RAMBOLL

ENVIRONMENT
& HEALTH

Mr. Paul Bucholtz

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 2022 Event***
RACER Trust – Hemphill Road Industrial Land, Burton, Michigan

FILE: 15388/1940102166/Docs

Dear **Mr. Bucholtz**:

This technical memorandum (memo) 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**).

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.

Date August 25, 2022

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Sample Collection

Groundwater Sample Collection

Groundwater samples for PFAS analysis were collected from the following onsite and offsite monitoring wells. See **Figure 2** for sample locations. A groundwater sample was attempted from OBG MW-4S but was not collected this event due to interference with LNAPL in the well.

- 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
- Two onsite monitoring wells with light non-aqueous phase liquid (LNAPL) impacts (water samples were collected from beneath LNAPL)
    - OBG MW-10 and MW-401
- Three offsite monitoring wells

- OBG OS MW-3, OBG OS MW-4, and OBG OS MW-5

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).

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.

To purge the monitoring wells below the LNAPL in monitoring wells OBG MW-4S and MW-401, three-eighth inch outside diameter (OD) tubing was placed in the well to a depth below the LNAPL and then quarter inch OD HDPE tubing was fed through the three-eighth inch OD tubing to bypass the LNAPL and reach the midpoint of the well screen. Due to LNAPL clogging the sample tubing within OBG MW-4S and preventing the purging of the well, no sample was collected from OBG MW-4S after multiple attempts to purge the well.

The well was purged at a rate that produced less than 0.3 ft of drawdown in the well, except for wells MW-403, OBG MW-2D, OBG MW-5S, OBG MW-6D, OBG MW-7S, OBG MW-8, and OBG MW-9. 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. Due to the viscous LNAPL coating the interface probe of the measuring instrument, it was difficult to acquire an accurate measurement of the water level in monitoring wells MW-401, OBG MW-4S, and OBG MW-10.

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 wells MW-401 and 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 ASTMD7979-19 (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 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 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 west to northwest and from the medical facility discharge.

A sample was proposed 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 southwest of the Site 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 ASTMD7979-19 (no preservative).

LNAPL Sample Collection

No LNAPL samples were collected this event.

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:

- Five shallow onsite monitoring wells

- MW-401 (water from beneath LNAPL), OBG MW-4S (water from beneath LNAPL), 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
- Two offsite monitoring wells
  - OBG OS MW-4, and OBG OS MW-5

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).

- Four onsite monitoring wells
  - MW-403 (11 ng/L PFOA / 370 ng/L PFOS), MW-403 TOPS Analysis (260 ng/L PFOS), OBG MW-5S (9.7 ng/L PFOA), OBG MW-5S duplicate (9.4 ng/L PFOA) OBG MW-7S (19 ng/L PFOA / 32 ng/L PFOS), and OBG MW-10 (13 ng/L PFOA – water from beneath LNAPL)
- One offsite monitoring well
  - OBG OS MW-3 (9.5 ng/L PFOA / 30 ng/L PFOS)

The relative percent differences (RPDs) for the duplicate sample results for OBG MW-5S and DUP-042922 (OBG MW-5S) were within acceptable limits.

Non-detect results at monitoring wells OBG MW-2D, OBG MW-7D, and OBG MW-6D, continue to indicate that the deeper groundwater zone is not impacted.

Shallow groundwater analytical results continue to indicate that the 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 MW-401, 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.

Although PFAS was detected in offsite monitoring wells OBG OS MW-4 and OBG OS MW-5, which are screened in waste fill, the detections were below the EGLE PFAS drinking water criteria, and only offsite monitoring well OBG OS MW-3 detected PFAS (9.5 ng/L PFOA / 30 ng/L PFOS) above the drinking water criteria (8 ng/L PFOA and 16 ng/L PFOS).

MW-403 was also analyzed by total oxidizable precursor (TOP) assay to measure the total concentration of oxidizable PFAS precursors. This was done to indirectly assess unknown PFAS that are precursors to the terminal oxidation compounds that are reported on the standard list, such as PFOS and PFOA. Perfluorohexanoic Acid (PFHxA) was detected at a concentration of 31 ng/L and PFOS was detected at a concentration of 260 ng/L in the TOP assay, which was less than the original sample. No other PFAS were detected. The results of the TOP assay indicate no significant amount of precursors that could form to terminal end products on the standard list.

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 to previous sampling events and will continue to be evaluated during future sampling events.

Path Forward

Based on the results of this sampling events the Exposure Pathway Evaluation presented in our February 10, 2021 letter report does not change. We recommend collecting an additional round of samples in October 2022 to confirm that the PFAS impacts are stable or decreasing and the February 10, 2021 Exposure Pathway Evaluation has not changed.

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-401, MW-403, OBG MW-4S, OBG MW-5S, OBG MW-7S, OBG MW-8, OBG MW-9, OBG MW-10, and OBG MW-11 and off-site monitoring wells OBG OS MW-3, OBG OS MW-4, and OBG OS MW-5. 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.

At this time we do not recommend any further LNAPL sampling.

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

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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 27, 2022
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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-1S 6/29/2020	OBG MW-1S 10/27/2020	OBG MW-2S 6/30/2020	OBG MW-2S 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**	**6.8**	**4.9**	**5.2**
Perfluorobutane Sulfonic Acid (PFBS)	**420**	**2.4**	**3.4**	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	**2.3**	**1.8 J**	**2.0 J**
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<2.0	<2.0	<2.1
Perfluorooctanoic Acid (**PFOA**)	**8**	**3.9**	**3.6**	**2.3**	**2.2**
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	**6**	<2.1	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.0	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.0	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.2	<4.1	<3.9	<4.1
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.1	<2.0	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.0	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.2	<4.1	<3.9	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<2.1	<2.0	<2.0	<2.1
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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

Notes
1) Detections in **bold**.
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Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-3 *6/30/2020*	OBG MW-3 *10/28/2020*	OBG MW-4S *11/2/2020*	OBG MW-4S *4/26/2021*	OBG MW-4S *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	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	**3.8**	**3.8**	<2.1	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	**2.2**	<2.0	<2.1	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<1.9	<2.0	<2.1	<2.1	<4.0
Perfluorooctanoic Acid (**PFOA**)	**8**	**4.2**	**4.4**	**4.5**	**2.9**	**3.8**
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<1.9	<2.0	<2.1	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<1.9	<2.0	<2.1	<2.1	<4.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<3.9	<4.1	<4.2	<4.2	<4.0
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<1.9	<2.0	**3.9**	**2.2**	**2.7**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.9	<4.1	<4.2	<4.2	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<1.9	<2.0	<2.1	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<1.9	<2.0	<2.1	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<1.9	<2.0	<2.1	<10	<10
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.
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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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-5S 7/1/2020	OBG MW-5S (DUP-1) 7/1/2020	OBG MW-5S 10/29/2020	OBG MW-5S (DUP-1) 10/29/2020
Perfluorobutanoic Acid (PFBA)	--	<48 X	<38 X	<20 X	<19 X
Perfluoropentanoic Acid (PFPeA)	--	<3.8	<3.8	<4.0	<3.8
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorohexanoic Acid (PFHxA)	**400,000**	<3.8 X	<3.8 X	**3.2**	**3.6**
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<3.8 X	<3.8 X	<2.0	<1.9
Perfluoroheptanoic Acid (PFHpA)	--	<1.9	**1.8 J**	**1.7 J**	**1.6 J**
Perfluoropentane Sulfonic Acid (PFPeS)	--	<1.9	<1.9	<2.0	<1.9
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorooctanoic Acid (**PFOA**)	**8**	**8.7**	**9.8**	**11**	**11**
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	**3.2**	**3.0**	<2.0	<1.9
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	**2.0**	<1.9	<2.0	<1.9
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<1.9	<1.9	<2.0	<1.9
Perfluorononanoic Acid (PFNA)	**6**	<1.9	<1.9	<2.0	<1.9
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<1.9	<1.9	<2.0	<1.9
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<1.9	<1.9	<2.0	<1.9
Perfluorodecanoic Acid (PFDA)	--	<1.9	<1.9	<2.0	<1.9
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<1.9	<1.9	<2.0	<1.9
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<3.8	<3.8	<4.0	<3.8
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<1.9	<1.9	<2.0	<1.9
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<1.9	<1.9	<2.0	<1.9
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<1.9	<1.9	<2.0	<1.9
Perfluoroundecanoic Acid (PFUnDA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorononane Sulfonic Acid (PFNS)	--	<1.9	<1.9	<2.0	<1.9
Perfluorododecanoic Acid (PFDoDA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorodecane Sulfonic Acid (PFDS)	--	<1.9	<1.9	<2.0	<1.9
Perfluorotridecanoic Acid (PFTrDA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorooctane Sulfonamide (FOSA)	--	<1.9	<1.9	<2.0	<1.9
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.8	<3.8	<4.0	<3.8
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<1.9	<1.9	<2.0	<1.9
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<1.9	<1.9	<2.0	<1.9
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<1.9	<1.9	<2.0	<1.9
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<1.9	<1.9	<2.0	<1.9
Total Per-and Polyfluoroalkyl Substances	--	**11.9**	**14.6**	**15.9**	**16.2**

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.
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) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-5S 4/23/2021	OBG MW-5S (DUP-042321) 4/23/2021	OBG MW-5S 11/8/2021	OBG MW-5S 4/29/2022	OBG MW-5S (DUP-042922) 4/29/2022
Perfluorobutanoic Acid (PFBA)	--	<20 X	<22 X	<20 X	<40 X	<30 X
Perfluoropentanoic Acid (PFPeA)	--	<4.0	<4.0	<4.1	<4.0	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	**400,000**	<2.0	<2.0	<2.9 X	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	<2.0	<2.0	<2.0	**2.0**
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<2.0	**8.5**	<2.0	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	**9.1**	**9.4**	**9.3**	**9.7**	**9.4**
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	**2.0**	**2.1**	**2.7**	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<2.0	<2.0	<2.0	<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	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.0	<4.0	<4.1	<4.0	<4.0
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.0	<2.0	<2.0	<4.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.0	<4.0	<4.1	<4.0	<2.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<9.9	<10	<10	<4.0	<4.0
Total Per-and Polyfluoroalkyl Substances	--	**11.1**	**11.5**	**20.5**	**9.7**	**11.4**

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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

Notes
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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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

Notes
1) Detections in **bold**.
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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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-7D 6/29/2020	OBG MW-7D 10/27/2020	OBG MW-7D 4/21/2021	OBG MW-7D 4/21/2021	OBG MW-7D 4/27/2022
Perfluorobutanoic Acid (PFBA)	--	**28 U**	<11	<9.9	<9.8	<9.8
Perfluoropentanoic Acid (PFPeA)	--	<3.9	<4.2	<3.9	<3.9	<3.9
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	**400,000**	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<1.9	<2.1	<2.0	<3.9	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<1.9	<2.1	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<1.9	<2.1	<2.0	<3.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<3.9	<4.2	<3.9	<3.9	<3.9
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.9	<4.2	<3.9	<3.9	<3.9
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<1.9	<2.1	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<1.9	<2.1	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<1.9	<2.1	<2.0	<9.8	<3.9
Total Per-and Polyfluoroalkyl Substances	--	**28.0**	**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.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

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.
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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

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

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.
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TABLE 1
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - June 2020 - April 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG MW-11 *10/29/2020*	OBG MW-11 *4/22/2021*	OBG MW-11 *11/8/2021*	OBG MW-11 *4/27/2022*
Perfluorobutanoic Acid (PFBA)	--	<20 X	<25 X	**15**	**33**
Perfluoropentanoic Acid (PFPeA)	--	<4.0	<3.9	<3.9	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<1.9	<2.0 **I**	<2.0
Perfluorohexanoic Acid (PFHxA)	**400,000**	**3.1**	<1.9	<2.0	**6.1**
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.0	<1.9	**1.6 J**	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	**1.5 J**	<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	<3.9	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	**1.9 J**	**3.8**	**2.9**	**3.3**
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	<3.9	<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	<3.9	<4.0
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	**6.5**	**3.3**	**3.8**	**3.5**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.0	<1.9	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**4.8**	**2.3**	**2.6**	**2.5**
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	<3.9	<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	<9.9	<4.0
Total Per-and Polyfluoroalkyl Substances	--	**11.5**	**8.6**	**23.3**	**45.9**

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.
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) J - Estimated value less than reporting limit, but greater than MDL.
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12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	MW-401 *11/2/2020*	MW-401 *4/27/2021*	MW-401 *11/9/2021*	**MW-401** *4/29/2022*
Perfluorobutanoic Acid (PFBA)	--	<18 X	<10	**12**	<23 X
Perfluoropentanoic Acid (PFPeA)	--	<4.1	<4.1	<4.0	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<2.1	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	**400,000**	<2.0	**2.0 J**	<2.0	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.0	<2.1	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	<2.1	<2.0	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.1	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<2.1	<4.0	<2.1
Perfluorooctanoic Acid (**PFOA**)	**8**	<2.0	<2.1	<2.0	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<2.0	<2.1	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.1	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.1	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	**6**	<2.0	<2.1	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<2.1	<4.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.1	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.1	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.1	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.1	<4.1	<4.0	<4.1
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.0	<2.1	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.0	<2.1	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.0	<2.1	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.1	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.1	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.1	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.1	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.1	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<2.1	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.1	<4.0	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.1	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.1	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.1	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<2.0	<10	<10	<4.1
Total Per-and Polyfluoroalkyl Substances	--	**0.0**	**2.0**	**12.0**	**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) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	MW-403 *11/2/2020*	MW-403 *4/23/2021*	MW-403 *11/9/2021*	MW-403 (DUP-110921) *11/9/2021*	MW-403 *4/29/2022*	MW-403 TOPs Analysis *4/29/2022*
Perfluorobutanoic Acid (PFBA)	--	<16 X	<10	<9.8	<9.6	<14 X	<120 X
Perfluoropentanoic Acid (PFPeA)	--	<4.1	<4.2	<3.9	<3.8	<4.1	<90 IX
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30 I
Perfluorohexanoic Acid (PFHxA)	**400,000**	**1.6 J**	<2.1	<2.0	<1.9	<2.1	**31**
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.1	<2.1	**1.5 J**	**1.8 J**	<2.1	<30
Perfluoroheptanoic Acid (PFHpA)	--	**2.1**	**2.0 J**	<2.0	**1.3 J**	<2.1	<30
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	**240**	<3.9	<3.8	<2.1	<30 I
Perfluorooctanoic Acid (**PFOA**)	**8**	**25**	**19**	**14**	**15**	**11**	<30
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	**3.6**	**2.2**	**3.9**	**3.7**	**1.7 J**	<30
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	**3.5**	<2.1	**3.2**	**2.8**	<2.1	<30
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorononanoic Acid (PFNA)	**6**	<2.1	**2.1**	<2.0	<1.9	<2.1	<30
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.1	<3.9	<3.8	<2.1	<30 I
Perfluoroheptane Sulfonic Acid (PFHpS)	--	**7.3**	**2.7**	**3.8**	**3.8**	**2.7**	<30
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	**2.5**	**1.9**	<2.1	<30
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	**75**	**61**	**82**	**78**	**54**	<30 I
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	**960**	**450**	**550**	**580**	**370**	**260**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	**710**	**350**	**430**	**460**	**280**	**180**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**250**	**100**	**120**	**120**	**87**	**66**
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Perfluorooctane Sulfonamide (FOSA)	--	**32**	**33**	**59**	**60**	**33**	<30 I
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.2	<3.9	<3.8	<4.1	<30
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<2.0	<1.9	<2.1	<30
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<2.1	<10	<9.8	<9.6	<4.1	<30
Total Per-and Polyfluoroalkyl Substances	--	**1106.6**	**812.0**	**716.7**	**745.5**	**472.4**	**291.0**

Notes
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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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG OS MW-3 4/23/2021	OBG OS MW-3 4/23/2021	OBG OS MW-3 4/28/2022	OBG OS MW-4 4/23/2021	OBG OS MW-4 11/9/2021	OBG OS MW-4 4/28/2022
Perfluorobutanoic Acid (PFBA)	--	<24 X	<20 X	<38 X	<26 X	<21 X	<50 X
Perfluoropentanoic Acid (PFPeA)	--	<3.9	<4.4 X	<3.8	<4.0	<4.1	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<2.0	<1.9	<2.0	<2.1 I	<2.0 I
Perfluorohexanoic Acid (PFHxA)	**400,000**	**3.6**	**2.4**	<1.9	<2.0	<2.1	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	**2.2**	**1.8 J**	<1.9	<2.0	<2.1	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	**2.4**	**2.2**	**1.4 J**	<2.0	<2.1	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	<4.0	<1.9	<2.0	<4.1	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	**10**	**11**	**9.5**	**2.6**	**2.4**	**2.8**
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	**1.7 J**	<2.0	<1.9	<2.0	<2.1	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<4.0	<1.9	<2.0	<4.1	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	**13**	**23**	**17**	**6.3**	**6.4**	**6.0**
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	**36**	**34**	**30**	**3.6**	**2.7**	**4.9**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	**25**	**25**	**20**	<2.0	<2.1	**2.2**
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**9.2**	**8.1**	**9.0**	<2.0	<2.1	**2.3**
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	**5.4**	**8.2**	**9.0**	<2.0	<2.1	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<3.9	<4.0	<3.8	<4.0	<4.1	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<2.0	<1.9	<2.0	<2.1	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<9.9	<10	<3.8	<10	<10	<4.0
Total Per-and Polyfluoroalkyl Substances	--	**74.3**	**82.6**	**66.9**	**12.5**	**11.5**	**13.7**

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) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	OBG OS MW-5 4/23/2021	OBG OS MW-5 11/9/2021	OBG OS MW-5 4/28/2022	Field Blank-062920 6/29/2020	Field Blank-070120 7/1/2020	Field Blank-070220 7/2/2020
Perfluorobutanoic Acid (PFBA)	--	<21 X	<21 X	<39 X	**21**	**35**	**16**
Perfluoropentanoic Acid (PFPeA)	--	**3.6 J**	<5.4 X	<3.9	<4.0	<3.9	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.1	<2.1 I	<1.9	<2.0	<1.9	<2.0
Perfluorohexanoic Acid (PFHxA)	**400,000**	**3.4**	**3.5**	<1.9	<2.0	<1.9	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	**1.8 J**	**1.5 J**	<1.9	<2.0	<1.9	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<4.1	<1.9	<2.0	<1.9	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	**2.8**	**2.2**	**2.8**	<2.0	<1.9	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<4.1	<1.9	<2.0	<1.9	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.1	<4.1	<3.9	<4.0	<3.9	<4.0
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<4.1	<3.9	<4.0	<3.9	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<1.9	<2.0	<1.9	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<10	<10	<3.9	<2.0	<1.9	<2.0
Total Per-and Polyfluoroalkyl Substances	--	**11.6**	**7.2**	**2.8**	**21.0**	**35.0**	**16.0**

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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	Field Blank-102720 10/27/2020	Field Blank-102920 10/29/2020	Field Blank-110220 11/2/2020	Field Blank-042121 4/21/2021	Field Blank-042221 4/22/2021
Perfluorobutanoic Acid (PFBA)	--	<10.0	<9.7	<10	<9.8	<9.9
Perfluoropentanoic Acid (PFPeA)	--	<4.0	<3.9	<4.1	<3.9	<4.0
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	**400,000**	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluoroheptanoic Acid (PFHpA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.0	**2.8**	<2.0	<2.0	<2.0
Perfluorooctanoic Acid (**PFOA**)	**8**	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	**6**	<2.0	<1.9	<2.0	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.0	<3.9	<4.1	<3.9	<4.0
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluoroundecanoic Acid (PFUnDA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.0	<3.9	<4.1	<3.9	<4.0
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.0	<1.9	<2.0	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.0	<1.9	<2.0	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<2.0	<1.9	<2.0	<2.0	<9.9
Total Per-and Polyfluoroalkyl Substances	--	**0.0**	**2.8**	**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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) 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 2022

Hemphill Road Industrial Land - PFAS Groundwater Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Cleanup Criteria and Screening Levels - Drinking Water	Field Blank-042321 4/23/2021	Field Blank-042721 4/27/2021	Field Blank-0110821 11/8/2021	Field Blank-042822 4/28/2022	Field Blank-042922 4/29/2022
Perfluorobutanoic Acid (PFBA)	--	<11	<11	<10	<10	<10
Perfluoropentanoic Acid (PFPeA)	--	<4.2	<4.2	<4.1	<4.1	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	**400,000**	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	**420**	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1	<2.1	<4.1	<2.0	<2.1
Perfluorooctanoic Acid (**PFOA**)	**8**	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	**51**	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	**6**	<2.1	<2.1	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<2.1	<4.1	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.2	<4.2	<4.1	<4.1	<4.1
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.2	<4.2	<4.1	<4.1	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.1	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.1	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	**370**	<11	<11	<10	<4.1	<4.1
Total Per-and Polyfluoroalkyl Substances	--	**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) J - Estimated value less than reporting limit, but greater than MDL.
11) I - Matrix interference with internal standard.
12) X - Elevated reporting limit due to matrix interference.

TABLE 2
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - April 2021 - April 2022

Hemphill Road Industrial Land - PFAS LNAPL Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	OBG MW-4S 11/2/2020	OBG MW-4S 4/26/2021	MW-401 11/2/2020	MW-401 4/27/2021	Field Blank-110220 11/2/2020	Field Blank-042721 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 (PFTrDA)	<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.
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 2022

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	Sanitary Sewer Southeast of Site 11/2/2020	Sanitary Sewer Southeast of Site 4/26/2021	Sanitary Sewer Southeast of Site 11/9/2021	Sanitary Sewer Southeast of Site 4/28/2022	SAN-01 (Sanitary Sewer Sample) 11/2/2020	SAN-01 (Sanitary Sewer Sample) 4/26/2021
Perfluorobutanoic Acid (PFBA)	--	DRY	DRY	DRY	DRY	<10	<10
Perfluoropentanoic Acid (PFPeA)	--	DRY	DRY	DRY	DRY	**3.8 J**	**3.8 J**
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorohexanoic Acid (PFHxA)	--	DRY	DRY	DRY	DRY	**3.1**	**4.8**
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	DRY	DRY	DRY	DRY	**6.0**	**3.8**
Perfluoroheptanoic Acid (PFHpA)	--	DRY	DRY	DRY	DRY	<2.0	**1.7 J**
Perfluoropentane Sulfonic Acid (PFPeS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorooctanoic Acid (**PFOA**)	**170**	DRY	DRY	DRY	DRY	**2.6**	**2.8**
Perfluorohexane Sulfonic Acid (PFHxS)	--	DRY	DRY	DRY	DRY	**2.5**	**3.8**
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	DRY	DRY	DRY	DRY	**1.7 J**	**1.8 J**
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorononanoic Acid (PFNA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluoroheptane Sulfonic Acid (PFHpS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorodecanoic Acid (PFDA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	DRY	DRY	DRY	DRY	<4.0	<4.1 I
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	DRY	DRY	DRY	DRY	**9.9**	**8.4**
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	DRY	DRY	DRY	DRY	**7.0**	**6.4**
Perfluoroundecanoic Acid (PFUnDA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorononane Sulfonic Acid (PFNS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorododecanoic Acid (PFDoDA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorodecane Sulfonic Acid (PFDS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorotridecanoic Acid (PFTrDA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorooctane Sulfonamide (FOSA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Perfluorotetradecanoic Acid (PFTeDA)	--	DRY	DRY	DRY	DRY	<4.0	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	DRY	DRY	DRY	DRY	<2.0	<2.0
Hexafluoropropylene oxide dimer (HFPO-DA)	--	DRY	DRY	DRY	DRY	<2.0	<10
Total Per-and Polyfluoroalkyl Substances	--					**27.9**	**29.1**

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 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.

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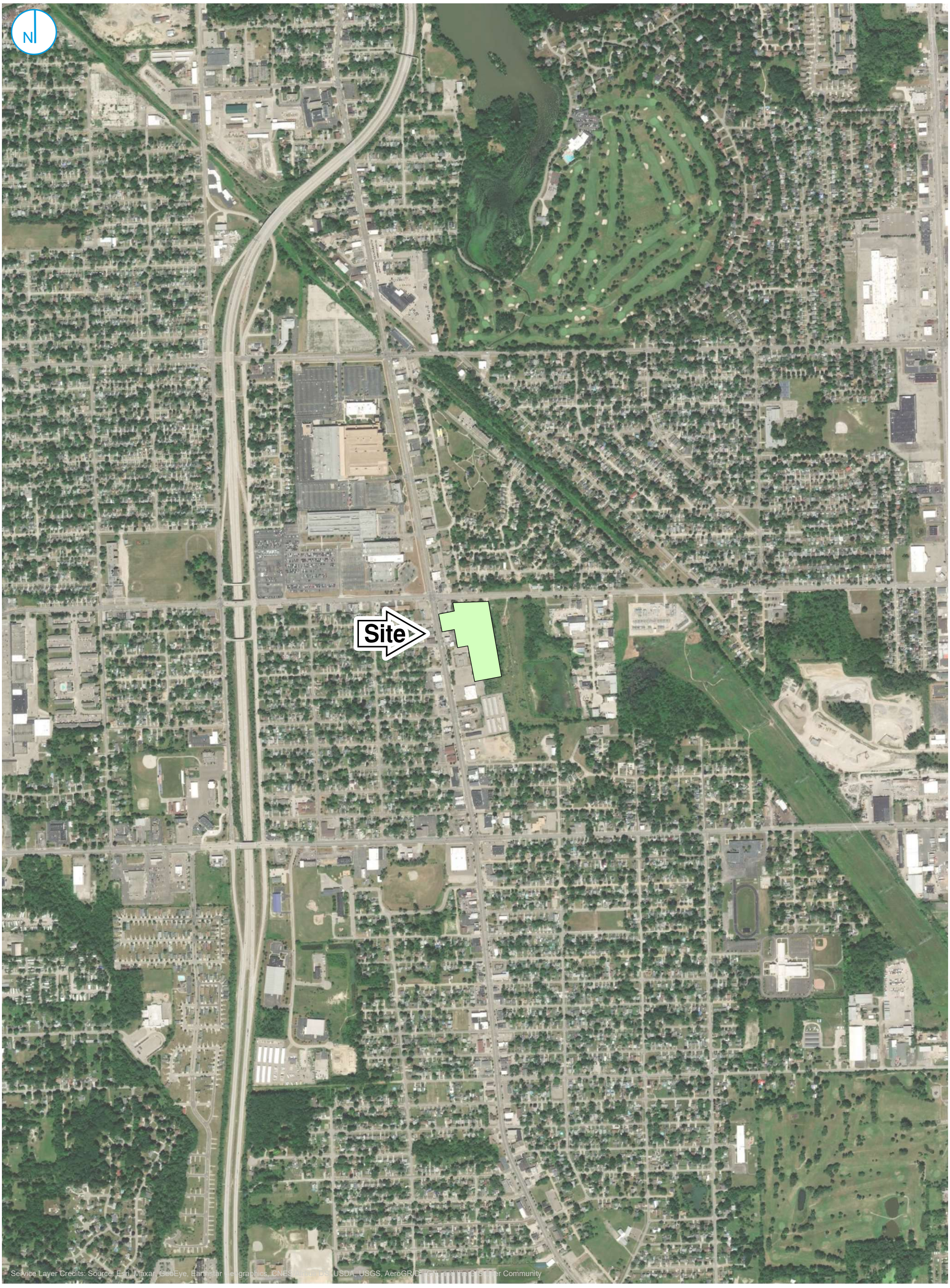
TABLE 3
RACER Trust - Hemphill Road Industrial Land
Per-and Polyfluoroalkyl Substances Sampling Results - November 2020 - April 2022

Hemphill Road Industrial Land - PFAS Sanitary Sewer Sample Results

Perfluorinated Compound / Well/Sample ID: / Sample Date:	EGLE Part 201 Generic Groundwater Surface Water Interface Criteria / Rule 57 Surface Water Quality Values	SAN-02 (Sanitary Sewer Sample) 4/26/2021	SAN-02 (Sanitary Sewer Sample) 11/9/2021	SAN-02 (Sanitary Sewer Sample) 4/28/2022	SAN-03 (Sanitary Sewer Sample) 4/29/2022	Field Blank-110220 11/2/2020	Field Blank-042721 4/27/2021	Field Blank-0110821 11/8/2021	Field Blank-042822 4/28/2022	Field Blank-042922 4/29/2022
Perfluorobutanoic Acid (PFBA)	--	<10	<10	<10	<50 IX	<10	<11	<10	<10	<10
Perfluoropentanoic Acid (PFPeA)	--	**4.0 J**	**3.4 J**	**3.8 J**	<4.0	<4.1	<4.2	<4.1	<4.1	<4.1
4:2 Fluorotelomer Sulfonic Acid (4:2 FTSA)	--	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorohexanoic Acid (PFHxA)	--	**2.7**	**3.3**	**3.5**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorobutane Sulfonic Acid (PFBS)	**670,000**	**4.1**	**6.6**	**6.6**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluoroheptanoic Acid (PFHpA)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluoropentane Sulfonic Acid (PFPeS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
6:2 Fluorotelomer Sulfonic Acid (6:2 FTSA)	--	<2.1 I	<3.9 I	<2.0	<2.0 I	<2.0	<2.1	<4.1	<2.0	<2.1
Perfluorooctanoic Acid (**PFOA**)	**170**	**2.9**	**4.1**	**3.7**	**2.0**	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid (PFHxS)	--	**2.1**	**3.1**	**3.0**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - LN (PFHxS-LN)	--	<2.1	**1.8**	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorohexane Sulfonic Acid - BR (PFHxS-BR)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorononanoic Acid (PFNA)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
8:2 Fluorotelomer Sulfonic Acid (8:2 FTSA)	--	<2.1	<3.9	<2.0	<2.0 I	<2.0	<2.1	<4.1	<2.0	<2.1
Perfluoroheptane Sulfonic Acid (PFHpS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorodecanoic Acid (PFDA)	--	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1	<2.0	<2.0	<2.1
N-methyl Perfluorooctanesulfonamidoacetic Acid (N-MeFOSAA)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--	<4.1	<3.9	<4.0	<4.0 I	<4.1	<4.2	<4.1	<4.1	<4.1
Perfluorooctane Sulfonic Acid (**PFOS**)	**12**	**8.9**	**8.6**	**8.3**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-LN)	--	<2.1	**2.9**	**2.2**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonic Acid (**PFOS**-BR)	--	**6.6**	**5.5**	**6.0**	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluoroundecanoic Acid (PFUnDA)	--	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorononane Sulfonic Acid (PFNS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorododecanoic Acid (PFDoDA)	--	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorodecane Sulfonic Acid (PFDS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorotridecanoic Acid (PFTrDA)	--	<2.1	<2.0	<2.0	<2.0 I	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorooctane Sulfonamide (FOSA)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Perfluorotetradecanoic Acid (PFTeDA)	--	<4.1	<3.9	<4.0	<4.0	<4.1	<4.2	<4.1	<4.1	<4.1
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
9-chlorohexadecafluoro-3-oxanone1-sulfonic acid (9Cl-PF3ONS)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	--	<2.1	<2.0	<2.0	<2.0	<2.0	<2.1	<2.0	<2.0	<2.1
Hexafluoropropylene oxide dimer (HFPO-DA)	--	<10	<9.8	<4.0	<4.0	<2.0	<11	<10	<4.1	<4.1
Total Per-and Polyfluoroalkyl Substances	--	**24.7**	**29.1**	**28.9**	**2.0**	**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 yel
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



0 500 1,000 2,000 Feet

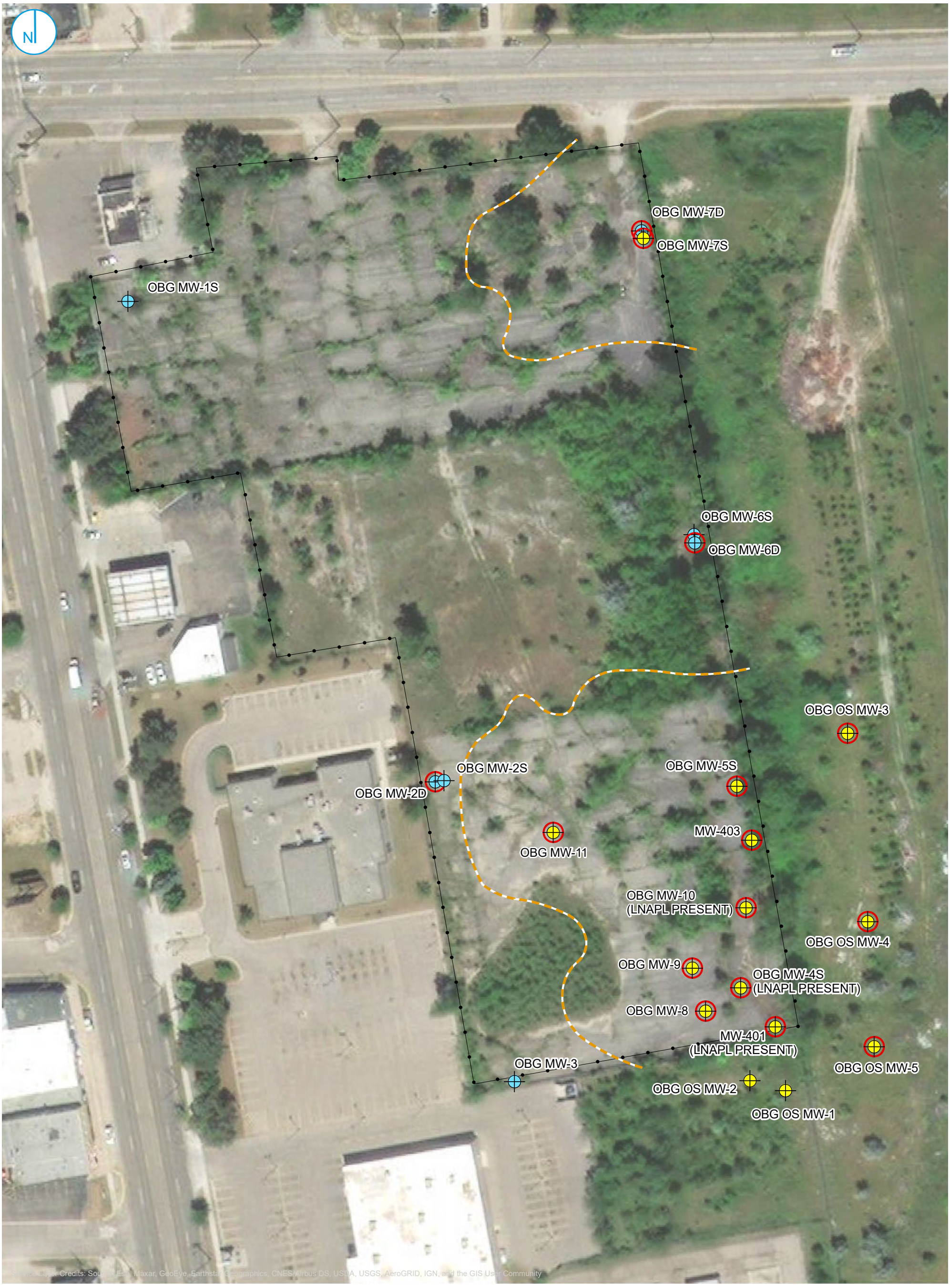
SITE LOCATION MAP

RACER TRUST
HEMPHILL ROAD INDUSTRIAL LAND
BURTON, MICHIGAN

FIGURE 01

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL



LEGEND

- MONITORING WELL LOCATION (SCREENED IN NATIVE SOIL)
- MONITORING WELL LOCATION (SCREENED IN FILL)
- PFAS SAMPLE LOCATION
- FENCE LINE
- APPROXIMATE EXTENT OF WASTE FILL ONSITE

0 50 100 Feet

PFAS SAMPLE LOCATIONS

FIGURE 02

RACER TRUST
HEMPHILL ROAD INDUSTRIAL LAND
BURTON, MICHIGAN

RAMBOLL US CORPORATION
A RAMBOLL COMPANY

RAMBOLL

Well/Sample:	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	OBG MW-5S (DUP-042922)
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	4/29/2022
PFBA	<48 X	<38 X	<20 X	<19 X	<20 X	<22 X	<20 X	<40 X	<30 X
PFPeA	<3.8	<3.8	<4.0	<3.8	<4.0	<4.0	<4.1	<4.0	<4.0
PFHxA	<3.8 X	<3.8 X	**3.2**	**3.6**	<2.0	<2.0	<2.9 X	<2.0	<2.0
PFBS	<3.8 X	<3.8 X	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
PFHpA	<1.9	**1.8 J**	**1.7 J**	**1.6 J**	<2.0	<2.0	<2.0	<2.0	**2.0**
PFPeS	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
6:2 FTSA	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	**8.5**	<2.0	<2.0
PFOA	**8.7**	**9.8**	**11**	**11**	**9.1**	**9.4**	**9.3**	**9.7**	**9.4**
PFHxS	**3.2**	**3.0**	<2.0	<1.9	**2.0**	**2.1**	**2.7**	<2.0	<2.0
PFNA	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
PFHpS	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
N-MeFOSAA	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
EtFOSAA	<3.8	<3.8	<4.0	<3.8	<4.0	<4.0	<4.1	<4.0	<4.0
PFOS	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
FOSA	<1.9	<1.9	<2.0	<1.9	<2.0	<2.0	<2.0	<2.0	<2.0
HFPO-DA	<1.9	<1.9	<2.0	<1.9	<9.9	<10	<10	<4.0	<4.0
Total PFAS	**11.9**	**14.6**	**15.9**	**16.2**	**11.1**	**11.5**	**20.5**	**9.7**	**11.4**

Well/Sample:	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
PFBA	**33 U**	**<10**	<9.7	<10	<11
PFPeA	<3.8	**1.3 J**	<3.9	<4.0	<4.2
PFHxA	**1.4 J**	**1.7 J**	**1.5 J**	**2.3**	**1.9 J**
PFBS	**1.5 J**	**1.7 J**	**1.7 J**	**1.9 J**	**1.6 J**
PFHpA	<1.9	**1.5 J**	**1.9 J**	<2.0	<2.1
PFPeS	<1.9	<2.0	<1.9	<2.0	<2.1
6:2 FTSA	<1.9	<2.0	<1.9	<4.0	<2.1
PFOA	**19**	**25**	**19**	**20**	**19**
PFHxS	**3.7**	**4.7**	**3.7**	**3.9**	**3.4**
PFNA	<1.9	<2.0	<1.9	<2.0	<2.1
PFHpS	<1.9	<2.0	<1.9	<2.0	<2.1
N-MeFOSAA	<1.9	<2.0	<1.9	<2.0	<2.1
EtFOSAA	**6.6**	**8.4**	**7.4**	**4.2**	<4.2
PFOS	**54**	**60**	**37**	**37**	**32**
FOSA	<1.9	<2.0	<1.9	<2.0	<2.1
HFPO-DA	<1.9	**2.2**	<9.7	<10	<4.2
Total PFAS	**86.2**	**104.3**	**72.2**	**69.3**	**57.9**

Well/Sample:	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	11/8/2021	4/27/2022
PFBA	**28 U**	<11	<9.9	<9.8	<9.8
PFPeA	<3.9	<4.2	<3.9	<3.9	<3.9
PFHxA	<1.9	<2.1	<2.0	<2.0	<2.0
PFBS	<1.9	<2.1	<2.0	<2.0	<2.0
PFHpA	<1.9	<2.1	<2.0	<2.0	<2.0
PFPeS	<1.9	<2.1	<2.0	<2.0	<2.0
6:2 FTSA	<1.9	<2.1	<2.0	<3.9	<2.0
PFOA	<1.9	<2.1	<2.0	<2.0	<2.0
PFHxS	<1.9	<2.1	<2.0	<2.0	<2.0
PFNA	<1.9	<2.1	<2.0	<2.0	<2.0
PFHpS	<1.9	<2.1	<2.0	<2.0	<2.0
N-MeFOSAA	<1.9	<2.1	<2.0	<2.0	<2.0
EtFOSAA	<3.9	<4.2	<3.9	<3.9	<3.9
PFOS	<1.9	<2.1	<2.0	<2.0	<2.0
FOSA	<1.9	<2.1	<2.0	<2.0	<2.0
HFPO-DA	<1.9	<2.1	<2.0	<9.8	<3.9
Total PFAS	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Well/Sample:	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
PFBA	**26 U**	<49 X	<42 X	<19 X
PFPeA	<3.9	**1.4 J**	<4.2	**1.5 J**
PFHxA	<2.0	**1.6 J**	<2.6 X	**2.3**
PFBS	**1.4**	<2.0	**1.6 J**	**1.6 J**
PFHpA	<2.0	**1.7 J**	<2.1	<1.9
PFPeS	<2.0	<2.0	<2.1	<1.9
6:2 FTSA	<2.0	<2.0	<2.1	<3.9
PFOA	**9.6**	**9.6**	**9.8**	**11**
PFHxS	<2.0	<2.0	<2.1	<1.9
PFNA	<2.0	<2.0	<2.1	<1.9
PFHpS	<2.0	<2.0	<2.1	<1.9
N-MeFOSAA	<2.0	<2.0	<2.1	<1.9
EtFOSAA	**5.6**	<4.9 X	**6.9**	**3.1 J**
PFOS	**16**	**17**	**14**	**11**
FOSA	<2.0	<2.0	<2.1	<1.9
HFPO-DA	<2.0	<2.0	<10	<9.7
Total PFAS	**32.6**	**31.3**	**32.3**	**30.5**

Well/Sample:	OBG MW-6S	OBG MW-6S
Sample Date:	6/30/2020	10/28/2020
PFBA	**30 U**	<10
PFPeA	**4.9**	**5.0**
PFHxA	**5.6**	**4.5**
PFBS	**4.4**	**4.7**
PFHpA	**2.2**	**2.3**
PFPeS	<2.0	**2.2**
6:2 FTSA	<2.0	<2.0
PFOA	**8.8**	**4.3**
PFHxS	<2.0	**1.8 J**
PFNA	<2.0	<2.0
PFHpS	<2.0	<2.0
N-MeFOSAA	<2.0	<2.0
EtFOSAA	<4.0	<4.0
PFOS	<2.0	<2.0
FOSA	<2.0	<2.0
HFPO-DA	<2.0	<2.0
Total PFAS	**25.9**	**24.8**

Well/Sample:	OBG MW-1S	OBG MW-1S
Sample Date:	6/29/2020	10/27/2020
PFBA	**32 U**	**13.0**
PFPeA	**7.7**	**9.9**
PFHxA	**5.8**	**6.8**
PFBS	**2**	**3.4**
PFHpA	<2.1	**2.3**
PFPeS	<2.1	<2.0
6:2 FTSA	<2.1	<2.0
PFOA	**3.9**	**3.6**
PFHxS	<2.1	<2.0
PFNA	<2.1	<2.0
PFHpS	<2.1	<2.0
N-MeFOSAA	<2.1	<2.0
EtFOSAA	<4.2	<4.1
PFOS	<2.1	<2.0
FOSA	<2.1	<2.0
HFPO-DA	<2.1	<2.0
Total PFAS	**19.8**	**26.0**

Well/Sample:	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
PFBA	<10.0	<10.0	<10	<10
PFPeA	<4.0	<4.0	<5.4 X	<4.1
PFHxA	<2.0	<2.0	**2.4**	<2.1
PFBS	**2.2**	**2.3**	**2.0 J**	**1.9 J**
PFHpA	<2.0	<2.0	<2.1	<2.1
PFPeS	<2.0	<2.0	<2.1	<2.1
6:2 FTSA	<2.0	<2.0	**8.3**	<2.1
PFOA	<2.0	<2.0	**2.6**	<2.1
PFHxS	<2.0	<2.0	<2.1	<2.1
PFNA	<2.0	<2.0	<2.1	<2.1
PFHpS	<2.0	<2.0	<2.1	<2.1
N-MeFOSAA	<2.0	<2.0	<2.1	<2.1
EtFOSAA	<4.0	<4.0	<4.2	<4.0
PFOS	<2.0	<2.0	<2.1	<2.1
FOSA	<2.0	<2.0	<2.1	<2.1
HFPO-DA	<2.0	<10.0	<10	<4.1
Total PFAS	**2.2**	**2.3**	**15.3**	**1.9**

Well/Sample:	OBG MW-6D	OBG MW-6D	OBG MW-6D	OBG MW-6D
Sample Date:	10/28/2020	4/22/2021	11/8/2021	4/27/2022
PFBA	<10	<10	<9.5	<9.5
PFPeA	**1.3 J**	**1.7 J**	**1.3 J**	<3.9
PFHxA	<2.0	<2.0	<1.9	<1.9
PFBS	<2.0	<2.0	<1.9	<1.9
PFHpA	<2.0	<2.0	<1.9	<1.9
PFPeS	<2.0	<2.0	<1.9	<1.9
6:2 FTSA	<2.0	<2.0	<3.8	<3.8
PFOA	<2.0	<2.0	<1.9	<1.9
PFHxS	<2.0	<2.0	<1.9	<1.9
PFNA	<2.0	<2.0	<1.9	<1.9
PFHpS	<2.0	<2.0	<1.9	<1.9
N-MeFOSAA	<2.0	<2.0	<1.9	<1.9
EtFOSAA	<4.1	<4.0	<3.8	<3.9
PFOS	<2.0	<2.0	<1.9	<1.9
FOSA	<2.0	<2.0	<1.9	<1.9
HFPO-DA	<2.0	<2.0	<9.5	<3.9
Total PFAS	**1.3**	**1.7**	**1.3**	**0.0**

Well/Sample:	OBG OS MW-3	OBG OS MW-3	OBG OS MW-3
Sample Date:	4/23/2021	11/9/2021	4/28/2022
PFBA	<24 X	<20 X	<38 X
PFPeA	<3.9	<4.4 X	<3.8
PFHxA	**3.6**	**2.4**	<1.9
PFBS	**2.2**	**1.8 J**	<1.9
PFHpA	**2.4**	**2.2**	**1.4 J**
PFPeS	<2.0	<2.0	<1.9
6:2 FTSA	<2.0	<4.0	<1.9
PFOA	**10**	**11**	**9.5**
PFHxS	**1.7 J**	<2.0	<1.9
PFNA	<2.0	<2.0	<1.9
PFHpS	<2.0	<2.0	<1.9
N-MeFOSAA	<2.0	<2.0	<1.9
EtFOSAA	**13**	**23**	**17**
PFOS	**36**	**34**	**30**
FOSA	**5.4**	**8.2**	**9.0**
HFPO-DA	<9.9	<10	<3.8
Total PFAS	**74.3**	**82.6**	**66.9**

Well/Sample:	OBG MW-2S	OBG MW-2S
Sample Date:	6/30/2020	10/27/2020
PFBA	**31 U**	<10
PFPeA	**7.6**	**7.3**
PFHxA	**4.9**	**5.2**
PFBS	<2.0	<2.1
PFHpA	**1.8 J**	**2.0 J**
PFPeS	<2.0	<2.1
6:2 FTSA	<2.0	<2.1
PFOA	**2.3**	**2.2**
PFHxS	<2.0	<2.1
PFNA	<2.0	<2.1
PFHpS	<2.0	<2.1
N-MeFOSAA	<2.0	<2.1
EtFOSAA	<3.9	<4.1
PFOS	<2.0	<2.1
FOSA	<2.0	<2.1
HFPO-DA	<2.0	<2.1
Total PFAS	**16.6**	**16.7**

Well/Sample:	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
PFBA	<20 X	<25 X	**15**	**33**
PFPeA	<4.0	<3.9	<3.9	<4.0
PFHxA	**3.1**	<1.9	<2.0	<2.0
PFBS	<2.0	<1.9	**1.6 J**	**6.1**
PFHpA	<2.0	**1.5 J**	<2.0	<2.0
PFPeS	<2.0	<1.9	<2.0	<2.0
6:2 FTSA	<2.0	<1.9	<3.9	<2.0
PFOA	**1.9 J**	**3.8**	**2.9**	**3.3**
PFHxS	<2.0	<1.9	<2.0	<2.0
PFNA	<2.0	<1.9	<2.0	<2.0
PFHpS	<2.0	<1.9	<2.0	<2.0
N-MeFOSAA	<2.0	<1.9	<2.0	<2.0
EtFOSAA	<4.0	<3.9	<3.9	<4.0
PFOS	**6.5**	**3.3**	**3.8**	**3.5**
FOSA	<2.0	<1.9	<2.0	<2.0
HFPO-DA	<2.0	<1.9	<9.9	<4.0
Total PFAS	**11.5**	**8.6**	**8.3**	**45.9**

Well/Sample:	OBG OS MW-4	OBG OS MW-4	OBG OS MW-4
Sample Date:	4/23/2021	11/9/2021	4/28/2022
PFBA	<26 X	<21 X	<50 X
PFPeA	<4.0	<4.1	<4.0
PFHxA	<2.0	<2.1	<2.0
PFBS	<2.0	<2.1	<2.0
PFHpA	<2.0	<2.1	<2.0
PFPeS	<2.0	<2.1	<2.0
6:2 FTSA	<2.0	<4.1	<2.0
PFOA	**2.6**	**2.4**	**2.8**
PFHxS	<2.0	<2.1	<2.0
PFNA	<2.0	<2.1	<2.0
PFHpS	<2.0	<2.1	<2.0
N-MeFOSAA	<2.0	<2.1	<2.0
EtFOSAA	**6.3**	**6.4**	**6.0**
PFOS	**3.6**	**2.7**	**4.9**
FOSA	<2.0	<2.1	<2.0
HFPO-DA	<10	<10	<4.0
Total PFAS	**12.5**	**11.5**	**13.7**

Well/Sample:	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
PFBA	<9.7	<10	<10	<10
PFPeA	<3.9	<4.0	<4.0	<4.0
PFHxA	<1.9	<2.0	<2.0	<2.0
PFBS	<1.9	<2.0	<2.0	<2.1
PFHpA	<1.9	<2.0	<2.0	<2.1
PFPeS	<1.9	<2.0	<2.0	<2.1
6:2 FTSA	<1.9	<2.0	<4.0	<2.1
PFOA	<1.9	<2.0	<2.0	<2.1
PFHxS	<1.9	<2.0	<2.0	<2.1
PFNA	<1.9	<2.0	<2.0	<2.1
PFHpS	<1.9	<2.0	<2.0	<2.1
N-MeFOSAA	<1.9	<2.0	<2.0	<2.1
EtFOSAA	<3.9	<4.0	<4.0	<4.1
PFOS	<2.1	<2.1	<2.0	<2.1
FOSA	<2.1	<2.1	<2.0	<2.1
HFPO-DA	<1.9	<2.0	<10	<4.1
Total PFAS	**0.0**	**0.0**	**0.0**	**0.0**

Well/Sample:	OBG MW-5S	OBG MW-5S	OBG MW-5S
Sample Date:	4/23/2021	11/9/2021	4/28/2022
PFBA	<21 X	<21 X	<39 X
PFPeA	**3.6 J**	<5.4 X	<3.9
PFHxA	**3.4**	**3.5**	<1.9
PFBS	<2.1	<2.1	<1.9
PFHpA	**1.8 J**	**1.5 J**	<1.9
PFPeS	<2.1	<2.1	<1.9
6:2 FTSA	<2.1	<4.1	<1.9
PFOA	**2.8**	**2.2**	**2.8**
PFHxS	<2.1	<2.1	<1.9
PFNA	<2.1	<2.1	<1.9
PFHpS	<2.1	<2.1	<1.9
N-MeFOSAA	<2.1	<2.1	<1.9
EtFOSAA	<4.1	<4.1	<3.9
PFOS	<2.1	<2.1	<1.9
FOSA	<2.1	<2.1	<1.9
HFPO-DA	<10	<10	<3.9
Total PFAS	**11.6**	**7.2**	**2.8**

Well/Sample:	OBG MW-4S	OBG MW-4S LNAPL	OBG MW-4S	OBG MW-4S LNAPL	OBG MW-4S
Sample Date:	11/2/2020	11/2/2020	4/26/2021	4/26/2021	11/9/2021
PFBA	<150 X	<650	<10	<630 1	<120 X
PFPeA	<4.2	<330	<4.2	<320 1	<4.0
PFHxA	<2.1	<330	<2.1	<320 1	<2.0
PFBS	<2.1	<330	<2.1	<320 1	<2.0
PFHpA	<2.1	<330	<2.1	<320 1	<2.0
PFPeS	<2.1	<330	<2.1	<320 1	<2.0
6:2 FTSA	<2.1	<330	<2.1	<320 1	<4.0
PFOA	**4.5**	<330	**2.9**	<320 1	**3.8**
PFHxS	<2.1	<330	<2.1	<320 1	<2.0
PFNA	<2.1	<330	<2.1	<320 1	<2.0
PFHpS	<2.1	<330	<2.1	<320 1	<2.0
N-MeFOSAA	<2.1	<330	<2.1	<320 1	<2.0
EtFOSAA	<4.2	<330	<4.2	<320 1	<4.0
PFOS	**3.9**	<330	**2.2**	<320 1	**2.7**
FOSA	<2.1	<330	<2.1	<320 1	<2.0
HFPO-DA	<2.1	<330	<10	<320 1	<10
Total PFAS	**8.4**	**0.0**	**5.1**	**0.0**	**6.5**

Well/Sample:	OBG MW-3	OBG MW-3
Sample Date:	6/30/2020	10/28/2020
PFBA	**33 U**	<10
PFPeA	**4.1**	**2.0 J**
PFHxA	**2.7**	<2.0
PFBS	**3.8**	**3.8**
PFHpA	**2.2**	<2.0
PFPeS	<1.9	<2.0
6:2 FTSA	<1.9	<2.0
PFOA	**4.2**	**4.4**
PFHxS	<1.9	<2.0
PFNA	<1.9	<2.0
PFHpS	<1.9	<2.0
N-MeFOSAA	<1.9	<2.0
EtFOSAA	<3.9	<4.1
PFOS	<1.9	<2.0
FOSA	<1.9	<2.0
HFPO-DA	<1.9	<2.0
Total PFAS	**17.0**	**10.2**

Well/Sample:	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
PFBA	**25 U**	<10	<10	<9.8	<9.9
PFPeA	<4.1	<4.1	<4.0	<3.9	<4.0
PFHxA	<2.1	<2.1	<2.0	**1.6 J**	**2.0**
PFBS	<2.1	**1.8 J**	**1.6 J**	**1.9 J**	**1.6 J**
PFHpA	<2.1	<2.1	<2.0	<2.0	<2.0
PFPeS	<2.1	<2.1	<2.0	<2.0	<2.0
6:2 FTSA	<2.1	<2.1	<2.0	<3.9	<2.0
PFOA	<2.1	**1.8 J**	**1.7 J**	<2.0	<2.0
PFHxS	<2.1	<2.1	<2.0	<2.0	<2.0
PFNA	<2.1	<2.1	<2.0	<2.0	<2.0
PFHpS	<2.1	<2.1	<2.0	<2.0	<2.0
N-MeFOSAA	<2.1	<2.1	<2.0	<2.0	<2.0
EtFOSAA	<4.1	<4.1	<4.0	<3.9	<4.0
PFOS	<2.1	<2.1	<2.0	<2.0	<2.0
FOSA	<2.1	<2.1	<2.0	<2.0	<2.0
HFPO-DA	<2.1	<2.1	<10	<9.8	<4.0
Total PFAS	**0.0**	**3.6**	**3.3**	**3.5**	**3.6**

Well/Sample:	MW-403	MW-403	MW-403	MW-403 (DUP-110921)	MW-403	MW-403 TOPs Analysis
Sample Date:	11/2/2020	4/23/2021	11/9/2021	11/9/2021	4/29/2022	4/29/2022
PFBA	<16 X	<10	<9.8	<9.6	<14 X	<120 X
PFPeA	<4.1	<4.2	<3.9	<3.8	<4.1	<90 IX
PFHxA	**1.6 J**	<2.1	<2.0	<1.9	<2.1	**31**
PFBS	<2.1	<2.1	**1.5 J**	**1.8 J**	<2.1	<30
PFHpA	**2.1**	**2.0 J**	<2.0	**1.3 J**	<2.1	<30
PFPeS	<2.1	<2.1	<2.0	<1.9	<2.1	<30
6:2 FTSA	<2.1	**240**	<3.9	<3.8	<2.1	<30 I
PFOA	**25**	**19**	**14**	**15**	**11**	<30
PFHxS	**3.6**	**2.2**	**3.9**	**3.7**	**1.7 J**	<30
PFNA	<2.1	**2.1**	<2.0	<1.9	<2.1	<30
PFHpS	**7.3**	**2.7**	**3.8**	**3.8**	**2.7**	<30
N-MeFOSAA	**<2.1**	**<2.1**	**2.5**	**1.9**	<2.1	<30
EtFOSAA	**75**	**61**	**82**	**78**	**54**	<30 I
PFOS	**960**	**450**	**550**	**580**	**370**	**260**
FOSA	**32**	**33**	**59**	**60**	**33**	<30 I
HFPO-DA	<2.1	<10	<9.8	<9.6	<4.1	<30
Total PFAS	**1106.6**	**812.0**	**716.7**	**745.5**	**472.4**	**291.0**

Well/Sample:	MW-401	MW-401 LNAPL	MW-401	MW-401 LNAPL	MW-401	MW-401
Sample Date:	11/2/2020	11/2/2020	4/27/2021	4/27/2021	11/9/2021	4/29/2022
PFBA	<18 X	<920	<10	<970 1	**12**	<23 X
PFPeA	<4.1	<460	<4.1	<480 1	<4.0	<4.1
PFHxA	<2.0	<460	**2.0 J**	<480 1	<2.0	<2.1
PFBS	<2.0	<460	<2.1	<480 1	<2.0	<2.1
PFHpA	<2.0	<460	<2.1	<480 1	<2.0	<2.1
PFPeS	<2.0	<460	<2.1	<480 1	<2.0	<2.1
6:2 FTSA	<2.0	<460	<2.1	<480 1	<4.0	<2.1
PFOA	<2.0	<460	<2.1	<480 1	<2.0	<2.1
PFHxS	<2.0	<460	<2.1	<480 1	<2.0	<2.1
PFNA	<2.0	<460	<2.1	<480 1	<2.0	<2.1
PFHpS	<2.0	<460	<2.1	<480 1	<2.0	<2.1
N-MeFOSAA	<2.0	<460	<2.1	<480 1	<2.0	<2.1
EtFOSAA	<4.1	**520**	<4.1	<480 1	<4.0	<4.1
PFOS	<2.0	**320 J**	<2.1	**99 J1**	<2.0	<2.0
FOSA	<2.0	<460	<2.1	<480 1	<2.0	<2.0
HFPO-DA	<2.0	<460	<10	<480 1	<10	<2.1
Total PFAS	**0.0**	**840.0**	**2.0**	**99.0**	**0.0**	**0.0**

Per-and Polyfluoroalkyl Substances (PFAS)	EGLE Drinking Water Maximum Contaminant Levels (MCLs)
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 Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	--
Perfluorooctane Sulfonic Acid (**PFOS**)	**16**
Perfluorooctane Sulfonamide (FOSA)	--
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.

OBG MW-1S
OBG MW-7D
OBG MW-7S
OBG MW-6S
OBG MW-6D
OBG OS MW-3
OBG MW-2S
OBG MW-5S
MW-403
OBG MW-2D
OBG MW-11
OBG MW-10
OBG MW-9
OBG MW-4S
OBG OS MW-4
OBG MW-8
OBG MW-3
MW-401
OBG OS MW-5
OBG OS MW-2
OBG OS MW-1
Creek-03

LEGEND

- MONITORING WELL LOCATION (SCREENED IN NATIVE SOIL)
- MONITORING WELL LOCATION (SCREENED IN FILL)
- PFAS SAMPLE LOCATION
- FENCE LINE
- APPROXIMATE EXTENT OF WASTE FILL ONSITE

0 50 100 Feet

PFAS SAMPLE RESULTS

RACER TRUST
HEMPHILL ROAD INDUSTRIAL LAND
BURTON, MICHIGAN

FIGURE 03

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY

Notes:
1) Groundwater elevations for onsite wells OBG MW-3, OBG MW-10, OBG MW-4S, MW-401 and MW-403 were not recorded for this event.
2) OBG MW-1S, OBG MW-2S, OBG MW-3, and OBG MW-6S are screened in native soils.
The remaining wells are screened in waste material, which may constitue a different flow regime.
3) This document was developed in color. Reproduction in B/W may not represent the data as intended.
4) Aerial photo provided by ESRI.

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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

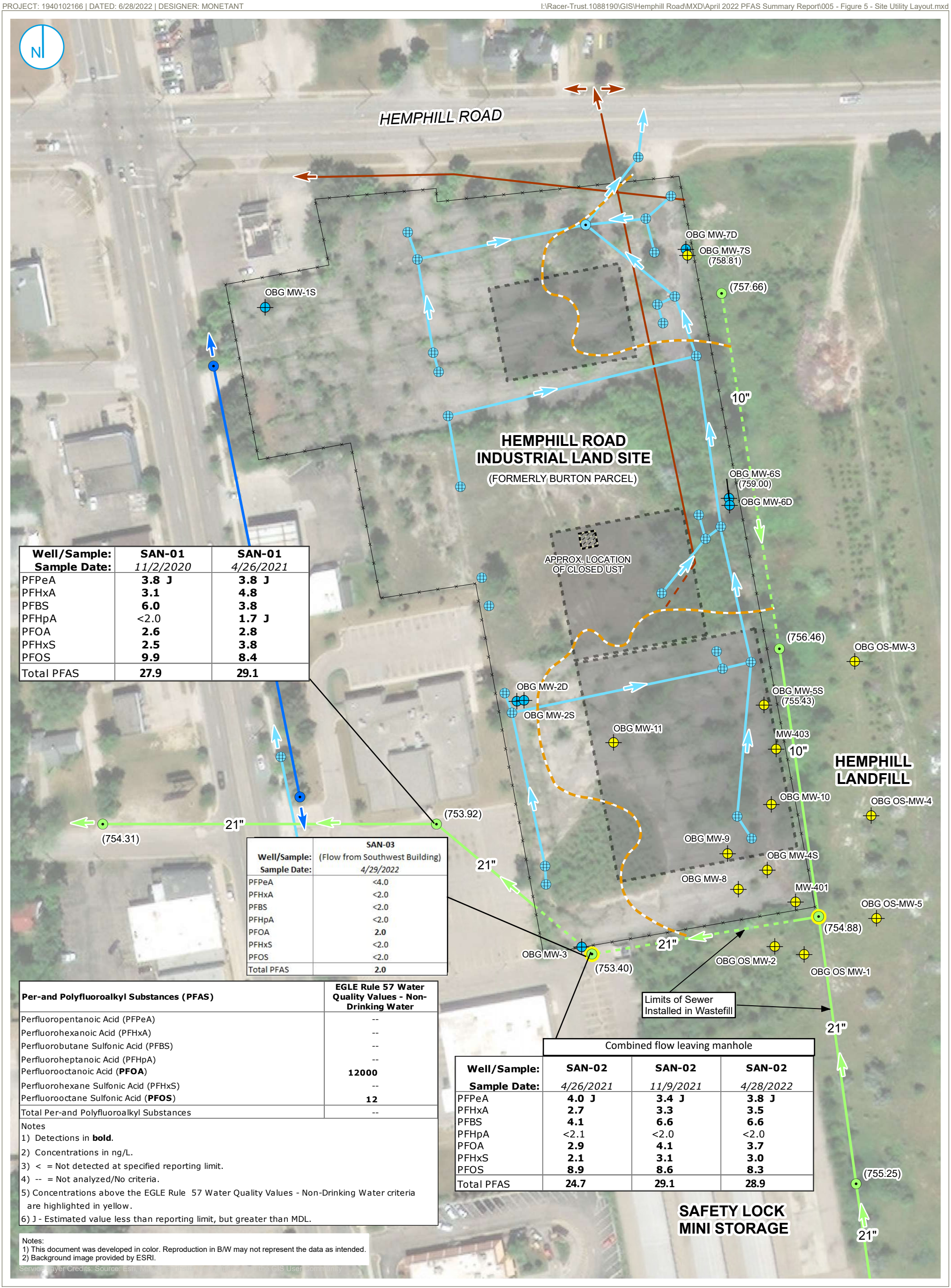
0 50 100 Feet

INTERPRETED SHALLOW GROUNDWATER ELEVATION CONTOURS APRIL 27, 2022

RACER TRUST
HEMPHILL ROAD INDUSTRIAL LAND
BURTON, MICHIGAN

FIGURE 04

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**
Total PFAS	**27.9**	**29.1**

Well/Sample:	SAN-03 (Flow from Southwest Building)
Sample Date:	*4/29/2022*
PFPeA	<4.0
PFHxA	<2.0
PFBS	<2.0
PFHpA	<2.0
PFOA	**2.0**
PFHxS	<2.0
PFOS	<2.0
Total PFAS	**2.0**

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**
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.

Combined flow leaving manhole

Well/Sample:	SAN-02	SAN-02	SAN-02
Sample Date:	*4/26/2021*	*11/9/2021*	*4/28/2022*
PFPeA	**4.0 J**	**3.4 J**	**3.8 J**
PFHxA	**2.7**	**3.3**	**3.5**
PFBS	**4.1**	**6.6**	**6.6**
PFHpA	<2.1	<2.0	<2.0
PFOA	**2.9**	**4.1**	**3.7**
PFHxS	**2.1**	**3.1**	**3.0**
PFOS	**8.9**	**8.6**	**8.3**
Total PFAS	**24.7**	**29.1**	**28.9**

Notes:
1) This document was developed in color. Reproduction in B/W may not represent the data as intended.
2) Background image provided by ESRI.

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

0 50 100 Feet

SITE UTILITY LAYOUT

Racer Trust
Hemphill Road Industrial Land
Burton, Michigan

FIGURE 05

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
A RAMBOLL COMPANY
RAMBOLL

ATTACHMENTS

RAMBOLL

ENVIRONMENT
& HEALTH

ATTACHMENT A
ANALYTICAL REPORTS

Analytical Laboratory Report

Report ID: S35505.01(01)
Generated on 05/20/2022

Report to

Attention: Clifford Yantz
Ramboll Americas
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Ann Arbor, MI 48105

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

Addtional Contacts: Kevin Schneider

Report produced by

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

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

Report Summary

Lab Sample ID(s): S35505.01-S35505.16
Project: RACER Hemphill Rd. Industrial Land
Collected Date(s): 04/27/2022 - 04/29/2022
Submitted Date/Time: 04/29/2022 14:40
Sampled by: Kevin Schneider
P.O. #: 1940002902

Table of Contents

Maya Murshak
Technical Director

General Report Notes

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

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

Report Narrative

There is no additional narrative for this analytical 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

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
PFHpA	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
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-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
PFHpS	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
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-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

Analytical Laboratory Report

Sample Summary (16 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S35505.01	OBG MW-7S	Groundwater	04/27/22 13:15
S35505.02	OBG MW-7D	Groundwater	04/27/22 15:00
S35505.03	OBG MW-6D	Groundwater	04/27/22 15:22
S35505.04	OBG MW-11	Groundwater	04/27/22 16:44
S35505.05	SAN-02	Liquid	04/28/22 11:00
S35505.06	OBG MW-2D	Groundwater	04/28/22 11:10
S35505.07	OBG MW-8	Groundwater	04/28/22 12:04
S35505.08	Field Blank - 042822	Liquid	04/28/22 12:10
S35505.09	OBG MW-9	Groundwater	04/28/22 12:34
S35505.10	OBG OS MW-3	Groundwater	04/28/22 14:45
S35505.11	OBG OS MW-4	Groundwater	04/28/22 16:00
S35505.12	OBG OS MW-5	Groundwater	04/28/22 17:22
S35505.13	OBG MW-5S	Groundwater	04/29/22 10:15
S35505.14	OBG MW-10	Groundwater	04/29/22 12:30
S35505.15	DUP-042922	Groundwater	04/29/22 00:01
S35505.16	MW-403	Groundwater	04/28/22 18:00

Analytical Laboratory Report

Lab Sample ID: S35505.01
Sample Tag: OBG MW-7S
Collected Date/Time: 04/27/2022 13:15
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.11/6.87/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 00:21, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	11	11	ng/L	2.1	375-22-4	
PFPeA*	Not detected	4.2	1.1	ng/L	2.1	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.7	ng/L	2.1	757124-72-4	
PFHxA*	1.9	2.1	1.5	ng/L	2.1	307-24-4	J
PFBS*	1.6	2.1	1.5	ng/L	2.1	375-73-5	J
PFHpA*	Not detected	2.1	1.5	ng/L	2.1	375-85-9	
PFPeS*	Not detected	2.1	1.9	ng/L	2.1	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.1	27619-97-2	
PFOA*	19	2.1	1.7	ng/L	2.1	335-67-1	
PFHxS*	3.4	2.1	1.7	ng/L	2.1	355-46-4	
PFHxS-LN*	2.4	2.1	1.7	ng/L	2.1	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.7	ng/L	2.1	355-46-4-BR	
PFNA*	Not detected	2.1	1.9	ng/L	2.1	375-95-1	
8:2 FTSA*	Not detected	2.1	1.1	ng/L	2.1	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.1	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.1	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.1	2355-31-9	
EtFOSAA*	Not detected	4.2	2.1	ng/L	2.1	2991-50-6	
PFOS*	32	2.1	2.1	ng/L	2.1	1763-23-1	
PFOS-LN*	14	2.1	2.1	ng/L	2.1	1763-23-1-LN	
PFOS-BR*	17	2.1	2.1	ng/L	2.1	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.5	ng/L	2.1	2058-94-8	
PFNS*	Not detected	2.1	1.5	ng/L	2.1	68259-12-1	
PFDoDA*	Not detected	2.1	1.7	ng/L	2.1	307-55-1	
PFDS*	Not detected	2.1	1.5	ng/L	2.1	335-77-3	
PFTrDA*	Not detected	2.1	1.3	ng/L	2.1	72629-94-8	
FOSA*	Not detected	2.1	1.9	ng/L	2.1	754-91-6	
PFTeDA*	Not detected	4.2	1.9	ng/L	2.1	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.9	ng/L	2.1	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.5	ng/L	2.1	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.1	919005-14-4	
HFPO-DA*	Not detected	4.2	2.1	ng/L	2.1	13252-13-6	

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

Lab Sample ID: S35505.02
Sample Tag: OBG MW-7D
Collected Date/Time: 04/27/2022 15:00
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.54/6.91/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 00:41, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.8	9.8	ng/L	1.95	375-22-4	
PFPeA*	Not detected	3.9	0.98	ng/L	1.95	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	1.95	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	1.95	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	1.95	375-73-5	
PFHpA*	Not detected	2.0	1.4	ng/L	1.95	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	1.95	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	1.95	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	1.95	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	1.95	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	1.95	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	1.95	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	1.95	375-95-1	
8:2 FTSA*	Not detected	2.0	0.98	ng/L	1.95	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	1.95	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	1.95	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	1.95	2355-31-9	
EtFOSAA*	Not detected	3.9	2.0	ng/L	1.95	2991-50-6	
PFOS*	Not detected	2.0	1.9	ng/L	1.95	1763-23-1	
PFOS-LN*	Not detected	2.0	1.9	ng/L	1.95	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	1.9	ng/L	1.95	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	1.95	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	1.95	68259-12-1	
PFDoDA*	Not detected	2.0	1.6	ng/L	1.95	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	1.95	335-77-3	
PFTrDA*	Not detected	2.0	1.2	ng/L	1.95	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	1.95	754-91-6	
PFTeDA*	Not detected	3.9	1.8	ng/L	1.95	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	1.95	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	1.95	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	1.95	919005-14-4	
HFPO-DA*	Not detected	3.9	2.0	ng/L	1.95	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35505.03
Sample Tag: OBG MW-6D
Collected Date/Time: 04/27/2022 15:22
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.64/6.94/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 01:00, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	9.7	9.7	ng/L	1.93	375-22-4	
PFPeA*	Not detected	3.9	0.97	ng/L	1.93	2706-90-3	
4:2 FTSA*	Not detected	1.9	1.5	ng/L	1.93	757124-72-4	
PFHxA*	Not detected	1.9	1.4	ng/L	1.93	307-24-4	
PFBS*	Not detected	1.9	1.4	ng/L	1.93	375-73-5	
PFHpA*	Not detected	1.9	1.4	ng/L	1.93	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.93	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.9	ng/L	1.93	27619-97-2	
PFOA*	Not detected	1.9	1.5	ng/L	1.93	335-67-1	
PFHxS*	Not detected	1.9	1.5	ng/L	1.93	355-46-4	
PFHxS-LN*	Not detected	1.9	1.5	ng/L	1.93	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	1.5	ng/L	1.93	355-46-4-BR	
PFNA*	Not detected	1.9	1.7	ng/L	1.93	375-95-1	
8:2 FTSA*	Not detected	1.9	0.97	ng/L	1.93	39108-34-4	
PFHpS*	Not detected	1.9	1.9	ng/L	1.93	375-92-8	
PFDA*	Not detected	1.9	1.9	ng/L	1.93	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.9	ng/L	1.93	2355-31-9	
EtFOSAA*	Not detected	3.9	1.9	ng/L	1.93	2991-50-6	
PFOS*	Not detected	1.9	1.9	ng/L	1.93	1763-23-1	
PFOS-LN*	Not detected	1.9	1.9	ng/L	1.93	1763-23-1-LN	
PFOS-BR*	Not detected	1.9	1.9	ng/L	1.93	1763-23-1-BR	
PFUnDA*	Not detected	1.9	1.4	ng/L	1.93	2058-94-8	
PFNS*	Not detected	1.9	1.4	ng/L	1.93	68259-12-1	
PFDoDA*	Not detected	1.9	1.5	ng/L	1.93	307-55-1	
PFDS*	Not detected	1.9	1.4	ng/L	1.93	335-77-3	
PFTrDA*	Not detected	1.9	1.2	ng/L	1.93	72629-94-8	
FOSA*	Not detected	1.9	1.7	ng/L	1.93	754-91-6	
PFTeDA*	Not detected	3.9	1.7	ng/L	1.93	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	1.7	ng/L	1.93	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	1.4	ng/L	1.93	756426-58-1	
ADONA*	Not detected	1.9	1.9	ng/L	1.93	919005-14-4	
HFPO-DA*	Not detected	3.9	1.9	ng/L	1.93	13252-13-6	

Lab Sample ID: S35505.04
Sample Tag: OBG MW-11
Collected Date/Time: 04/27/2022 16:44
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.48/6.96/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 01:20, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	33	10.0	10.0	ng/L	1.99	375-22-4	
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	
PFHxA*	6.1	2.0	1.4	ng/L	1.99	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	1.99	375-73-5	
PFHpA*	Not detected	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*	3.3	2.0	1.6	ng/L	1.99	335-67-1	
PFHxS*	Not detected	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*	3.5	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*	2.5	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	
PFTrDA*	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	4.0	2.0	ng/L	1.99	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35505.05
Sample Tag: SAN-02
Collected Date/Time: 04/28/2022 11:00
Matrix: Liquid
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	13.00/7.01/12	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 01:39, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2	375-22-4	
PFPeA*	3.8	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*	3.5	2.0	1.4	ng/L	2	307-24-4	
PFBS*	6.6	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*	3.7	2.0	1.6	ng/L	2	335-67-1	
PFHxS*	3.0	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*	8.3	2.0	2.0	ng/L	2	1763-23-1	
PFOS-LN*	2.2	2.0	2.0	ng/L	2	1763-23-1-LN	
PFOS-BR*	6.0	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	
PFTrDA*	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	4.0	2.0	ng/L	2	13252-13-6	

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

Lab Sample ID: S35505.06
Sample Tag: OBG MW-2D
Collected Date/Time: 04/28/2022 11:10
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.35/6.99/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 01:59, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.05	375-22-4	
PFPeA*	Not detected	4.1	1.0	ng/L	2.05	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.6	ng/L	2.05	757124-72-4	
PFHxA*	Not detected	2.1	1.4	ng/L	2.05	307-24-4	
PFBS*	Not detected	2.1	1.4	ng/L	2.05	375-73-5	
PFHpA*	Not detected	2.1	1.4	ng/L	2.05	375-85-9	
PFPeS*	Not detected	2.1	1.8	ng/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.05	27619-97-2	
PFOA*	Not detected	2.1	1.6	ng/L	2.05	335-67-1	
PFHxS*	Not detected	2.1	1.6	ng/L	2.05	355-46-4	
PFHxS-LN*	Not detected	2.1	1.6	ng/L	2.05	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.6	ng/L	2.05	355-46-4-BR	
PFNA*	Not detected	2.1	1.8	ng/L	2.05	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.05	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.05	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.05	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.05	2991-50-6	
PFOS*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.4	ng/L	2.05	2058-94-8	
PFNS*	Not detected	2.1	1.4	ng/L	2.05	68259-12-1	
PFDoDA*	Not detected	2.1	1.6	ng/L	2.05	307-55-1	
PFDS*	Not detected	2.1	1.4	ng/L	2.05	335-77-3	
PFTrDA*	Not detected	2.1	1.2	ng/L	2.05	72629-94-8	
FOSA*	Not detected	2.1	1.8	ng/L	2.05	754-91-6	
PFTeDA*	Not detected	4.1	1.8	ng/L	2.05	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.8	ng/L	2.05	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.4	ng/L	2.05	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.05	919005-14-4	
HFPO-DA*	Not detected	4.1	2.1	ng/L	2.05	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35505.07
Sample Tag: OBG MW-8
Collected Date/Time: 04/28/2022 12:04
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.50/6.95/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 02:18, 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*	2.0	2.0	1.4	ng/L	1.98	307-24-4	
PFBS*	1.6	2.0	1.4	ng/L	1.98	375-73-5	J
PFHpA*	Not detected	2.0	1.4	ng/L	1.98	375-85-9	
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*	Not detected	2.0	1.6	ng/L	1.98	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	1.98	355-46-4	
PFHxS-LN*	Not detected	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*	Not detected	4.0	2.0	ng/L	1.98	2991-50-6	
PFOS*	Not detected	2.0	1.9	ng/L	1.98	1763-23-1	
PFOS-LN*	Not detected	2.0	1.9	ng/L	1.98	1763-23-1-LN	
PFOS-BR*	Not detected	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	
PFTrDA*	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	4.0	2.0	ng/L	1.98	13252-13-6	

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

Analytical Laboratory Report

Lab Sample ID: S35505.08
Sample Tag: Field Blank - 042822
Collected Date/Time: 04/28/2022 12:10
Matrix: Liquid
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.88/6.95/10	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 02:38, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.03	375-22-4	
PFPeA*	Not detected	4.1	1.0	ng/L	2.03	2706-90-3	
4:2 FTSA*	Not detected	2.0	1.6	ng/L	2.03	757124-72-4	
PFHxA*	Not detected	2.0	1.4	ng/L	2.03	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	2.03	375-73-5	
PFHpA*	Not detected	2.0	1.4	ng/L	2.03	375-85-9	
PFPeS*	Not detected	2.0	1.8	ng/L	2.03	2706-91-4	
6:2 FTSA*	Not detected	2.0	2.0	ng/L	2.03	27619-97-2	
PFOA*	Not detected	2.0	1.6	ng/L	2.03	335-67-1	
PFHxS*	Not detected	2.0	1.6	ng/L	2.03	355-46-4	
PFHxS-LN*	Not detected	2.0	1.6	ng/L	2.03	355-46-4-LN	
PFHxS-BR*	Not detected	2.0	1.6	ng/L	2.03	355-46-4-BR	
PFNA*	Not detected	2.0	1.8	ng/L	2.03	375-95-1	
8:2 FTSA*	Not detected	2.0	1.0	ng/L	2.03	39108-34-4	
PFHpS*	Not detected	2.0	2.0	ng/L	2.03	375-92-8	
PFDA*	Not detected	2.0	2.0	ng/L	2.03	335-76-2	
N-MeFOSAA*	Not detected	2.0	2.0	ng/L	2.03	2355-31-9	
EtFOSAA*	Not detected	4.1	2.0	ng/L	2.03	2991-50-6	
PFOS*	Not detected	2.0	2.0	ng/L	2.03	1763-23-1	
PFOS-LN*	Not detected	2.0	2.0	ng/L	2.03	1763-23-1-LN	
PFOS-BR*	Not detected	2.0	2.0	ng/L	2.03	1763-23-1-BR	
PFUnDA*	Not detected	2.0	1.4	ng/L	2.03	2058-94-8	
PFNS*	Not detected	2.0	1.4	ng/L	2.03	68259-12-1	
PFDoDA*	Not detected	2.0	1.6	ng/L	2.03	307-55-1	
PFDS*	Not detected	2.0	1.4	ng/L	2.03	335-77-3	
PFTrDA*	Not detected	2.0	1.2	ng/L	2.03	72629-94-8	
FOSA*	Not detected	2.0	1.8	ng/L	2.03	754-91-6	
PFTeDA*	Not detected	4.1	1.8	ng/L	2.03	376-06-7	
11Cl-PF3OUdS*	Not detected	2.0	1.8	ng/L	2.03	763051-92-9	
9Cl-PF3ONS*	Not detected	2.0	1.4	ng/L	2.03	756426-58-1	
ADONA*	Not detected	2.0	2.0	ng/L	2.03	919005-14-4	
HFPO-DA*	Not detected	4.1	2.0	ng/L	2.03	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35505.09
Sample Tag: OBG MW-9
Collected Date/Time: 04/28/2022 12:34
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.32/6.98/11	ASTMD7979-19M	05/04/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/05/22 02:57, 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*	1.9	2.1	1.4	ng/L	2.06	375-73-5	J
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	
PFTrDA*	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	4.1	2.1	ng/L	2.06	13252-13-6	

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

Analytical Laboratory Report

Lab Sample ID: S35505.10
Sample Tag: OBG OS MW-3
Collected Date/Time: 04/28/2022 14:45
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.64/6.89/11	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/11/22 18:52, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	38	9.6	ng/L	1.91	375-22-4	X
PFPeA*	Not detected	3.8	0.96	ng/L	1.91	2706-90-3	
4:2 FTSA*	Not detected	1.9	1.5	ng/L	1.91	757124-72-4	
PFHxA*	Not detected	1.9	1.3	ng/L	1.91	307-24-4	
PFBS*	Not detected	1.9	1.3	ng/L	1.91	375-73-5	
PFHpA*	1.4	1.9	1.3	ng/L	1.91	375-85-9	J
PFPeS*	Not detected	1.9	1.7	ng/L	1.91	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.9	ng/L	1.91	27619-97-2	
PFOA*	9.5	1.9	1.5	ng/L	1.91	335-67-1	
PFHxS*	Not detected	1.9	1.5	ng/L	1.91	355-46-4	
PFHxS-LN*	Not detected	1.9	1.5	ng/L	1.91	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	1.5	ng/L	1.91	355-46-4-BR	
PFNA*	Not detected	1.9	1.7	ng/L	1.91	375-95-1	
8:2 FTSA*	Not detected	1.9	0.96	ng/L	1.91	39108-34-4	
PFHpS*	Not detected	1.9	1.9	ng/L	1.91	375-92-8	
PFDA*	Not detected	1.9	1.9	ng/L	1.91	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.9	ng/L	1.91	2355-31-9	
EtFOSAA*	17	3.8	1.9	ng/L	1.91	2991-50-6	
PFOS*	30	1.9	1.9	ng/L	1.91	1763-23-1	
PFOS-LN*	20	1.9	1.9	ng/L	1.91	1763-23-1-LN	
PFOS-BR*	9.0	1.9	1.9	ng/L	1.91	1763-23-1-BR	
PFUnDA*	Not detected	1.9	1.3	ng/L	1.91	2058-94-8	
PFNS*	Not detected	1.9	1.3	ng/L	1.91	68259-12-1	
PFDoDA*	Not detected	1.9	1.5	ng/L	1.91	307-55-1	
PFDS*	Not detected	1.9	1.3	ng/L	1.91	335-77-3	
PFTrDA*	Not detected	1.9	1.1	ng/L	1.91	72629-94-8	
FOSA*	9.0	1.9	1.7	ng/L	1.91	754-91-6	
PFTeDA*	Not detected	3.8	1.7	ng/L	1.91	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	1.7	ng/L	1.91	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	1.3	ng/L	1.91	756426-58-1	
ADONA*	Not detected	1.9	1.9	ng/L	1.91	919005-14-4	
HFPO-DA*	Not detected	3.8	1.9	ng/L	1.91	13252-13-6	

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: S35505.11
Sample Tag: OBG OS MW-4
Collected Date/Time: 04/28/2022 16:00
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	13.02/7.05/12	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/12/22 12:58, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	50	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	I
PFHxA*	Not detected	2.0	1.4	ng/L	2.01	307-24-4	
PFBS*	Not detected	2.0	1.4	ng/L	2.01	375-73-5	
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*	2.8	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*	6.0	4.0	2.0	ng/L	2.01	2991-50-6	
PFOS*	4.9	2.0	2.0	ng/L	2.01	1763-23-1	
PFOS-LN*	2.2	2.0	2.0	ng/L	2.01	1763-23-1-LN	
PFOS-BR*	2.3	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	
PFTrDA*	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	4.0	2.0	ng/L	2.01	13252-13-6	

X-Elevated reporting limit due to matrix interference
I-Matrix interference with internal standard

Analytical Laboratory Report

Lab Sample ID: S35505.12
Sample Tag: OBG OS MW-5
Collected Date/Time: 04/28/2022 17:22
Matrix: Groundwater
COC Reference: 150203

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.66/6.99/11	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/11/22 19:31, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	39	9.7	ng/L	1.94	375-22-4	X
PFPeA*	Not detected	3.9	0.97	ng/L	1.94	2706-90-3	
4:2 FTSA*	Not detected	1.9	1.6	ng/L	1.94	757124-72-4	
PFHxA*	Not detected	1.9	1.4	ng/L	1.94	307-24-4	
PFBS*	Not detected	1.9	1.4	ng/L	1.94	375-73-5	
PFHpA*	Not detected	1.9	1.4	ng/L	1.94	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.94	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.9	ng/L	1.94	27619-97-2	
PFOA*	2.8	1.9	1.6	ng/L	1.94	335-67-1	
PFHxS*	Not detected	1.9	1.6	ng/L	1.94	355-46-4	
PFHxS-LN*	Not detected	1.9	1.6	ng/L	1.94	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	1.6	ng/L	1.94	355-46-4-BR	
PFNA*	Not detected	1.9	1.7	ng/L	1.94	375-95-1	
8:2 FTSA*	Not detected	1.9	0.97	ng/L	1.94	39108-34-4	
PFHpS*	Not detected	1.9	1.9	ng/L	1.94	375-92-8	
PFDA*	Not detected	1.9	1.9	ng/L	1.94	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.9	ng/L	1.94	2355-31-9	
EtFOSAA*	Not detected	3.9	1.9	ng/L	1.94	2991-50-6	
PFOS*	Not detected	1.9	1.9	ng/L	1.94	1763-23-1	
PFOS-LN*	Not detected	1.9	1.9	ng/L	1.94	1763-23-1-LN	
PFOS-BR*	Not detected	1.9	1.9	ng/L	1.94	1763-23-1-BR	
PFUnDA*	Not detected	1.9	1.4	ng/L	1.94	2058-94-8	
PFNS*	Not detected	1.9	1.4	ng/L	1.94	68259-12-1	
PFDoDA*	Not detected	1.9	1.6	ng/L	1.94	307-55-1	
PFDS*	Not detected	1.9	1.4	ng/L	1.94	335-77-3	
PFTrDA*	Not detected	1.9	1.2	ng/L	1.94	72629-94-8	
FOSA*	Not detected	1.9	1.7	ng/L	1.94	754-91-6	
PFTeDA*	Not detected	3.9	1.7	ng/L	1.94	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	1.7	ng/L	1.94	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	1.4	ng/L	1.94	756426-58-1	
ADONA*	Not detected	1.9	1.9	ng/L	1.94	919005-14-4	
HFPO-DA*	Not detected	3.9	1.9	ng/L	1.94	13252-13-6	

X-Elevated reporting limit due to matrix interference

Analytical Laboratory Report

Lab Sample ID: S35505.13
Sample Tag: OBG MW-5S
Collected Date/Time: 04/29/2022 10:15
Matrix: Groundwater
COC Reference: 150201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.94/6.93/12	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/11/22 19:50, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	40	10	ng/L	2	375-22-4	X
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*	9.7	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	
PFTrDA*	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	4.0	2.0	ng/L	2	13252-13-6	

X-Elevated reporting limit due to matrix interference

Analytical Laboratory Report

Lab Sample ID: S35505.14
Sample Tag: OBG MW-10
Collected Date/Time: 04/29/2022 12:30
Matrix: Groundwater
COC Reference: 150201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.68/6.95/11	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/11/22 20:10, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	58	9.6	ng/L	1.92	375-22-4	
PFPeA*	Not detected	3.8	0.96	ng/L	1.92	2706-90-3	
4:2 FTSA*	Not detected	1.9	1.5	ng/L	1.92	757124-72-4	
PFHxA*	Not detected	1.9	1.3	ng/L	1.92	307-24-4	
PFBS*	Not detected	1.9	1.3	ng/L	1.92	375-73-5	
PFHpA*	Not detected	1.9	1.3	ng/L	1.92	375-85-9	
PFPeS*	Not detected	1.9	1.7	ng/L	1.92	2706-91-4	
6:2 FTSA*	Not detected	1.9	1.9	ng/L	1.92	27619-97-2	
PFOA*	13	1.9	1.5	ng/L	1.92	335-67-1	
PFHxS*	Not detected	1.9	1.5	ng/L	1.92	355-46-4	
PFHxS-LN*	Not detected	1.9	1.5	ng/L	1.92	355-46-4-LN	
PFHxS-BR*	Not detected	1.9	1.5	ng/L	1.92	355-46-4-BR	
PFNA*	Not detected	1.9	1.7	ng/L	1.92	375-95-1	
8:2 FTSA*	Not detected	1.9	0.96	ng/L	1.92	39108-34-4	
PFHpS*	Not detected	1.9	1.9	ng/L	1.92	375-92-8	
PFDA*	Not detected	1.9	1.9	ng/L	1.92	335-76-2	
N-MeFOSAA*	Not detected	1.9	1.9	ng/L	1.92	2355-31-9	
EtFOSAA*	Not detected	3.8	1.9	ng/L	1.92	2991-50-6	
PFOS*	14	1.9	1.9	ng/L	1.92	1763-23-1	
PFOS-LN*	5.8	1.9	1.9	ng/L	1.92	1763-23-1-LN	
PFOS-BR*	7.6	1.9	1.9	ng/L	1.92	1763-23-1-BR	
PFUnDA*	Not detected	1.9	1.3	ng/L	1.92	2058-94-8	
PFNS*	Not detected	1.9	1.3	ng/L	1.92	68259-12-1	
PFDoDA*	Not detected	1.9	1.5	ng/L	1.92	307-55-1	
PFDS*	Not detected	1.9	1.3	ng/L	1.92	335-77-3	
PFTrDA*	Not detected	1.9	1.2	ng/L	1.92	72629-94-8	
FOSA*	Not detected	1.9	1.7	ng/L	1.92	754-91-6	
PFTeDA*	Not detected	3.8	1.7	ng/L	1.92	376-06-7	
11Cl-PF3OUdS*	Not detected	1.9	1.7	ng/L	1.92	763051-92-9	
9Cl-PF3ONS*	Not detected	1.9	1.3	ng/L	1.92	756426-58-1	
ADONA*	Not detected	1.9	1.9	ng/L	1.92	919005-14-4	
HFPO-DA*	Not detected	3.8	1.9	ng/L	1.92	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35505.15
Sample Tag: DUP-042922
Collected Date/Time: 04/29/2022 00:01
Matrix: Groundwater
COC Reference: 150201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.47/6.96/11	ASTMD7979-19M	05/11/22 15:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/11/22 20:29, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	30	10	ng/L	2	375-22-4	X
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*	2.0	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*	9.4	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	
PFTrDA*	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	4.0	2.0	ng/L	2	13252-13-6	

X-Elevated reporting limit due to matrix interference

Analytical Laboratory Report

Lab Sample ID: S35505.16
Sample Tag: MW-403
Collected Date/Time: 04/28/2022 18:00
Matrix: Groundwater
COC Reference: 150201

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Other / Misc.

Method: , Run Date: 05/10/22 09:30, Analyst: JRM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Merit Laboratories Login Checklist

Lab Set ID: S35505
Client: OBG02 (Ramboll Americas - East Lansing, MI)
Project: RACER Hemphill Rd. Industrial Land
Submitted: 04/29/2022 14:40 Login User: JRM

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.0
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	Sample MW-403 received but not on COC
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

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

Client Review By: _____ Date: _____

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

C.O.C. PAGE # 1 OF _____ 150203

CHAIN OF CUSTODY RECORD

REPORT 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: Clifford.Yantz@Ramboll.com; Kevin.Schneider@Ramboll.com QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd 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 CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1/75)	Special Instructions
35505.01	4/27/22	1315	OBG MW-7S	GW	3	3							X	Low level Reporting
.02		1500	OBG MW-7D	GW	3	3							X	with estimated
.03		1522	OBG MW-6D	GW	3	3							X	values
.04		1644	OBG MW-11	GW	3	3							X	
.05	4/28/22	1100	SAN-02	L	3	3							X	
.06		1110	OBG MW-2D	GW	3	3							X	
.07		1204	OBG MW-8	GW	3	3							X	
.08		1210	Field Blank-042822	L	1	1							X	
.09		1234	OBG MW-9	GW	3	3							X	
.10		1445	OBG OS MW-3	GW	3	3							X	
.11		1600	OBG OS MW-4	GW	3	3							X	
.12		1722	OBG OS MW-5	GW	3	3							X	

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	*Sampler	4/29/22	1350
RECEIVED BY: SIGNATURE/ORGANIZATION		4/29/22	1350
RELINQUISHED BY: SIGNATURE/ORGANIZATION		4/29/22	14:40
RECEIVED BY: SIGNATURE/ORGANIZATION		4/29/22	1440

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION			
RECEIVED BY: SIGNATURE/ORGANIZATION			

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.0

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

Rev. 1.26.22

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

C.O.C. PAGE # 2 OF 2

150201

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 8090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO. CELL NO. 313-333-0211 P.O. NO.
E-MAIL ADDRESS: Clifford.Yantz@Ramboll.com Kevin.Schneider@Ramboll.com QUOTE NO.

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd Industrial Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS X STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (24 Analytes)	Special Instructions
35505.13	4/29/22	1015	OBG MW-5S	GW	3	3							X	Low Level Reporting with estimated Values
.14	4/29/22	1230	OBG MW-10	GW	3	3							X	
.15	4/29/22	—	DUP-042922	GW	3	3							X	
.16														

RELINQUISHED BY: SIGNATURE/ORGANIZATION	X Sampler	DATE 4/29/22	TIME 1350	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1350	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1440	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1440	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.0

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

Rev. 1.26.22

Quality Control Report

Report ID: QC-S35505-01
Generated on 05/22/2022

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): S35505.01-S35505.15
Project: RACER Hemphill Rd. Industrial Land
Submitted Date/Time: 04/29/2022 14:40
Sampled by: Kevin Schneider
P.O. #: 1940002902

QC Report Sections

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

Barbara Ball
Quality Assurance Manager

Lab Sample ID: S35505.01
Sample Tag: OBG MW-7S
Collected Date/Time: 04/27/2022 13:15
Matrix: Groundwater
COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 00:21	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.02
Sample Tag: OBG MW-7D
Collected Date/Time: 04/27/2022 15:00
Matrix: Groundwater
COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 00:41	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.03
Sample Tag: OBG MW-6D
Collected Date/Time: 04/27/2022 15:22
Matrix: Groundwater
COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 01:00	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.04

Sample Tag: OBG MW-11

Collected Date/Time: 04/27/2022 16:44

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 01:20	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.05

Sample Tag: SAN-02

Collected Date/Time: 04/28/2022 11:00

Matrix: Liquid

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 01:39	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.06

Sample Tag: OBG MW-2D

Collected Date/Time: 04/28/2022 11:10

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 01:59	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.07

Sample Tag: OBG MW-8

Collected Date/Time: 04/28/2022 12:04

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 02:18	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.08
Sample Tag: Field Blank - 042822
Collected Date/Time: 04/28/2022 12:10
Matrix: Liquid
COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 02:38	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.09

Sample Tag: OBG MW-9

Collected Date/Time: 04/28/2022 12:34

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/05/22 02:57	AK220504	PF220504W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.10

Sample Tag: OBG OS MW-3

Collected Date/Time: 04/28/2022 14:45

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/11/22 18:52	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.11
Sample Tag: OBG OS MW-4
Collected Date/Time: 04/28/2022 16:00
Matrix: Groundwater
COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/12/22 12:58	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.12

Sample Tag: OBG OS MW-5

Collected Date/Time: 04/28/2022 17:22

Matrix: Groundwater

COC Reference: 150203

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/11/22 19:31	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.13
Sample Tag: OBG MW-5S
Collected Date/Time: 04/29/2022 10:15
Matrix: Groundwater
COC Reference: 150201

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/11/22 19:50	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.14
Sample Tag: OBG MW-10
Collected Date/Time: 04/29/2022 12:30
Matrix: Groundwater
COC Reference: 150201

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/11/22 20:10	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35505.15

Sample Tag: DUP-042922

Collected Date/Time: 04/29/2022 00:01

Matrix: Groundwater

COC Reference: 150201

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/11/22 20:29	AK220511	PF220511W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF220504W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S35505.01	28 PFAs	ASTMD7979-19M	05/05/22 00:21	AK220504
S35505.02	28 PFAs	ASTMD7979-19M	05/05/22 00:41	AK220504
S35505.03	28 PFAs	ASTMD7979-19M	05/05/22 01:00	AK220504
S35505.04	28 PFAs	ASTMD7979-19M	05/05/22 01:20	AK220504
S35505.05	28 PFAs	ASTMD7979-19M	05/05/22 01:39	AK220504
S35505.06	28 PFAs	ASTMD7979-19M	05/05/22 01:59	AK220504
S35505.07	28 PFAs	ASTMD7979-19M	05/05/22 02:18	AK220504
S35505.08	28 PFAs	ASTMD7979-19M	05/05/22 02:38	AK220504
S35505.09	28 PFAs	ASTMD7979-19M	05/05/22 02:57	AK220504

Organics - Volatiles, Prep Batch ID: PF220511W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S35505.10	28 PFAs	ASTMD7979-19M	05/11/22 18:52	AK220511
S35505.11	28 PFAs	ASTMD7979-19M	05/12/22 12:58	AK220511
S35505.12	28 PFAs	ASTMD7979-19M	05/11/22 19:31	AK220511
S35505.13	28 PFAs	ASTMD7979-19M	05/11/22 19:50	AK220511
S35505.14	28 PFAs	ASTMD7979-19M	05/11/22 20:10	AK220511
S35505.15	28 PFAs	ASTMD7979-19M	05/11/22 20:29	AK220511

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.01

Sample Tag: OBG MW-7S

Collected Date/Time: 04/27/2022 13:15

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 00:21, Matrix: WW, Dilution: 2.1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**94.8**	50.0	150.0
M2-6:2FTSA		**78.2**	50.0	150.0
M2-8:2FTSA		**83.7**	50.0	150.0
M2PFTeDA		**132.0**	12.0	218.0
M3PFBS		**104.2**	50.0	150.0
M3PFHxS		**98.2**	50.0	150.0
M4PFHpA		**84.7**	50.0	150.0
M5PFHxA		**90.2**	50.0	150.0
M5PFPeA		**98.2**	50.0	150.0
M6PFDA		**93.4**	50.0	150.0
M7PFUnDA		**104.8**	50.0	150.0
M8FOSA		**96.7**	50.0	150.0
M8PFOA		**92.9**	50.0	150.0
M8PFOS		**100.2**	50.0	150.0
M9-PFNA		**102.9**	50.0	150.0
MPFBA		**113.2**	50.0	150.0
MPFDoDA		**91.5**	50.0	150.0
d3N-MeFOSAA		**101.2**	50.0	150.0
d5EtFOSAA		**97.1**	50.0	150.0
MHFPO-DA		**93.4**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.02

Sample Tag: OBG MW-7D

Collected Date/Time: 04/27/2022 15:00

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 00:41, Matrix: WW, Dilution: 1.95

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**85.2**	50.0	150.0
M2-6:2FTSA		**79.5**	50.0	150.0
M2-8:2FTSA		**78.3**	50.0	150.0
M2PFTeDA		**97.0**	12.0	218.0
M3PFBS		**105.8**	50.0	150.0
M3PFHxS		**94.6**	50.0	150.0
M4PFHpA		**83.0**	50.0	150.0
M5PFHxA		**88.2**	50.0	150.0
M5PFPeA		**102.4**	50.0	150.0
M6PFDA		**89.3**	50.0	150.0
M7PFUnDA		**93.1**	50.0	150.0
M8FOSA		**94.3**	50.0	150.0
M8PFOA		**91.2**	50.0	150.0
M8PFOS		**96.7**	50.0	150.0
M9-PFNA		**100.0**	50.0	150.0
MPFBA		**111.0**	50.0	150.0
MPFDoDA		**96.6**	50.0	150.0
d3N-MeFOSAA		**92.1**	50.0	150.0
d5EtFOSAA		**105.4**	50.0	150.0
MHFPO-DA		**97.6**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.03

Sample Tag: OBG MW-6D

Collected Date/Time: 04/27/2022 15:22

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 01:00, Matrix: WW, Dilution: 1.93

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**81.8**	50.0	150.0
M2-6:2FTSA		**85.3**	50.0	150.0
M2-8:2FTSA		**86.4**	50.0	150.0
M2PFTeDA		**91.3**	12.0	218.0
M3PFBS		**104.4**	50.0	150.0
M3PFHxS		**91.9**	50.0	150.0
M4PFHpA		**78.7**	50.0	150.0
M5PFHxA		**83.8**	50.0	150.0
M5PFPeA		**100.2**	50.0	150.0
M6PFDA		**86.8**	50.0	150.0
M7PFUnDA		**89.8**	50.0	150.0
M8FOSA		**95.2**	50.0	150.0
M8PFOA		**96.3**	50.0	150.0
M8PFOS		**105.6**	50.0	150.0
M9-PFNA		**95.7**	50.0	150.0
MPFBA		**113.6**	50.0	150.0
MPFDoDA		**85.5**	50.0	150.0
d3N-MeFOSAA		**86.5**	50.0	150.0
d5EtFOSAA		**94.8**	50.0	150.0
MHFPO-DA		**93.4**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.04

Sample Tag: OBG MW-11

Collected Date/Time: 04/27/2022 16:44

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 01:20, Matrix: WW, Dilution: 1.99

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**127.9**	50.0	150.0
M2-6:2FTSA		**88.6**	50.0	150.0
M2-8:2FTSA		**96.4**	50.0	150.0
M2PFTeDA		**103.9**	12.0	218.0
M3PFBS		**103.4**	50.0	150.0
M3PFHxS		**88.9**	50.0	150.0
M4PFHpA		**85.5**	50.0	150.0
M5PFHxA		**88.7**	50.0	150.0
M5PFPeA		**104.0**	50.0	150.0
M6PFDA		**101.0**	50.0	150.0
M7PFUnDA		**103.2**	50.0	150.0
M8FOSA		**91.8**	50.0	150.0
M8PFOA		**93.8**	50.0	150.0
M8PFOS		**108.1**	50.0	150.0
M9-PFNA		**97.5**	50.0	150.0
MPFBA		**113.3**	50.0	150.0
MPFDoDA		**100.5**	50.0	150.0
d3N-MeFOSAA		**97.6**	50.0	150.0
d5EtFOSAA		**100.5**	50.0	150.0
MHFPO-DA		**94.2**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.05

Sample Tag: SAN-02

Collected Date/Time: 04/28/2022 11:00

Matrix: Liquid

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 01:39, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**97.5**	50.0	150.0
M2-6:2FTSA		**106.0**	50.0	150.0
M2-8:2FTSA		**113.2**	50.0	150.0
M2PFTeDA		**109.2**	12.0	218.0
M3PFBS		**104.9**	50.0	150.0
M3PFHxS		**82.0**	50.0	150.0
M4PFHpA		**88.8**	50.0	150.0
M5PFHxA		**89.9**	50.0	150.0
M5PFPeA		**99.8**	50.0	150.0
M6PFDA		**93.1**	50.0	150.0
M7PFUnDA		**100.6**	50.0	150.0
M8FOSA		**91.4**	50.0	150.0
M8PFOA		**90.6**	50.0	150.0
M8PFOS		**97.5**	50.0	150.0
M9-PFNA		**94.8**	50.0	150.0
MPFBA		**115.3**	50.0	150.0
MPFDoDA		**104.7**	50.0	150.0
d3N-MeFOSAA		**107.8**	50.0	150.0
d5EtFOSAA		**109.7**	50.0	150.0
MHFPO-DA		**92.4**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.06

Sample Tag: OBG MW-2D

Collected Date/Time: 04/28/2022 11:10

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 01:59, Matrix: WW, Dilution: 2.05

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**78.0**	50.0	150.0
M2-6:2FTSA		**72.5**	50.0	150.0
M2-8:2FTSA		**78.7**	50.0	150.0
M2PFTeDA		**107.2**	12.0	218.0
M3PFBS		**104.0**	50.0	150.0
M3PFHxS		**91.9**	50.0	150.0
M4PFHpA		**86.6**	50.0	150.0
M5PFHxA		**86.2**	50.0	150.0
M5PFPeA		**96.6**	50.0	150.0
M6PFDA		**90.9**	50.0	150.0
M7PFUnDA		**86.2**	50.0	150.0
M8FOSA		**89.8**	50.0	150.0
M8PFOA		**81.9**	50.0	150.0
M8PFOS		**104.7**	50.0	150.0
M9-PFNA		**99.3**	50.0	150.0
MPFBA		**109.0**	50.0	150.0
MPFDoDA		**90.9**	50.0	150.0
d3N-MeFOSAA		**97.1**	50.0	150.0
d5EtFOSAA		**104.1**	50.0	150.0
MHFPO-DA		**100.9**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.07

Sample Tag: OBG MW-8

Collected Date/Time: 04/28/2022 12:04

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 02:18, Matrix: WW, Dilution: 1.98

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**106.4**	50.0	150.0
M2-6:2FTSA		**80.3**	50.0	150.0
M2-8:2FTSA		**93.1**	50.0	150.0
M2PFTeDA		**100.8**	12.0	218.0
M3PFBS		**107.4**	50.0	150.0
M3PFHxS		**91.6**	50.0	150.0
M4PFHpA		**79.6**	50.0	150.0
M5PFHxA		**89.3**	50.0	150.0
M5PFPeA		**98.2**	50.0	150.0
M6PFDA		**90.6**	50.0	150.0
M7PFUnDA		**96.0**	50.0	150.0
M8FOSA		**91.9**	50.0	150.0
M8PFOA		**86.3**	50.0	150.0
M8PFOS		**103.1**	50.0	150.0
M9-PFNA		**98.8**	50.0	150.0
MPFBA		**114.0**	50.0	150.0
MPFDoDA		**99.3**	50.0	150.0
d3N-MeFOSAA		**98.0**	50.0	150.0
d5EtFOSAA		**106.4**	50.0	150.0
MHFPO-DA		**95.6**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.08

Sample Tag: Field Blank - 042822

Collected Date/Time: 04/28/2022 12:10

Matrix: Liquid

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 02:38, Matrix: WW, Dilution: 2.03

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**82.1**	50.0	150.0
M2-6:2FTSA		**75.2**	50.0	150.0
M2-8:2FTSA		**75.1**	50.0	150.0
M2PFTeDA		**91.9**	12.0	218.0
M3PFBS		**101.3**	50.0	150.0
M3PFHxS		**90.1**	50.0	150.0
M4PFHpA		**83.1**	50.0	150.0
M5PFHxA		**82.9**	50.0	150.0
M5PFPeA		**95.6**	50.0	150.0
M6PFDA		**95.6**	50.0	150.0
M7PFUnDA		**91.6**	50.0	150.0
M8FOSA		**92.8**	50.0	150.0
M8PFOA		**82.3**	50.0	150.0
M8PFOS		**102.7**	50.0	150.0
M9-PFNA		**88.9**	50.0	150.0
MPFBA		**101.5**	50.0	150.0
MPFDoDA		**98.2**	50.0	150.0
d3N-MeFOSAA		**86.3**	50.0	150.0
d5EtFOSAA		**95.4**	50.0	150.0
MHFPO-DA		**87.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.09

Sample Tag: OBG MW-9

Collected Date/Time: 04/28/2022 12:34

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220504, Run Date: 05/05/2022 02:57, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**110.6**	50.0	150.0
M2-6:2FTSA		**87.3**	50.0	150.0
M2-8:2FTSA		**88.6**	50.0	150.0
M2PFTeDA		**99.6**	12.0	218.0
M3PFBS		**107.1**	50.0	150.0
M3PFHxS		**95.3**	50.0	150.0
M4PFHpA		**82.0**	50.0	150.0
M5PFHxA		**93.8**	50.0	150.0
M5PFPeA		**104.1**	50.0	150.0
M6PFDA		**83.0**	50.0	150.0
M7PFUnDA		**95.4**	50.0	150.0
M8FOSA		**102.8**	50.0	150.0
M8PFOA		**92.9**	50.0	150.0
M8PFOS		**101.5**	50.0	150.0
M9-PFNA		**99.4**	50.0	150.0
MPFBA		**115.1**	50.0	150.0
MPFDoDA		**101.7**	50.0	150.0
d3N-MeFOSAA		**104.5**	50.0	150.0
d5EtFOSAA		**100.9**	50.0	150.0
MHFPO-DA		**96.3**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.10

Sample Tag: OBG OS MW-3

Collected Date/Time: 04/28/2022 14:45

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/11/2022 18:52, Matrix: WW, Dilution: 1.91

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**143.7**	50.0	150.0
M2-6:2FTSA		**101.9**	50.0	150.0
M2-8:2FTSA		**94.7**	50.0	150.0
M2PFTeDA		**126.7**	12.0	218.0
M3PFBS		**91.7**	50.0	150.0
M3PFHxS		**91.4**	50.0	150.0
M4PFHpA		**90.9**	50.0	150.0
M5PFHxA		**93.6**	50.0	150.0
M5PFPeA		**104.5**	50.0	150.0
M6PFDA		**87.4**	50.0	150.0
M7PFUnDA		**102.1**	50.0	150.0
M8FOSA		**96.9**	50.0	150.0
M8PFOA		**91.8**	50.0	150.0
M8PFOS		**101.0**	50.0	150.0
M9-PFNA		**85.6**	50.0	150.0
MPFBA		**93.9**	50.0	150.0
MPFDoDA		**86.4**	50.0	150.0
d3N-MeFOSAA		**99.6**	50.0	150.0
d5EtFOSAA		**101.1**	50.0	150.0
MHFPO-DA		**93.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.11

Sample Tag: OBG OS MW-4

Collected Date/Time: 04/28/2022 16:00

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/12/2022 12:58, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA	*	**159.5**	50.0	150.0
M2-6:2FTSA		**95.9**	50.0	150.0
M2-8:2FTSA		**105.2**	50.0	150.0
M2PFTeDA		**138.6**	12.0	218.0
M3PFBS		**95.4**	50.0	150.0
M3PFHxS		**93.6**	50.0	150.0
M4PFHpA		**122.6**	50.0	150.0
M5PFHxA		**112.9**	50.0	150.0
M5PFPeA		**101.6**	50.0	150.0
M6PFDA		**109.1**	50.0	150.0
M7PFUnDA		**105.9**	50.0	150.0
M8FOSA		**97.6**	50.0	150.0
M8PFOA		**100.9**	50.0	150.0
M8PFOS		**85.3**	50.0	150.0
M9-PFNA		**113.2**	50.0	150.0
MPFBA		**95.8**	50.0	150.0
MPFDoDA		**107.7**	50.0	150.0
d3N-MeFOSAA		**94.9**	50.0	150.0
d5EtFOSAA		**100.3**	50.0	150.0
MHFPO-DA		**109.7**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.12

Sample Tag: OBG OS MW-5

Collected Date/Time: 04/28/2022 17:22

Matrix: Groundwater

COC Reference: 150203

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/11/2022 19:31, Matrix: WW, Dilution: 1.94

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**130.2**	50.0	150.0
M2-6:2FTSA		**108.2**	50.0	150.0
M2-8:2FTSA		**129.2**	50.0	150.0
M2PFTeDA		**105.6**	12.0	218.0
M3PFBS		**94.3**	50.0	150.0
M3PFHxS		**90.4**	50.0	150.0
M4PFHpA		**105.2**	50.0	150.0
M5PFHxA		**100.3**	50.0	150.0
M5PFPeA		**95.8**	50.0	150.0
M6PFDA		**76.5**	50.0	150.0
M7PFUnDA		**95.8**	50.0	150.0
M8FOSA		**96.8**	50.0	150.0
M8PFOA		**87.3**	50.0	150.0
M8PFOS		**92.2**	50.0	150.0
M9-PFNA		**86.7**	50.0	150.0
MPFBA		**98.1**	50.0	150.0
MPFDoDA		**80.7**	50.0	150.0
d3N-MeFOSAA		**75.9**	50.0	150.0
d5EtFOSAA		**92.2**	50.0	150.0
MHFPO-DA		**93.9**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.13

Sample Tag: OBG MW-5S

Collected Date/Time: 04/29/2022 10:15

Matrix: Groundwater

COC Reference: 150201

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/11/2022 19:50, Matrix: WW, Dilution: 2

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**125.9**	50.0	150.0
M2-6:2FTSA		**89.7**	50.0	150.0
M2-8:2FTSA		**104.1**	50.0	150.0
M2PFTeDA		**125.1**	12.0	218.0
M3PFBS		**92.2**	50.0	150.0
M3PFHxS		**95.6**	50.0	150.0
M4PFHpA		**96.5**	50.0	150.0
M5PFHxA		**93.5**	50.0	150.0
M5PFPeA		**101.7**	50.0	150.0
M6PFDA		**90.6**	50.0	150.0
M7PFUnDA		**94.9**	50.0	150.0
M8FOSA		**96.7**	50.0	150.0
M8PFOA		**94.2**	50.0	150.0
M8PFOS		**96.2**	50.0	150.0
M9-PFNA		**88.7**	50.0	150.0
MPFBA		**97.8**	50.0	150.0
MPFDoDA		**97.0**	50.0	150.0
d3N-MeFOSAA		**95.2**	50.0	150.0
d5EtFOSAA		**94.0**	50.0	150.0
MHFPO-DA		**100.0**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.14

Sample Tag: OBG MW-10

Collected Date/Time: 04/29/2022 12:30

Matrix: Groundwater

COC Reference: 150201

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/11/2022 20:10, Matrix: WW, Dilution: 1.92

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**120.3**	50.0	150.0
M2-6:2FTSA		**107.3**	50.0	150.0
M2-8:2FTSA		**111.2**	50.0	150.0
M2PFTeDA		**139.3**	12.0	218.0
M3PFBS		**94.7**	50.0	150.0
M3PFHxS		**86.2**	50.0	150.0
M4PFHpA		**96.7**	50.0	150.0
M5PFHxA		**87.7**	50.0	150.0
M5PFPeA		**104.4**	50.0	150.0
M6PFDA		**91.9**	50.0	150.0
M7PFUnDA		**103.5**	50.0	150.0
M8FOSA		**100.2**	50.0	150.0
M8PFOA		**95.8**	50.0	150.0
M8PFOS		**100.3**	50.0	150.0
M9-PFNA		**84.8**	50.0	150.0
MPFBA		**97.7**	50.0	150.0
MPFDoDA		**96.4**	50.0	150.0
d3N-MeFOSAA		**105.8**	50.0	150.0
d5EtFOSAA		**108.7**	50.0	150.0
MHFPO-DA		**100.9**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35505.15

Sample Tag: DUP-042922

Collected Date/Time: 04/29/2022 00:01

Matrix: Groundwater

COC Reference: 150201

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220511, Run Date: 05/11/2022 20:29, Matrix: WW, Dilution: 2

Internal Standard	Flags	**%Rec**	LCL	UCL
M2-4:2FTSA		**129.7**	50.0	150.0
M2-6:2FTSA		**104.1**	50.0	150.0
M2-8:2FTSA		**116.4**	50.0	150.0
M2PFTeDA		**140.8**	12.0	218.0
M3PFBS		**97.9**	50.0	150.0
M3PFHxS		**96.4**	50.0	150.0
M4PFHpA		**98.8**	50.0	150.0
M5PFHxA		**97.5**	50.0	150.0
M5PFPeA		**101.1**	50.0	150.0
M6PFDA		**88.1**	50.0	150.0
M7PFUnDA		**96.3**	50.0	150.0
M8FOSA		**97.8**	50.0	150.0
M8PFOA		**96.6**	50.0	150.0
M8PFOS		**102.8**	50.0	150.0
M9-PFNA		**78.2**	50.0	150.0
MPFBA		**96.9**	50.0	150.0
MPFDoDA		**100.0**	50.0	150.0
d3N-MeFOSAA		**96.2**	50.0	150.0
d5EtFOSAA		**111.8**	50.0	150.0
MHFPO-DA		**110.3**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF220504W1

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

Blank (BLK)

Lab Sample ID: AK220504.BLK220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:49, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**99.2**	50.0	150.0
M2-6:2FTSA		**84.7**	50.0	150.0
M2-8:2FTSA		**94.6**	50.0	150.0
M2PFTeDA		**100.0**	12.0	218.0
M3PFBS		**107.3**	50.0	150.0
M3PFHxS		**94.2**	50.0	150.0
M4PFHpA		**91.2**	50.0	150.0
M5PFHxA		**100.2**	50.0	150.0
M5PFPeA		**97.8**	50.0	150.0
M6PFDA		**88.7**	50.0	150.0
M7PFUnDA		**103.1**	50.0	150.0
M8FOSA		**96.3**	50.0	150.0
M8PFOA		**101.3**	50.0	150.0
M8PFOS		**102.8**	50.0	150.0
M9-PFNA		**97.0**	50.0	150.0
MPFBA		**102.4**	50.0	150.0
MPFDoDA		**92.4**	50.0	150.0
d3N-MeFOSAA		**105.6**	50.0	150.0
d5EtFOSAA		**88.9**	50.0	150.0
MHFPO-DA		**104.4**	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:10, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**92.9**	50.0	150.0
M2-6:2FTSA		**92.6**	50.0	150.0
M2-8:2FTSA		**95.3**	50.0	150.0
M2PFTeDA		**108.8**	12.0	218.0
M3PFBS		**112.2**	50.0	150.0
M3PFHxS		**94.5**	50.0	150.0
M4PFHpA		**97.8**	50.0	150.0
M5PFHxA		**94.1**	50.0	150.0
M5PFPeA		**96.1**	50.0	150.0
M6PFDA		**87.7**	50.0	150.0
M7PFUnDA		**96.0**	50.0	150.0
M8FOSA		**96.1**	50.0	150.0
M8PFOA		**94.9**	50.0	150.0
M8PFOS		**100.8**	50.0	150.0
M9-PFNA		**103.2**	50.0	150.0
MPFBA		**99.5**	50.0	150.0
MPFDoDA		**96.7**	50.0	150.0
d3N-MeFOSAA		**101.1**	50.0	150.0
d5EtFOSAA		**103.5**	50.0	150.0
MHFPO-DA		**94.7**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220504.LCSD220504, Parent Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:30, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**88.1**	50.0	150.0
M2-6:2FTSA		**81.7**	50.0	150.0
M2-8:2FTSA		**82.3**	50.0	150.0
M2PFTeDA		**80.4**	12.0	218.0
M3PFBS		**103.5**	50.0	150.0
M3PFHxS		**89.4**	50.0	150.0
M4PFHpA		**90.6**	50.0	150.0
M5PFHxA		**95.6**	50.0	150.0
M5PFPeA		**97.5**	50.0	150.0
M6PFDA		**96.7**	50.0	150.0
M7PFUnDA		**94.3**	50.0	150.0
M8FOSA		**97.2**	50.0	150.0
M8PFOA		**97.4**	50.0	150.0
M8PFOS		**102.7**	50.0	150.0
M9-PFNA		**100.3**	50.0	150.0
MPFBA		**102.1**	50.0	150.0
MPFDoDA		**99.8**	50.0	150.0
d3N-MeFOSAA		**98.3**	50.0	150.0
d5EtFOSAA		**99.2**	50.0	150.0
MHFPO-DA		**90.3**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK220504.3529721M, Parent Sample ID: S35297.21

Run in Batch: AK220504, Run Date: 05/04/2022 19:48, Prep Date: 05/04/2022, Matrix: WW, Dilution: 2.02

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**92.9**	50.0	150.0
M2-6:2FTSA		**78.3**	50.0	150.0
M2-8:2FTSA		**75.3**	50.0	150.0
M2PFTeDA		**102.5**	12.0	218.0
M3PFBS		**101.7**	50.0	150.0
M3PFHxS		**101.8**	50.0	150.0
M4PFHpA		**85.2**	50.0	150.0
M5PFHxA		**90.9**	50.0	150.0
M5PFPeA		**94.8**	50.0	150.0
M6PFDA		**97.8**	50.0	150.0
M7PFUnDA		**95.2**	50.0	150.0
M8FOSA		**87.5**	50.0	150.0
M8PFOA		**99.0**	50.0	150.0
M8PFOS		**107.9**	50.0	150.0
M9-PFNA		**97.6**	50.0	150.0
MPFBA		**106.0**	50.0	150.0
MPFDoDA		**105.5**	50.0	150.0
d3N-MeFOSAA		**100.4**	50.0	150.0
d5EtFOSAA		**94.5**	50.0	150.0
MHFPO-DA		**91.9**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK220504.3529725D, Parent Sample ID: S35297.25

Run in Batch: AK220504, Run Date: 05/04/2022 21:26, Prep Date: 05/04/2022, Matrix: WW, Dilution: 2.03

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**92.6**	50.0	150.0
M2-6:2FTSA		**76.9**	50.0	150.0
M2-8:2FTSA		**81.5**	50.0	150.0
M2PFTeDA		**115.5**	12.0	218.0
M3PFBS		**108.1**	50.0	150.0
M3PFHxS		**100.3**	50.0	150.0
M4PFHpA		**93.3**	50.0	150.0
M5PFHxA		**90.8**	50.0	150.0
M5PFPeA		**95.2**	50.0	150.0
M6PFDA		**89.4**	50.0	150.0
M7PFUnDA		**98.6**	50.0	150.0
M8FOSA		**95.7**	50.0	150.0
M8PFOA		**97.0**	50.0	150.0
M8PFOS		**100.4**	50.0	150.0
M9-PFNA		**97.3**	50.0	150.0
MPFBA		**107.8**	50.0	150.0
MPFDoDA		**102.6**	50.0	150.0
d3N-MeFOSAA		**93.6**	50.0	150.0
d5EtFOSAA		**102.9**	50.0	150.0
MHFPO-DA		**102.9**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF220511W1

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

Blank (BLK)

Lab Sample ID: AK220511.BLK220511A

Run in Batch: AK220511, Run Date: 05/11/2022 18:13, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**92.5**	50.0	150.0
M2-6:2FTSA		**93.7**	50.0	150.0
M2-8:2FTSA		**114.0**	50.0	150.0
M2PFTeDA		**107.0**	12.0	218.0
M3PFBS		**100.9**	50.0	150.0
M3PFHxS		**92.6**	50.0	150.0
M4PFHpA		**99.4**	50.0	150.0
M5PFHxA		**95.1**	50.0	150.0
M5PFPeA		**99.8**	50.0	150.0
M6PFDA		**95.0**	50.0	150.0
M7PFUnDA		**109.2**	50.0	150.0
M8FOSA		**96.7**	50.0	150.0
M8PFOA		**105.2**	50.0	150.0
M8PFOS		**93.3**	50.0	150.0
M9-PFNA		**75.8**	50.0	150.0
MPFBA		**100.7**	50.0	150.0
MPFDoDA		**95.8**	50.0	150.0
d3N-MeFOSAA		**89.7**	50.0	150.0
d5EtFOSAA		**97.6**	50.0	150.0
MHFPO-DA		**103.5**	50.0	150.0

Laboratory Control Sample (LCS)

Lab Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:34, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**85.3**	50.0	150.0
M2-6:2FTSA		**89.0**	50.0	150.0
M2-8:2FTSA		**101.9**	50.0	150.0
M2PFTeDA		**119.5**	12.0	218.0
M3PFBS		**93.2**	50.0	150.0
M3PFHxS		**102.0**	50.0	150.0
M4PFHpA		**107.3**	50.0	150.0
M5PFHxA		**96.1**	50.0	150.0
M5PFPeA		**97.0**	50.0	150.0
M6PFDA		**95.2**	50.0	150.0
M7PFUnDA		**98.5**	50.0	150.0
M8FOSA		**93.9**	50.0	150.0
M8PFOA		**94.3**	50.0	150.0
M8PFOS		**95.8**	50.0	150.0
M9-PFNA		**87.4**	50.0	150.0
MPFBA		**96.7**	50.0	150.0
MPFDoDA		**90.9**	50.0	150.0
d3N-MeFOSAA		**87.4**	50.0	150.0
d5EtFOSAA		**103.9**	50.0	150.0
MHFPO-DA		**95.4**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220511.LCSD220511A, Parent Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:53, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**92.6**	50.0	150.0
M2-6:2FTSA		**91.2**	50.0	150.0
M2-8:2FTSA		**105.2**	50.0	150.0
M2PFTeDA		**105.7**	12.0	218.0
M3PFBS		**99.6**	50.0	150.0
M3PFHxS		**100.5**	50.0	150.0
M4PFHpA		**100.3**	50.0	150.0
M5PFHxA		**90.3**	50.0	150.0
M5PFPeA		**101.0**	50.0	150.0
M6PFDA		**91.7**	50.0	150.0
M7PFUnDA		**98.7**	50.0	150.0
M8FOSA		**99.9**	50.0	150.0
M8PFOA		**99.2**	50.0	150.0
M8PFOS		**91.4**	50.0	150.0
M9-PFNA		**81.5**	50.0	150.0
MPFBA		**98.3**	50.0	150.0
MPFDoDA		**96.4**	50.0	150.0
d3N-MeFOSAA		**92.6**	50.0	150.0
d5EtFOSAA		**111.5**	50.0	150.0
MHFPO-DA		**104.4**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK220511.3533601M, Parent Sample ID: S35336.01

Run in Batch: AK220511, Run Date: 05/11/2022 21:28, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1.99

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**85.8**	50.0	150.0
M2-6:2FTSA		**91.8**	50.0	150.0
M2-8:2FTSA		**103.7**	50.0	150.0
M2PFTeDA		**143.4**	12.0	218.0
M3PFBS		**104.9**	50.0	150.0
M3PFHxS		**105.7**	50.0	150.0
M4PFHpA		**102.9**	50.0	150.0
M5PFHxA		**96.5**	50.0	150.0
M5PFPeA		**105.8**	50.0	150.0
M6PFDA		**93.7**	50.0	150.0
M7PFUnDA		**100.9**	50.0	150.0
M8FOSA		**104.4**	50.0	150.0
M8PFOA		**104.8**	50.0	150.0
M8PFOS		**106.5**	50.0	150.0
M9-PFNA		**85.4**	50.0	150.0
MPFBA		**110.7**	50.0	150.0
MPFDoDA		**100.4**	50.0	150.0
d3N-MeFOSAA		**101.0**	50.0	150.0
d5EtFOSAA		**118.7**	50.0	150.0
MHFPO-DA		**107.9**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK220511.3533602D, Parent Sample ID: S35336.02

Run in Batch: AK220511, Run Date: 05/11/2022 22:07, Prep Date: 05/11/2022, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**104.6**	50.0	150.0
M2-6:2FTSA		**82.8**	50.0	150.0
M2-8:2FTSA		**110.3**	50.0	150.0
M2PFTeDA		**173.4**	12.0	218.0
M3PFBS		**108.2**	50.0	150.0
M3PFHxS		**110.4**	50.0	150.0
M4PFHpA		**113.6**	50.0	150.0
M5PFHxA		**101.7**	50.0	150.0
M5PFPeA		**103.7**	50.0	150.0
M6PFDA		**94.3**	50.0	150.0
M7PFUnDA		**117.9**	50.0	150.0
M8FOSA		**109.9**	50.0	150.0
M8PFOA		**98.3**	50.0	150.0
M8PFOS		**109.4**	50.0	150.0
M9-PFNA		**83.7**	50.0	150.0
MPFBA		**112.7**	50.0	150.0
MPFDoDA		**117.4**	50.0	150.0
d3N-MeFOSAA		**98.7**	50.0	150.0
d5EtFOSAA		**115.6**	50.0	150.0
MHFPO-DA		**106.8**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF220504W1

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

Blank (BLK)

Lab Sample ID: AK220504.BLK220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:49, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	5	ng/l
PFPeA		ND	2	ng/l
4:2 FTSA		ND	1	ng/l
PFHxA		ND	1	ng/l
PFBS		ND	1	ng/l
PFHpA		ND	1	ng/l
PFPeS		ND	1	ng/l
6:2 FTSA		ND	1	ng/l
PFOA		ND	1	ng/l
PFHxS		ND	1	ng/l
PFHxS-LN		ND	1	ng/l
PFHxS-BR		ND	1	ng/l
PFNA		ND	1	ng/l
8:2 FTSA		ND	1	ng/l
PFHpS		ND	1	ng/l
PFDA		ND	1	ng/l
N-MeFOSAA		ND	1	ng/l
EtFOSAA		ND	2	ng/l
PFOS		ND	1	ng/l
PFOS-LN		ND	1	ng/l
PFOS-BR		ND	1	ng/l
PFUnDA		ND	1	ng/l
PFNS		ND	1	ng/l
PFDoDA		ND	1	ng/l
PFDS		ND	1	ng/l
PFTrDA		ND	1	ng/l
FOSA		ND	1	ng/l
PFTeDA		ND	2	ng/l
11CL-PF3OUdS		ND	1	ng/l
9CL-PF3ONS		ND	1	ng/l
ADONA		ND	1	ng/l
HFPO-DA		ND	1	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:10, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		99.6	70.0	130.0
PFPeA		105.2	70.0	130.0
4:2 FTSA		91.6	70.0	130.0
PFHxA		102.6	70.0	130.0
PFBS		95.6	70.0	130.0
HFPO-DA		105.0	70.0	130.0
PFHpA		97.8	70.0	130.0
PFPeS		98.4	70.0	130.0
ADONA		95.2	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF220504W1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:10, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
6:2 FTSA		82.0	70.0	130.0
PFOA		101.6	70.0	130.0
PFHxS		113.4	70.0	130.0
PFNA		101.8	70.0	130.0
8:2 FTSA		96.0	70.0	130.0
PFHpS		113.8	70.0	130.0
PFDA		95.8	70.0	130.0
N-MeFOSAA		84.0	70.0	130.0
PFOS		99.4	70.0	130.0
EtFOSAA		96.2	70.0	130.0
PFUnDA		94.0	70.0	130.0
9CL-PF3ONS		93.6	70.0	130.0
PFNS		108.8	70.0	130.0
PFDoDA		99.8	70.0	130.0
PFDS		101.0	70.0	130.0
PFTrDA		116.2	70.0	130.0
11CL-PF3OUdS		96.2	70.0	130.0
PFTeDA		97.8	70.0	130.0
FOSA		102.0	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220504.LCSD220504, Parent Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:30, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		95.0	70.0	130.0	4.7	30.0
PFPeA		97.0	70.0	130.0	8.1	30.0
4:2 FTSA		94.8	70.0	130.0	3.4	30.0
PFHxA		100.2	70.0	130.0	2.4	30.0
PFBS		99.0	70.0	130.0	3.5	30.0
HFPO-DA		104.6	70.0	130.0	0.4	30.0
PFHpA		97.6	70.0	130.0	0.2	30.0
PFPeS		112.0	70.0	130.0	12.9	30.0
ADONA		99.0	70.0	130.0	3.9	30.0
6:2 FTSA		99.8	70.0	130.0	19.6	30.0
PFOA		91.8	70.0	130.0	10.1	30.0
PFHxS		119.2	70.0	130.0	5.0	30.0
PFNA		93.2	70.0	130.0	8.8	30.0
8:2 FTSA		82.8	70.0	130.0	14.8	30.0
PFHpS		101.0	70.0	130.0	11.9	30.0
PFDA		87.8	70.0	130.0	8.7	30.0
N-MeFOSAA		94.2	70.0	130.0	11.4	30.0
PFOS		96.8	70.0	130.0	2.7	30.0
EtFOSAA		89.6	70.0	130.0	7.1	30.0
PFUnDA		97.0	70.0	130.0	3.1	30.0
9CL-PF3ONS		96.4	70.0	130.0	2.9	30.0
PFNS		90.8	70.0	130.0	18.0	30.0

Organics - Volatiles, Prep Batch ID: PF220504W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK220504.LCSD220504, Parent Sample ID: AK220504.LCS220504

Run in Batch: AK220504, Run Date: 05/04/2022 18:30, Prep Date: 05/04/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFDoDA		83.4	70.0	130.0	17.9	30.0
PFDS		91.0	70.0	130.0	10.4	30.0
PFTrDA		92.8	70.0	130.0	22.4	30.0
11CL-PF3OUdS		81.8	70.0	130.0	16.2	30.0
PFTeDA		109.4	70.0	130.0	11.2	30.0
FOSA		106.2	70.0	130.0	4.0	30.0

Matrix Spike (MS)

Lab Sample ID: AK220504.3529721M, Parent Sample ID: S35297.21

Run in Batch: AK220504, Run Date: 05/04/2022 19:48, Prep Date: 05/04/2022, Matrix: WW, Dilution: 2.02

Analyte	Flags	% Rec	LCL	UCL
PFBA		99.0	70.0	130.0
PFPeA		99.0	70.0	130.0
4:2 FTSA		85.1	70.0	130.0
PFHxA		108.9	70.0	130.0
PFBS		99.0	70.0	130.0
PFHpA		108.9	70.0	130.0
PFPeS		118.8	70.0	130.0
6:2 FTSA		99.0	70.0	130.0
PFOA		98.0	70.0	130.0
PFHxS		108.9	70.0	130.0
PFNA		95.0	70.0	130.0
8:2 FTSA		95.0	70.0	130.0
PFHpS		108.9	70.0	130.0
PFDA		84.2	70.0	130.0
N-MeFOSAA		85.1	70.0	130.0
EtFOSAA		99.0	70.0	130.0
PFOS		93.1	70.0	130.0
PFUnDA		108.9	70.0	130.0
PFNS		108.9	70.0	130.0
PFDoDA		93.1	70.0	130.0
PFDS		96.0	70.0	130.0
PFTrDA		108.9	70.0	130.0
FOSA		118.8	70.0	130.0
PFTeDA		99.0	70.0	130.0
11CL-PF3OUdS		89.1	70.0	130.0
9CL-PF3ONS		82.2	70.0	130.0
ADONA		99.0	70.0	130.0
HFPO-DA		99.0	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK220504.3529725D, Parent Sample ID: S35297.25

Run in Batch: AK220504, Run Date: 05/04/2022 21:26, Prep Date: 05/04/2022, Matrix: WW, Dilution: 2.03

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0

Organics - Volatiles, Prep Batch ID: PF220504W1 (continued)

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

Duplicate (DUP) (continued)

Lab Sample ID: AK220504.3529725D, Parent Sample ID: S35297.25

Run in Batch: AK220504, Run Date: 05/04/2022 21:26, Prep Date: 05/04/2022, Matrix: WW, Dilution: 2.03

Analyte	Flags	RPD	RPD CL
4:2 FTSA		NC	30.0
PFHxA	J	11.1	30.0
PFBS		NC	30.0
PFHpA	*	200.0	30.0
PFPeS		NC	30.0
6:2 FTSA		NC	30.0
PFOA		10.8	30.0
PFHxS		0.0	30.0
PFHxS-LN		10.0	30.0
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		13.3	30.0
PFOS-LN		17.3	30.0
PFOS-BR		7.1	30.0
PFUnDA		NC	30.0
PFNS		NC	30.0
PFDoDA		NC	30.0
PFDS		NC	30.0
PFTrDA		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

Organics - Volatiles, Prep Batch ID: PF220511W1

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

Blank (BLK)

Lab Sample ID: AK220511.BLK220511A

Run in Batch: AK220511, Run Date: 05/11/2022 18:13, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	5	ng/l
PFPeA		ND	2	ng/l
4:2 FTSA		ND	1	ng/l
PFHxA		ND	1	ng/l
PFBS		ND	1	ng/l
PFHpA		ND	1	ng/l
PFPeS		ND	1	ng/l
6:2 FTSA		ND	1	ng/l
PFOA		ND	1	ng/l
PFHxS		ND	1	ng/l
PFHxS-LN		ND	1	ng/l
PFHxS-BR		ND	1	ng/l
PFNA		ND	1	ng/l
8:2 FTSA		ND	1	ng/l
PFHpS		ND	1	ng/l
PFDA		ND	1	ng/l
N-MeFOSAA		ND	1	ng/l
EtFOSAA		ND	2	ng/l
PFOS		ND	1	ng/l
PFOS-LN		ND	1	ng/l
PFOS-BR		ND	1	ng/l
PFUnDA		ND	1	ng/l
PFNS		ND	1	ng/l
PFDoDA		ND	1	ng/l
PFDS		ND	1	ng/l
PFTrDA		ND	1	ng/l
FOSA		ND	1	ng/l
PFTeDA		ND	2	ng/l
11CL-PF3OUdS		ND	1	ng/l
9CL-PF3ONS		ND	1	ng/l
ADONA		ND	1	ng/l
HFPO-DA		ND	1	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:34, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		100.4	70.0	130.0
PFPeA		101.8	70.0	130.0
4:2 FTSA		108.2	70.0	130.0
PFHxA		98.8	70.0	130.0
PFBS		106.0	70.0	130.0
HFPO-DA	*	134.0	70.0	130.0
PFHpA		94.2	70.0	130.0
PFPeS		113.4	70.0	130.0
ADONA		114.4	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF220511W1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:34, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
6:2 FTSA		101.0	70.0	130.0
PFOA		103.2	70.0	130.0
PFHxS		100.8	70.0	130.0
PFNA		98.4	70.0	130.0
PFHpS		99.0	70.0	130.0
8:2 FTSA		89.0	70.0	130.0
N-MeFOSAA		107.8	70.0	130.0
PFDA		96.2	70.0	130.0
PFOS		97.6	70.0	130.0
EtFOSAA		90.0	70.0	130.0
PFUnDA		96.2	70.0	130.0
9CL-PF3ONS		95.0	70.0	130.0
PFNS		107.0	70.0	130.0
PFDoDA		105.6	70.0	130.0
PFDS		98.0	70.0	130.0
PFTrDA		113.0	70.0	130.0
11CL-PF3OUdS		88.4	70.0	130.0
PFTeDA		100.6	70.0	130.0
FOSA		116.8	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220511.LCSD220511A, Parent Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:53, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		94.8	70.0	130.0	5.7	30.0
PFPeA		98.8	70.0	130.0	3.0	30.0
4:2 FTSA		99.4	70.0	130.0	8.5	30.0
PFHxA		110.8	70.0	130.0	11.5	30.0
PFBS		99.4	70.0	130.0	6.4	30.0
HFPO-DA		112.2	70.0	130.0	17.7	30.0
PFHpA		102.0	70.0	130.0	8.0	30.0
PFPeS		104.8	70.0	130.0	7.9	30.0
ADONA		95.0	70.0	130.0	18.5	30.0
6:2 FTSA		97.6	70.0	130.0	3.4	30.0
PFOA		84.6	70.0	130.0	19.8	30.0
PFHxS		104.8	70.0	130.0	3.9	30.0
PFNA		87.4	70.0	130.0	11.8	30.0
PFHpS		101.6	70.0	130.0	2.6	30.0
8:2 FTSA		94.4	70.0	130.0	5.9	30.0
N-MeFOSAA		90.2	70.0	130.0	17.8	30.0
PFDA		96.4	70.0	130.0	0.2	30.0
PFOS		95.6	70.0	130.0	2.1	30.0
EtFOSAA		78.4	70.0	130.0	13.8	30.0
PFUnDA		102.2	70.0	130.0	6.0	30.0
9CL-PF3ONS		96.4	70.0	130.0	1.5	30.0
PFNS		99.4	70.0	130.0	7.4	30.0

Organics - Volatiles, Prep Batch ID: PF220511W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK220511.LCSD220511A, Parent Sample ID: AK220511.LCS220511A

Run in Batch: AK220511, Run Date: 05/11/2022 17:53, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFDoDA		88.2	70.0	130.0	18.0	30.0
PFDS		90.2	70.0	130.0	8.3	30.0
PFTrDA		104.4	70.0	130.0	7.9	30.0
11CL-PF3OUdS		87.8	70.0	130.0	0.7	30.0
PFTeDA		101.6	70.0	130.0	1.0	30.0
FOSA		105.0	70.0	130.0	10.6	30.0

Matrix Spike (MS)

Lab Sample ID: AK220511.3533601M, Parent Sample ID: S35336.01

Run in Batch: AK220511, Run Date: 05/11/2022 21:28, Prep Date: 05/11/2022, Matrix: WW, Dilution: 1.99

Analyte	Flags	% Rec	LCL	UCL
PFBA		94.5	70.0	130.0
PFPeA		97.5	70.0	130.0
4:2 FTSA		95.5	70.0	130.0
PFHxA		100.5	70.0	130.0
PFBS		100.5	70.0	130.0
PFHpA		94.5	70.0	130.0
PFPeS		110.6	70.0	130.0
6:2 FTSA		88.4	70.0	130.0
PFOA		93.5	70.0	130.0
PFHxS		100.5	70.0	130.0
PFNA		100.5	70.0	130.0
8:2 FTSA		98.5	70.0	130.0
PFHpS		99.5	70.0	130.0
PFDA		96.5	70.0	130.0
N-MeFOSAA		83.4	70.0	130.0
EtFOSAA		80.4	70.0	130.0
PFOS		88.4	70.0	130.0
PFUnDA		98.5	70.0	130.0
PFNS		99.5	70.0	130.0
PFDoDA		91.5	70.0	130.0
PFDS		82.4	70.0	130.0
PFTrDA		110.6	70.0	130.0
FOSA		110.6	70.0	130.0
PFTeDA		97.5	70.0	130.0
11CL-PF3OUdS		79.4	70.0	130.0
9CL-PF3ONS		84.4	70.0	130.0
ADONA		94.5	70.0	130.0
HFPO-DA		96.5	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK220511.3533602D, Parent Sample ID: S35336.02

Run in Batch: AK220511, Run Date: 05/11/2022 22:07, Prep Date: 05/11/2022, Matrix: WW, Dilution: 2.06

Analyte	Flags	RPD	RPD CL
PFBA		NC	30.0
PFPeA		NC	30.0

Organics - Volatiles, Prep Batch ID: PF220511W1 (continued)

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

Duplicate (DUP) (continued)

Lab Sample ID: AK220511.3533602D, Parent Sample ID: S35336.02

Run in Batch: AK220511, Run Date: 05/11/2022 22:07, Prep Date: 05/11/2022, Matrix: WW, Dilution: 2.06

Analyte	Flags	RPD	RPD CL
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	*	38.1	30.0
PFHxS-LN		NC	30.0
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
PFTrDA		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

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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF _____ 150203

CHAIN OF CUSTODY RECORD

REPORT 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: Clifford.Yantz@Ramboll.com; Kevin.Schneider@Ramboll.com QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd 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 CODE: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other _____

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (1/75)	Special Instructions
35505.01	4/27/22	1315	OBG MW-7S	GW	3	3							X	Low level Reporting
.02		1500	OBG MW-7D	GW	3	3							X	with estimated
.03		1522	OBG MW-6D	GW	3	3							X	values
.04		1644	OBG MW-11	GW	3	3							X	
.05	4/28/22	1100	SAN-02	L	3	3							X	
.06		1110	OBG MW-2D	GW	3	3							X	
.07		1204	OBG MW-8	GW	3	3							X	
.08		1210	Field Blank-042822	L	1	1							X	
.09		1234	OBG MW-9	GW	3	3							X	
.10		1445	OBG OS MW-3	GW	3	3							X	
.11		1600	OBG OS MW-4	GW	3	3							X	
.12		1722	OBG OS MW-5	GW	3	3							X	

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	*Sampler	4/29/22	1350
RECEIVED BY: SIGNATURE/ORGANIZATION		4/29/22	1350
RELINQUISHED BY: SIGNATURE/ORGANIZATION		4/29/22	14:40
RECEIVED BY: SIGNATURE/ORGANIZATION		4/29/22	1440

		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION			
RECEIVED BY: SIGNATURE/ORGANIZATION			

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.0

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

Rev. 1.26.22

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

C.O.C. PAGE # 2 OF 2

150201

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 8090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO. CELL NO. 313-333-0211 P.O. NO.
E-MAIL ADDRESS: Clifford.Yantz@Ramboll.com Kevin.Schneider@Ramboll.com QUOTE NO.

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd Industrial Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS X STANDARD ☐ OTHER

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

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

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	COLLECTION DATE	COLLECTION TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (24 Analytes)	Special Instructions
35505.13	4/29/22	1015	OBG MW-5S	GW	3	3							X	Low Level Reporting with estimated Values
.14	4/29/22	1230	OBG MW-10	GW	3	3							X	
.15	4/29/22	—	DUP-042922	GW	3	3							X	
.16														

RELINQUISHED BY: SIGNATURE/ORGANIZATION	X Sampler	DATE 4/29/22	TIME 1350	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1350	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1440	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 1440	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE	TIME

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 4.0

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

Rev. 1.26.22

Analytical Laboratory Report

Report ID: S35526.01(01)
Generated on 06/01/2022

Report to

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

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

Addtional Contacts: Kevin Schneider

Report produced by

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East Lansing, MI 48823

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

Report Summary

Lab Sample ID(s): S35526.01-S35526.04
Project: RACER Hemphill Rd. Industrial Land
Collected Date(s): 04/29/2022
Submitted Date/Time: 05/02/2022 13:30
Sampled by: Kevin Schneider
P.O. #: 1940002902

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein 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

Laboratory Certifications

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

Qualifier Descriptions

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

Glossary of Abbreviations

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

Method Summary

Method	Version
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
PFHpA	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
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-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
PFHpS	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
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-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

Analytical Laboratory Report

Sample Summary (4 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S35526.01	MW-403	Groundwater	04/29/22 14:07
S35526.02	MW-401	Groundwater	04/29/22 14:50
S35526.03	Field Blank - 042922	Liquid	04/29/22 15:22
S35526.04	SAN-03	Liquid	04/29/22 15:55

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S35526.01
Sample Tag: MW-403
Collected Date/Time: 04/29/2022 14:07
Matrix: Groundwater
COC Reference: 145677

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.78/6.96/12	ASTMD7979-19M	05/13/22 16:00	KCV	
Initial wt. (g) / Final wt. (g) / Volume (ml) (Rep)	9.5/14.5/30	ASTMD7979-19M	05/26/22 12:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/13/22 22:44, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	14	10	ng/L	2.06	375-22-4	X
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*	11	2.1	1.6	ng/L	2.06	335-67-1	
PFHxS*	1.7	2.1	1.6	ng/L	2.06	355-46-4	J
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*	2.7	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*	54	4.1	2.1	ng/L	2.06	2991-50-6	
PFOS*	370	2.1	2.0	ng/L	2.06	1763-23-1	
PFOS-LN*	280	2.1	2.0	ng/L	2.06	1763-23-1-LN	
PFOS-BR*	87	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	
PFTrDA*	Not detected	2.1	1.2	ng/L	2.06	72629-94-8	
FOSA*	33	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	4.1	2.1	ng/L	2.06	13252-13-6	

X-Elevated reporting limit due to matrix interference
J-Estimated value less than reporting limit, but greater than MDL

Lab Sample ID: S35526.01 (continued)
Sample Tag: MW-403

28 PFAs TOP ASSAY, Method: ASTMD7979-19M, Run Date: 05/26/22 12:14, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	120	30	ng/L	6	375-22-4	X
PFPeA*	Not detected	90	3.0	ng/L	6	2706-90-3	IX
4:2 FTSA*	Not detected	30	4.8	ng/L	6	757124-72-4	I
PFHxA*	31	30	4.2	ng/L	6	307-24-4	
PFBS*	Not detected	30	4.2	ng/L	6	375-73-5	
PFHpA*	Not detected	30	4.2	ng/L	6	375-85-9	
PFPeS*	Not detected	30	5.4	ng/L	6	2706-91-4	
6:2 FTSA*	Not detected	30	6.0	ng/L	6	27619-97-2	I
PFOA*	Not detected	30	4.8	ng/L	6	335-67-1	
PFHxS*	Not detected	30	4.8	ng/L	6	355-46-4	
PFHxS-LN*	Not detected	30	4.8	ng/L	6	355-46-4-LN	
PFHxS-BR*	Not detected	30	4.8	ng/L	6	355-46-4-BR	
PFNA*	Not detected	30	5.4	ng/L	6	375-95-1	
8:2 FTSA*	Not detected	30	3.0	ng/L	6	39108-34-4	I
PFHpS*	Not detected	30	6.0	ng/L	6	375-92-8	
PFDA*	Not detected	30	6.0	ng/L	6	335-76-2	
N-MeFOSAA*	Not detected	30	6.0	ng/L	6	2355-31-9	
EtFOSAA*	Not detected	30	6.0	ng/L	6	2991-50-6	I
PFOS*	260	30	5.9	ng/L	6	1763-23-1	
PFOS-LN*	180	30	5.9	ng/L	6	1763-23-1-LN	
PFOS-BR*	66	30	5.9	ng/L	6	1763-23-1-BR	
PFUnDA*	Not detected	30	4.2	ng/L	6	2058-94-8	
PFNS*	Not detected	30	4.2	ng/L	6	68259-12-1	
PFDoDA*	Not detected	30	4.8	ng/L	6	307-55-1	
PFDS*	Not detected	30	4.2	ng/L	6	335-77-3	
PFTrDA*	Not detected	30	3.6	ng/L	6	72629-94-8	
FOSA*	Not detected	30	5.4	ng/L	6	754-91-6	I
PFTeDA*	Not detected	30	5.4	ng/L	6	376-06-7	
11Cl-PF3OUdS*	Not detected	30	5.4	ng/L	6	763051-92-9	
9Cl-PF3ONS*	Not detected	30	4.2	ng/L	6	756426-58-1	
ADONA*	Not detected	30	6.0	ng/L	6	919005-14-4	
HFPO-DA*	Not detected	30	6.0	ng/L	6	13252-13-6	

X-Elevated reporting limit due to matrix interference
I-Matrix interference with internal standard

Lab Sample ID: S35526.02
Sample Tag: MW-401
Collected Date/Time: 04/29/2022 14:50
Matrix: Groundwater
COC Reference: 145677

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	12.72/6.89/12	ASTMD7979-19M	05/13/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/14/22 19:06, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	23	10	ng/L	2.06	375-22-4	X
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	
PFTrDA*	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	4.1	2.1	ng/L	2.06	13252-13-6	

X-Elevated reporting limit due to matrix interference

Analytical Laboratory Report

Lab Sample ID: S35526.03
Sample Tag: Field Blank - 042922
Collected Date/Time: 04/29/2022 15:22
Matrix: Liquid
COC Reference: 145677

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.79/6.92/10	ASTMD7979-19M	05/13/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/13/22 23:23, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	10	10	ng/L	2.05	375-22-4	
PFPeA*	Not detected	4.1	1.0	ng/L	2.05	2706-90-3	
4:2 FTSA*	Not detected	2.1	1.6	ng/L	2.05	757124-72-4	
PFHxA*	Not detected	2.1	1.4	ng/L	2.05	307-24-4	
PFBS*	Not detected	2.1	1.4	ng/L	2.05	375-73-5	
PFHpA*	Not detected	2.1	1.4	ng/L	2.05	375-85-9	
PFPeS*	Not detected	2.1	1.8	ng/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	2.1	2.1	ng/L	2.05	27619-97-2	
PFOA*	Not detected	2.1	1.6	ng/L	2.05	335-67-1	
PFHxS*	Not detected	2.1	1.6	ng/L	2.05	355-46-4	
PFHxS-LN*	Not detected	2.1	1.6	ng/L	2.05	355-46-4-LN	
PFHxS-BR*	Not detected	2.1	1.6	ng/L	2.05	355-46-4-BR	
PFNA*	Not detected	2.1	1.8	ng/L	2.05	375-95-1	
8:2 FTSA*	Not detected	2.1	1.0	ng/L	2.05	39108-34-4	
PFHpS*	Not detected	2.1	2.1	ng/L	2.05	375-92-8	
PFDA*	Not detected	2.1	2.1	ng/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	2.1	2.1	ng/L	2.05	2355-31-9	
EtFOSAA*	Not detected	4.1	2.1	ng/L	2.05	2991-50-6	
PFOS*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1	
PFOS-LN*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1-LN	
PFOS-BR*	Not detected	2.1	2.0	ng/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	2.1	1.4	ng/L	2.05	2058-94-8	
PFNS*	Not detected	2.1	1.4	ng/L	2.05	68259-12-1	
PFDoDA*	Not detected	2.1	1.6	ng/L	2.05	307-55-1	
PFDS*	Not detected	2.1	1.4	ng/L	2.05	335-77-3	
PFTrDA*	Not detected	2.1	1.2	ng/L	2.05	72629-94-8	
FOSA*	Not detected	2.1	1.8	ng/L	2.05	754-91-6	
PFTeDA*	Not detected	4.1	1.8	ng/L	2.05	376-06-7	
11Cl-PF3OUdS*	Not detected	2.1	1.8	ng/L	2.05	763051-92-9	
9Cl-PF3ONS*	Not detected	2.1	1.4	ng/L	2.05	756426-58-1	
ADONA*	Not detected	2.1	2.1	ng/L	2.05	919005-14-4	
HFPO-DA*	Not detected	4.1	2.1	ng/L	2.05	13252-13-6	

Analytical Laboratory Report

Lab Sample ID: S35526.04
Sample Tag: SAN-03
Collected Date/Time: 04/29/2022 15:55
Matrix: Liquid
COC Reference: 145677

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15ml Centrifuge Tube	None	Yes	4.0	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.88/6.87/10	ASTMD7979-19M	05/13/22 16:00	KCV	

Organics

28 PFAs, Method: ASTMD7979-19M, Run Date: 05/13/22 23:42, Analyst: KCV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	50	10	ng/L	2	375-22-4	IX
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	I
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	I
PFOA*	2.0	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	I
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	I
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	I
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	I
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	I
PFDS*	Not detected	2.0	1.4	ng/L	2	335-77-3	
PFTrDA*	Not detected	2.0	1.2	ng/L	2	72629-94-8	I
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	4.0	2.0	ng/L	2	13252-13-6	

I-Matrix interference with internal standard X-Elevated reporting limit due to matrix interference

Merit Laboratories Login Checklist

Lab Set ID: S35526
Client: OBG02 (Ramboll Americas - East Lansing, MI)
Project: RACER Hemphill Rd. Industrial Land
Submitted: 05/02/2022 13:30 Login User: PFD

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

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

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 2.8
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

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

Client Review By: _____ Date: _____

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

C.O.C. PAGE # 1 OF 1

145677

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: 313-378-0211 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: clifford.yantz@ramboll.com QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd 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 CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (TOTAL)	TOP Analysis PFAS	Special Instructions
35526.01	4/29/22	1407	MW-403	GW	9	9							X	X	Low-Level Reporting limit with estimated values
.02	↓	1450	MW-401	GW	3	3							X		
.03		1522	Field Blank-042922	GW	1	1							X		
.04		1555	SAN-03	L	3	3							X		

PFAS

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE 4/29/22	TIME 1600	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 16:00	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 11:17	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 5/02/22	TIME 11:17	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 13:30	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 1350	

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 2.8

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

Rev. 5.18.12

Quality Control Report

Report ID: QC-S35526-01
Generated on 06/01/2022

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): S35526.01-S35526.04
Project: RACER Hemphill Rd. Industrial Land
Submitted Date/Time: 05/02/2022 13:30
Sampled by: Kevin Schneider
P.O. #: 1940002902

QC Report Sections

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: S35526.01
Sample Tag: MW-403
Collected Date/Time: 04/29/2022 14:07
Matrix: Groundwater
COC Reference: 145677

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs TOP ASSAY	ASTMD7979-19M	05/26/22 12:14	DQ220526TOP	PT220526W1	Yes	BLK
28 PFAs	ASTMD7979-19M	05/13/22 22:44	AK220513	PF220513W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35526.02

Sample Tag: MW-401

Collected Date/Time: 04/29/2022 14:50

Matrix: Groundwater

COC Reference: 145677

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/14/22 19:06	AK220513R	PF220513W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35526.03

Sample Tag: Field Blank - 042922

Collected Date/Time: 04/29/2022 15:22

Matrix: Liquid

COC Reference: 145677

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/13/22 23:23	AK220513	PF220513W1	Yes	BLK/LCS/LCSD/MS/DU

Lab Sample ID: S35526.04

Sample Tag: SAN-03

Collected Date/Time: 04/29/2022 15:55

Matrix: Liquid

COC Reference: 145677

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Organics - Volatiles						
28 PFAs	ASTMD7979-19M	05/13/22 23:42	AK220513	PF220513W1	Yes	BLK/LCS/LCSD/MS/DU

QC Report - Prep Batch Summary

Organics - Volatiles, Prep Batch ID: PF220513W1

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

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S35526.01	28 PFAs	ASTMD7979-19M	05/13/22 22:44	AK220513
S35526.02	28 PFAs	ASTMD7979-19M	05/14/22 19:06	AK220513R
S35526.03	28 PFAs	ASTMD7979-19M	05/13/22 23:23	AK220513
S35526.04	28 PFAs	ASTMD7979-19M	05/13/22 23:42	AK220513

Organics - Volatiles, Prep Batch ID: PT220526W1

Surrogates: Yes, QC Types: BLK

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S35526.01	28 PFAs TOP ASSAY	ASTMD7979-19M	05/26/22 12:14	DQ220526TOP

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35526.01

Sample Tag: MW-403

Collected Date/Time: 04/29/2022 14:07

Matrix: Groundwater

COC Reference: 145677

Organics - Volatiles, Analysis: 28 PFAs TOP ASSAY

Run in Batch: DQ220526TOP, Run Date: 05/26/2022 12:14, Matrix: WW, Dilution: 6

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	**332.9**	50.0	150.0
M2-6:2FTSA	*	**417.7**	50.0	150.0
M2-8:2FTSA	*	**405.1**	50.0	150.0
M2PFTeDA		**161.3**	12.0	218.0
M3PFBS		**101.0**	50.0	150.0
M3PFHxS		**102.7**	50.0	150.0
M4PFHpA		**60.5**	50.0	150.0
M5PFHxA		**55.4**	50.0	150.0
M5PFPeA	*	**26.1**	50.0	150.0
M6PFDA		**83.2**	50.0	150.0
M7PFUnDA		**89.6**	50.0	150.0
M8FOSA	*	**156.7**	50.0	150.0
M8PFOA		**55.4**	50.0	150.0
M8PFOS		**96.9**	50.0	150.0
M9-PFNA		**69.2**	50.0	150.0
MPFBA		**61.2**	50.0	150.0
MPFDoDA		**124.6**	50.0	150.0
d3N-MeFOSAA		**146.8**	50.0	150.0
d5EtFOSAA	*	**238.5**	50.0	150.0
MHFPO-DA		**53.3**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220513, Run Date: 05/13/2022 22:44, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**91.4**	50.0	150.0
M2-6:2FTSA		**89.6**	50.0	150.0
M2-8:2FTSA		**91.1**	50.0	150.0
M2PFTeDA		**101.2**	12.0	218.0
M3PFBS		**99.5**	50.0	150.0
M3PFHxS		**102.3**	50.0	150.0
M4PFHpA		**103.4**	50.0	150.0
M5PFHxA		**114.0**	50.0	150.0
M5PFPeA		**95.7**	50.0	150.0
M6PFDA		**101.3**	50.0	150.0
M7PFUnDA		**83.6**	50.0	150.0
M8FOSA		**89.2**	50.0	150.0
M8PFOA		**92.8**	50.0	150.0
M8PFOS		**97.0**	50.0	150.0
M9-PFNA		**96.8**	50.0	150.0
MPFBA		**86.9**	50.0	150.0
MPFDoDA		**100.1**	50.0	150.0
d3N-MeFOSAA		**87.4**	50.0	150.0
d5EtFOSAA		**74.5**	50.0	150.0
MHFPO-DA		**89.5**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35526.02

Sample Tag: MW-401

Collected Date/Time: 04/29/2022 14:50

Matrix: Groundwater

COC Reference: 145677

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220513R, Run Date: 05/14/2022 19:06, Matrix: WW, Dilution: 2.06

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**94.6**	50.0	150.0
M2-6:2FTSA		**84.5**	50.0	150.0
M2-8:2FTSA		**80.7**	50.0	150.0
M2PFTeDA		**120.6**	12.0	218.0
M3PFBS		**104.4**	50.0	150.0
M3PFHxS		**105.9**	50.0	150.0
M4PFHpA		**103.8**	50.0	150.0
M5PFHxA		**114.3**	50.0	150.0
M5PFPeA		**100.4**	50.0	150.0
M6PFDA		**117.2**	50.0	150.0
M7PFUnDA		**99.3**	50.0	150.0
M8FOSA		**102.1**	50.0	150.0
M8PFOA		**92.5**	50.0	150.0
M8PFOS		**99.3**	50.0	150.0
M9-PFNA		**104.5**	50.0	150.0
MPFBA		**106.3**	50.0	150.0
MPFDoDA		**104.0**	50.0	150.0
d3N-MeFOSAA		**109.5**	50.0	150.0
d5EtFOSAA		**88.6**	50.0	150.0
MHFPO-DA		**95.3**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35526.03

Sample Tag: Field Blank - 042922

Collected Date/Time: 04/29/2022 15:22

Matrix: Liquid

COC Reference: 145677

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220513, Run Date: 05/13/2022 23:23, Matrix: WW, Dilution: 2.05

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**97.5**	50.0	150.0
M2-6:2FTSA		**88.7**	50.0	150.0
M2-8:2FTSA		**81.9**	50.0	150.0
M2PFTeDA		**96.5**	12.0	218.0
M3PFBS		**98.1**	50.0	150.0
M3PFHxS		**106.4**	50.0	150.0
M4PFHpA		**110.8**	50.0	150.0
M5PFHxA		**113.8**	50.0	150.0
M5PFPeA		**98.3**	50.0	150.0
M6PFDA		**94.4**	50.0	150.0
M7PFUnDA		**85.9**	50.0	150.0
M8FOSA		**92.5**	50.0	150.0
M8PFOA		**98.1**	50.0	150.0
M8PFOS		**89.3**	50.0	150.0
M9-PFNA		**108.7**	50.0	150.0
MPFBA		**89.9**	50.0	150.0
MPFDoDA		**105.9**	50.0	150.0
d3N-MeFOSAA		**94.8**	50.0	150.0
d5EtFOSAA		**87.5**	50.0	150.0
MHFPO-DA		**98.5**	50.0	150.0

QC Report - Internal Standards per Lab Sample

Lab Sample ID: S35526.04

Sample Tag: SAN-03

Collected Date/Time: 04/29/2022 15:55

Matrix: Liquid

COC Reference: 145677

Organics - Volatiles, Analysis: 28 PFAs

Run in Batch: AK220513, Run Date: 05/13/2022 23:42, Matrix: WW, Dilution: 2

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA	*	**312.6**	50.0	150.0
M2-6:2FTSA	*	**326.7**	50.0	150.0
M2-8:2FTSA	*	**199.1**	50.0	150.0
M2PFTeDA		**65.8**	12.0	218.0
M3PFBS		**86.5**	50.0	150.0
M3PFHxS		**89.0**	50.0	150.0
M4PFHpA		**94.0**	50.0	150.0
M5PFHxA		**106.6**	50.0	150.0
M5PFPeA		**91.5**	50.0	150.0
M6PFDA	*	**48.8**	50.0	150.0
M7PFUnDA	*	**23.1**	50.0	150.0
M8FOSA		**73.7**	50.0	150.0
M8PFOA		**92.2**	50.0	150.0
M8PFOS		**66.5**	50.0	150.0
M9-PFNA		**92.5**	50.0	150.0
MPFBA	*	**42.1**	50.0	150.0
MPFDoDA	*	**39.7**	50.0	150.0
d3N-MeFOSAA		**93.9**	50.0	150.0
d5EtFOSAA	*	**36.9**	50.0	150.0
MHFPO-DA		**75.6**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF220513W1

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

Blank (BLK)

Lab Sample ID: AK220513_29.BLK220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 19:16, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**99.3**	50.0	150.0
M2-6:2FTSA		**100.2**	50.0	150.0
M2-8:2FTSA		**96.7**	50.0	150.0
M2PFTeDA		**105.6**	12.0	218.0
M3PFBS		**102.7**	50.0	150.0
M3PFHxS		**119.0**	50.0	150.0
M4PFHpA		**112.3**	50.0	150.0
M5PFHxA		**116.6**	50.0	150.0
M5PFPeA		**102.3**	50.0	150.0
M6PFDA		**95.3**	50.0	150.0
M7PFUnDA		**81.6**	50.0	150.0
M8FOSA		**102.6**	50.0	150.0
M8PFOA		**96.6**	50.0	150.0
M8PFOS		**91.4**	50.0	150.0
M9-PFNA		**88.5**	50.0	150.0
MPFBA		**94.0**	50.0	150.0
MPFDoDA		**99.4**	50.0	150.0
d3N-MeFOSAA		**93.3**	50.0	150.0
d5EtFOSAA		**104.3**	50.0	150.0
MHFPO-DA		**104.9**	50.0	150.0

QC Report - Internal Standards per QC Sample

Laboratory Control Sample (LCS)

Lab Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:36, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**104.8**	50.0	150.0
M2-6:2FTSA		**109.5**	50.0	150.0
M2-8:2FTSA		**86.9**	50.0	150.0
M2PFTeDA		**94.1**	12.0	218.0
M3PFBS		**108.3**	50.0	150.0
M3PFHxS		**113.3**	50.0	150.0
M4PFHpA		**107.1**	50.0	150.0
M5PFHxA		**104.3**	50.0	150.0
M5PFPeA		**98.6**	50.0	150.0
M6PFDA		**96.4**	50.0	150.0
M7PFUnDA		**85.1**	50.0	150.0
M8FOSA		**104.8**	50.0	150.0
M8PFOA		**88.0**	50.0	150.0
M8PFOS		**98.9**	50.0	150.0
M9-PFNA		**105.9**	50.0	150.0
MPFBA		**92.1**	50.0	150.0
MPFDoDA		**101.6**	50.0	150.0
d3N-MeFOSAA		**98.6**	50.0	150.0
d5EtFOSAA		**84.2**	50.0	150.0
MHFPO-DA		**105.4**	50.0	150.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220513_29.LCSD220513, Parent Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:56, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**96.8**	50.0	150.0
M2-6:2FTSA		**99.0**	50.0	150.0
M2-8:2FTSA		**94.3**	50.0	150.0
M2PFTeDA		**89.7**	12.0	218.0
M3PFBS		**108.7**	50.0	150.0
M3PFHxS		**122.9**	50.0	150.0
M4PFHpA		**109.0**	50.0	150.0
M5PFHxA		**110.3**	50.0	150.0
M5PFPeA		**105.4**	50.0	150.0
M6PFDA		**102.7**	50.0	150.0
M7PFUnDA		**88.3**	50.0	150.0
M8FOSA		**101.7**	50.0	150.0
M8PFOA		**99.9**	50.0	150.0
M8PFOS		**104.1**	50.0	150.0
M9-PFNA		**89.3**	50.0	150.0
MPFBA		**94.5**	50.0	150.0
MPFDoDA		**94.8**	50.0	150.0
d3N-MeFOSAA		**93.0**	50.0	150.0
d5EtFOSAA		**81.0**	50.0	150.0
MHFPO-DA		**96.9**	50.0	150.0

Matrix Spike (MS)

Lab Sample ID: AK220513_29.3555501M, Parent Sample ID: S35555.01

Run in Batch: AK220513_29, Run Date: 05/14/2022 00:21, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.01

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**90.9**	50.0	150.0
M2-6:2FTSA		**101.5**	50.0	150.0
M2-8:2FTSA		**96.2**	50.0	150.0
M2PFTeDA		**114.3**	12.0	218.0
M3PFBS		**93.2**	50.0	150.0
M3PFHxS		**100.8**	50.0	150.0
M4PFHpA		**104.8**	50.0	150.0
M5PFHxA		**103.9**	50.0	150.0
M5PFPeA		**97.7**	50.0	150.0
M6PFDA		**88.6**	50.0	150.0
M7PFUnDA		**82.9**	50.0	150.0
M8FOSA		**98.8**	50.0	150.0
M8PFOA		**88.4**	50.0	150.0
M8PFOS		**89.9**	50.0	150.0
M9-PFNA		**98.3**	50.0	150.0
MPFBA		**88.4**	50.0	150.0
MPFDoDA		**100.6**	50.0	150.0
d3N-MeFOSAA		**99.9**	50.0	150.0
d5EtFOSAA		**90.5**	50.0	150.0
MHFPO-DA		**96.8**	50.0	150.0

Duplicate (DUP)

Lab Sample ID: AK220513_29.3595801D, Parent Sample ID: S35958.01

Run in Batch: AK220513_29, Run Date: 05/13/2022 21:45, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.08

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**71.5**	50.0	150.0
M2-6:2FTSA		**95.9**	50.0	150.0
M2-8:2FTSA		**70.0**	50.0	150.0
M2PFTeDA		**86.8**	12.0	218.0
M3PFBS		**92.6**	50.0	150.0
M3PFHxS		**107.3**	50.0	150.0
M4PFHpA		**110.3**	50.0	150.0
M5PFHxA		**99.8**	50.0	150.0
M5PFPeA		**91.1**	50.0	150.0
M6PFDA		**98.0**	50.0	150.0
M7PFUnDA		**89.6**	50.0	150.0
M8FOSA		**99.2**	50.0	150.0
M8PFOA		**103.8**	50.0	150.0
M8PFOS		**83.7**	50.0	150.0
M9-PFNA		**97.6**	50.0	150.0
MPFBA		**80.8**	50.0	150.0
MPFDoDA		**96.6**	50.0	150.0
d3N-MeFOSAA		**80.8**	50.0	150.0
d5EtFOSAA		**73.7**	50.0	150.0
MHFPO-DA		**98.5**	50.0	150.0

QC Report - Internal Standards per QC Sample

Organics - Volatiles, Prep Batch ID: PT220526W1

QC Types: BLK

Blank (BLK)

Lab Sample ID: DQ220526TOP.BLK220521

Run in Batch: DQ220526TOP, Run Date: 05/26/2022 11:55, Prep Date: 05/26/2022, Matrix: WW, Dilution: 6

Internal Standard	Flags	%Rec	LCL	UCL
M2-4:2FTSA		**106.9**	50.0	150.0
M2-6:2FTSA		**145.3**	50.0	150.0
M2-8:2FTSA		**142.3**	50.0	150.0
M2PFTeDA		**182.5**	12.0	218.0
M3PFBS		**104.9**	50.0	150.0
M3PFHxS		**109.0**	50.0	150.0
M4PFHpA		**104.8**	50.0	150.0
M5PFHxA		**110.9**	50.0	150.0
M5PFPeA		**56.2**	50.0	150.0
M6PFDA		**110.7**	50.0	150.0
M7PFUnDA		**123.0**	50.0	150.0
M8FOSA		**110.6**	50.0	150.0
M8PFOA		**105.6**	50.0	150.0
M8PFOS		**104.7**	50.0	150.0
M9-PFNA		**113.4**	50.0	150.0
MPFBA		**121.8**	50.0	150.0
MPFDoDA		**121.7**	50.0	150.0
d3N-MeFOSAA	*	**199.8**	50.0	150.0
d5EtFOSAA	*	**192.5**	50.0	150.0
MHFPO-DA		**94.9**	50.0	150.0

Organics - Volatiles, Prep Batch ID: PF220513W1

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

Blank (BLK)

Lab Sample ID: AK220513_29.BLK220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 19:16, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
PFBA		ND	3	ng/l
PFMPA		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
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
PFOA		ND	1	ng/l
PFHxS-BR		ND	1	ng/l
PFHxS		ND	1	ng/l
PFHxS-LN		ND	1	ng/l
PFNA		ND	1	ng/l
PFHpS		ND	1	ng/l
8:2 FTSA		ND	1	ng/l
PFDA		ND	1	ng/l
N-MeFOSAA		ND	1	ng/l
PFOS-BR		ND	1	ng/l
PFOS		ND	1	ng/l
EtFOSAA		ND	1	ng/l
PFOS-LN		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
PFTrDA		ND	1	ng/l
11CL-PF3OUdS		ND	1	ng/l
PFTeDA		ND	1	ng/l
FOSA		ND	1	ng/l

Laboratory Control Sample (LCS)

Lab Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:36, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
PFBA		98.4	70.0	130.0
PFMPA		87.0	70.0	130.0
PFPeA		105.8	70.0	130.0
PFMBA		91.4	70.0	130.0
4:2 FTSA		85.0	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF220513W1 (continued)

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

Laboratory Control Sample (LCS) (continued)

Lab Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:36, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
NFDHA		84.2	70.0	130.0
PFHxA		103.2	70.0	130.0
PFBS		93.4	70.0	130.0
HFPO-DA		85.8	70.0	130.0
PFEESA		89.6	70.0	130.0
PFHpA		103.6	70.0	130.0
PFPeS		98.2	70.0	130.0
ADONA		120.8	70.0	130.0
6:2 FTSA		84.4	70.0	130.0
PFOA		95.8	70.0	130.0
PFHxS		106.4	70.0	130.0
PFNA		98.8	70.0	130.0
PFHpS		93.2	70.0	130.0
8:2 FTSA		91.6	70.0	130.0
PFDA		91.8	70.0	130.0
N-MeFOSAA		83.6	70.0	130.0
PFOS		102.8	70.0	130.0
EtFOSAA		95.4	70.0	130.0
PFUnDA		97.2	70.0	130.0
9CL-PF3ONS		87.0	70.0	130.0
PFNS		99.2	70.0	130.0
PFDoDA		87.4	70.0	130.0
PFDS		86.6	70.0	130.0
PFTrDA		111.8	70.0	130.0
11CL-PF3OUdS		86.4	70.0	130.0
PFTeDA		101.0	70.0	130.0
FOSA		99.2	70.0	130.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: AK220513_29.LCSD220513, Parent Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:56, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFBA		94.4	70.0	130.0	4.1	30.0
PFMPA		83.2	70.0	130.0	4.5	30.0
PFPeA		92.0	70.0	130.0	14.0	30.0
PFMBA		80.2	70.0	130.0	13.1	30.0
4:2 FTSA		86.8	70.0	130.0	2.1	30.0
NFDHA		83.4	70.0	130.0	1.0	30.0
PFHxA		102.2	70.0	130.0	1.0	30.0
PFBS		94.6	70.0	130.0	1.3	30.0
HFPO-DA		95.8	70.0	130.0	11.0	30.0
PFEESA		86.6	70.0	130.0	3.4	30.0
PFHpA		99.0	70.0	130.0	4.5	30.0
PFPeS		97.6	70.0	130.0	0.6	30.0
ADONA		96.8	70.0	130.0	22.1	30.0
6:2 FTSA		81.2	70.0	130.0	3.9	30.0

Organics - Volatiles, Prep Batch ID: PF220513W1 (continued)

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

Laboratory Control Sample Duplicate (LCSD) (continued)

Lab Sample ID: AK220513_29.LCSD220513, Parent Sample ID: AK220513_29.LCS220513

Run in Batch: AK220513_29, Run Date: 05/13/2022 18:56, Prep Date: 05/13/2022, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
PFOA		97.6	70.0	130.0	1.9	30.0
PFHxS		97.2	70.0	130.0	9.0	30.0
PFNA		111.6	70.0	130.0	12.2	30.0
PFHpS		94.6	70.0	130.0	1.5	30.0
8:2 FTSA		77.8	70.0	130.0	16.3	30.0
PFDA		85.4	70.0	130.0	7.2	30.0
N-MeFOSAA		89.0	70.0	130.0	6.3	30.0
PFOS		90.0	70.0	130.0	13.3	30.0
EtFOSAA		95.0	70.0	130.0	0.4	30.0
PFUnDA		97.0	70.0	130.0	0.2	30.0
9CL-PF3ONS		82.2	70.0	130.0	5.7	30.0
PFNS		81.8	70.0	130.0	19.2	30.0
PFDoDA		87.2	70.0	130.0	0.2	30.0
PFDS		86.4	70.0	130.0	0.2	30.0
PFTrDA		106.8	70.0	130.0	4.6	30.0
11CL-PF3OUdS		75.4	70.0	130.0	13.6	30.0
PFTeDA		95.4	70.0	130.0	5.7	30.0
FOSA		96.6	70.0	130.0	2.7	30.0

Matrix Spike (MS)

Lab Sample ID: AK220513_29.3555501M, Parent Sample ID: S35555.01

Run in Batch: AK220513_29, Run Date: 05/14/2022 00:21, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.01

Analyte	Flags	% Rec	LCL	UCL
PFBA		108.9	70.0	130.0
PFPeA		102.7	70.0	130.0
4:2 FTSA		93.1	70.0	130.0
PFHxA		109.0	70.0	130.0
PFBS		113.8	70.0	130.0
PFHpA		108.9	70.0	130.0
PFPeS		108.9	70.0	130.0
6:2 FTSA		91.7	70.0	130.0
PFOA		105.3	70.0	130.0
PFHxS		113.8	70.0	130.0
PFNA		108.9	70.0	130.0
8:2 FTSA		99.0	70.0	130.0
PFHpS		108.9	70.0	130.0
PFDA		108.9	70.0	130.0
N-MeFOSAA		99.0	70.0	130.0
EtFOSAA		85.1	70.0	130.0
PFOS		106.9	70.0	130.0
PFUnDA		99.0	70.0	130.0
PFNS		93.1	70.0	130.0
PFDoDA		108.9	70.0	130.0
PFDS		99.0	70.0	130.0
PFTrDA		118.8	70.0	130.0
FOSA		108.9	70.0	130.0

Organics - Volatiles, Prep Batch ID: PF220513W1 (continued)

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

Matrix Spike (MS) (continued)

Lab Sample ID: AK220513_29.3555501M, Parent Sample ID: S35555.01

Run in Batch: AK220513_29, Run Date: 05/14/2022 00:21, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.01

Analyte	Flags	% Rec	LCL	UCL
PFTeDA		97.0	70.0	130.0
11CL-PF3OUdS		91.1	70.0	130.0
9CL-PF3ONS		95.0	70.0	130.0
ADONA		108.9	70.0	130.0
HFPO-DA		99.0	70.0	130.0
NFDHA		96.0	70.0	130.0
PFEESA		94.1	70.0	130.0
PFMBA		98.0	70.0	130.0
PFMPA		99.0	70.0	130.0

Duplicate (DUP)

Lab Sample ID: AK220513_29.3595801D, Parent Sample ID: S35958.01

Run in Batch: AK220513_29, Run Date: 05/13/2022 21:45, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.08

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
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
PFTrDA		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

Organics - Volatiles, Prep Batch ID: PF220513W1 (continued)

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

Duplicate (DUP) (continued)

Lab Sample ID: AK220513_29.3595801D, Parent Sample ID: S35958.01

Run in Batch: AK220513_29, Run Date: 05/13/2022 21:45, Prep Date: 05/13/2022, Matrix: WW, Dilution: 2.08

Analyte	Flags	RPD	RPD CL
NFDHA		NC	30.0
PFEESA		NC	30.0
PFMBA		NC	30.0
PFMPA		NC	30.0

Organics - Volatiles, Prep Batch ID: PT220526W1

Surrogates: Yes, QC Types: BLK

Blank (BLK)

Lab Sample ID: DQ220526TOP.BLK220521

Run in Batch: DQ220526TOP, Run Date: 05/26/2022 11:55, Prep Date: 05/26/2022, Matrix: WW, Dilution: 6

Analyte	Flags	Conc	RDL	Units
PFMPA		ND	1	ng/l
FPrPA (3:3 FTCA)		ND	1	ng/l
PFPrS		ND	1	ng/l
PFMBA		ND	1	ng/l
NFDHA		ND	1	ng/l
FPePA (5:3 FTCA)		ND	1	ng/l
PFEESA		ND	1	ng/l
PFBSA		ND	1	ng/l
FHpPA (7:3 FTCA)		ND	1	ng/l
PFECHS		ND	1	ng/l
PFHxSA		ND	1	ng/l
PFBA	*	6.40	5	ng/l
PFPeA	*	8.39	2	ng/l
4:2 FTSA		ND	1	ng/l
PFHxA	*	5.05	1	ng/l
PFBS		ND	1	ng/l
PFHpA		ND	1	ng/l
PFPeS		ND	1	ng/l
6:2 FTSA		ND	1	ng/l
PFOA		ND	1	ng/l
PFHxS		ND	1	ng/l
PFHxS-LN		ND	1	ng/l
PFHxS-BR		ND	1	ng/l
PFNA		ND	1	ng/l
8:2 FTSA		ND	1	ng/l
PFHpS		ND	1	ng/l
PFDA		ND	1	ng/l
N-MeFOSAA		ND	1	ng/l
EtFOSAA		ND	2	ng/l
PFOS		ND	1	ng/l
PFOS-LN		ND	1	ng/l
PFOS-BR		ND	1	ng/l
PFUnDA		ND	1	ng/l
PFNS		ND	1	ng/l
PFDoDA		ND	1	ng/l
PFDS		ND	1	ng/l
PFTrDA		ND	1	ng/l
FOSA		ND	1	ng/l
PFTeDA		ND	2	ng/l
11CL-PF3OUdS		ND	1	ng/l
9CL-PF3ONS		ND	1	ng/l
ADONA		ND	1	ng/l
HFPO-DA		ND	1	ng/l

Merit Laboratories, Inc.
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C.O.C. PAGE # 1 OF 1

145677

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz / Kevin Schneider
COMPANY: Ramboll
ADDRESS: 2090 Commonwealth Blvd
CITY: Ann Arbor STATE: MI ZIP CODE: 48105
PHONE NO.: 313-378-0211 FAX NO.: P.O. NO.:
E-MAIL ADDRESS: clifford.yantz@ramboll.com QUOTE NO.:

INVOICE TO

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

PROJECT NO./NAME: RACER Hemphill Rd 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 CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES

Project Locations
☐ Detroit ☐ New York
☐ Other

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	PFAS (TOTAL)	TOP Analysis PFAS	Special Instructions
35526.01	4/29/22	1407	MW-403	GW	9	9							X	X	Low-Level Reporting limit with estimated values
.02	↓	1450	MW-401	GW	3	3							X		
.03		1522	Field Blank-042922	GW	1	1							X		
.04		1555	SAN-03	L	3	3							X		

PFAS

RELINQUISHED BY: SIGNATURE/ORGANIZATION	☒ Sampler	DATE 4/29/22	TIME 1600	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 4/29/22	TIME 16:00	
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 11:17	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 5/02/22	TIME 11:17	

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 13:30	
RECEIVED BY: SIGNATURE/ORGANIZATION		DATE 5/2/22	TIME 1350	

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 2.8

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

Rev. 5.18.12