/2020	4/27/2021	11/8/2021	4/28/2022	4/29/2022	4/26/2023
Perfluorobutanoic Acid (PFBA)	--	--	<10	<11	<10	<10	<10	<10
Perfluoropentanoic Acid (PFPeA)	--	--	<4.1	<4.2	<4.1	<4.1	<4.1	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorohexanoic Acid (PFHxA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	670,000	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	--	<2.0	<2.1	<4.1	<2.0	<2.1	<2.0
Perfluorooctanoic Acid (PFOA)	170	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorononanoic Acid (PFNA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	--	<2.0	<2.1	<4.1	<2.0	<2.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	--	<4.1	<4.2	<4.1	<4.1	<4.1	<4.0
Perfluorooctane Sulfonic Acid (PFOS)	12	<2.0	<2.1	<2.0	<2.0	<2.0	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS -LN)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorooctane Sulfonic Acid (PFOS -BR)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	--	<4.1	<4.2	<4.1	<4.1	<4.1	<4.0
11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	--	<2.0	<2.1	<2.0	<2.0	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	--	<2.0	<11	<10	<4.1	<4.1	<2.0
3-Perfluoroheptyl propanoic acid (FHpPA(7:3 FTCA))	--	--	--	--	--	--	--	<4.0
3-Perfluoropentyl propanoic acid (FPePA (5:3 FTCA))	--	--	--	--	--	--	--	<4.0
3-Perfluoropropyl propanoic acid (FPrPA (3:3 FTCA))	--	--	--	--	--	--	--	<4.0
Perfluorobutanesulfonamide (PFBSA)	--	--	--	--	--	--	--	<2.0
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--	--	--	--	--	--	--	<2.0
Perfluorohexanesulfonamide (PFHxSA)	--	--	--	--	--	--	--	<2.0
Total Per-and Polyfluoroalkyl Substances	--	--	0.0	0.0	0.0	0.0	0.0	0.0

Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) EGLE Part 201 Groundwater Generic Cleanup Criteria and Screening Levels, December 21, 2020 and Rule 57 Surface Water Quality Values.
- 7) Concentration above the groundwater surface water interface (GSI) criteria are highlighted in yellow.
- 8) Light gray header is most recent sampling event result.
- 9) I - Matrix interference with internal standard.
- 10) J - Estimated value less than reporting limit, but greater than MDL.
- 11) X - Elevated reporting limit due to matrix interference.

FIGURES



-  MONITORING WELL LOCATION (SCREENED IN NATIVE SOIL)
-  MONITORING WELL LOCATION (SCREENED IN FILL)
-  FENCE LINE
-  HEMPHILL ROAD INDUSTRIAL LAND

0 50 100 Feet

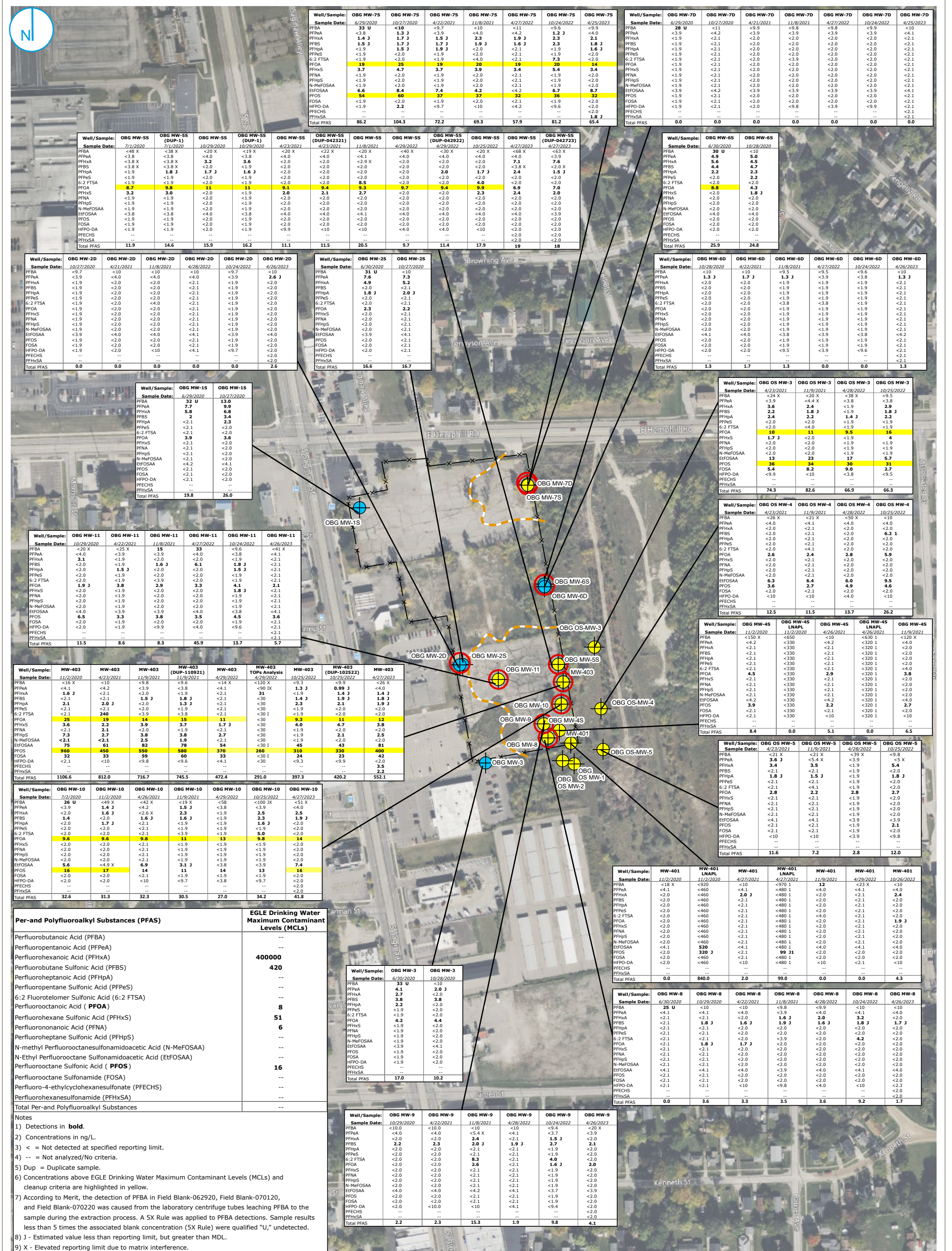
MONITORING WELL LOCATIONS

FIGURE 02

RACER TRUST
 HEMPHILL ROAD INDUSTRIAL LAND
 BURTON, MICHIGAN

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





Per-and Polyfluoroalkyl Substances (PFAS)

Compound	MCL
Perfluorobutanoic Acid (PFBA)	--
Perfluoropentanoic Acid (PFPeA)	--
Perfluorohexanoic Acid (PFHxA)	400000
Perfluorobutane Sulfonic Acid (PFBS)	420
Perfluoroheptanoic Acid (PFHpA)	--
Perfluoropentane Sulfonic Acid (PFPeS)	--
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--
Perfluorooctanoic Acid (PFOA)	8
Perfluorohexane Sulfonic Acid (PFHxS)	51
Perfluorononanoic Acid (PFNA)	6
Perfluoroheptane Sulfonic Acid (PFHpS)	--
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	--
Perfluorooctane Sulfonic Acid (PFOS)	16
Perfluorooctane Sulfonamide (FOSA)	--
Perfluoro-4-ethylcyclohexanesulfonate (PFECHS)	--
Perfluorohexanesulfonamide (PFHxSA)	--
Total Per-and Polyfluoroalkyl Substances	--

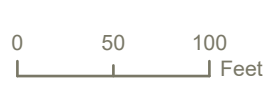
Notes

- 1) Detections in **bold**.
- 2) Concentrations in ng/L.
- 3) < = Not detected at specified reporting limit.
- 4) -- = Not analyzed/No criteria.
- 5) Dup = Duplicate sample.
- 6) Concentrations above EGLE Drinking Water Maximum Contaminant Levels (MCLs) and cleanup criteria are highlighted in yellow.
- 7) According to Merit, the detection of PFBA in Field Blank-062920, Field Blank-070120, and Field Blank-070220 was caused from the laboratory centrifuge tubes leaching PFBA to the sample during the extraction process. A 5X Rule was applied to PFBA detections. Sample results less than 5 times the associated blank concentration (5X Rule) were qualified "U," undetected.
- 8) J - Estimated value less than reporting limit, but greater than MDL.
- 9) X - Elevated reporting limit due to matrix interference.

PFAS SAMPLE RESULTS **FIGURE 03**



- MONITORING WELL LOCATION (SCREENED IN FILL)
- MONITORING WELL LOCATION (SCREENED IN NATIVE SOIL)
- SHALLOW GROUNDWATER ELEVATION CONTOUR
- FENCE LINE
- APPROXIMATE EXTENT OF WASTE FILL ONSITE



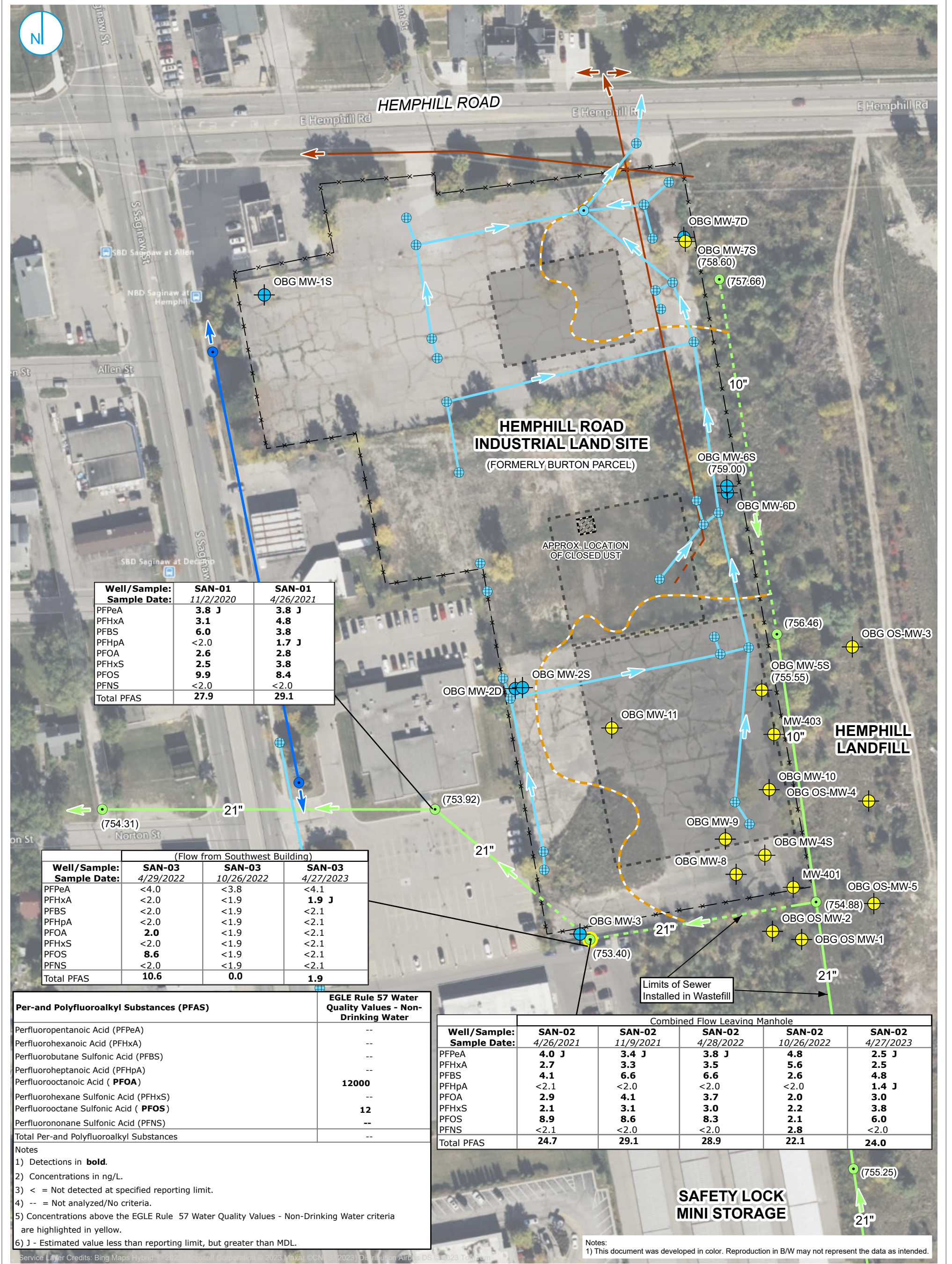
INTERPRETED SHALLOW GROUNDWATER ELEVATION CONTOURS
APRIL 25, 2023

FIGURE 04

RACER TRUST
 HEMPHILL ROAD INDUSTRIAL LAND
 BURTON, MICHIGAN

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY





Well/Sample:	SAN-01	SAN-01
Sample Date:	11/2/2020	4/26/2021
PFPeA	3.8 J	3.8 J
PFHxA	3.1	4.8
PFBS	6.0	3.8
PFHpA	<2.0	1.7 J
PFOA	2.6	2.8
PFHxS	2.5	3.8
PFOS	9.9	8.4
PFNS	<2.0	<2.0
Total PFAS	27.9	29.1

Well/Sample:	(Flow from Southwest Building)		
	SAN-03	SAN-03	SAN-03
Sample Date:	4/29/2022	10/26/2022	4/27/2023
PFPeA	<4.0	<3.8	<4.1
PFHxA	<2.0	<1.9	1.9 J
PFBS	<2.0	<1.9	<2.1
PFHpA	<2.0	<1.9	<2.1
PFOA	2.0	<1.9	<2.1
PFHxS	<2.0	<1.9	<2.1
PFOS	8.6	<1.9	<2.1
PFNS	<2.0	<1.9	<2.1
Total PFAS	10.6	0.0	1.9

Per-and Polyfluoroalkyl Substances (PFAS)	EGLE Rule 57 Water Quality Values - Non-Drinking Water
Perfluoropentanoic Acid (PFPeA)	--
Perfluorohexanoic Acid (PFHxA)	--
Perfluorobutane Sulfonic Acid (PFBS)	--
Perfluoroheptanoic Acid (PFHpA)	--
Perfluorooctanoic Acid (PFOA)	12000
Perfluorohexane Sulfonic Acid (PFHxS)	--
Perfluorooctane Sulfonic Acid (PFOS)	12
Perfluorononane Sulfonic Acid (PFNS)	--
Total Per-and Polyfluoroalkyl Substances	--

- Notes
- 1) Detections in **bold**.
 - 2) Concentrations in ng/L.
 - 3) < = Not detected at specified reporting limit.
 - 4) -- = Not analyzed/No criteria.
 - 5) Concentrations above the EGLE Rule 57 Water Quality Values - Non-Drinking Water criteria are highlighted in yellow.
 - 6) J - Estimated value less than reporting limit, but greater than MDL.

Well/Sample:	Combined Flow Leaving Manhole				
	SAN-02	SAN-02	SAN-02	SAN-02	SAN-02
Sample Date:	4/26/2021	11/9/2021	4/28/2022	10/26/2022	4/27/2023
PFPeA	4.0 J	3.4 J	3.8 J	4.8	2.5 J
PFHxA	2.7	3.3	3.5	5.6	2.5
PFBS	4.1	6.6	6.6	2.6	4.8
PFHpA	<2.1	<2.0	<2.0	<2.0	1.4 J
PFOA	2.9	4.1	3.7	2.0	3.0
PFHxS	2.1	3.1	3.0	2.2	3.8
PFOS	8.9	8.6	8.3	2.1	6.0
PFNS	<2.1	<2.0	<2.0	2.8	<2.0
Total PFAS	24.7	29.1	28.9	22.1	24.0

Notes:
1) This document was developed in color. Reproduction in B/W may not represent the data as intended.

- STORM SEWER LINE
- SANITARY SEWER LINE (DIAMETER - 21")
- INSTALLED BELOW THE WATER TABLE
- WATER LINE
- MANHOLE (HIGHLIGHTED MANHOLE INDICATES PROPOSED SAMPLE)
- CATCH BASIN
- ELECTRICAL LINE (ABOVE/BELOW)
- FENCE LINE
- FORMER BUILDING
- APPROXIMATE EXTENT OF WASTE FILL ONSITE



SITE UTILITY LAYOUT

FIGURE 05

Racer Trust
Hemphill Road Industrial Land
Burton, Michigan

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY





ENVIRONMENT
& HEALTH

ATTACHMENT A
ANALYTICAL REPORTS



Analytical Laboratory Report

Report ID: S47964.01(01)
Generated on 05/19/2023

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Additional Contacts: Kevin Schneider

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 Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S47964.01-S47964.14
Project: RACER Hemphill Road Industrial Land
Collected Date(s): 04/25/2023 - 04/27/2023
Submitted Date/Time: 04/27/2023 16:45
Sampled by: Kevin Schneider
P.O. #: 1940006990

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- Method Summary (Page 4)
- Sample Summary (Page 5)

Maya Murshak
Technical Director



Analytical Laboratory Report

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.

Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Certifications

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

Qualifier Descriptions

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

Glossary of Abbreviations

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



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Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
PFBSA	Perfluorobutanesulfonamide	30334-69-1
PFECHS	Perfluoro-4-ethylcyclohexanesulfonate	67584-42-3
PFFHxSA	Perfluorohexanesulfonamide	41997-13-1



Analytical Laboratory Report

Sample Summary (14 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S47964.01	OBG MW-7S	Groundwater	04/25/23 12:45
S47964.02	OBG MW-7D	Groundwater	04/25/23 13:00
S47964.03	OBG MW-11	Groundwater	04/26/23 09:44
S47964.04	Field Blank-042623	Liquid	04/26/23 11:06
S47964.05	OBG MW-2D	Groundwater	04/26/23 11:40
S47964.06	OBG MW-8	Groundwater	04/26/23 14:30
S47964.07	OBG MW-6D	Groundwater	04/26/23 14:20
S47964.08	OBG MW-9	Groundwater	04/26/23 15:22
S47964.09	MW-403	Groundwater	04/27/23 13:20
S47964.10	OBG MW-5S	Groundwater	04/27/23 13:52
S47964.11	OBG MW-10	Groundwater	04/27/23 15:14
S47964.12	DUP-042723	Groundwater	04/27/23 00:01
S47964.13	SAN-02	Groundwater	04/27/23 14:56
S47964.14	SAN-03	Groundwater	04/27/23 15:04



Analytical Laboratory Report

Lab Sample ID: S47964.01

Sample Tag: OBG MW-7S

Collected Date/Time: 04/25/2023 12:45

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	13.04/6.48/13	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 20:21, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.9	9.9	ng/L	1.98	375-22-4	
PFPeA*	Not detected	4.0	0.99	ng/L	1.98	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	1.98	757124-72-4	
PFHxA*	2.1	2.0	1.4	ng/L	1.98	307-24-4	
PFBS*	1.8	2.0	1.4	ng/L	1.98	375-73-5	J
PFHpA*	1.6	2.0	1.4	ng/L	1.98	375-85-9	J
PFPeS*	Not detected	2.0	1.8	ng/L	1.98	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	1.98	27619-97-2	
PFOA*	14	2.0	1.6	ng/L	1.98	335-67-1	
PFHxS*	3.4	2.0	1.6	ng/L	1.98	355-46-4	
PFHxS-LN*	2.1	2.0	1.6	ng/L	1.98	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	1.98	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	1.98	375-95-1	
8:2 FTSA*	Not detected	2.0	0.99	ng/L	1.98	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	1.98	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	1.98	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	1.98	2355-31-9	
EtFOSAA*	8.7	4.0	2.0	ng/L	1.98	2991-50-6	
PFOS*	32	2.0	1.9	ng/L	1.98	1763-23-1	
PFOS-LN*	16	2.0	1.9	ng/L	1.98	1763-23-1-LN	
PFOS-BR*	15	2.0	1.9	ng/L	1.98	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	1.98	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	1.98	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	1.98	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	1.98	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	1.98	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	1.98	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	1.98	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	1.98	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	1.98	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	1.98	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	1.98	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	1.98	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	1.98	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	1.98	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	1.98	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.01 (continued)

Sample Tag: OBG MW-7S

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 20:21, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.0	1.2	ng/L	1.98	67584-42-3	
PFHxSA*	1.8	2.0	0.99	ng/L	1.98	41997-13-1	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.02

Sample Tag: OBG MW-7D

Collected Date/Time: 04/25/2023 13:00

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.80/6.49/13	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.06	375-22-4	
PFPeA*	Not detected	4.1	1.0	ng/L	2.06	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.6	ng/L	2.06	757124-72-4	
PFHxA*	Not detected	2.1	1.4	ng/L	2.06	307-24-4	
PFBS*	Not detected	2.1	1.4	ng/L	2.06	375-73-5	
PFHpA*	Not detected	2.1	1.4	ng/L	2.06	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.06	27619-97-2	
PFOA*	Not detected	2.1	1.6	ng/L	2.06	335-67-1	
PFHxS*	Not detected	2.1	1.6	ng/L	2.06	355-46-4	
PFHxS-LN*	Not detected	2.1	1.6	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.6	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	1.9	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.06	2991-50-6	
PFOS*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.4	ng/L	2.06	2058-94-8	
PFNS*	Not detected	2.1	1.4	ng/L	2.06	68259-12-1	
PFDODA*	Not detected	2.1	1.6	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.4	ng/L	2.06	335-77-3	
PFTTrDA*	Not detected	2.1	1.2	ng/L	2.06	72629-94-8	
FOSA*	Not detected	2.1	1.9	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	1.9	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.9	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.4	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	2.1	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.1	3.1	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.1	2.3	ng/L	2.06	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.1	1.2	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.06	30334-69-1	
PFECHS*	Not detected	2.1	1.2	ng/L	2.06	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S47964.02 (continued)

Sample Tag: OBG MW-7D

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:00, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.1	1.0	ng/L	2.06	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.03

Sample Tag: OBG MW-11

Collected Date/Time: 04/26/2023 09:44

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.25/6.44/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:39, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	41	10	ng/L	2.07	375-22-4	X
PFPeA*	Not detected	4.1	1.0	ng/L	2.07	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.7	ng/L	2.07	757124-72-4	I
PFHxA*	Not detected	2.1	1.4	ng/L	2.07	307-24-4	
PFBS*	Not detected	2.1	1.4	ng/L	2.07	375-73-5	
PFHpA*	Not detected	2.1	1.4	ng/L	2.07	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.07	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.07	27619-97-2	
PFOA*	2.1	2.1	1.7	ng/L	2.07	335-67-1	
PFHxS*	Not detected	2.1	1.7	ng/L	2.07	355-46-4	
PFHxS-LN*	Not detected	2.1	1.7	ng/L	2.07	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.7	ng/L	2.07	355-46-4-BR	
PFNA*	Not detected	2.1	1.9	ng/L	2.07	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.07	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.07	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.07	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.07	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.07	2991-50-6	
PFOS*	3.6	2.1	2.0	ng/L	2.07	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.07	1763-23-1-LN	
PFOS-BR*	2.4	2.1	2.0	ng/L	2.07	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.4	ng/L	2.07	2058-94-8	
PFNS*	Not detected	2.1	1.4	ng/L	2.07	68259-12-1	
PFDODA*	Not detected	2.1	1.7	ng/L	2.07	307-55-1	
PFDS*	Not detected	2.1	1.4	ng/L	2.07	335-77-3	
PFTTrDA*	Not detected	2.1	1.2	ng/L	2.07	72629-94-8	
FOSA*	Not detected	2.1	1.9	ng/L	2.07	754-91-6	
PFTeDA*	Not detected	4.1	1.9	ng/L	2.07	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.9	ng/L	2.07	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.4	ng/L	2.07	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.07	919005-14-4	
HFPO-DA*	Not detected	2.1	2.1	ng/L	2.07	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.1	3.1	ng/L	2.07	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.1	2.3	ng/L	2.07	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.1	1.2	ng/L	2.07	356-02-5	

X-Elevated reporting limit due to matrix interference

I-Matrix interference with internal standard



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Lab Sample ID: S47964.03 (continued)

Sample Tag: OBG MW-11

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:39, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.1	1.2	ng/L	2.07	30334-69-1	
PFECHS*	Not detected	2.1	1.2	ng/L	2.07	67584-42-3	
PFHxSA*	Not detected	2.1	1.0	ng/L	2.07	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.04

Sample Tag: Field Blank-042623

Collected Date/Time: 04/26/2023 11:06

Matrix: Liquid

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.98/6.47/11	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:59, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2	375-22-4	
PFPeA*	Not detected	4.0	1.0	ng/L	2	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	2	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	2	375-73-5	
PFHpA*	Not detected	2.0	1.4	ng/L	2	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	2	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	2	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	2	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2	2355-31-9	
EtFOSAA*	Not detected	4.0	2.0	ng/L	2	2991-50-6	
PFOS*	Not detected	2.0	2.0	ng/L	2	1763-23-1	
PFOS-LN*	Not detected	2.0	2.0	ng/L	2	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	2.0	ng/L	2	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	2	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	2	30334-69-1	
PFCHS*	Not detected	2.0	1.2	ng/L	2	67584-42-3	



Analytical Laboratory Report

Lab Sample ID: S47964.04 (continued)

Sample Tag: Field Blank-042623

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 21:59, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFHxSA*	Not detected	2.0	1.0	ng/L	2	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.05

Sample Tag: OBG MW-2D

Collected Date/Time: 04/26/2023 11:40

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.45/6.44/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:18, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2	375-22-4	
PFPeA*	2.6	4.0	1.0	ng/L	2	2706-90-3	J
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	2	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	2	375-73-5	
PFHpA*	Not detected	2.0	1.4	ng/L	2	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	2	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	2	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	2	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2	2355-31-9	
EtFOSAA*	Not detected	4.0	2.0	ng/L	2	2991-50-6	
PFOS*	Not detected	2.0	2.0	ng/L	2	1763-23-1	
PFOS-LN*	Not detected	2.0	2.0	ng/L	2	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	2.0	ng/L	2	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2	68259-12-1	
PfDoDA*	Not detected	2.0	1.6	ng/L	2	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	2	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.05 (continued)

Sample Tag: OBG MW-2D

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:18, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.0	1.2	ng/L	2	67584-42-3	
PFHxSA*	Not detected	2.0	1.0	ng/L	2	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.06

Sample Tag: OBG MW-8

Collected Date/Time: 04/26/2023 14:30

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.34/6.38/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:38, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.01	375-22-4	
PFPeA*	Not detected	4.0	1.0	ng/L	2.01	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2.01	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	2.01	307-24-4	
PFBS*	1.7	2.0	1.4	ng/L	2.01	375-73-5	J
PFHpA*	Not detected	2.0	1.4	ng/L	2.01	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2.01	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2.01	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	2.01	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	2.01	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	2.01	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2.01	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2.01	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2.01	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2.01	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2.01	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2.01	2355-31-9	
EtFOSAA*	Not detected	4.0	2.0	ng/L	2.01	2991-50-6	
PFOS*	Not detected	2.0	2.0	ng/L	2.01	1763-23-1	
PFOS-LN*	Not detected	2.0	2.0	ng/L	2.01	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	2.0	ng/L	2.01	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2.01	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2.01	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	2.01	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2.01	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2.01	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2.01	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2.01	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2.01	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2.01	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2.01	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2.01	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2.01	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2.01	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2.01	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	2.01	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.06 (continued)

Sample Tag: OBG MW-8

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:38, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.0	1.2	ng/L	2.01	67584-42-3	
PFHxSA*	Not detected	2.0	1.0	ng/L	2.01	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.07

Sample Tag: OBG MW-6D

Collected Date/Time: 04/26/2023 14:20

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.25/6.47/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:57, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.08	375-22-4	
PFPeA*	1.3	4.2	1.0	ng/L	2.08	2706-90-3	J
4:2 FTSA*	Not detected	2.1	1.7	ng/L	2.08	757124-72-4	
PFHxA*	Not detected	2.1	1.5	ng/L	2.08	307-24-4	
PFBS*	Not detected	2.1	1.5	ng/L	2.08	375-73-5	
PFHpA*	Not detected	2.1	1.5	ng/L	2.08	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.08	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.08	27619-97-2	
PFOA*	Not detected	2.1	1.7	ng/L	2.08	335-67-1	
PFHxS*	Not detected	2.1	1.7	ng/L	2.08	355-46-4	
PFHxS-LN*	Not detected	2.1	1.7	ng/L	2.08	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.7	ng/L	2.08	355-46-4-BR	
PFNA*	Not detected	2.1	1.9	ng/L	2.08	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.08	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.08	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.08	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.08	2355-31-9	
EtFOSAA*	Not detected	4.2	2.1	ng/L	2.08	2991-50-6	
PFOS*	Not detected	2.1	2.0	ng/L	2.08	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.08	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	2.0	ng/L	2.08	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.5	ng/L	2.08	2058-94-8	
PFNS*	Not detected	2.1	1.5	ng/L	2.08	68259-12-1	
PFDODA*	Not detected	2.1	1.7	ng/L	2.08	307-55-1	
PFDS*	Not detected	2.1	1.5	ng/L	2.08	335-77-3	
PFTTrDA*	Not detected	2.1	1.2	ng/L	2.08	72629-94-8	
FOSA*	Not detected	2.1	1.9	ng/L	2.08	754-91-6	
PFTeDA*	Not detected	4.2	1.9	ng/L	2.08	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.9	ng/L	2.08	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.5	ng/L	2.08	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.08	919005-14-4	
HFPO-DA*	Not detected	2.1	2.1	ng/L	2.08	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.2	3.1	ng/L	2.08	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.2	2.3	ng/L	2.08	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.2	1.2	ng/L	2.08	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.08	30334-69-1	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.07 (continued)

Sample Tag: OBG MW-6D

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 22:57, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.1	1.2	ng/L	2.08	67584-42-3	
PFHxSA*	Not detected	2.1	1.0	ng/L	2.08	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.08

Sample Tag: OBG MW-9

Collected Date/Time: 04/26/2023 15:22

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.52/6.44/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:17, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	20	9.9	ng/L	1.97	375-22-4	X
PFPeA*	Not detected	3.9	0.99	ng/L	1.97	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	1.97	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	1.97	307-24-4	
PFBS*	2.1	2.0	1.4	ng/L	1.97	375-73-5	
PFHpA*	Not detected	2.0	1.4	ng/L	1.97	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.97	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	1.97	27619-97-2	
PFOA*	2.0	2.0	1.6	ng/L	1.97	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	1.97	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	1.97	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	1.97	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	1.97	375-95-1	
8:2 FTSA*	Not detected	2.0	0.99	ng/L	1.97	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	1.97	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	1.97	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	1.97	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.97	2991-50-6	
PFOS*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1	
PFOS-LN*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	1.97	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	1.97	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	1.97	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	1.97	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	1.97	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	1.97	754-91-6	
PFTeDA*	Not detected	3.9	1.8	ng/L	1.97	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	1.97	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	1.97	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	1.97	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	1.97	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	3.9	3.0	ng/L	1.97	812-70-4	
FPePA (5:3 FTCA)*	Not detected	3.9	2.2	ng/L	1.97	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	3.9	1.2	ng/L	1.97	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	1.97	30334-69-1	

X-Elevated reporting limit due to matrix interference



Analytical Laboratory Report

Lab Sample ID: S47964.08 (continued)

Sample Tag: OBG MW-9

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:17, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFECHS*	Not detected	2.0	1.2	ng/L	1.97	67584-42-3	
PFHxSA*	Not detected	2.0	0.99	ng/L	1.97	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.09

Sample Tag: MW-403

Collected Date/Time: 04/27/2023 13:20

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.92/6.45/13	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:36, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	26	10	ng/L	2.01	375-22-4	X
PFPeA*	Not detected	4.0	1.0	ng/L	2.01	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2.01	757124-72-4	
PFHxA*	1.4	2.0	1.4	ng/L	2.01	307-24-4	J
PFBS*	1.8	2.0	1.4	ng/L	2.01	375-73-5	J
PFHpA*	1.9	2.0	1.4	ng/L	2.01	375-85-9	J
PFPeS*	Not detected	2.0	1.8	ng/L	2.01	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2.01	27619-97-2	
PFOA*	12	2.0	1.6	ng/L	2.01	335-67-1	
PFHxS*	3.8	2.0	1.6	ng/L	2.01	355-46-4	
PFHxS-LN*	2.7	2.0	1.6	ng/L	2.01	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2.01	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2.01	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2.01	39108-34-4	
PFHpS*	2.5	2.0	2.0	ng/L	2.01	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2.01	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2.01	2355-31-9	
EtFOSAA*	81	4.0	2.0	ng/L	2.01	2991-50-6	
PFOS*	400	2.0	2.0	ng/L	2.01	1763-23-1	
PFOS-LN*	300	2.0	2.0	ng/L	2.01	1763-23-1-LN	
PFOS-BR*	93	2.0	2.0	ng/L	2.01	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2.01	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2.01	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	2.01	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2.01	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2.01	72629-94-8	
FOSA*	42	2.0	1.8	ng/L	2.01	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2.01	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2.01	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2.01	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2.01	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2.01	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2.01	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2.01	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2.01	356-02-5	

X-Elevated reporting limit due to matrix interference

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.09 (continued)

Sample Tag: MW-403

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:36, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	1.2	ng/L	2.01	30334-69-1	
PFECHS*	3.5	2.0	1.2	ng/L	2.01	67584-42-3	
PFHxSA*	2.2	2.0	1.0	ng/L	2.01	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.10

Sample Tag: OBG MW-5S

Collected Date/Time: 04/27/2023 13:52

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.48/6.46/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:56, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	68	10.0	ng/L	1.99	375-22-4	X
PFPeA*	Not detected	4.0	1.00	ng/L	1.99	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	1.99	757124-72-4	I
PFHxA*	7.1	2.0	1.4	ng/L	1.99	307-24-4	
PFBS*	Not detected	3.8	1.4	ng/L	1.99	375-73-5	X
PFHpA*	2.4	2.0	1.4	ng/L	1.99	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.99	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	1.99	27619-97-2	
PFOA*	6.9	2.0	1.6	ng/L	1.99	335-67-1	
PFHxS*	2.4	2.0	1.6	ng/L	1.99	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	1.99	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	1.99	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	1.99	375-95-1	
8:2 FTSA*	Not detected	2.0	1.00	ng/L	1.99	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	1.99	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	1.99	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	1.99	2355-31-9	
EtFOSAA*	Not detected	4.0	2.0	ng/L	1.99	2991-50-6	
PFOS*	Not detected	2.0	2.0	ng/L	1.99	1763-23-1	
PFOS-LN*	Not detected	2.0	2.0	ng/L	1.99	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	2.0	ng/L	1.99	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	1.99	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	1.99	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	1.99	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	1.99	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	1.99	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	1.99	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	1.99	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	1.99	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	1.99	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	1.99	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	1.99	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	1.99	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	1.99	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	1.99	356-02-5	

X-Elevated reporting limit due to matrix interference

I-Matrix interference with internal standard



Analytical Laboratory Report

Lab Sample ID: S47964.10 (continued)

Sample Tag: OBG MW-5S

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/03/23 23:56, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	1.2	ng/L	1.99	30334-69-1	
PFECHS*	Not detected	2.0	1.2	ng/L	1.99	67584-42-3	
PFHxSA*	Not detected	2.0	1.00	ng/L	1.99	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.11

Sample Tag: OBG MW-10

Collected Date/Time: 04/27/2023 15:14

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.42/6.48/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/04/23 00:15, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	51	10	ng/L	2.02	375-22-4	X
PFPeA*	Not detected	4.0	1.0	ng/L	2.02	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2.02	757124-72-4	
PFHxA*	2.5	2.0	1.4	ng/L	2.02	307-24-4	
PFBS*	1.9	2.0	1.4	ng/L	2.02	375-73-5	J
PFHpA*	Not detected	2.0	1.4	ng/L	2.02	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2.02	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2.02	27619-97-2	
PFOA*	14	2.0	1.6	ng/L	2.02	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	2.02	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	2.02	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2.02	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2.02	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2.02	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2.02	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2.02	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2.02	2355-31-9	
EtFOSAA*	7.4	4.0	2.0	ng/L	2.02	2991-50-6	
PFOS*	16	2.0	2.0	ng/L	2.02	1763-23-1	
PFOS-LN*	7.1	2.0	2.0	ng/L	2.02	1763-23-1-LN	
PFOS-BR*	8.3	2.0	2.0	ng/L	2.02	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2.02	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2.02	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	2.02	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2.02	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2.02	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2.02	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2.02	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2.02	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2.02	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2.02	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2.02	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2.02	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2.02	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2.02	356-02-5	

X-Elevated reporting limit due to matrix interference

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.11 (continued)

Sample Tag: OBG MW-10

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/04/23 00:15, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	1.2	ng/L	2.02	30334-69-1	
PFECHS*	Not detected	2.0	1.2	ng/L	2.02	67584-42-3	
PFHxSA*	Not detected	2.0	1.0	ng/L	2.02	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.12

Sample Tag: DUP-042723

Collected Date/Time: 04/27/2023 00:01

Matrix: Groundwater

COC Reference: 169194

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.56/6.48/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/04/23 00:35, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	63	9.9	ng/L	1.97	375-22-4	X
PFPeA*	Not detected	3.9	0.99	ng/L	1.97	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	1.97	757124-72-4	I
PFHxA*	7.6	2.0	1.4	ng/L	1.97	307-24-4	
PFBS*	Not detected	3.0	1.4	ng/L	1.97	375-73-5	X
PFHpA*	1.5	2.0	1.4	ng/L	1.97	375-85-9	J
PFPeS*	Not detected	2.0	1.8	ng/L	1.97	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	1.97	27619-97-2	
PFOA*	7.0	2.0	1.6	ng/L	1.97	335-67-1	
PFHxS*	2.0	2.0	1.6	ng/L	1.97	355-46-4	
PFHxS-LN*	2.0	2.0	1.6	ng/L	1.97	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	1.97	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	1.97	375-95-1	
8:2 FTSA*	Not detected	2.0	0.99	ng/L	1.97	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	1.97	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	1.97	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	1.97	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.97	2991-50-6	
PFOS*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1	
PFOS-LN*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	1.9	ng/L	1.97	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	1.97	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	1.97	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	1.97	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	1.97	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	1.97	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	1.97	754-91-6	
PFTeDA*	Not detected	3.9	1.8	ng/L	1.97	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	1.97	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	1.97	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	1.97	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	1.97	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	3.9	3.0	ng/L	1.97	812-70-4	
FPePA (5:3 FTCA)*	Not detected	3.9	2.2	ng/L	1.97	914637-49-3	

X-Elevated reporting limit due to matrix interference

I-Matrix interference with internal standard

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.12 (continued)

Sample Tag: DUP-042723

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/04/23 00:35, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
FPrPA (3:3 FTCA)*	Not detected	3.9	1.2	ng/L	1.97	356-02-5	
PFBSA*	Not detected	2.0	1.2	ng/L	1.97	30334-69-1	
PFECHS*	Not detected	2.0	1.2	ng/L	1.97	67584-42-3	
PFHxSA*	Not detected	2.0	0.99	ng/L	1.97	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.13

Sample Tag: SAN-02

Collected Date/Time: 04/27/2023 14:56

Matrix: Groundwater

COC Reference: 169192

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.46/6.45/12	ASTMD7979-19M	05/03/23 13:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/23 14:04, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2	375-22-4	
PFPeA*	2.5	4.0	1.0	ng/L	2	2706-90-3	J
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2	757124-72-4	I
PFHxA*	2.5	2.0	1.4	ng/L	2	307-24-4	
PFBS*	4.8	2.0	1.4	ng/L	2	375-73-5	
PFHpA*	1.4	2.0	1.4	ng/L	2	375-85-9	J
PFPeS*	Not detected	2.0	1.8	ng/L	2	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2	27619-97-2	
PFOA*	3.0	2.0	1.6	ng/L	2	335-67-1	
PFHxS*	3.8	2.0	1.6	ng/L	2	355-46-4	
PFHxS-LN*	1.9	2.0	1.6	ng/L	2	355-46-4-LN	J
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2	2355-31-9	
EtFOSAA*	Not detected	4.0	2.0	ng/L	2	2991-50-6	
PFOS*	6.0	2.0	2.0	ng/L	2	1763-23-1	
PFOS-LN*	2.5	2.0	2.0	ng/L	2	1763-23-1-LN	
PFOS-BR*	3.6	2.0	2.0	ng/L	2	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2	68259-12-1	
PFDODA*	Not detected	2.0	1.6	ng/L	2	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2	335-77-3	
PFTTrDA*	Not detected	2.0	1.2	ng/L	2	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2	754-91-6	
PFTeDA*	Not detected	4.0	1.8	ng/L	2	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2	919005-14-4	
HFPO-DA*	Not detected	2.0	2.0	ng/L	2	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.0	3.0	ng/L	2	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.0	2.2	ng/L	2	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	4.0	1.2	ng/L	2	356-02-5	

J-Estimated value less than reporting limit, but greater than MDL

I-Matrix interference with internal standard



Analytical Laboratory Report

Lab Sample ID: S47964.13 (continued)

Sample Tag: SAN-02

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/23 14:04, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBSA*	Not detected	2.0	1.2	ng/L	2	30334-69-1	
PFECHS*	Not detected	2.0	1.2	ng/L	2	67584-42-3	
PFHxSA*	Not detected	2.0	1.0	ng/L	2	41997-13-1	



Analytical Laboratory Report

Lab Sample ID: S47964.14

Sample Tag: SAN-03

Collected Date/Time: 04/27/2023 15:04

Matrix: Groundwater

COC Reference: 169192

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	2.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.84/6.45/13	ASTMD7979-19M	05/04/23 10:30	AB	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep#)	1.79/6.45/11	ASTMD7979-19M	05/10/23 14:00	AB	

Organics

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/13/23 10:40, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.06	375-22-4	
PFPeA*	Not detected	4.1	1.0	ng/L	2.06	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.6	ng/L	2.06	757124-72-4	I
PFHxA*	1.9	2.1	1.4	ng/L	2.06	307-24-4	J
PFBS*	Not detected	2.1	1.4	ng/L	2.06	375-73-5	
PFHpA*	Not detected	2.1	1.4	ng/L	2.06	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.06	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.06	27619-97-2	I
PFOA*	Not detected	2.1	1.6	ng/L	2.06	335-67-1	
PFHxS*	Not detected	2.1	1.6	ng/L	2.06	355-46-4	
PFHxS-LN*	Not detected	2.1	1.6	ng/L	2.06	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.6	ng/L	2.06	355-46-4-BR	
PFNA*	Not detected	2.1	1.9	ng/L	2.06	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.06	39108-34-4	I
PFHpS*	Not detected	2.1	2.1	ng/L	2.06	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.06	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.06	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.06	2991-50-6	
PFOS*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	2.0	ng/L	2.06	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.4	ng/L	2.06	2058-94-8	
PFNS*	Not detected	2.1	1.4	ng/L	2.06	68259-12-1	
PFDODA*	Not detected	2.1	1.6	ng/L	2.06	307-55-1	
PFDS*	Not detected	2.1	1.4	ng/L	2.06	335-77-3	
PFTTrDA*	Not detected	2.1	1.2	ng/L	2.06	72629-94-8	
FOSA*	Not detected	2.1	1.9	ng/L	2.06	754-91-6	
PFTeDA*	Not detected	4.1	1.9	ng/L	2.06	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.9	ng/L	2.06	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.4	ng/L	2.06	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.06	919005-14-4	
HFPO-DA*	Not detected	2.1	2.1	ng/L	2.06	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	4.1	3.1	ng/L	2.06	812-70-4	
FPePA (5:3 FTCA)*	Not detected	4.1	2.3	ng/L	2.06	914637-49-3	

I-Matrix interference with internal standard

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S47964.14 (continued)

Sample Tag: SAN-03

34 PFAs, Method: ASTMD7979-19M, Run Date: 05/13/23 10:40, Analyst: KCV (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
FPrPA (3:3 FTCA)*	Not detected	4.1	1.2	ng/L	2.06	356-02-5	
PFBSA*	Not detected	2.1	1.2	ng/L	2.06	30334-69-1	
PFECHS*	Not detected	2.1	1.2	ng/L	2.06	67584-42-3	
PFHxSA*	Not detected	2.1	1.0	ng/L	2.06	41997-13-1	

Merit Laboratories Login Checklist

Lab Set ID:S47964

Attention: Clifford Yantz
Address: Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Client:RAMBOLL (Ramboll Americas - Michigan)

Project: RACER Hemphill Road Industrial Land

Submitted:04/27/2023 16:45 Login User: MMC

Phone: 313-333-0211 FAX:
Email: Clifford.Yantz@ramboll.com

Selection	Description	Note
-----------	-------------	------

Sample Receiving

- | | | |
|-----|--|--|
| 01. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples are received at 4C +/- 2C Thermometer # IR 2.0 |
| 02. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Received on ice/ cooling process begun |
| 03. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples shipped |
| 04. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples left in 24 hr. drop box |
| 05. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Are there custody seals/tape or is the drop box locked |

Chain of Custody

- | | | |
|-----|--|--|
| 06. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC adequately filled out |
| 07. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | COC signed and relinquished to the lab |
| 08. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sample tag on bottles match COC |
| 09. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Subcontracting needed? Subcontracted to: |

Preservation

- | | | |
|-----|--|---|
| 10. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Do sample have correct chemical preservation |
| 11. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Completed pH checks on preserved samples? (no VOAs) |
| 12. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Did any samples need to be preserved in the lab? |

Bottle Conditions

- | | | |
|-----|--|---|
| 13. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | All bottles intact |
| 14. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Appropriate analytical bottles are used |
| 15. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Merit bottles used |
| 16. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Sufficient sample volume received |
| 17. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Samples require laboratory filtration |
| 18. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Samples submitted within holding time |
| 19. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | Do water VOC or TOX bottles contain headspace |

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

Client Review By: _____ Date: _____



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 2 169194

REPORT TO **CHAIN OF CUSTODY RECORD** **INVOICE TO**

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE Mi ZIP CODE 48105
 PHONE NO. _____ CELL NO. 313-333-0211 P.O. NO. _____
 E-MAIL ADDRESS Kevin.Schneider@Ramboll.com
Clifford.Yantz@Ramboll.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME RALER Hemphill Road Industrial Land SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

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

Containers & Preservatives
 Certifications OHIO VAP Drinking Water
 DoD NPDES
 Project Locations Detroit New York
 Other _____
 Special Instructions

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (775)							
	DATE	TIME																		
47964.01	4/25/23	1245	OB6 MW-7S	GW	3	3							X							
.02	4/25/23	1300	OB6 MW-7D	GW	3	3							X							
.03	4/26/23	944	OB6 MW-11	GW	3	3							X							
.04	4/26/23	1106	Field Blank - 042623	L	1	1							X							
.05	4/26/23	1140	OB6 MW-2D	GW	3	3							X							
.06	4/26/23	1430	OB6 MW-8	GW	3	3							X							
.07	4/26/23	1420	OB6 MW-6D	GW	3	3							X							
.08	4/26/23	1522	OB6 MW-9	GW	3	3							X							
.09	4/27/23	1320	MW-403	GW	3	3							X							
.10	4/27/23	1352	OB6 MW-5S	GW	3	3							X							
.11	4/27/23	1514	OB6 MW-10	GW	3	3							X							
.12	4/27/23	-	DUP-042723	GW	3	3							X							

RELINQUISHED BY: [Signature] Sampler DATE 4/27/23 TIME 1520
 RECEIVED BY: [Signature] DATE 4/27/23 TIME 1512
 RELINQUISHED BY: [Signature] DATE 4/27/23 TIME 16:45
 RECEIVED BY: Johanna Murray DATE 4/27/23 TIME 1845

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT _____ INITIALS _____ NOTES: _____ TEMP. ON ARRIVAL _____
 SEAL NO. _____ SEAL INTACT _____ INITIALS _____
 YES NO

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



2680 East Lansing Dr., East Lansing, MI 48823
 Phone (517) 332-0167 Fax (517) 332-4034
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C.O.C. PAGE # 2 OF 2 169192

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. 313-333-0411 CELL NO. _____ P.O. NO. _____
 E-MAIL ADDRESS Clifford.Yantz@Ramboll.com Kevin.Schneider@Ramboll.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RAVEE HENPHILL ROAD INDUSTRIAL LAND SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

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

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (TIN)	Certifications		Project Locations		Special Instructions	
	DATE	TIME												<input type="checkbox"/> OHIO VAP	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> DoD	<input type="checkbox"/> NPDES		<input type="checkbox"/> Detroit
47964.13	4/27/23	1456	SAN-02	L	3	3							X						Low Level Reporting with estimated values 34 PFAS compound list
.14	4/27/23	1504	SAN-03	L	3	3							X						

RELINQUISHED BY: [Signature] X Sampler DATE 4/27/23 TIME 15:00
 RECEIVED BY: [Signature] DATE 4/27/23 TIME 15:30
 RELINQUISHED BY: [Signature] DATE 4/27/23 TIME 16:45
 RECEIVED BY: Johanna Murray DATE 4/27/23 TIME 16:45

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____ NOTES: TEMP. ON ARRIVAL 2.0
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____

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



Quality Control Report

Report ID: QC-S47964-01
Generated on 05/22/2023

Report to

Attention: Clifford Yantz
Ramboll Americas
2090 Commonwealth Blvd
Ann Arbor, MI 48105

Phone: 313-333-0211 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): S47964.01-S47964.14
Project: RACER Hemphill Road Industrial Land
Submitted Date/Time: 04/27/2023 16:45
Sampled by: Kevin Schneider
P.O. #: 1940006990

QC Report Sections

- Cover Page (Page 1)
- Analysis Summary (Pages 2-15)
- Prep Batch Summary (Page 16)
- Internal Standards per Lab Sample (Pages 17-30)
- Internal Standards per QC Sample (Pages 31-41)
- Batch QC Results (Pages 42-52)

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: S47964.01

Sample Tag: OBG MW-7S

Collected Date/Time: 04/25/2023 12:45

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 20:21	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.02

Sample Tag: OBG MW-7D

Collected Date/Time: 04/25/2023 13:00

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 21:00	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.03

Sample Tag: OBG MW-11

Collected Date/Time: 04/26/2023 09:44

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 21:39	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.04

Sample Tag: Field Blank-042623

Collected Date/Time: 04/26/2023 11:06

Matrix: Liquid

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 21:59	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.05

Sample Tag: OBG MW-2D

Collected Date/Time: 04/26/2023 11:40

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 22:18	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.06

Sample Tag: OBG MW-8

Collected Date/Time: 04/26/2023 14:30

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 22:38	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.07

Sample Tag: OBG MW-6D

Collected Date/Time: 04/26/2023 14:20

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 22:57	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.08

Sample Tag: OBG MW-9

Collected Date/Time: 04/26/2023 15:22

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 23:17	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.09

Sample Tag: MW-403

Collected Date/Time: 04/27/2023 13:20

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 23:36	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.10

Sample Tag: OBG MW-5S

Collected Date/Time: 04/27/2023 13:52

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/03/23 23:56	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.11

Sample Tag: OBG MW-10

Collected Date/Time: 04/27/2023 15:14

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/04/23 00:15	AK230503B	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.12

Sample Tag: DUP-042723

Collected Date/Time: 04/27/2023 00:01

Matrix: Groundwater

COC Reference: 169194

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/04/23 00:35	AK230503A	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.13

Sample Tag: SAN-02

Collected Date/Time: 04/27/2023 14:56

Matrix: Groundwater

COC Reference: 169192

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/05/23 14:04	AK230505R	PF230503W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Analysis Summary

Lab Sample ID: S47964.14

Sample Tag: SAN-03

Collected Date/Time: 04/27/2023 15:04

Matrix: Groundwater

COC Reference: 169192

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
34 PFAs	ASTMD7979-19M	05/13/23 10:40	AK230512B	PF230510W2	Yes	BLK/LCS/LCSD

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF230503W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S47964.01	34 PFAs	ASTMD7979-19M	05/03/23 20:21	AK230503A
S47964.02	34 PFAs	ASTMD7979-19M	05/03/23 21:00	AK230503A
S47964.03	34 PFAs	ASTMD7979-19M	05/03/23 21:39	AK230503A
S47964.04	34 PFAs	ASTMD7979-19M	05/03/23 21:59	AK230503A
S47964.05	34 PFAs	ASTMD7979-19M	05/03/23 22:18	AK230503A
S47964.06	34 PFAs	ASTMD7979-19M	05/03/23 22:38	AK230503A
S47964.07	34 PFAs	ASTMD7979-19M	05/03/23 22:57	AK230503A
S47964.08	34 PFAs	ASTMD7979-19M	05/03/23 23:17	AK230503A
S47964.09	34 PFAs	ASTMD7979-19M	05/03/23 23:36	AK230503A
S47964.10	34 PFAs	ASTMD7979-19M	05/03/23 23:56	AK230503A
S47964.11	34 PFAs	ASTMD7979-19M	05/04/23 00:15	AK230503B
S47964.12	34 PFAs	ASTMD7979-19M	05/04/23 00:35	AK230503A
S47964.13	34 PFAs	ASTMD7979-19M	05/05/23 14:04	AK230505R

Organics - Volatiles, Prep Batch ID: PF230510W2

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S47964.14	34 PFAs	ASTMD7979-19M	05/13/23 10:40	AK230512B

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.01

Sample Tag: OBG MW-7S

Collected Date/Time: 04/25/2023 12:45

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 20:21, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		121.0	50.0	150.0
M2-6:2FTSA		83.7	50.0	150.0
M2-8:2FTSA		107.8	50.0	150.0
M2PFTeDA		118.3	12.0	218.0
M3PFBS		98.1	50.0	150.0
M3PFHxS		114.0	50.0	150.0
M4PFHpA		109.8	50.0	150.0
M5PFHxA		111.8	50.0	150.0
M5PFPeA		107.8	50.0	150.0
M6PFDA		113.9	50.0	150.0
M7PFUnDA		88.6	50.0	150.0
M8FOSA		108.1	50.0	150.0
M8PFOA		108.0	50.0	150.0
M8PFOS		102.7	50.0	150.0
M9-PFNA		109.3	50.0	150.0
MPFBA		105.0	50.0	150.0
MPFDoDA		116.7	50.0	150.0
d3N-MeFOSAA		97.3	50.0	150.0
d5EtFOSAA		90.7	50.0	150.0
MHFPO-DA		109.9	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.02

Sample Tag: OBG MW-7D

Collected Date/Time: 04/25/2023 13:00

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 21:00, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		102.6	50.0	150.0
M2-6:2FTSA		86.9	50.0	150.0
M2-8:2FTSA		107.2	50.0	150.0
M2PFTeDA		151.7	12.0	218.0
M3PFBS		103.2	50.0	150.0
M3PFHxS		117.3	50.0	150.0
M4PFHpA		97.9	50.0	150.0
M5PFHxA		106.9	50.0	150.0
M5PFPeA		104.5	50.0	150.0
M6PFDA		109.1	50.0	150.0
M7PFUnDA		106.7	50.0	150.0
M8FOSA		106.1	50.0	150.0
M8PFOA		103.4	50.0	150.0
M8PFOS		109.0	50.0	150.0
M9-PFNA		108.5	50.0	150.0
MPFBA		105.5	50.0	150.0
MPFDoDA		116.4	50.0	150.0
d3N-MeFOSAA		103.5	50.0	150.0
d5EtFOSAA		104.2	50.0	150.0
MHFPO-DA		121.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.03

Sample Tag: OBG MW-11

Collected Date/Time: 04/26/2023 09:44

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 21:39, Matrix: WW, Dilution: 2.07

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	247.4	50.0	150.0
M2-6:2FTSA		128.0	50.0	150.0
M2-8:2FTSA		148.9	50.0	150.0
M2PFTeDA		174.6	12.0	218.0
M3PFBS		121.1	50.0	150.0
M3PFHxS		130.1	50.0	150.0
M4PFHpA		129.9	50.0	150.0
M5PFHxA		142.2	50.0	150.0
M5PFPeA		123.2	50.0	150.0
M6PFDA		131.1	50.0	150.0
M7PFUnDA		124.7	50.0	150.0
M8FOSA		124.7	50.0	150.0
M8PFOA		127.1	50.0	150.0
M8PFOS		115.9	50.0	150.0
M9-PFNA		136.0	50.0	150.0
MPFBA		121.9	50.0	150.0
MPFDoDA		145.7	50.0	150.0
d3N-MeFOSAA		112.0	50.0	150.0
d5EtFOSAA		124.3	50.0	150.0
MHFPO-DA		136.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.04

Sample Tag: Field Blank-042623

Collected Date/Time: 04/26/2023 11:06

Matrix: Liquid

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 21:59, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		104.0	50.0	150.0
M2-6:2FTSA		93.7	50.0	150.0
M2-8:2FTSA		119.9	50.0	150.0
M2PFTeDA		151.7	12.0	218.0
M3PFBS		105.1	50.0	150.0
M3PFHxS		116.5	50.0	150.0
M4PFHpA		105.7	50.0	150.0
M5PFHxA		116.1	50.0	150.0
M5PFPeA		112.8	50.0	150.0
M6PFDA		119.6	50.0	150.0
M7PFUnDA		109.8	50.0	150.0
M8FOSA		111.1	50.0	150.0
M8PFOA		113.7	50.0	150.0
M8PFOS		104.5	50.0	150.0
M9-PFNA		105.8	50.0	150.0
MPFBA		110.4	50.0	150.0
MPFDoDA		134.0	50.0	150.0
d3N-MeFOSAA		119.6	50.0	150.0
d5EtFOSAA		104.8	50.0	150.0
MHFPO-DA		123.0	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.05

Sample Tag: OBG MW-2D

Collected Date/Time: 04/26/2023 11:40

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 22:18, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		96.3	50.0	150.0
M2-6:2FTSA		89.5	50.0	150.0
M2-8:2FTSA		107.0	50.0	150.0
M2PFTeDA		129.3	12.0	218.0
M3PFBS		104.8	50.0	150.0
M3PFHxS		111.5	50.0	150.0
M4PFHpA		107.5	50.0	150.0
M5PFHxA		105.8	50.0	150.0
M5PFPeA		103.5	50.0	150.0
M6PFDA		106.9	50.0	150.0
M7PFUnDA		99.5	50.0	150.0
M8FOSA		101.0	50.0	150.0
M8PFOA		104.1	50.0	150.0
M8PFOS		114.4	50.0	150.0
M9-PFNA		108.2	50.0	150.0
MPFBA		105.3	50.0	150.0
MPFDoDA		122.5	50.0	150.0
d3N-MeFOSAA		101.9	50.0	150.0
d5EtFOSAA		88.1	50.0	150.0
MHFPO-DA		121.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.06

Sample Tag: OBG MW-8

Collected Date/Time: 04/26/2023 14:30

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 22:38, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		125.7	50.0	150.0
M2-6:2FTSA		92.6	50.0	150.0
M2-8:2FTSA		113.0	50.0	150.0
M2PFTeDA		115.7	12.0	218.0
M3PFBS		107.2	50.0	150.0
M3PFHxS		113.1	50.0	150.0
M4PFHpA		117.5	50.0	150.0
M5PFHxA		110.5	50.0	150.0
M5PFPeA		104.7	50.0	150.0
M6PFDA		104.2	50.0	150.0
M7PFUnDA		98.8	50.0	150.0
M8FOSA		104.0	50.0	150.0
M8PFOA		114.6	50.0	150.0
M8PFOS		108.1	50.0	150.0
M9-PFNA		104.8	50.0	150.0
MPFBA		105.4	50.0	150.0
MPFDoDA		104.6	50.0	150.0
d3N-MeFOSAA		109.0	50.0	150.0
d5EtFOSAA		99.6	50.0	150.0
MHFPO-DA		128.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.07

Sample Tag: OBG MW-6D

Collected Date/Time: 04/26/2023 14:20

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 22:57, Matrix: WW, Dilution: 2.08

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		93.0	50.0	150.0
M2-6:2FTSA		80.7	50.0	150.0
M2-8:2FTSA		100.4	50.0	150.0
M2PFTeDA		167.7	12.0	218.0
M3PFBS		102.0	50.0	150.0
M3PFHxS		107.3	50.0	150.0
M4PFHpA		115.1	50.0	150.0
M5PFHxA		110.0	50.0	150.0
M5PFPeA		110.0	50.0	150.0
M6PFDA		109.2	50.0	150.0
M7PFUnDA		94.4	50.0	150.0
M8FOSA		110.0	50.0	150.0
M8PFOA		104.2	50.0	150.0
M8PFOS		95.6	50.0	150.0
M9-PFNA		91.9	50.0	150.0
MPFBA		106.0	50.0	150.0
MPFDoDA		128.8	50.0	150.0
d3N-MeFOSAA		106.6	50.0	150.0
d5EtFOSAA		96.3	50.0	150.0
MHFPO-DA		117.9	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.08

Sample Tag: OBG MW-9

Collected Date/Time: 04/26/2023 15:22

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 23:17, Matrix: WW, Dilution: 1.97

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		146.1	50.0	150.0
M2-6:2FTSA		94.1	50.0	150.0
M2-8:2FTSA		104.0	50.0	150.0
M2PFTeDA		108.8	12.0	218.0
M3PFBS		103.1	50.0	150.0
M3PFHxS		109.0	50.0	150.0
M4PFHpA		98.8	50.0	150.0
M5PFHxA		113.7	50.0	150.0
M5PFPeA		106.7	50.0	150.0
M6PFDA		115.0	50.0	150.0
M7PFUnDA		90.2	50.0	150.0
M8FOSA		107.0	50.0	150.0
M8PFOA		103.8	50.0	150.0
M8PFOS		108.9	50.0	150.0
M9-PFNA		112.2	50.0	150.0
MPFBA		103.7	50.0	150.0
MPFDoDA		107.0	50.0	150.0
d3N-MeFOSAA		96.5	50.0	150.0
d5EtFOSAA		97.5	50.0	150.0
MHFPO-DA		125.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.09

Sample Tag: MW-403

Collected Date/Time: 04/27/2023 13:20

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 23:36, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		119.8	50.0	150.0
M2-6:2FTSA		85.7	50.0	150.0
M2-8:2FTSA		105.6	50.0	150.0
M2PFTeDA		138.4	12.0	218.0
M3PFBS		104.5	50.0	150.0
M3PFHxS		112.5	50.0	150.0
M4PFHpA		100.0	50.0	150.0
M5PFHxA		111.8	50.0	150.0
M5PFPeA		103.4	50.0	150.0
M6PFDA		115.8	50.0	150.0
M7PFUnDA		108.6	50.0	150.0
M8FOSA		109.6	50.0	150.0
M8PFOA		108.5	50.0	150.0
M8PFOS		106.8	50.0	150.0
M9-PFNA		104.0	50.0	150.0
MPFBA		106.9	50.0	150.0
MPFDoDA		121.9	50.0	150.0
d3N-MeFOSAA		94.3	50.0	150.0
d5EtFOSAA		92.1	50.0	150.0
MHFPO-DA		105.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.10

Sample Tag: OBG MW-5S

Collected Date/Time: 04/27/2023 13:52

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/03/2023 23:56, Matrix: WW, Dilution: 1.99

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	197.1	50.0	150.0
M2-6:2FTSA		102.3	50.0	150.0
M2-8:2FTSA		105.7	50.0	150.0
M2PFTeDA		130.9	12.0	218.0
M3PFBS		112.5	50.0	150.0
M3PFHxS		124.6	50.0	150.0
M4PFHpA		99.6	50.0	150.0
M5PFHxA		115.6	50.0	150.0
M5PFPeA		108.7	50.0	150.0
M6PFDA		114.8	50.0	150.0
M7PFUnDA		93.4	50.0	150.0
M8FOSA		110.5	50.0	150.0
M8PFOA		113.5	50.0	150.0
M8PFOS		100.9	50.0	150.0
M9-PFNA		115.5	50.0	150.0
MPFBA		97.6	50.0	150.0
MPFDoDA		117.6	50.0	150.0
d3N-MeFOSAA		103.3	50.0	150.0
d5EtFOSAA		99.5	50.0	150.0
MHFPO-DA		114.5	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.11

Sample Tag: OBG MW-10

Collected Date/Time: 04/27/2023 15:14

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503B, Run Date: 05/04/2023 00:15, Matrix: WW, Dilution: 2.02

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		149.7	50.0	150.0
M2-6:2FTSA		117.5	50.0	150.0
M2-8:2FTSA		117.3	50.0	150.0
M2PFTeDA		157.4	12.0	218.0
M3PFBS		112.2	50.0	150.0
M3PFHxS		127.5	50.0	150.0
M4PFHpA		127.0	50.0	150.0
M5PFHxA		126.3	50.0	150.0
M5PFPeA		109.7	50.0	150.0
M6PFDA		117.9	50.0	150.0
M7PFUnDA		107.3	50.0	150.0
M8FOSA		124.9	50.0	150.0
M8PFOA		106.6	50.0	150.0
M8PFOS		111.5	50.0	150.0
M9-PFNA		115.8	50.0	150.0
MPFBA		104.0	50.0	150.0
MPFDoDA		129.9	50.0	150.0
d3N-MeFOSAA		112.6	50.0	150.0
d5EtFOSAA		119.8	50.0	150.0
MHFPO-DA		109.1	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.12

Sample Tag: DUP-042723

Collected Date/Time: 04/27/2023 00:01

Matrix: Groundwater

COC Reference: 169194

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230503A, Run Date: 05/04/2023 00:35, Matrix: WW, Dilution: 1.97

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	220.1	50.0	150.0
M2-6:2FTSA		100.9	50.0	150.0
M2-8:2FTSA		108.5	50.0	150.0
M2PFTeDA		146.4	12.0	218.0
M3PFBS		115.0	50.0	150.0
M3PFHxS		122.5	50.0	150.0
M4PFHpA		110.6	50.0	150.0
M5PFHxA		112.4	50.0	150.0
M5PFPeA		107.3	50.0	150.0
M6PFDA		120.3	50.0	150.0
M7PFUnDA		98.9	50.0	150.0
M8FOSA		108.3	50.0	150.0
M8PFOA		114.1	50.0	150.0
M8PFOS		106.9	50.0	150.0
M9-PFNA		116.3	50.0	150.0
MPFBA		99.9	50.0	150.0
MPFDoDA		134.0	50.0	150.0
d3N-MeFOSAA		103.3	50.0	150.0
d5EtFOSAA		107.4	50.0	150.0
MHFPO-DA		125.3	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.13

Sample Tag: SAN-02

Collected Date/Time: 04/27/2023 14:56

Matrix: Groundwater

COC Reference: 169192

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230505R, Run Date: 05/05/2023 14:04, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	159.8	50.0	150.0
M2-6:2FTSA		143.1	50.0	150.0
M2-8:2FTSA		131.7	50.0	150.0
M2PFTeDA		122.6	12.0	218.0
M3PFBS		99.2	50.0	150.0
M3PFHxS		99.7	50.0	150.0
M4PFHpA		99.0	50.0	150.0
M5PFHxA		113.4	50.0	150.0
M5PFPeA		101.7	50.0	150.0
M6PFDA		117.4	50.0	150.0
M7PFUnDA		111.6	50.0	150.0
M8FOSA		109.0	50.0	150.0
M8PFOA		106.5	50.0	150.0
M8PFOS		96.5	50.0	150.0
M9-PFNA		97.3	50.0	150.0
MPFBA		109.8	50.0	150.0
MPFDoDA		105.2	50.0	150.0
d3N-MeFOSAA		114.8	50.0	150.0
d5EtFOSAA		140.0	50.0	150.0
MHFPO-DA		108.2	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S47964.14

Sample Tag: SAN-03

Collected Date/Time: 04/27/2023 15:04

Matrix: Groundwater

COC Reference: 169192

Organics - Volatiles, Analysis: 34 PFAs

Run in Batch: AK230512B, Run Date: 05/13/2023 10:40, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	229.6	50.0	150.0
M2-6:2FTSA	*	368.4	50.0	150.0
M2-8:2FTSA	*	199.4	50.0	150.0
M2PFTeDA		95.2	12.0	218.0
M3PFBS		108.4	50.0	150.0
M3PFHxS		109.9	50.0	150.0
M4PFHpA		107.0	50.0	150.0
M5PFHxA		108.3	50.0	150.0
M5PFPeA		117.6	50.0	150.0
M6PFDA		93.7	50.0	150.0
M7PFUnDA		71.9	50.0	150.0
M8FOSA		120.1	50.0	150.0
M8PFOA		117.6	50.0	150.0
M8PFOS		105.1	50.0	150.0
M9-PFNA		85.2	50.0	150.0
MPFBA		81.3	50.0	150.0
MPFDoDA		69.9	50.0	150.0
d3N-MeFOSAA		114.7	50.0	150.0
d5EtFOSAA		130.4	50.0	150.0
MHFPO-DA		109.8	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF230503W1

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

Blank (BLK)

Lab Sample ID: AK230503A.BLK230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:42, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		98.9	50.0	150.0
M2-6:2FTSA		82.7	50.0	150.0
M2-8:2FTSA		107.8	50.0	150.0
M2PFTeDA		139.6	12.0	218.0
M3PFBS		107.1	50.0	150.0
M3PFHxS		108.0	50.0	150.0
M4PFHpA		107.0	50.0	150.0
M5PFHxA		111.0	50.0	150.0
M5PFPeA		102.9	50.0	150.0
M6PFDA		125.7	50.0	150.0
M7PFUnDA		100.8	50.0	150.0
M8FOSA		105.5	50.0	150.0
M8PFOA		105.9	50.0	150.0
M8PFOS		108.6	50.0	150.0
M9-PFNA		104.4	50.0	150.0
MPFBA		103.1	50.0	150.0
MPFDoDA		118.9	50.0	150.0
d3N-MeFOSAA		100.6	50.0	150.0
d5EtFOSAA		95.2	50.0	150.0
MHFPO-DA		117.3	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK230503A.LCS230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:03, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		104.3	50.0	150.0
M2-6:2FTSA		92.9	50.0	150.0
M2-8:2FTSA		94.1	50.0	150.0
M2PFTeDA		157.5	12.0	218.0
M3PFBS		98.5	50.0	150.0
M3PFHxS		110.8	50.0	150.0
M4PFHpA		93.0	50.0	150.0
M5PFHxA		102.8	50.0	150.0
M5PFPeA		94.5	50.0	150.0
M6PFDA		103.9	50.0	150.0
M7PFUnDA		86.3	50.0	150.0
M8FOSA		101.1	50.0	150.0
M8PFOA		101.0	50.0	150.0
M8PFOS		103.2	50.0	150.0
M9-PFNA		100.6	50.0	150.0
MPFBA		97.1	50.0	150.0
MPFDoDA		116.1	50.0	150.0
d3N-MeFOSAA		92.5	50.0	150.0
d5EtFOSAA		100.2	50.0	150.0
MHFPO-DA		121.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK230503A.LCSD230503, Parent Sample ID: AK230503A.LCS230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:23, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		88.0	50.0	150.0
M2-6:2FTSA		96.0	50.0	150.0
M2-8:2FTSA		96.6	50.0	150.0
M2PFTeDA		150.9	12.0	218.0
M3PFBS		102.5	50.0	150.0
M3PFHxS		104.3	50.0	150.0
M4PFHpA		107.7	50.0	150.0
M5PFHxA		111.9	50.0	150.0
M5PFPeA		100.5	50.0	150.0
M6PFDA		101.6	50.0	150.0
M7PFUnDA		95.0	50.0	150.0
M8FOSA		94.8	50.0	150.0
M8PFOA		106.0	50.0	150.0
M8PFOS		90.9	50.0	150.0
M9-PFNA		102.7	50.0	150.0
MPFBA		99.0	50.0	150.0
MPFDoDA		120.5	50.0	150.0
d3N-MeFOSAA		100.7	50.0	150.0
d5EtFOSAA		105.3	50.0	150.0
MHFPO-DA		115.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Matrix Spike (MS)

Lab Sample ID: AK230503A.4796401M, Parent Sample ID: S47964.01

Run in Batch: AK230503A, Run Date: 05/03/2023 20:41, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		110.2	50.0	150.0
M2-6:2FTSA		100.4	50.0	150.0
M2-8:2FTSA		109.1	50.0	150.0
M2PFTeDA		119.4	12.0	218.0
M3PFBS		99.8	50.0	150.0
M3PFHxS		115.3	50.0	150.0
M4PFHpA		112.4	50.0	150.0
M5PFHxA		113.9	50.0	150.0
M5PFPeA		100.5	50.0	150.0
M6PFDA		121.0	50.0	150.0
M7PFUnDA		84.6	50.0	150.0
M8FOSA		110.5	50.0	150.0
M8PFOA		104.0	50.0	150.0
M8PFOS		110.7	50.0	150.0
M9-PFNA		104.1	50.0	150.0
MPFBA		101.2	50.0	150.0
MPFDoDA		121.2	50.0	150.0
d3N-MeFOSAA		93.7	50.0	150.0
d5EtFOSAA		100.0	50.0	150.0
MHFPO-DA		110.2	50.0	150.0

QC Report - Internal Standards per QC Sample

Duplicate (DUP)

Lab Sample ID: AK230503A.4796402D, Parent Sample ID: S47964.02

Run in Batch: AK230503A, Run Date: 05/03/2023 21:20, Prep Date: 05/03/2023, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		93.9	50.0	150.0
M2-6:2FTSA		92.8	50.0	150.0
M2-8:2FTSA		106.4	50.0	150.0
M2PFTeDA		143.9	12.0	218.0
M3PFBS		111.6	50.0	150.0
M3PFHxS		110.2	50.0	150.0
M4PFHpA		106.1	50.0	150.0
M5PFHxA		109.4	50.0	150.0
M5PFPeA		102.4	50.0	150.0
M6PFDA		111.8	50.0	150.0
M7PFUnDA		96.2	50.0	150.0
M8FOSA		107.6	50.0	150.0
M8PFOA		111.1	50.0	150.0
M8PFOS		97.3	50.0	150.0
M9-PFNA		98.7	50.0	150.0
MPFBA		103.9	50.0	150.0
MPFDoDA		118.5	50.0	150.0
d3N-MeFOSAA		102.9	50.0	150.0
d5EtFOSAA		86.3	50.0	150.0
MHFPO-DA		109.4	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PF230510W2

QC Types: BLK/LCS/LCSD

Blank (BLK)

Lab Sample ID: AK230512B.BLK230511

Run in Batch: AK230512B, Run Date: 05/13/2023 04:29, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		95.4	50.0	150.0
M2-6:2FTSA		109.5	50.0	150.0
M2-8:2FTSA		103.5	50.0	150.0
M2PFTeDA		72.2	12.0	218.0
M3PFBS		110.6	50.0	150.0
M3PFHxS		87.7	50.0	150.0
M4PFHpA		84.9	50.0	150.0
M5PFHxA		91.7	50.0	150.0
M5PFPeA		95.9	50.0	150.0
M6PFDA		86.7	50.0	150.0
M7PFUnDA		93.7	50.0	150.0
M8FOSA		91.1	50.0	150.0
M8PFOA		95.0	50.0	150.0
M8PFOS		101.4	50.0	150.0
M9-PFNA		90.1	50.0	150.0
MPFBA		93.5	50.0	150.0
MPFDoDA		85.0	50.0	150.0
d3N-MeFOSAA		82.2	50.0	150.0
d5EtFOSAA		83.9	50.0	150.0
MHFPO-DA		95.0	50.0	150.0

QC Report - Internal Standards per QC Sample

Blank (BLK)

Lab Sample ID: SE230511B.BLK230511

Run in Batch: SE230511B, Run Date: 05/11/2023 23:35, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		89.4	50.0	150.0
M2-6:2FTSA		88.6	50.0	150.0
M2-8:2FTSA		82.1	50.0	150.0
M2PFTeDA		93.5	12.0	218.0
M3PFBS		97.1	50.0	150.0
M3PFHxS		93.7	50.0	150.0
M4PFHpA		90.7	50.0	150.0
M5PFHxA		93.9	50.0	150.0
M5PFPeA		89.9	50.0	150.0
M6PFDA		92.5	50.0	150.0
M7PFUnDA		92.0	50.0	150.0
M8FOSA		88.7	50.0	150.0
M8PFOA		88.9	50.0	150.0
M8PFOS		92.2	50.0	150.0
M9-PFNA		88.3	50.0	150.0
MPFBA		89.4	50.0	150.0
MPFDoDA		90.4	50.0	150.0
d3N-MeFOSAA		91.8	50.0	150.0
d5EtFOSAA		97.9	50.0	150.0
MHFPO-DA		91.5	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK230512B.LCS230511

Run in Batch: AK230512B, Run Date: 05/13/2023 03:50, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		93.3	50.0	150.0
M2-6:2FTSA		86.9	50.0	150.0
M2-8:2FTSA		90.7	50.0	150.0
M2PFTeDA		89.0	12.0	218.0
M3PFBS		95.2	50.0	150.0
M3PFHxS		84.1	50.0	150.0
M4PFHpA		87.8	50.0	150.0
M5PFHxA		84.8	50.0	150.0
M5PFPeA		89.4	50.0	150.0
M6PFDA		89.9	50.0	150.0
M7PFUnDA		90.7	50.0	150.0
M8FOSA		87.2	50.0	150.0
M8PFOA		86.4	50.0	150.0
M8PFOS		96.7	50.0	150.0
M9-PFNA		93.3	50.0	150.0
MPFBA		89.3	50.0	150.0
MPFDoDA		101.1	50.0	150.0
d3N-MeFOSAA		82.1	50.0	150.0
d5EtFOSAA		95.3	50.0	150.0
MHFPO-DA		91.1	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 22:56, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		86.4	50.0	150.0
M2-6:2FTSA		79.7	50.0	150.0
M2-8:2FTSA		77.8	50.0	150.0
M2PFTeDA		89.9	12.0	218.0
M3PFBS		89.7	50.0	150.0
M3PFHxS		89.2	50.0	150.0
M4PFHpA		88.5	50.0	150.0
M5PFHxA		85.3	50.0	150.0
M5PFPeA		88.8	50.0	150.0
M6PFDA		89.4	50.0	150.0
M7PFUnDA		86.5	50.0	150.0
M8FOSA		88.7	50.0	150.0
M8PFOA		89.3	50.0	150.0
M8PFOS		94.1	50.0	150.0
M9-PFNA		84.9	50.0	150.0
MPFBA		86.9	50.0	150.0
MPFDoDA		88.5	50.0	150.0
d3N-MeFOSAA		82.5	50.0	150.0
d5EtFOSAA		86.1	50.0	150.0
MHFPO-DA		83.6	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK230512B.LCSD230511, Parent Sample ID: AK230512B.LCS230511

Run in Batch: AK230512B, Run Date: 05/13/2023 04:10, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		96.4	50.0	150.0
M2-6:2FTSA		93.1	50.0	150.0
M2-8:2FTSA		88.6	50.0	150.0
M2PFTeDA		83.0	12.0	218.0
M3PFBS		94.7	50.0	150.0
M3PFHxS		92.7	50.0	150.0
M4PFHpA		90.9	50.0	150.0
M5PFHxA		94.0	50.0	150.0
M5PFPeA		96.6	50.0	150.0
M6PFDA		102.8	50.0	150.0
M7PFUnDA		95.6	50.0	150.0
M8FOSA		102.1	50.0	150.0
M8PFOA		90.2	50.0	150.0
M8PFOS		97.3	50.0	150.0
M9-PFNA		85.3	50.0	150.0
MPFBA		94.4	50.0	150.0
MPFDoDA		93.4	50.0	150.0
d3N-MeFOSAA		80.3	50.0	150.0
d5EtFOSAA		95.2	50.0	150.0
MHFPO-DA		91.9	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: SE230511B.LCSD230511, Parent Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 23:15, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		87.1	50.0	150.0
M2-6:2FTSA		92.1	50.0	150.0
M2-8:2FTSA		90.3	50.0	150.0
M2PFTeDA		102.6	12.0	218.0
M3PFBS		95.9	50.0	150.0
M3PFHxS		91.1	50.0	150.0
M4PFHpA		91.9	50.0	150.0
M5PFHxA		96.1	50.0	150.0
M5PFPeA		91.6	50.0	150.0
M6PFDA		91.5	50.0	150.0
M7PFUnDA		93.2	50.0	150.0
M8FOSA		93.4	50.0	150.0
M8PFOA		94.6	50.0	150.0
M8PFOS		93.7	50.0	150.0
M9-PFNA		90.5	50.0	150.0
MPFBA		90.3	50.0	150.0
MPFDoDA		96.0	50.0	150.0
d3N-MeFOSAA		94.1	50.0	150.0
d5EtFOSAA		93.6	50.0	150.0
MHFPO-DA		92.2	50.0	150.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230503W1

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

Blank (BLK)

Lab Sample ID: AK230503A.BLK230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:42, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	4	ng/l
PFPPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	2	ng/l
FPePA (5:3 FTCA)		ND	4	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	4	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS-BR		ND	2	ng/l
PFOS		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
FOSA		ND	2	ng/l
PFTeDA		ND	4	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230503W1 (continued)

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

Laboratory Control Sample (LCS)

Lab Sample ID: AK230503A.LCS230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:03, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		105.0	70.0	130.0
PFMPA		102.8	70.0	130.0
FPrPA (3:3 FTCA)	*	172.0	70.0	130.0
PFPPrS		104.0	70.0	130.0
PFPeA		100.6	70.0	130.0
PFMBA		90.4	70.0	130.0
4:2 FTSA		93.2	70.0	130.0
NFDHA		105.0	70.0	130.0
PFHxA		104.6	70.0	130.0
PFBS		119.6	70.0	130.0
HFPO-DA		91.8	70.0	130.0
FPePA (5:3 FTCA)	*	156.2	70.0	130.0
PFEESA		94.0	70.0	130.0
PFHpA		109.8	70.0	130.0
PFPeS		101.8	70.0	130.0
ADONA		127.6	70.0	130.0
6:2 FTSA		106.8	70.0	130.0
PFBSA		119.8	70.0	130.0
PFOA		107.4	70.0	130.0
PFHxS		103.6	70.0	130.0
FHpPA (7:3 FTCA)	*	166.4	70.0	130.0
PFNA		101.0	70.0	130.0
PFECHS		89.8	70.0	130.0
8:2 FTSA		115.8	70.0	130.0
PFHpS		101.4	70.0	130.0
N-MeFOSAA		98.2	70.0	130.0
PFDA		121.2	70.0	130.0
PFOS		101.8	70.0	130.0
EtFOSAA		96.2	70.0	130.0
PFUnDA		108.4	70.0	130.0
PFHxSA		115.4	70.0	130.0
9CL-PF3ONS		94.2	70.0	130.0
PFNS		104.0	70.0	130.0
PFDoDA		107.6	70.0	130.0
PFDS		115.0	70.0	130.0
PFTTrDA		112.0	70.0	130.0
11CL-PF3OUdS		100.4	70.0	130.0
FOSA		115.2	70.0	130.0
PFTeDA		102.2	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK230503A.LCSD230503, Parent Sample ID: AK230503A.LCS230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:23, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		102.8	70.0	130.0	2.1	30.0
PFMPA		118.8	70.0	130.0	14.4	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230503W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK230503A.LCSD230503, Parent Sample ID: AK230503A.LCS230503

Run in Batch: AK230503A, Run Date: 05/03/2023 19:23, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
FPrPA (3:3 FTCA)	*	158.0	70.0	130.0	8.5	30.0
PFPPrS		100.8	70.0	130.0	3.1	30.0
PFPeA		95.2	70.0	130.0	5.5	30.0
PFMBA		106.8	70.0	130.0	16.6	30.0
4:2 FTSA		103.6	70.0	130.0	10.6	30.0
NFDHA	*	134.4	70.0	130.0	24.6	30.0
PFHxA		102.2	70.0	130.0	2.3	30.0
PFBS		103.4	70.0	130.0	14.5	30.0
HFPO-DA		100.8	70.0	130.0	9.3	30.0
FPePA (5:3 FTCA)	*	141.6	70.0	130.0	9.8	30.0
PFEESA		101.8	70.0	130.0	8.0	30.0
PFHpA		91.6	70.0	130.0	18.1	30.0
PFPeS		98.8	70.0	130.0	3.0	30.0
ADONA		114.0	70.0	130.0	11.3	30.0
6:2 FTSA		90.4	70.0	130.0	16.6	30.0
PFBSA		120.6	70.0	130.0	0.7	30.0
PFOA		108.8	70.0	130.0	1.3	30.0
PFHxS		111.2	70.0	130.0	7.1	30.0
FHpPA (7:3 FTCA)	*	161.0	70.0	130.0	3.3	30.0
PFNA		96.6	70.0	130.0	4.5	30.0
PFECHS		103.0	70.0	130.0	13.7	30.0
8:2 FTSA		113.0	70.0	130.0	2.4	30.0
PFHpS		98.4	70.0	130.0	3.0	30.0
N-MeFOSAA		92.6	70.0	130.0	5.9	30.0
PFDA		112.2	70.0	130.0	7.7	30.0
PFOS		111.2	70.0	130.0	8.8	30.0
EtFOSAA		86.4	70.0	130.0	10.7	30.0
PFUnDA		105.2	70.0	130.0	3.0	30.0
PFHxSA		105.2	70.0	130.0	9.2	30.0
9CL-PF3ONS		112.6	70.0	130.0	17.8	30.0
PFNS		125.4	70.0	130.0	18.7	30.0
PFDoDA		104.4	70.0	130.0	3.0	30.0
PFDS		123.8	70.0	130.0	7.4	30.0
PFTTrDA		110.0	70.0	130.0	1.8	30.0
11CL-PF3OUdS		121.8	70.0	130.0	19.3	30.0
FOSA	*	131.8	70.0	130.0	13.4	30.0
PFTeDA		104.8	70.0	130.0	2.5	30.0

Matrix Spike (MS)

Lab Sample ID: AK230503A.4796401M, Parent Sample ID: S47964.01

Run in Batch: AK230503A, Run Date: 05/03/2023 20:41, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1.98

Analyte	Flags	% Rec	LCL	UCL
PFBA		111.1	70.0	130.0
PFPeA		101.0	70.0	130.0
4:2 FTSA		101.0	70.0	130.0
PFHxA		93.8	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230503W1 (continued)

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

Matrix Spike (MS) (continued)

Lab Sample ID: AK230503A.4796401M, Parent Sample ID: S47964.01

Run in Batch: AK230503A, Run Date: 05/03/2023 20:41, Prep Date: 05/03/2023, Matrix: WW, Dilution: 1.98

Analyte	Flags	% Rec	LCL	UCL
PFBS		109.3	70.0	130.0
PFHpA		93.3	70.0	130.0
PFPeS		101.0	70.0	130.0
6:2 FTSA		89.9	70.0	130.0
PFOA		107.1	70.0	130.0
PFHxS		107.7	70.0	130.0
PFNA		100.0	70.0	130.0
8:2 FTSA		99.0	70.0	130.0
PFHpS		93.9	70.0	130.0
PFDA		84.8	70.0	130.0
N-MeFOSAA		94.9	70.0	130.0
EtFOSAA		83.1	70.0	130.0
PFOS		88.9	70.0	130.0
PFUnDA		111.1	70.0	130.0
PFNS		111.1	70.0	130.0
PFDoDA		94.9	70.0	130.0
PFDS		111.1	70.0	130.0
PFTTrDA		101.0	70.0	130.0
FOSA		101.0	70.0	130.0
PFTeDA		111.1	70.0	130.0
11CL-PF3OUdS		94.9	70.0	130.0
9CL-PF3ONS		91.9	70.0	130.0
ADONA	*	131.3	70.0	130.0
HFPO-DA		111.1	70.0	130.0
FHpPA (7:3 FTCA)	*	151.5	70.0	130.0
FPePA (5:3 FTCA)	*	141.4	70.0	130.0
FPrPA (3:3 FTCA)	*	161.6	70.0	130.0
PFBSA		121.2	70.0	130.0
PFECHS		84.8	70.0	130.0
PFHxSA		109.3	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK230503A.4796402D, Parent Sample ID: S47964.02

Run in Batch: AK230503A, Run Date: 05/03/2023 21:20, Prep Date: 05/03/2023, Matrix: WW, Dilution: 2.06

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0
4:2 FTSA		NC	30.0
PFHxA		NC	30.0
PFBS		NC	30.0
PFHpA		NC	30.0
PFPeS		NC	30.0
6:2 FTSA		NC	30.0
PFOA		NC	30.0
PFHxS		NC	30.0
PFHxS-LN		NC	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230503W1 (continued)

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

Duplicate (DUP) (continued)

Lab Sample ID: AK230503A.4796402D, Parent Sample ID: S47964.02

Run in Batch: AK230503A, Run Date: 05/03/2023 21:20, Prep Date: 05/03/2023, Matrix: WW, Dilution: 2.06

Analyte	Flags	RPD	RPD CL
PFHxS-BR		NC	30.0
PFNA		NC	30.0
8:2 FTSA		NC	30.0
PFHpS		NC	30.0
PFDA		NC	30.0
N-MeFOSAA		NC	30.0
EtFOSAA		NC	30.0
PFOS		NC	30.0
PFOS-LN		NC	30.0
PFOS-BR		NC	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDODA		NC	30.0
PFDS		NC	30.0
PFTTrDA		NC	30.0
FOSA		NC	30.0
PFTeDA		NC	30.0
11CL-PF3OUdS		NC	30.0
9CL-PF3ONS		NC	30.0
ADONA		NC	30.0
HFPO-DA		NC	30.0
FHpPA (7:3 FTCA)		NC	30.0
FPePA (5:3 FTCA)		NC	30.0
FPrPA (3:3 FTCA)		NC	30.0
PFBSA		NC	30.0
PFECHS		NC	30.0
PFHxSA		NC	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2

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

Blank (BLK)

Lab Sample ID: AK230512B.BLK230511

Run in Batch: AK230512B, Run Date: 05/13/2023 04:29, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	10	ng/l
PFMPA		ND	2	ng/l
FPrPA (3:3 FTCA)		ND	4	ng/l
PFPPrS		ND	2	ng/l
PFPeA		ND	4	ng/l
PFMBA		ND	2	ng/l
4:2 FTSA		ND	2	ng/l
NFDHA		ND	2	ng/l
PFHxA		ND	2	ng/l
PFBS		ND	2	ng/l
HFPO-DA		ND	2	ng/l
FPePA (5:3 FTCA)		ND	4	ng/l
PFEESA		ND	2	ng/l
PFHpA		ND	2	ng/l
PFPeS		ND	2	ng/l
ADONA		ND	2	ng/l
6:2 FTSA		ND	2	ng/l
PFBSA		ND	2	ng/l
PFOA		ND	2	ng/l
PFHxS-BR		ND	2	ng/l
PFHxS		ND	2	ng/l
PFHxS-LN		ND	2	ng/l
FHpPA (7:3 FTCA)		ND	4	ng/l
PFNA		ND	2	ng/l
PFECHS		ND	2	ng/l
8:2 FTSA		ND	2	ng/l
PFHpS		ND	2	ng/l
N-MeFOSAA		ND	2	ng/l
PFDA		ND	2	ng/l
PFOS		ND	2	ng/l
PFOS-BR		ND	2	ng/l
EtFOSAA		ND	4	ng/l
PFOS-LN		ND	2	ng/l
PFUnDA		ND	2	ng/l
PFHxSA		ND	2	ng/l
9CL-PF3ONS		ND	2	ng/l
PFNS		ND	2	ng/l
PFDoDA		ND	2	ng/l
PFDS		ND	2	ng/l
PFTTrDA		ND	2	ng/l
11CL-PF3OUdS		ND	2	ng/l
PFTeDA		ND	4	ng/l
FOSA		ND	2	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2 (continued)

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

Blank (BLK)

Lab Sample ID: SE230511B.BLK230511

Run in Batch: SE230511B, Run Date: 05/11/2023 23:35, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	5	ng/l
PFMPA		ND	1	ng/l
FPrPA (3:3 FTCA)		ND	2	ng/l
PFPPrS		ND	1	ng/l
PFPeA		ND	2	ng/l
PFMBA		ND	1	ng/l
4:2 FTSA		ND	1	ng/l
NFDHA		ND	1	ng/l
PFHxA		ND	1	ng/l
PFBS		ND	1	ng/l
HFPO-DA		ND	1	ng/l
FPePA (5:3 FTCA)		ND	2	ng/l
PFEESA		ND	1	ng/l
PFHpA		ND	1	ng/l
PFPeS		ND	1	ng/l
ADONA		ND	1	ng/l
6:2 FTSA		ND	1	ng/l
PFBSA		ND	1	ng/l
PFOA		ND	1	ng/l
PFHxS-BR		ND	1	ng/l
PFHxS		ND	1	ng/l
PFHxS-LN		ND	1	ng/l
FHpPA (7:3 FTCA)		ND	2	ng/l
PFNA		ND	1	ng/l
PFECHS		ND	1	ng/l
8:2 FTSA		ND	1	ng/l
PFHpS		ND	1	ng/l
N-MeFOSAA		ND	1	ng/l
PFDA		ND	1	ng/l
PFOS-BR		ND	1	ng/l
PFOS		ND	1	ng/l
EtFOSAA		ND	2	ng/l
PFOS-LN		ND	1	ng/l
PFHxSA		ND	1	ng/l
PFUnDA		ND	1	ng/l
9CL-PF3ONS		ND	1	ng/l
PFNS		ND	1	ng/l
PFDoDA		ND	1	ng/l
PFDS		ND	1	ng/l
PFTTrDA		ND	1	ng/l
11CL-PF3OUdS		ND	1	ng/l
FOSA		ND	1	ng/l
PFTeDA		ND	2	ng/l

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2 (continued)

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

Laboratory Control Sample (LCS)

Lab Sample ID: AK230512B.LCS230511

Run in Batch: AK230512B, Run Date: 05/13/2023 03:50, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		100.6	70.0	130.0
PFMPA		102.8	70.0	130.0
FPrPA (3:3 FTCA)	*	138.8	70.0	130.0
PFPPrS		100.2	70.0	130.0
PFPeA		101.8	70.0	130.0
PFMBA		94.0	70.0	130.0
4:2 FTSA		91.6	70.0	130.0
NFDHA		105.6	70.0	130.0
PFHxA		96.6	70.0	130.0
PFBS		98.4	70.0	130.0
HFPO-DA		97.0	70.0	130.0
FPePA (5:3 FTCA)	*	138.8	70.0	130.0
PFEESA		87.8	70.0	130.0
PFHpA		91.0	70.0	130.0
PFPeS		93.6	70.0	130.0
ADONA		112.2	70.0	130.0
6:2 FTSA		90.0	70.0	130.0
PFBSA		115.2	70.0	130.0
PFOA		98.6	70.0	130.0
PFHxS		108.2	70.0	130.0
FHpPA (7:3 FTCA)	*	141.6	70.0	130.0
PFNA		95.0	70.0	130.0
PFECHS		85.2	70.0	130.0
8:2 FTSA		90.6	70.0	130.0
PFHpS		99.4	70.0	130.0
N-MeFOSAA		97.0	70.0	130.0
PFDA		97.8	70.0	130.0
PFOS		96.0	70.0	130.0
EtFOSAA		80.8	70.0	130.0
PFUnDA		99.4	70.0	130.0
PFHxSA		107.2	70.0	130.0
9CL-PF3ONS		91.0	70.0	130.0
PFNS		101.0	70.0	130.0
PFDoDA		95.6	70.0	130.0
PFDS		99.6	70.0	130.0
PFTTrDA		106.6	70.0	130.0
11CL-PF3OUdS		98.4	70.0	130.0
PFTeDA		108.0	70.0	130.0
FOSA		107.2	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 22:56, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		96.6	70.0	130.0
PFMPA		86.6	70.0	130.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 22:56, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
FPrPA (3:3 FTCA)		73.6	70.0	130.0
PFPPrS		109.8	70.0	130.0
PFPeA		95.4	70.0	130.0
PFMBA		93.4	70.0	130.0
4:2 FTSA		109.6	70.0	130.0
NFDHA		87.8	70.0	130.0
PFHxA		110.6	70.0	130.0
PFBS		108.2	70.0	130.0
HFPO-DA		102.2	70.0	130.0
FPePA (5:3 FTCA)		75.2	70.0	130.0
PFEESA		78.6	70.0	130.0
PFHpA		93.2	70.0	130.0
PFPeS		90.6	70.0	130.0
ADONA		89.0	70.0	130.0
6:2 FTSA		119.4	70.0	130.0
PFBSA		78.2	70.0	130.0
PFOA		101.6	70.0	130.0
PFHxS		98.6	70.0	130.0
FHpPA (7:3 FTCA)		84.4	70.0	130.0
PFNA		96.0	70.0	130.0
PFECHS		98.0	70.0	130.0
8:2 FTSA		106.2	70.0	130.0
PFHpS		101.6	70.0	130.0
N-MeFOSAA		93.6	70.0	130.0
PFDA		94.2	70.0	130.0
PFOS		90.0	70.0	130.0
EtFOSAA		96.6	70.0	130.0
PFHxSA		83.6	70.0	130.0
PFUnDA		107.4	70.0	130.0
9CL-PF3ONS		99.8	70.0	130.0
PFNS		88.6	70.0	130.0
PFDoDA		91.6	70.0	130.0
PFDS		90.8	70.0	130.0
PFTTrDA		92.2	70.0	130.0
11CL-PF3OUdS		104.0	70.0	130.0
FOSA		104.0	70.0	130.0
PFTeDA		92.4	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK230512B.LCSD230511, Parent Sample ID: AK230512B.LCS230511

Run in Batch: AK230512B, Run Date: 05/13/2023 04:10, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		98.8	70.0	130.0	1.8	30.0
PFMPA		104.2	70.0	130.0	1.4	30.0
FPrPA (3:3 FTCA)	*	140.0	70.0	130.0	0.9	30.0
PFPPrS		98.8	70.0	130.0	1.4	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK230512B.LCSD230511, Parent Sample ID: AK230512B.LCS230511

Run in Batch: AK230512B, Run Date: 05/13/2023 04:10, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFPeA		96.0	70.0	130.0	5.9	30.0
PFMBA		90.4	70.0	130.0	3.9	30.0
4:2 FTSA		87.4	70.0	130.0	4.7	30.0
NFDHA		111.2	70.0	130.0	5.2	30.0
PFHxA		92.0	70.0	130.0	4.9	30.0
PFBS		101.4	70.0	130.0	3.0	30.0
HFPO-DA		101.4	70.0	130.0	4.4	30.0
FPePA (5:3 FTCA)		127.4	70.0	130.0	8.6	30.0
PFEESA		90.6	70.0	130.0	3.1	30.0
PFHpA		101.4	70.0	130.0	10.8	30.0
PFPeS		99.2	70.0	130.0	5.8	30.0
ADONA		122.2	70.0	130.0	8.5	30.0
6:2 FTSA		97.2	70.0	130.0	7.7	30.0
PFBSA		95.4	70.0	130.0	18.8	30.0
PFOA		100.6	70.0	130.0	2.0	30.0
PFHxS		102.4	70.0	130.0	5.5	30.0
FHpPA (7:3 FTCA)		126.0	70.0	130.0	11.7	30.0
PFNA		103.4	70.0	130.0	8.5	30.0
PFECHS		83.0	70.0	130.0	2.6	30.0
8:2 FTSA		95.6	70.0	130.0	5.4	30.0
PFHpS		99.0	70.0	130.0	0.4	30.0
N-MeFOSAA		98.4	70.0	130.0	1.4	30.0
PFDA		89.4	70.0	130.0	9.0	30.0
PFOS		103.2	70.0	130.0	7.2	30.0
EtFOSAA		86.4	70.0	130.0	6.7	30.0
PFUnDA		101.2	70.0	130.0	1.8	30.0
PFHxSA		99.4	70.0	130.0	7.6	30.0
9CL-PF3ONS		101.4	70.0	130.0	10.8	30.0
PFNS		109.8	70.0	130.0	8.3	30.0
PFDoDA		99.6	70.0	130.0	4.1	30.0
PFDS		92.8	70.0	130.0	7.1	30.0
PFTTrDA		109.0	70.0	130.0	2.2	30.0
11CL-PF3OUdS		94.0	70.0	130.0	4.6	30.0
PFTeDA		101.0	70.0	130.0	6.7	30.0
FOSA		98.6	70.0	130.0	8.4	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: SE230511B.LCSD230511, Parent Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 23:15, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		92.4	70.0	130.0	4.4	30.0
PFMPA		84.4	70.0	130.0	2.6	30.0
FPrPA (3:3 FTCA)		71.6	70.0	130.0	2.8	30.0
PFPPrS		99.8	70.0	130.0	9.5	30.0
PFPeA		93.4	70.0	130.0	2.1	30.0
PFMBA		95.4	70.0	130.0	2.1	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: PF230510W2 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: SE230511B.LCSD230511, Parent Sample ID: SE230511B.LCS230511

Run in Batch: SE230511B, Run Date: 05/11/2023 23:15, Prep Date: 05/10/2023, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
4:2 FTSA		112.4	70.0	130.0	2.5	30.0
NFDHA		86.6	70.0	130.0	1.4	30.0
PFHxA		95.0	70.0	130.0	15.2	30.0
PFBS		100.4	70.0	130.0	7.5	30.0
HFPO-DA		85.0	70.0	130.0	18.4	30.0
FPePA (5:3 FTCA)		72.8	70.0	130.0	3.2	30.0
PFEESA		80.6	70.0	130.0	2.5	30.0
PFHpA		90.8	70.0	130.0	2.6	30.0
PFPeS		84.4	70.0	130.0	7.1	30.0
ADONA		86.2	70.0	130.0	3.2	30.0
6:2 FTSA		96.4	70.0	130.0	21.3	30.0
PFBSA		74.2	70.0	130.0	5.2	30.0
PFOA		92.6	70.0	130.0	9.3	30.0
PFHxS		94.0	70.0	130.0	4.8	30.0
FHpPA (7:3 FTCA)		87.0	70.0	130.0	3.0	30.0
PFNA		89.4	70.0	130.0	7.1	30.0
PFECHS		100.8	70.0	130.0	2.8	30.0
8:2 FTSA		100.0	70.0	130.0	6.0	30.0
PFHpS		103.8	70.0	130.0	2.1	30.0
N-MeFOSAA		79.6	70.0	130.0	16.2	30.0
PFDA		92.4	70.0	130.0	1.9	30.0
PFOS		89.6	70.0	130.0	0.4	30.0
EtFOSAA		91.0	70.0	130.0	6.0	30.0
PFHxSA		81.8	70.0	130.0	2.2	30.0
PFUnDA		101.0	70.0	130.0	6.1	30.0
9CL-PF3ONS		95.8	70.0	130.0	4.1	30.0
PFNS		89.6	70.0	130.0	1.1	30.0
PFDODA		90.0	70.0	130.0	1.8	30.0
PFDS		90.0	70.0	130.0	0.9	30.0
PFTTrDA		94.4	70.0	130.0	2.4	30.0
11CL-PF3OUdS		102.8	70.0	130.0	1.2	30.0
FOSA		96.6	70.0	130.0	7.4	30.0
PFTTeDA		88.8	70.0	130.0	4.0	30.0



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 2 169192

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Clifford Yantz / Kevin Schneider
 COMPANY Ramboll
 ADDRESS 2090 Commonwealth Blvd
 CITY Ann Arbor STATE MI ZIP CODE 48105
 PHONE NO. 313-333-0411 CELL NO. _____ P.O. NO. _____
 E-MAIL ADDRESS Clifford.Yantz@Ramboll.com Kevin.Schneider@Ramboll.com QUOTE NO. _____

CONTACT NAME X SAME
 COMPANY _____
 ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____
 PHONE NO. _____ E-MAIL ADDRESS _____

PROJECT NO./NAME RAVEE HENPHILL ROAD INDUSTRIAL LAND SAMPLER(S) - PLEASE PRINT/SIGN NAME Kevin Schneider
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER _____
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
 OHIO VAP Drinking Water
 DoD NPDES

Project Locations
 Detroit New York
 Other _____

Special Instructions

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

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PFAS (ppm)							
	DATE	TIME																		
47964.13	4/27/23	1456	SAN-02	L	3	3							X							
.14	4/27/23	1504	SAN-03	L	3	3							X							

RELINQUISHED BY: [Signature] Sampler DATE 4/27/23 TIME 15:00
 RECEIVED BY: [Signature] DATE 4/27/23 TIME 15:30
 RELINQUISHED BY: [Signature] DATE 4/27/23 TIME 16:45
 RECEIVED BY: Johanna Murray DATE 4/27/23 TIME 16:45

RELINQUISHED BY: _____ DATE _____ TIME _____
 RECEIVED BY: _____ DATE _____ TIME _____
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____ NOTES: _____ TEMP. ON ARRIVAL 2.0
 SEAL NO. _____ SEAL INTACT YES NO INITIALS _____