

SUBJECT
2025 PFAS Groundwater Sampling
Memorandum
RACER Trust – Buick City, Flint, Michigan

TO
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30275629

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This memorandum summarizes the results of the November 2025 groundwater monitoring event completed at the Revitalizing Auto Communities Environmental Response (RACER) Buick City (site) located in Flint, Michigan. The groundwater monitoring event consisted of gauging water levels and sampling groundwater at select monitoring wells for analysis of per- and polyfluoroalkyl substances (PFAS). Sampling procedures were completed in accordance with the October 1, 2025 memorandum *2025 Groundwater PFAS Sampling Plan*. Additional wells were sampled per request by Michigan Department of Environment, Great Lakes, and Energy (EGLE), as listed below and included in the revised sampling plan by the same title dated December 26, 2025.

The purpose of the sampling was to assess trends in plume concentrations for the three primary PFAS plumes identified in the southern portion of the RACER site. The PFAS plumes are shown on **Figure 1** with the southern plumes identified as Plumes 1, 2, and 3. The three southern plumes are associated with the source areas located north of Hamilton Ave in the Building 44 area (Plume 1), at the north end of Building 40 (Plume 2), and at Building 16 (Plume 3). The three plumes and the data used define plume boundaries are shown on **Figure 2**. The plume extents were interpreted to show plume hotspots relative to lower concentrations in the area. For this evaluation and purposes of discussion, the plumes are defined as areas where PFAS concentrations are greater than 10 times the Michigan Part 201 Groundwater-Surface Water Interface Criteria (GSI criteria).

An interim measure for Plume 1 is currently being developed. The proposed interim measure includes construction and operation of a groundwater collection trench along the southern and eastern boundaries of the RACER property near the Plume 1 source area. Plume 1 sampling locations were identified in part to support development of a performance monitoring plan associated with that remedy, as referenced below.

The monitoring wells sampled during the November 2025 event, as well as the sampling rationale, are listed in **Table 1**. The sampled well locations are shown in **Figures 2** through **6**. Wells were selected for sampling to support evaluation of:

- Source area hotspot concentrations (Plumes 1, 2, and 3)
- Concentrations proximal to the proposed groundwater collection trench (Plume 1)
- Concentrations downgradient of the Plume 1 source area to evaluate potential plume migration
- Plume 2 centerline concentrations
- Concentrations along the Flint River to assess the groundwater-surface water interface (GSI) pathway
- Concentrations along Industrial Avenue to evaluate potential sewer infiltration
- Concentrations within the deeper alluvial sand (Plume 2; RFI-84-04I)

All groundwater samples were submitted to ALS Environmental (ALS) in Holland, Michigan and analyzed for PFAS in accordance with United States Environmental Protection Agency (USEPA) modified method ASTM-D7979. The analytical reports from ALS are provided as **Attachment 1**. The results of the sampling are provided in **Table 2**.

Groundwater Sampling Summary

Fifty-seven (57) monitoring wells were sampled from November 17 through 24, 2025. As described in the revised workplan (December 26, 2025), the following wells were added to the sampling network per request by EGLE: SB-04-34 (4-9); SB-04-100 (9-14); SB-04-64 (19-24); SB-16-23 (7-12); MW-09-86 (15-20); MW-84-77 (6-16); RFI-84-11S (3-13); and RFI-84-10S (7-12).

Six wells were either inaccessible or unable to be sampled due to the following reasons:

- MW-84-77(6-16), SB-04-80(7-12), RFI-09-13, and RFI-09-14 could not be located.
- MW-84-73(7-12) was observed to have NAPL when gauged.
- RFI-84-10S(7-12) was missing a J-Plug and well cover and dirt was observed in and around the well casing.

Sampling of MW-84-73(7-12) had been planned to represent shallow concentrations in the Plume 2 source.

Because this well was unable to be sampled, alternative wells were evaluated for sampling. The first alternative selected, MW-84-77(6-16), was unable to be located, so nearby well MW-84-76(10-15) was sampled instead.

The monitoring wells in the network have been categorized as shallow and deep. In general, the shallow wells represent the upper portion of the saturated zone and are installed at depths typically between 5 to 15 feet bgs. Shallow well screens typically intersect the water table, or the well screens are submerged up to a few feet. Deep wells are often co-located with shallow wells and represent deeper intervals, typically between 15 to 25 ft bgs, with well screens that are fully submerged by at least a few feet.

The observed groundwater elevations and shallow groundwater potentiometric surface contours for the November 2025 groundwater monitoring event are summarized in **Figure 3**. The laboratory analytical reports are provided as **Attachment 1** and groundwater sampling logs are provided as **Attachment 2**. The analytical results of the sampling are summarized in **Table 2**.

The primary exceedances for PFAS at the site are Perfluorooctanesulfonic acid (PFOS) and Perfluorohexanesulfonic acid (PFHxS). The magnitude of exceedance (relative to GSI criteria) for PFOS and PFHxS for shallow and deep monitoring wells are shown on **Figures 4** through **7**. PFOS and PFHxS were selected for depiction on the figures because they exhibit the greatest frequency of exceedance for the wells sampled. PFOS is the dominant exceedance in 91% of samples. PFHxS concentration was greater than PFOS in 23 of 57 samples (40% of samples), but only 3 had a greater relative exceedance for PFHxS (5% of samples: MW-09-80(12-17), MW-09-88(19.5-24.5), and RFI-09-09).

Additional evaluation of plume conditions and future sampling plans will be developed in coordination with EGLE to support the Plume 1 interim measures and additional characterization and trend analysis across other portions of the Site.

EGLE
April 14, 2026

Enclosures:

Tables:

Table 1 Monitoring Well Sampling List

Table 2 Summary of Monitoring Well Analytical Results – November 2025

Figures:

Figure 1 Site Layout - South End

Figure 2 Most Recent PFAS Results in Groundwater

Figure 3 Shallow Groundwater Elevation Contours – November 2025

Figure 4 November 2025 PFOS Results – Shallow Wells

Figure 5 November 2025 PFHxS Results – Shallow Wells

Figure 6 November 2025 PFOS Results – Deep Wells

Figure 7 November 2025 PFHxS Results – Deep Wells

Attachments:

Attachment 1 Laboratory Analytical Reports

Attachment 2 Groundwater Sampling Field Logs

Tables

Table 1
Monitoring Well Sampling List
RACER Trust Buick City
Flint, Michigan



Well ID	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Ground Elevation (ft AMSL)	Top of Casing (ft AMSL)	Top of Screen (ft AMSL)	Bottom of Screen (ft AMSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft AMSL)	Water Column Thickness	Zone ¹	Sampling Rationale ²
MW-04-01	5	10	740.72	740.72	735.72	730.72	8.90	731.82	1.10	shallow	6
MW-04-156(9-14)	9	14	734.66	737.70	725.66	720.66	9.17	728.53	7.87	shallow	1
MW-04-159(4-9)	4	9	730.04	729.57	726.04	721.04	2.57	727.00	5.96	shallow	3 & 4
MW-04-79(11-16)	11	16	724.22	724.16	713.22	708.22	7.82	716.34	8.12	shallow	4
MW-09-78(5-15)	5	15	722.78	722.42	717.78	707.78	8.65	713.77	5.99	shallow	4
MW-09-81(5-10)	5	10	729.47	728.86	724.47	719.47	5.19	723.67	4.20	shallow	4
MW-09-83(6-11)	6	11	722.35	722.00	716.35	711.35	10.25	711.75	0.40	shallow	4
MW-09-85(8-13)	8	13	719.97	719.62	711.97	706.97	10.60	709.02	2.05	shallow	5
MW-09-87(4-7)	4	7	727.84	728.49	723.84	720.84	2.70	725.79	4.95	shallow	3 & 4
MW-09-88(5-15)	5	15	727.69	727.50	722.69	712.69	2.35	725.15	12.47	shallow	3 & 4
MW-09-89(5-10)	5	10	727.36	726.91	722.36	717.36	2.90	724.01	6.65	shallow	3 & 4
MW-09-93(4-9)	4	9	727.80	727.62	723.80	718.80	2.33	725.29	6.49	shallow	3 & 4
MW-84-01D	10	20	715.17	718.00	705.17	695.17	13.25	704.75	9.58	shallow	5
MW-84-02D	16	26	716.97	719.91	700.97	690.97	15.90	704.01	13.04	shallow	5
MW-84-03D	17	22	716.75	719.62	699.75	694.75	15.90	703.72	8.97	shallow	5
MW-84-04D	12	22	718.92	718.54	706.92	696.92	10.30	708.24	11.32	shallow	5
MW-84-15	3	13	727.61	727.38	724.61	714.61	2.07	725.31	10.70	shallow	3 & 4
MW-84-48(7-12)	7	12	725.36	728.08	718.36	713.36	6.10	721.98	8.62	shallow	4
MW-84-50(10-15)	10	15	727.66	730.00	717.66	712.66	7.80	722.20	9.54	shallow	4
MW-84-52(10-15)	10	15	723.49	726.07	713.49	708.49	11.30	714.77	6.28	shallow	4
MW-84-56(10-15)	10	15	721.53	725.91	711.53	706.53	13.95	711.96	5.43	shallow	4
MW-84-76(10-15) ³	10	15	728.10	727.77	718.10	713.10	6.10	721.67	8.57	shallow	2
RFI-09-08	3.8	13.8	728.71	728.45	724.91	714.91	6.97	721.48	6.57	shallow	4
RFI-09-09	3.8	13.8	728.67	728.20	724.87	714.87	5.45	722.75	7.88	shallow	4
RFI-09-44	5	15	728.48	728.22	723.48	713.48	5.42	722.80	9.32	shallow	4
RFI-09-48	8	18	719.88	719.69	711.88	701.88	11.85	707.84	5.96	shallow	5
RFI-09-52	5	15	730.49	730.21	725.49	715.49	6.08	724.13	8.64	shallow	4

Table 1
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RACER Trust Buick City
Flint, Michigan



Well ID	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Ground Elevation (ft AMSL)	Top of Casing (ft AMSL)	Top of Screen (ft AMSL)	Bottom of Screen (ft AMSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft AMSL)	Water Column Thickness	Zone ¹	Sampling Rationale ²
RFI-09-55S	5	15	728.02	728.02	723.02	713.02	8.20	719.82	6.80	shallow	4
RFI-17-02	4	14	720.66	720.27	716.66	706.66	4.89	715.38	8.72	shallow	2
RFI-84-07S	11	21	727.53	727.12	716.53	706.53	8.00	719.12	12.59	shallow	2
RFI-84-11S(3-13)	3	13	722.52	721.97	719.52	709.52	3.15	718.82	9.30	shallow	2
SB-04-100(9-14)	9	14	734.11	737.04	725.11	720.11	8.72	728.32	8.21	shallow	1
SB-04-26(5-10)	5	10	729.77	729.55	724.77	719.77	2.13	727.42	7.65	shallow	3 & 4
SB-04-34(4-9)	4	9	734.04	737.68	730.04	725.04	8.23	729.45	4.41	shallow	1
SB-16-18(9.5-14.5)	9.5	14.5	736.51	737.24	727.01	722.01	6.23	731.01	9.00	shallow	4
SB-16-23(7-12)	7	12	736.12	737.80	729.12	724.12	6.70	731.10	6.98	shallow	4
SB-84-23(11-16)	11	16	727.59	729.91	716.59	711.59	9.60	720.31	8.72	shallow	4
BD01-04	11	21	736.33	736.02	725.33	715.33	17.65	718.37	3.04	shallow	6
04-160	15	22	729.61	729.26	714.61	707.61	3.95	725.31	17.70	deep	4
MW-04-156(20-25)	20	25	734.66	737.82	714.66	709.66	8.90	728.92	19.26	deep	1
MW-04-159(18-23)	18	23	730.07	729.71	712.07	707.07	5.72	723.99	16.92	deep	4
MW-04-80(12-17)	12	17	726.83	726.39	714.83	709.83	6.39	720.00	10.17	deep	4
MW-09-80(12-17)	12	17	729.53	730.57	717.53	712.53	6.39	724.18	11.65	deep	4
MW-09-81(14-19)	14	19	729.53	728.97	715.53	710.53	5.00	723.97	13.44	deep	4
MW-09-85(14-19)	14	19	719.97	719.69	705.97	700.97	11.25	708.44	7.47	deep	5
MW-09-86(15-20)	15	20	730.07	729.80	715.07	710.07	4.20	725.60	15.53	deep	3 & 4
MW-09-87(10-20)	10	20	728.77	728.41	718.77	708.77	4.15	724.26	15.49	deep	3 & 4
MW-09-88(19.5-24.5)	19.5	24.5	727.84	727.48	708.34	703.34	2.92	724.56	21.22	deep	3 & 4
MW-09-93(14-19)	14	19	728.20	727.68	714.20	709.20	2.57	725.11	15.91	deep	3 & 4
MW-09-93(20-25)	20	25	728.11	727.54	708.11	703.11	2.55	724.99	21.88	deep	3 & 4
MW-84-59(17-27)	17	27	721.25	722.88	704.25	694.25	10.25	712.63	18.39	deep	4
MW-84-73(28-33)	28	33	733.20	733.02	705.20	700.20	11.28	721.74	21.55	deep	1
RFI-09-09D	17	22	728.30	728.30	711.30	706.30	6.52	721.78	15.48	deep	4
RFI-09-55DR	13	18	728.37	727.89	715.37	710.37	8.00	719.89	9.52	deep	4

Table 1
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RACER Trust Buick City
Flint, Michigan



Well ID	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Ground Elevation (ft AMSL)	Top of Casing (ft AMSL)	Top of Screen (ft AMSL)	Bottom of Screen (ft AMSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft AMSL)	Water Column Thickness	Zone ¹	Sampling Rationale ²
RFI-17-02D	14	24	720.66	720.36	706.66	696.66	4.39	715.97	19.31	deep	2
RFI-84-04I	29	34	727.69	727.23	698.69	693.69	9.35	717.88	24.19	deep	7
SB-04-64(19-24)	19	24	733.43	736.93	714.43	709.43	8.28	728.65	19.22	deep	1

Notes:

ft bgs = feet below ground surface

ft AMSL = feet above mean sea level

ft BTOC - feet below top of casing

¹ Rationale:

1. Source area hotspot concentrations (Plumes 1, 2, and 3);
2. Plume 2 centerline concentrations;
3. Concentrations proximal to the proposed interceptor trench (Plume 1);
4. Concentrations downgradient of the Plume source area for plume migration analysis;
5. Concentrations along the Flint River for GSI assessment;
6. Concentrations along Industrial Avenue for sewer infiltration assessment; and
7. Deep sand zone for vertical delineation assessment (well RFI-84-04I).

² Zone: Shallow wells represent the upper portion of the saturated zone installed at depths typically between 5 to 15 feet bgs. Deep wells represent deeper intervals, typically between 15 to 25 ft bgs.

³ MW-84-76(10-15) was added to the shallow well list as a replacement well because MW-84-77(6-16) was not able to be located.

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			04-160	BD01-04	MW-04-01	MW-04-156(20-25)	MW-04-156(9-14)	MW-04-159(18-23)	MW-04-159(4-9)	MW-04-79(11-16)
Sample ID			04-160_111725	BD01-04_112425	MW-04-01_112025	MW-04-156(20-25)_111925	MW-04-156(9-14)_111925	MW-04-159 (18-23)_111725	MW-04-159(4-9)_111725	MW-04-79(11-16)_112125
Date			11/17/2025	11/24/2025	11/20/2025	11/19/2025	11/19/2025	11/17/2025	11/17/2025	11/21/2025
Zone			deep	shallow	shallow	deep	shallow	deep	shallow	shallow
Screen Interval (ft bgs)			15-22	11-21	5-10	20-25	9-14	18-23	4-9	11-16
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.44 U	8.97 U	8.79 U	8.54 U	8.67 U	8.52 U [8.73 U]	8.68 U	8.46 U
4:2 FTS	ng/L	--	35.5 U	37.7 U	37.0 U	35.9 U	36.5 U	35.8 U [36.7 U]	36.5 U	35.5 U
6:2 FTS	ng/L	--	18.9 U	20.1 U	19.7 U	19.4 J	19.4 U	19.1 U [19.5 U]	19.4 U	18.9 U
8:2 FTS	ng/L	--	26.2 U	27.9 U	27.3 U	26.5 U	27.0 U	26.5 U [27.1 U]	27.0 U	26.3 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.91 U	3.10 U	3.04 U	2.95 U	2.99 U	2.94 U [3.01 U]	3.00 U	2.92 U
ADONA	ng/L	--	7.16 U	7.60 U	7.46 U	7.24 U	7.36 U	7.23 U [7.40 U]	7.36 U	7.17 U
HFPO-DA (GenX)	ng/L	--	37.5 U	39.8 U	39.0 U	37.9 U	38.5 U	37.8 U [38.7 U]	38.6 U	37.5 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	25.8 U	27.4 U	26.9 U	26.1 U	26.5 U	26.1 U [26.7 U]	26.6 U	25.9 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.2 U	21.4 U	21.0 U	20.4 U	20.8 U	20.4 U [20.9 U]	20.8 U	20.2 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	9.70	41.8	8.18 U	297	158	104 [106]	10.2	9.70
Perfluorobutanoic acid (PFBA)	ng/L	--	16.4 J	35.3 J	24.0 J	100	93.1	29.1 J [31.2 J]	14.8 J	16.0 J
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.09 U	7.53 U	7.39 U	7.17 U	7.29 U	7.16 U [7.33 U]	7.29 U	7.10 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.4 U	15.3 U	15.0 U	14.5 U	18.7 J	14.5 U [14.9 U]	14.8 U	14.4 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.4 U	30.2 U	29.6 U	28.7 U	29.2 U	28.7 U [29.4 U]	29.2 U	28.5 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	10.3 U	19.1 J	10.8 U	825	354	66.3 [71.6]	10.6 U	10.4 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	18.8 J	50.3 J	15.5 U	194	177	51.5 [59.0]	15.3 U	14.9 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	157	1460	82.1	9250	6300	1640 [1760]	209	155
Perfluorohexanoic acid (PFHxA)	ng/L	--	48.8	348	26.2 J	800	758	224 [214]	36.3 J	30.4 J
Perfluorononanesulfonic acid (PFNS)	ng/L	--	12.8 U	13.6 U	13.4 U	13.0 U	86.9	13.0 U [13.3 U]	13.2 U	12.8 U
Perfluorononanoic acid (PFNA)	ng/L	30	8.90 U	9.45 U	9.34 J	66.1	40.0	8.99 U [9.20 U]	9.16 U	11.0
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.84 U	8.33 U	8.17 U	7.93 U	17.2	7.91 U [8.10 U]	8.06 U	7.85 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	366	174	189	17200	44600	1970 [1950]	351	335
Perfluorooctanoic acid (PFOA)	ng/L	170	41.6	179	21.8	1040	583	213 [210]	38.6	27.7
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	16.0	100	5.30 U	585	301	173 [158]	12.9	9.69
Perfluoropentanoic acid (PFPeA)	ng/L	--	20.0 J	74.6	9.68 J	196	193	48.5 [46.9 J]	13.5 J	13.7 J
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.1 U	38.3 U	37.6 U	36.5 U	37.1 U	36.4 U [37.3 U]	37.1 U	36.1 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.0 U	18.1 U	17.7 U	17.2 U	17.5 U	17.2 U [17.6 U]	17.5 U	17.0 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.5 U	12.2 U	12.0 U	11.6 U	11.8 U	11.6 U [11.9 U]	11.8 U	11.5 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			MW-04-80(12-17)	MW-09-78(5-15)	MW-09-80(12-17)	MW-09-81(14-19)	MW-09-81(5-10)	MW-09-83(6-11)	MW-09-85(14-19)	MW-09-85(8-13)
Sample ID			MW-04-80(12-17)_112025	MW-09-78(5-15)_112125	MW-09-80(12-17)_111725	MW-09-81(14-19)_111725	MW-09-81(5-10)_111725	MW-09-83(6-11)_112125	MW-09-85(14-19)_112125	MW-09-85(8-13)_112125
Date			11/20/2025	11/21/2025	11/17/2025	11/17/2025	11/17/2025	11/21/2025	11/21/2025	11/21/2025
Zone			deep	shallow	deep	deep	shallow	shallow	deep	shallow
Screen Interval (ft bgs)			12-17	5-15	12-17	14-19	5-10	6-11	14-19	8-13
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.56 U	85.9 U	8.94 U	8.89 U	8.46 U [8.52 U]	8.62 U	8.67 U	8.59 U
4:2 FTS	ng/L	--	36.0 U	361 U	37.6 U	37.4 U	35.6 U [35.8 U]	36.2 U	36.4 U	36.1 U
6:2 FTS	ng/L	--	19.2 U	192 U	20.0 U	19.9 U	18.9 U [19.1 U]	19.3 U	19.4 U	19.2 U
8:2 FTS	ng/L	--	26.6 U	267 U	27.8 SU	27.6 U	26.3 U [26.5 U]	26.8 U	26.9 U	26.7 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.96 U	29.7 U	3.09 U	3.07 U	2.92 U [2.94 U]	2.98 U	2.99 U	2.96 U
ADONA	ng/L	--	7.26 U	72.9 U	7.58 U	7.54 U	7.18 U [7.23 U]	7.31 U	7.35 U	7.28 U
HFPO-DA (GenX)	ng/L	--	38.0 U	382 U	39.7 U	39.5 U	37.6 U [37.8 U]	38.3 U	38.5 U	38.1 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.2 U	263 U	27.3 U	27.2 U	25.9 U [26.1 U]	26.4 U	26.5 U	26.3 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.5 U	206 U	21.4 U	21.3 U	20.2 U [20.4 U]	20.6 U	20.7 U	20.5 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	86.3	1110	298	962	146 [145]	54.3	8.06 U	7.98 U
Perfluorobutanoic acid (PFBA)	ng/L	--	36.0 J	263 J	114	229	76.7 [78.5]	28.4 J	14.2 U	14.0 U
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.19 U	72.2 U	7.51 U	7.47 U	7.11 U [7.16 U]	7.24 U	7.28 U	7.21 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.6 U	146 U	15.2 U	15.1 U	14.4 U [14.5 U]	14.7 U	14.8 U	14.6 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.8 U	289 U	30.1 U	29.9 U	28.5 U [28.7 U]	29.0 U	29.2 U	28.9 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	133	463 J	11.0 U	1560	733 [688]	10.6 U	10.6 U	10.5 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	79.4	493	215	511	175 [178]	20.7 J	15.2 U	15.1 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	4820	16200	5320	35900	11200 [11500]	146	13.4 U	13.2 U
Perfluorohexanoic acid (PFHxA)	ng/L	--	270	2740	1880	4210 J	1250 [1230]	197	14.0 U	13.9 U
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.0 U	131 U	13.6 U	13.5 U	12.9 U [13.0 U]	13.1 U	13.2 U	13.0 U
Perfluorononanoic acid (PFNA)	ng/L	30	9.03 U	90.6 U	9.42 U	40.1	59.8 [59.8]	9.20 J	9.14 U	9.05 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.95 U	79.8 U	8.30 U	8.26 U	7.86 U [7.91 U]	8.00 U	8.05 U	7.97 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	2070	6820	62.4	41600	33900 [35500]	9.70	4.98 U	4.93 U
Perfluorooctanoic acid (PFOA)	ng/L	170	460	1730	447	3500	988 [995]	29.9	9.14 U	9.05 U
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	221	1860	587	2200	455 [437]	44.0	5.23 U	5.18 U
Perfluoropentanoic acid (PFPeA)	ng/L	--	67.2	466 J	300	579	209 [212]	40.0 J	7.86 U	7.79 U
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.6 U	367 U	38.2 U	38.0 U	36.2 U [36.4]	36.8 U	37.0 U	36.7 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.2 U	173 U	18.0 U	17.9 U	17.0 U [17.2 U]	17.4 U	17.5 U	17.3 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.7 U	117 U	12.2 U	12.1 U	11.5 U [11.6 U]	11.7 U	11.8 U	11.7 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			MW-09-86(15-20)	MW-09-87(10-20)	MW-09-87(4-7)	MW-09-88(19.5-24.5)	MW-09-88(5-15)	MW-09-89(5-10)	MW-09-93(14-19)	MW-09-93(20-25)
Sample ID			MW-09-86(15-20)_111825	MW-09-87(10-20)_111825	MW-09-87(4-7)_111825	MW-09-88(19.5-24.5)_111825	MW-09-88(5-15)_111825	MW-09-89(5-10)_111825	MW-09-93(14-19)_111825	MW-09-93(20-25)_111825
Date			11/18/2025	11/18/2025	11/18/2025	11/18/2025	11/18/2025	11/18/2025	11/18/2025	11/18/2025
Zone			deep	deep	shallow	deep	shallow	shallow	deep	deep
Screen Interval (ft bgs)			15-20	10-20	4-7	19.5-25.5	5-15	5-10	14-19	20-25
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.60 U	8.63 U	9.03 U [8.73 U]	43.3 U	8.71 U	8.54 U	8.55 U	8.48 U
4:2 FTS	ng/L	--	36.2 U	36.3 U	38.0 U [36.7 U]	182 U	36.6 U	35.9 U	36.0 U	35.6 U
6:2 FTS	ng/L	--	19.3 U	19.3 U	20.2 U [19.5 U]	96.8 U	19.5 U	19.1 U	19.1 U	19.0 U
8:2 FTS	ng/L	--	26.7 U	26.8 U	28.1 U [27.1 U]	134 U	27.1 U	26.5 U	26.6 U	26.4 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.97 U	2.98 U	3.12 U [3.01 U]	14.9 U	3.01 U	2.95 U	2.95 U	2.93 U
ADONA	ng/L	--	7.30 U	7.32 U	7.66 U [7.40 U]	36.7 U	7.39 U	7.24 U	7.26 U	7.19 U
HFPO-DA (GenX)	ng/L	--	38.2 U	38.3 U	40.1 U [38.7 U]	192 U	38.7 U	37.9 U	38.0 U	37.6 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.3 U	26.4 U	27.6 U [26.7 U]	132 U	26.6 U	26.1 U	26.2 U	25.9 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.6 U	20.7 U	21.6 U [20.9 U]	103 U	20.8 U	20.4 U	20.5 U	20.3 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	17.2	927	204 [193]	1260	16.9	8.18 J	6700	6210
Perfluorobutanoic acid (PFBA)	ng/L	--	24.9 J	232	88.2 [85.7]	354	28.1 J	19.1 J	1460	1300
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.22 U	7.25 U	7.59 U [7.33 U]	36.3 U	7.31 U	7.17 U	7.19 U	7.12 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.6 U	14.7 U	15.4 U [14.9 U]	73.7 U	14.8 U	14.5 U	14.6 U	14.4 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.9 U	29.1 U	30.4 U [29.4 U]	146 U	29.3 U	28.7 U	28.8 U	28.5 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	10.5 U	397	819 [781]	77.9 J	28.4 J	10.5 U	5200	4540
Perfluoroheptanoic acid (PFHpA)	ng/L	--	25.2 J	463	213 [208]	434	81.8	19.6 J	1750	1570
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	211	19100	16100 [17800]	6520	628	167	152000	134000
Perfluorohexanoic acid (PFHxA)	ng/L	--	116	3950 J	1560 [1550]	2520	135	43.6 J	18800	16600
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.1 U	13.1 U	13.7 U [13.3 U]	65.7 U	13.2 U	13.0 U	31.7 J	18.9 J
Perfluorononanoic acid (PFNA)	ng/L	30	10.3	9.10 U	22.5 [18.2]	45.6 U	41.0	9.96	68.5	54.4
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.99 U	8.02 U	8.39 U [8.10 U]	40.2 U	8.09 U	7.93 U	7.94 U	7.87 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	140	7560	18300 [17900]	253	1880	307	140000	92300
Perfluorooctanoic acid (PFOA)	ng/L	170	47.8	1600	1580 [1500]	817	220	38.1	14900	13900
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	25.4	1820	672 [647]	1170	32.8	10.4	13300	12200
Perfluoropentanoic acid (PFPeA)	ng/L	--	36.7 J	568	221 [216]	539	65.8	23.7 J	2780	2520
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.8 U	36.9 U	38.6 U [37.3 U]	185 U	37.2 U	36.5 U	36.6 U	36.2 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.3 U	17.4 U	18.2 U [17.6 U]	87.1 U	17.5 U	17.2 U	17.2 U	17.1 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.7 U	11.8 U	12.3 U [11.9 U]	58.9 U	11.9 U	11.6 U	11.7 U	11.6 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			MW-09-93(4-9)	MW-84-01D	MW-84-02D	MW-84-03D	MW-84-04D	MW-84-15	MW-84-48(7-12)	MW-84-50(10-15)
Sample ID			MW-09-93(4-9)_111825	MW-84-01D_112025	MW-84-02D_112025	MW-84-03D_112025	MW-84-04D_112125	MW-84-15_112425	MW-84-48(7-12)_111825	MW-84-50(10-15)_111925
Date			11/18/2025	11/20/2025	11/20/2025	11/20/2025	11/21/2025	11/24/2025	11/18/2025	11/19/2025
Zone			shallow	shallow	shallow	shallow	shallow	shallow	shallow	shallow
Screen Interval (ft bgs)			4-9	10-20	16-26	17-22	12-22	3-13	7-12	10-15
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.56 U	8.69 U	8.85 U	8.76 U	8.69 U	8.81 U	8.85 U [8.70 U]	8.65 U
4:2 FTS	ng/L	--	36.0 U	36.5 U	37.2 U	36.8 U	36.5 U	37.0 U	37.2 U [36.6 U]	36.4 U
6:2 FTS	ng/L	--	19.2 U	19.5 U	19.8 U	19.6 U	19.5 U	19.7 U	19.8 U [19.5 U]	19.4 U
8:2 FTS	ng/L	--	26.6 U	27.0 U	27.5 U	27.2 U	27.0 U	27.4 U	27.5 U [27.0 U]	26.9 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.96 U	3.00 U	3.05 U	3.02 U	3.00 U	3.04 U	3.05 U [3.00 U]	2.99 U
ADONA	ng/L	--	7.26 U	7.37 U	7.50 U	7.43 U	7.37 U	7.47 U	7.50 U [7.38 U]	7.34 U
HFPO-DA (GenX)	ng/L	--	38.0 U	38.6 U	39.3 U	38.9 U	38.6 U	39.1 U	39.3 U [38.6 U]	38.4 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.2 U	26.6 U	27.1 U	26.8 U	26.6 U	27.0 U	27.1 U [26.6 U]	26.5 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.5 U	20.8 U	21.2 U	21.0 U	20.8 U	21.1 U	21.2 U [20.8 U]	20.7 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	69.6	91.7	164	258	111	8.19 U	15.4 [14.2]	8.04 U
Perfluorobutanoic acid (PFBA)	ng/L	--	36.0 J	36.2 J	37.2 J	48.1 J	24.6 J	14.4 U	16.2 J [14.5 J]	16.3 J
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.19 U	7.30 U	7.43 U	7.36 U	7.30 U	7.40 U	7.43 U [7.31 U]	7.27 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.6 U	14.8 U	15.1 U	14.9 U	14.8 U	15.0 U	15.1 U [14.8 U]	14.7 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.8 U	29.2 U	29.8 U	29.5 U	29.2 U	29.7 U	29.8 U [29.3 U]	29.1 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	354	35.0 J	40.4 J	32.8 J	48.0	10.8 U	10.8 U [10.7 U]	10.6 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	76.3	31.6 J	21.1 J	39.1 J	19.5 J	15.5 U	15.6 U [15.3 U]	15.2 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	5820	522	840	1350	850	104	188 [194]	109
Perfluorohexanoic acid (PFHxA)	ng/L	--	606	90.7	102	134	67.0	28.9 J	28.4 J [32.6 J]	30.7 J
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.0 U	13.2 U	13.4 U	13.3 U	13.2 U	13.4 U	13.4 U [13.2 U]	13.1 U
Perfluorononanoic acid (PFNA)	ng/L	30	18.7	9.53 J	9.33 U	11.6	9.16 U	9.29 U	11.5 [11.1]	9.12 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.95 U	8.07 U	8.21 U	8.13 U	8.07 U	8.18 U	8.21 U [8.08 U]	8.03 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	13000	1000	1360	1070	2010	120	437 [446]	48.9
Perfluorooctanoic acid (PFOA)	ng/L	170	513	81.1	84.4	143	71.8	39.2	34.2 [36.0]	24.4
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	209	100	174	285	132	8.63 J	13.7 [19.0]	9.05 J
Perfluoropentanoic acid (PFPeA)	ng/L	--	95.3	68.8	39.4 J	58.8	29.9 J	13.3 J	14.2 J [13.7 J]	12.9 J
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.6 U	37.1 U	37.8 U	37.4 U	37.1 U	37.7 U	37.8 U [37.2 U]	37.0 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.2 U	17.5 U	17.8 U	17.6 U	17.5 U	17.7 U	17.8 U [17.5 U]	17.4 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.7 U	11.8 U	12.1 U	11.9 U	11.8 U	12.0 U	12.1 U [11.9 U]	11.8 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			MW-84-52(10-15)	MW-84-56(10-15)	MW-84-59(17-27)	MW-84-73(28-33)	MW-84-76(10-15)	RFI-09-08	RFI-09-09	RFI-09-09D
Sample ID			MW-84-52_111725	MW-84-56_111725	MW-84-59(17-27)_111825	MW-84-73(28-33)_111925	MW-84-76(10-15)_112125	RFI-09-08_111825	RFI-09-09_111925	RFI-09-09D_111925
Date			11/17/2025	11/17/2025	11/18/2025	11/19/2025	11/21/2025	11/18/2025	11/19/2025	11/19/2025
Zone			shallow	shallow	deep	deep	shallow	shallow	shallow	deep
Screen Interval (ft bgs)			10-15	10-15	17-27	28-33	10-15	3.8-13.8	3.8-13.8	17-22
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.51 U	8.81 U	87.7 U	8.55 U	8.68 U	8.73 U	8.46 U	86.5 U
4:2 FTS	ng/L	--	35.8 U	37.0 U	369 U	35.9 U	36.5 U	36.7 U	35.5 U	364 U
6:2 FTS	ng/L	--	19.0 U	19.7 U	196 U	19.1 U	19.4 U	19.5 U	18.9 U	194 U
8:2 FTS	ng/L	--	26.5 U	27.4 U	273 U	26.6 U	27.0 U	27.2 U	26.3 U	269 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.94 U	3.04 U	30.3 U	2.95 U	3.00 U	3.02 U	2.92 U	29.9 U
ADONA	ng/L	--	7.22 U	7.47 U	74.4 U	7.25 U	7.36 U	7.41 U	7.17 U	73.4 U
HFPO-DA (GenX)	ng/L	--	37.8 U	39.1 U	389 U	37.9 U	38.6 U	38.8 U	37.5 U	384 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.0 U	27.0 U	268 U	26.1 U	26.6 U	26.7 U	25.9 U	265 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.4 U	21.1 U	210 U	20.4 U	20.8 U	20.9 U	20.2 U	207 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	13.5	11.3	303	7.95 U	3210	52.6	42.0	474
Perfluorobutanoic acid (PFBA)	ng/L	--	25.0 J	14.4 U	143 U	15.5 J	431	24.1 J	35.2 J	187 J
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.15 U	7.40 U	73.6 U	7.18 U	7.29 U	7.34 U	7.10 U	72.7 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.5 U	15.0 U	149 U	14.6 U	26.6 J	14.9 U	14.4 U	147 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.6 U	29.7 U	295 U	28.8 U	29.2 U	29.4 U	28.5 U	291 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	10.4 U	10.8 U	171 J	10.5 U	2920	10.7 U	10.4 U	304 J
Perfluoroheptanoic acid (PFHpA)	ng/L	--	24.9 J	15.5 U	183 J	15.0 U	324	16.9 J	46.1 J	308 J
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	202	154	4220	30.4 J	29500	486	2250	13600
Perfluorohexanoic acid (PFHxA)	ng/L	--	74.8	18.8 J	539	13.8 U	1490	132	318	2250
Perfluorononanesulfonic acid (PFNS)	ng/L	--	12.9 U	13.4 U	133 U	13.0 U	201	13.3 U	12.8 U	131 U
Perfluorononanoic acid (PFNA)	ng/L	30	8.97 U	9.29 U	92.4 U	9.01 U	17.8	9.21 U	8.92 U	91.2 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.90 U	8.18 U	81.4 U	7.94 U	107	8.11 U	7.85 U	80.3 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	131	27.7	1360	97.3	143000	5.02 U	17.8	1210
Perfluorooctanoic acid (PFOA)	ng/L	170	45.0	17.3	543	13.4	2190	27.3	99.3	1300
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	21.2	13.5	407	5.16 U	3760	80.6	119	1050
Perfluoropentanoic acid (PFPeA)	ng/L	--	34.5 J	7.99 U	131 J	9.95 J	570	25.7 J	55.1	378 J
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.4 U	37.7 U	375 U	36.5 U	37.1 U	37.3 U	36.1 U	370 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.1 U	17.7 U	177 U	17.2 U	17.5 U	17.6 U	17.0 U	174 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.6 U	12.0 U	119 U	11.6 U	11.8 U	11.9 U	11.5 U	118 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			RFI-09-44	RFI-09-48	RFI-09-52	RFI-09-55DR	RFI-09-55S	RFI-17-02	RFI-17-02D	RFI-84-04I
Sample ID			RFI-09-44_111725	RFI-09-48_112125	RFI-09-52_111725	RFI-09-55DR_111825	RFI-09-55S_111825	RFI-17-02_111925	RFI-17-02D_111925	RFI-84-04I_111925
Date			11/17/2025	11/21/2025	11/17/2025	11/18/2025	11/18/2025	11/19/2025	11/19/2025	11/19/2025
Zone			shallow	shallow	shallow	deep	shallow	shallow	deep	deep
Screen Interval (ft bgs)			5-15	8-18	5-15	13-18	5-15	4-14	14-24	29-34
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.77 U	8.78 U	8.72 U [43.4 U]	8.76 U	8.73 U	8.66 U	8.73 U	8.59 U
4:2 FTS	ng/L	--	36.9 U	36.9 U	36.6 U [183 U]	36.8 U	36.7 U	36.4 U	36.7 U	36.1 U
6:2 FTS	ng/L	--	19.6 U	19.6 U	19.5 U [97.2 U]	19.6 U	19.5 U	19.4 U	19.5 U	19.2 U
8:2 FTS	ng/L	--	27.3 U	27.3 U	27.1 U [135 U]	27.2 U	27.2 U	26.9 U	27.2 U	26.7 U
9CI-PF3ONS (F-53B Major)	ng/L	--	3.03 U	3.03 U	3.01 U [15.0 U]	3.02 U	3.02 U	2.99 U	3.02 U	2.96 U
ADONA	ng/L	--	7.44 U	7.44 U	7.39 U [36.8 U]	7.43 U	7.41 U	7.34 U	7.41 U	7.28 U
HFPO-DA (GenX)	ng/L	--	38.9 U	39.0 U	38.7 U [193 U]	38.9 U	38.8 U	38.4 U	38.8 U	38.1 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.8 U	26.8 U	26.7 U [133 U]	26.8 U	26.7 U	26.5 U	26.7 U	26.3 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	21.0 U	21.0 U	20.9 U [104 U]	21.0 U	20.9 U	20.7 U	20.9 U	20.5 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	19.3	97.4	341 [356]	63.3	8.12 U	70.0	173	282
Perfluorobutanoic acid (PFBA)	ng/L	--	17.5 J	38.1 J	167 [188 J]	44.7 J	14.3 U	18.2 J	38.7 J	85.4
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.36 U	7.37 U	7.32 U [36.5 U]	7.36 U	7.34 U	7.27 U	7.34 U	7.21 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.9 U	14.9 U	14.8 U [73.9 U]	14.9 U	14.9 U	14.7 U	14.9 U	14.6 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	29.5 U	29.5 U	29.3 U [146 U]	29.5 U	29.4 U	29.1 U	29.4 U	28.9 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	10.7 U	10.8 U	10.7 U [53.2 U]	10.7 U	10.7 U	39.4 J	102	10.5 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	16.1 J	53.1	193 [212 J]	32.3 J	15.4 U	16.9 J	35.6 J	49.6
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	633	855	872 [910]	148	94.8	652	1360	290
Perfluorohexanoic acid (PFHxA)	ng/L	--	121	188	2160 2230]	254	14.1 U	40.4 J	118	241
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.3 U	13.3 U	13.2 U [66.0 U]	13.3 U	13.3 U	13.2 U	13.3 U	13.0 U
Perfluorononanoic acid (PFNA)	ng/L	30	9.24 U	9.25 U	9.19 U [45.8 U]	9.24 U	9.21 U	9.13 U	11.9	9.05 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	8.14 U	8.15 U	8.09 U [40.3 U]	8.13 U	8.11 U	8.04 U	8.11 U	7.97 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	6.00 J	95.0	5.01 U [25.0 U]	6.97 J	30.7	1400	3750	118
Perfluorooctanoic acid (PFOA)	ng/L	170	23.2	133	170 [169]	22.7	9.21 U	64.6	140	78.9
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	44.3	118	419 [453]	39.6	5.27 U	83.5	214	170
Perfluoropentanoic acid (PFPeA)	ng/L	--	21.0 J	58.1	402 [399]	79.1	7.92 U	19.9 J	63.5	113
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	37.5 U	37.5 U	37.2 U [186 U]	37.4 U	37.3 U	37.0 U	37.3 U	36.7 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.7 U	17.7 U	17.6 U [87.4 U]	17.6 U	17.6 U	17.4 U	17.6 U	17.3 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.9 U	12.0 U	11.9 U [59.2 U]	11.9 U	11.9 U	11.8 U	11.9 U	11.7 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			RFI-84-07S	RFI-84-11S(3-13)	SB-04-100(9-14)	SB-04-26(5-10)	SB-04-34(4-9)	SB-04-64(19-24)	SB-16-18(9.5-14.5)	SB-16-23(7-12)
Sample ID			RFI-84-07S(10-15)_112125	RFI-84-11S_112125	SB-04-100(9-14)_111925	SB-04-26(5-10)_111725	SB-04-34(4-9)_111925	SB-04-64(19-24)_111825	SB-16-18_112025	SB-16-23_112025
Date			11/21/2025	11/21/2025	11/19/2025	11/17/2025	11/19/2025	11/18/2025	11/20/2025	11/20/2025
Zone			shallow	shallow	shallow	shallow	shallow	deep	shallow	shallow
Screen Interval (ft bgs)			10-15	3-13	9-14	5-10	4-9	19-24	9.5-14.5	7-12
Analyte	Units	GSI Criteria	Result	Result	Result	Result	Result	Result	Result	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.70 U	8.98 U	8.88 U [879 U]	8.56 U	8.65 U	8.48 U	8.37 U	8.64 U
4:2 FTS	ng/L	--	36.6 U	37.7 U	37.3 U [3700 U]	36.0 U	36.4 U	35.6 U	35.2 U	36.3 U
6:2 FTS	ng/L	--	19.5 U	20.1 U	19.9 U [1970 U]	19.2 U	19.4 U	19.0 U	92.7	19.3 U
8:2 FTS	ng/L	--	27.0 U	27.9 U	27.6 U [2730 U]	26.6 U	26.9 U	26.4 U	26.0 U	26.9 U
9CI-PF3ONS (F-53B Major)	ng/L	--	3.00 U	3.10 U	3.07 U [304 U]	2.96 U	2.99 U	2.93 U	2.89 U	2.98 U
ADONA	ng/L	--	7.38 U	7.61 U	7.53 U [746 U]	7.26 U	7.34 U	7.19 U	7.10 U	7.33 U
HFPO-DA (GenX)	ng/L	--	38.6 U	39.8 U	39.4 U [3900 U]	38.0 U	38.4 U	37.6 U	37.2 U	38.4 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.6 U	27.5 U	27.2 U [2690 U]	26.2 U	26.5 U	25.9 U	25.6 U	26.4 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.8 U	21.5 U	29.7 J [2100 U]	20.5 U	25.1 J	20.3 U	20.0 U	20.7 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	47.8	8.34 U	79.0 [818 U]	15.0	16900	13700	374	8.03 U
Perfluorobutanoic acid (PFBA)	ng/L	--	19.2 J	14.7 U	161 [1440 U]	35.5 J	1030	2850	99.3	14.1 U
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.31 U	7.54 U	7.46 U [739 U]	7.19 U	7.27 U	7.12 U	7.03 U	7.26 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.8 U	15.3 U	50.2 J [1500 U]	37.0 J	27.6 J	14.4 U	14.3 U	14.7 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	29.3 U	30.2 U	29.9 U [2960 U]	28.8 U	29.1 U	28.5 U	28.2 U	29.1 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	42.0 J	11.0 U	3570 J [3430 J]	20.6 J	100000	5660	308	10.6 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	15.3 U	15.8 U	241 [1500 U]	110	995	4790	150	15.2 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	383	17.8 J	5700 [5200]	522	1090000	175000	5860	37.7 J
Perfluorohexanoic acid (PFHxA)	ng/L	--	44.5 J	14.5 U	1050 [1420 U]	179	166000	35400	674	14.0 U
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.2 U	13.6 U	850 [1340 U]	13.0 U	1730	23.2 J	13.1 J	13.1 U
Perfluorononanoic acid (PFNA)	ng/L	30	9.17 U	9.46 U	64.9 [927 U]	56.4	57.6	72.1	21.9	9.11 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	8.08 U	8.33 U	211 [817 U]	7.95 U	688	7.87 U	7.77 U	8.02 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	5150	83.7	754000 [773000]	2140	8270000	125000	15800	149
Perfluorooctanoic acid (PFOA)	ng/L	170	35.7	9.46 U	1910 [1660]	294	95000	18800	526	15.3
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	55.9	5.41 U	222 [530 U]	27.5	49200	20800	462	5.21 U
Perfluoropentanoic acid (PFPeA)	ng/L	--	15.0 J	8.14 U	213 [798 U]	98.9	24600 J	5430	230	8.23 J
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	37.2 U	38.4 U	38.0 U [3760 U]	36.6 U	37.0 U	36.2 U	35.8 U	36.9 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.5 U	18.1 U	17.9 U [1770 U]	17.2 U	17.4 U	17.1 U	16.9 U	17.4 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.9 U	12.2 U	31.3 J [1200 U]	11.7 U	11.8 U	11.6 U	11.4 U	11.8 U

Table 2
Summary of Monitoring Well Analytical Results – November 2025
RACER Trust Buick City
Flint, Michigan

Location			SB-84-23(11-16)
Sample ID			SB-84-23(11-16)_111925
Date			11/19/2025
Zone			shallow
Screen Interval (ft bgs)			11-16
Analyte	Units	GSI Criteria	Result
11CI-PF3OUdS (F-53B Minor)	ng/L	--	8.60 U
4:2 FTS	ng/L	--	36.2 U
6:2 FTS	ng/L	--	19.3 U
8:2 FTS	ng/L	--	26.7 U
9CI-PF3ONS (F-53B Major)	ng/L	--	2.97 U
ADONA	ng/L	--	7.30 U
HFPO-DA (GenX)	ng/L	--	38.2 U
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	ng/L	--	26.3 U
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	ng/L	--	20.6 U
Perfluorobutanesulfonic acid (PFBS)	ng/L	670,000	8.00 U
Perfluorobutanoic acid (PFBA)	ng/L	--	14.1 U
Perfluorodecanesulfonic acid (PFDS)	ng/L	--	7.22 U
Perfluorodecanoic acid (PFDA)	ng/L	--	14.6 U
Perfluorododecanoic acid (PFDoA)	ng/L	--	28.9 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/L	--	10.5 U
Perfluoroheptanoic acid (PFHpA)	ng/L	--	15.1 U
Perfluorohexanesulfonic acid (PFHxS)	ng/L	210	13.3 U
Perfluorohexanoic acid (PFHxA)	ng/L	--	13.9 U
Perfluorononanesulfonic acid (PFNS)	ng/L	--	13.1 U
Perfluorononanoic acid (PFNA)	ng/L	30	9.07 U
Perfluorooctane Sulfonamide (FOSA)	ng/L	--	7.99 U
Perfluorooctane sulfonic acid (PFOS)	ng/L	12	5.07 J
Perfluorooctanoic acid (PFOA)	ng/L	170	9.07 U
Perfluoropentanesulfonic acid (PFPeS)	ng/L	--	5.19 U
Perfluoropentanoic acid (PFPeA)	ng/L	--	10.7 J
Perfluorotetradecanoic acid (PFTeA)	ng/L	--	36.8 U
Perfluorotridecanoic Acid (PFTriA)	ng/L	--	17.3 U
Perfluoroundecanoic acid (PFUnA)	ng/L	--	11.7 U

Notes

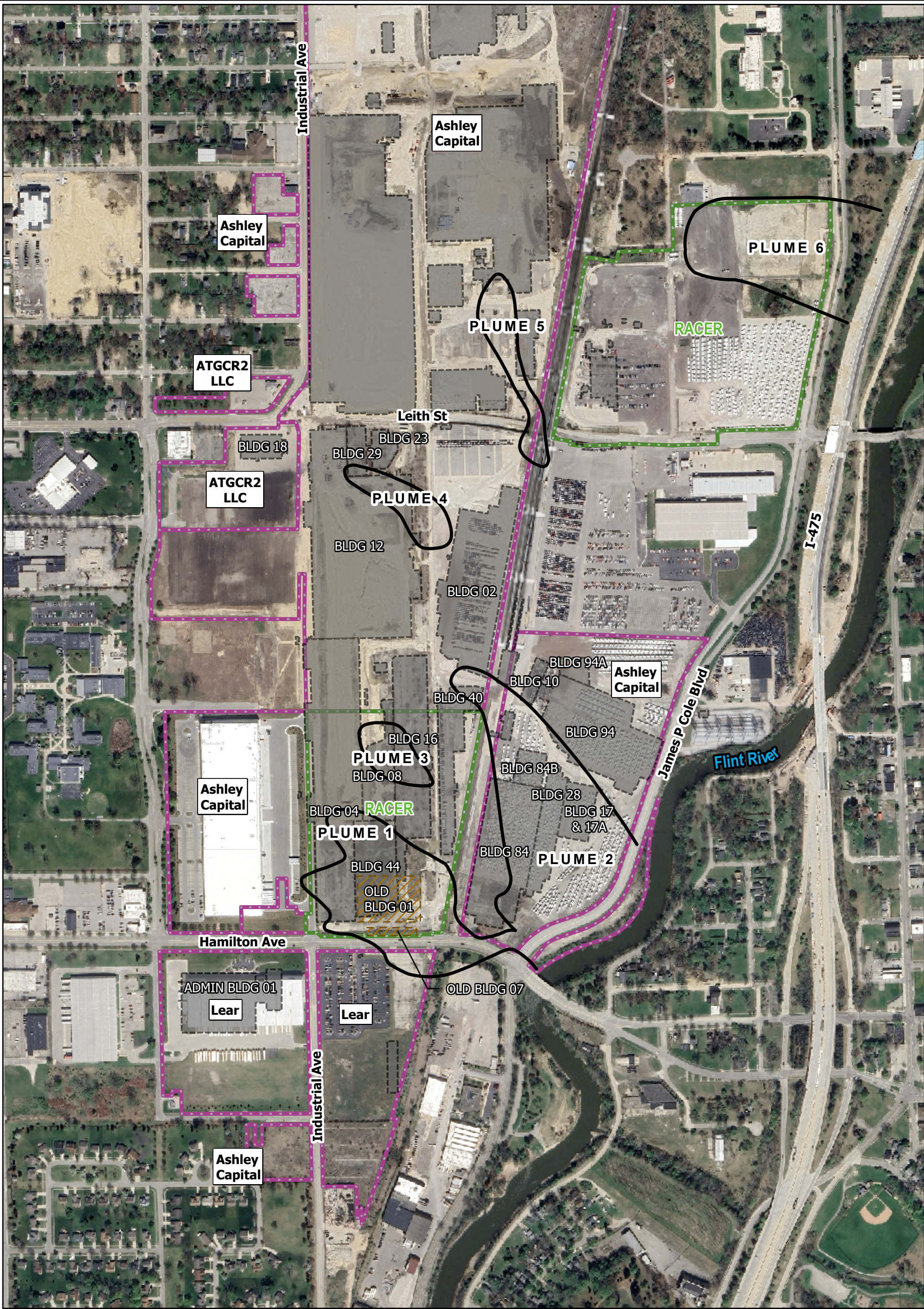
Duplicate analyses results are presented in brackets next to the parent sample results.
Zone: Shallow wells represent the upper portion of the saturated zone installed at depths typically between 5 to 15 feet bgs.
Deep wells represent deeper intervals, typically between 15 to 25 ft bgs.

Data Flagging represents data where detections were noted above the laboratory method detection limit.
Bold font represents results exceeding the EGLE GSI Criteria.
Gray shading

Abbreviations:
EGLE = Michigan Department of Environment, Great Lakes, and Energy
GSI Criteria = EGLE Groundwater Surface Water Interface Criteria (dated October 12, 2023)
ft bgs = feet below ground surface
ng/L = nanograms per liter
-- = No GSI Criteria

Lab and Validation Data Qualifiers:
U = The compound was analyzed for but not detected. The associated value is the method detection limit.
J = The analyte was detected between the method detection limit and reporting limit.

Figures



LEGEND

- PFAS Groundwater Plume > 10x SL
- Former Building Footprints
- Former Building Footprints (Even Older)
- Current RACER-owned Properties
- Former RACER-owned Properties

Note:
1. Aerial source: Google Earth, dated April 2025.

Acronyms:
PFAS = Per- and Polyfluoroalkyl Substances
SL = screening level, based on Michigan Part 201 Groundwater-Surface Water Interface Criteria
x = times
> = greater than

N

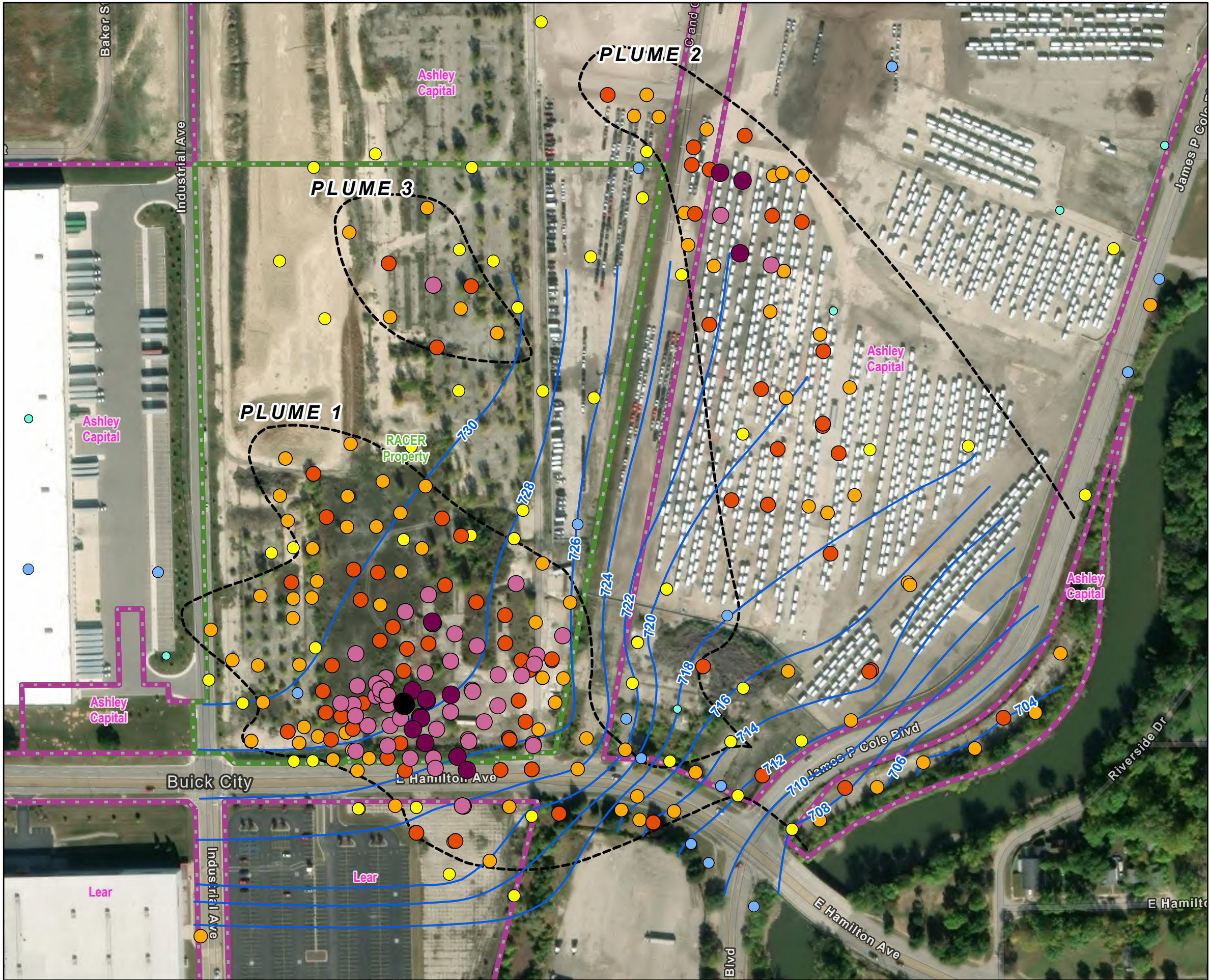
GRAPHIC SCALE IN FEET

RACER TRUST
BUICK CITY, FLINT, MI
2025 PFAS MW SAMPLING MEMORANDUM

SITE LAYOUT - SOUTH END

ARCADIS

FIGURE
1



LEGEND
Highest PFAS Exceedance in Groundwater Sample

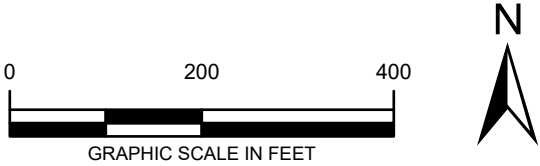
- Greater than 100,000x SL
- >10,000x to 100,000x the SL
- >1,000x to 10,000x the SL
- >100x to 1,000x the SL
- >10x to 100x the SL
- ≥SL to 10x the SL
- Detection < SL
- Non-detect (RL > SL)
- Non-detect (RL ≤ SL)
- Shallow Groundwater Elevation Contour - November 2025 (ft. amsl)
- Current RACER-owned Properties
- Former RACER-owned Properties
- PFAS Groundwater Plume > 10x the SL

Notes:

1. Symbol color represents the most recent sample and the highest PFAS SL exceedance for each location. It includes the November 2025 groundwater sampling data.

2. SL = screening level, based on Michigan Part 201 Groundwater-Surface Water Interface Criteria:
Perfluorobutane sulfonic acid (PFBS) = 670,000 ng/L
Perfluorohexane sulfonic acid (PFHxS) = 210 ng/L
Perfluorononanoic acid (PFNA) = 30 ng/L
Perfluorooctanoic acid (PFOA) = 170 ng/L
Perfluorooctane sulfonic acid (PFOS) = 12 ng/L

Acronyms:
PFAS = Per- and Polyfluoroalkyl Substances
RL = Reporting Limit
ft. amsl = feet above mean sea level
ng/L = nanograms per liter
x = times
> = greater than
< = less than
≥ = greater than or equal to
≤ = less than or equal to



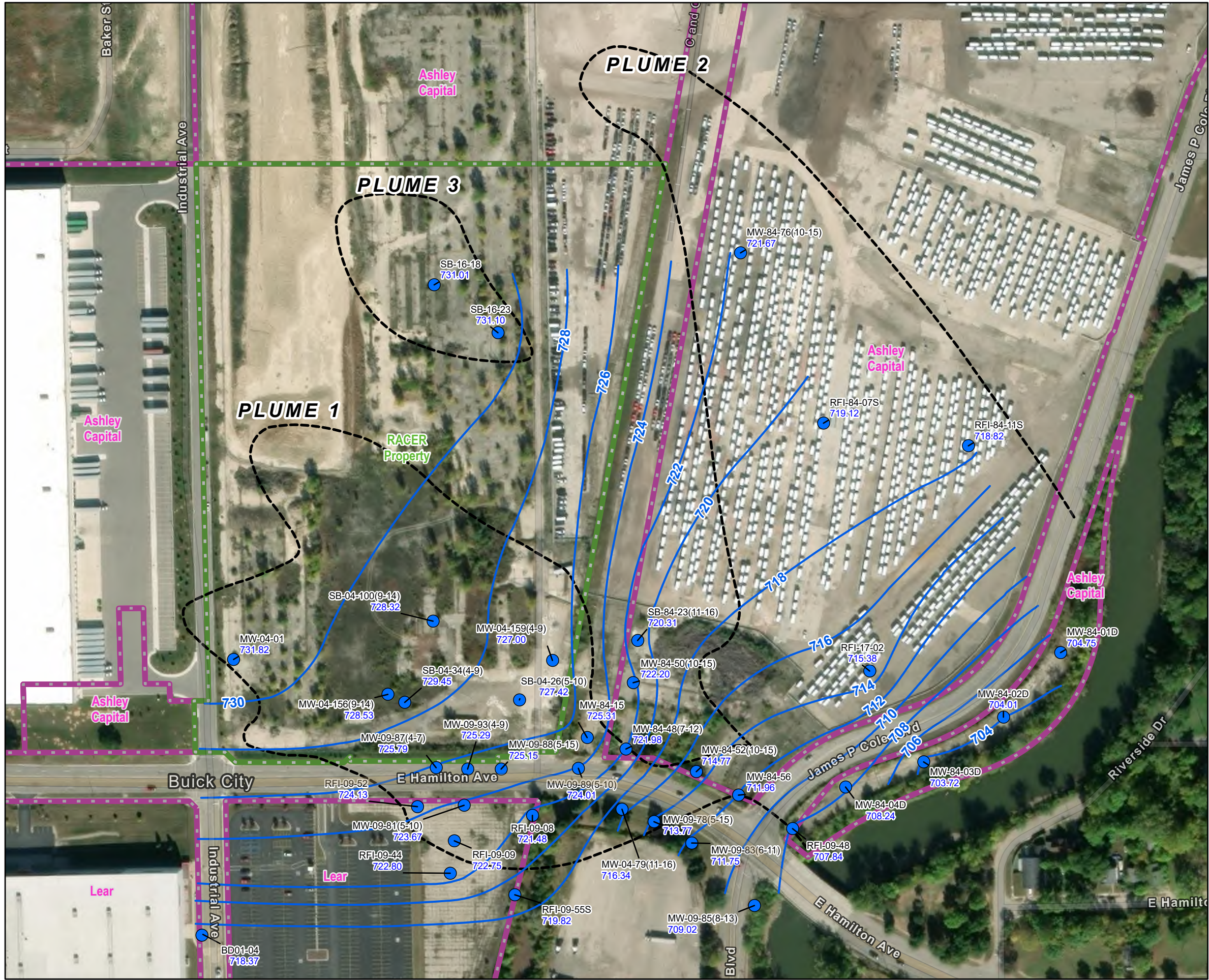
RACER TRUST
BUICK CITY
FLINT, MI

**MOST RECENT PFAS RESULTS
IN GROUNDWATER**

FIGURE
2

DRAFT

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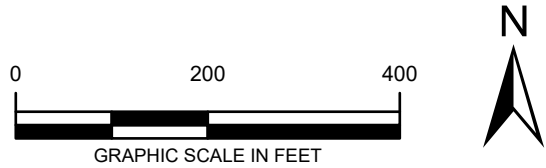


LEGEND

- Shallow Monitoring Well Locations
- Shallow Groundwater Elevation Contour - November 2025 (ft. amsl)
- Current RACER-owned Properties
- Former RACER-owned Properties
- PFAS Groundwater Plume > 10x the SL

Notes:
1. Groundwater elevation data is from November 2025.
2. Shallow wells represent the upper portion of the saturated zone installed at depths typically between 5 to 15 feet below ground surface.

Acronyms:
ft amsl = feet above mean sea level

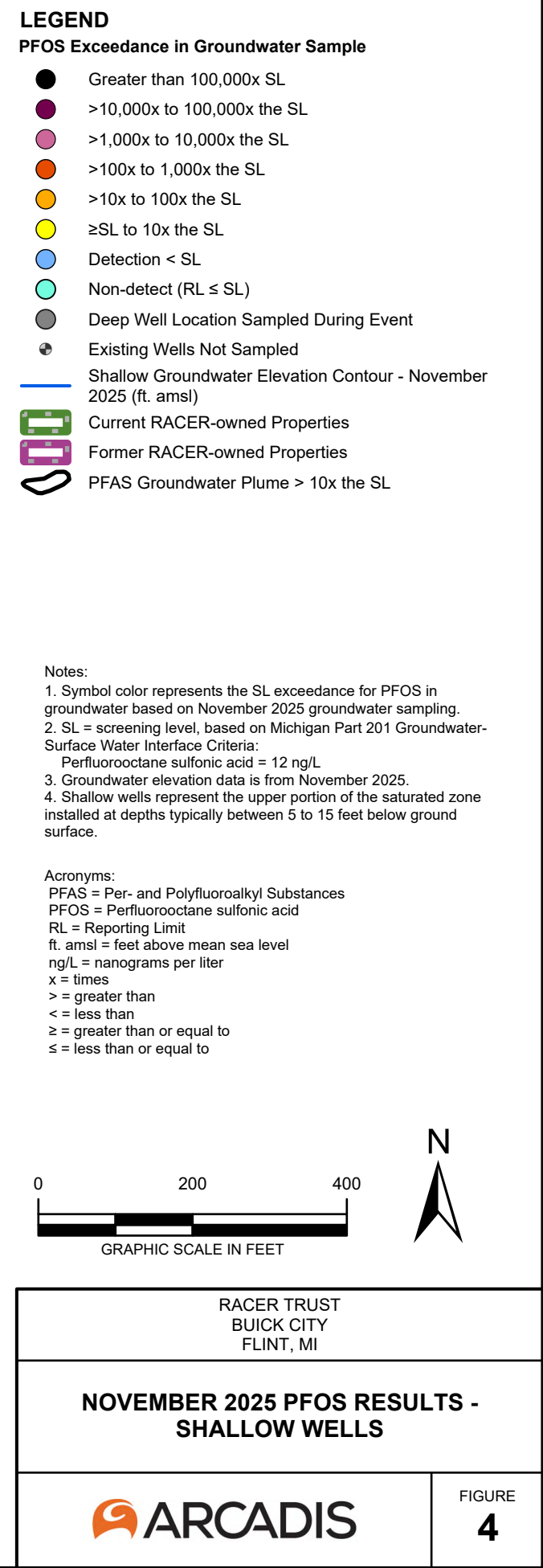


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FLINT, MI

SHALLOW GROUNDWATER
ELEVATION CONTOURS -
NOVEMBER 2025

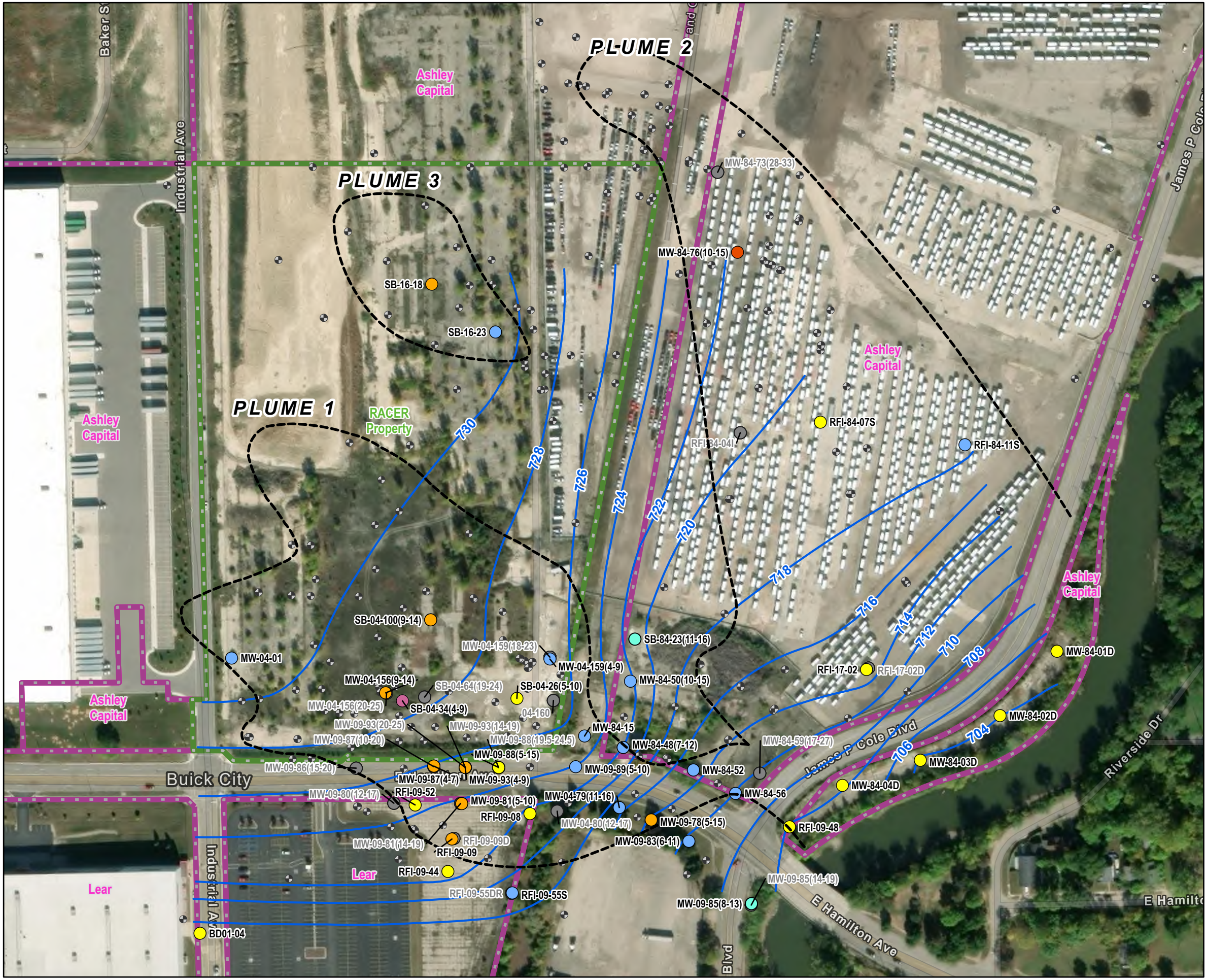


FIGURE
3



DRAFT

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LEGEND

PFHxS Exceedance in Groundwater Sample

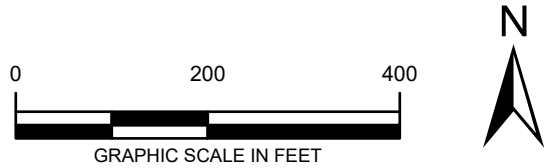
- >1,000x to 10,000x the SL
- >100x to 1,000x the SL
- >10x to 100x the SL
- ≥SL to 10x the SL
- Detection < SL
- Non-detect (RL ≤ SL)
- Deep Well Location Sampled During Event
- Existing Wells Not Sampled
- Shallow Groundwater Elevation Contour - November 2025 (ft. amsl)
- Current RACER-owned Properties
- Former RACER-owned Properties
- PFAS Groundwater Plume > 10x the SL

Notes:

- Symbol color represents the SL exceedance for PFHxS in groundwater based on November 2025 groundwater sampling.
- SL = screening level, based on Michigan Part 201 Groundwater-Surface Water Interface Criteria:
Perfluorohexane sulfonic acid = 210 ng/L
- Groundwater elevation data is from November 2025.
- Shallow wells represent the upper portion of the saturated zone installed at depths typically between 5 to 15 feet below ground surface.

Acronyms:

- PFAS = Per- and Polyfluoroalkyl Substances
PFHxS = Perfluorohexane sulfonic acid
RL = Reporting Limit
ft. amsl = feet above mean sea level
ng/L = nanograms per liter
x = times
> = greater than
< = less than
≥ = greater than or equal to
≤ = less than or equal to

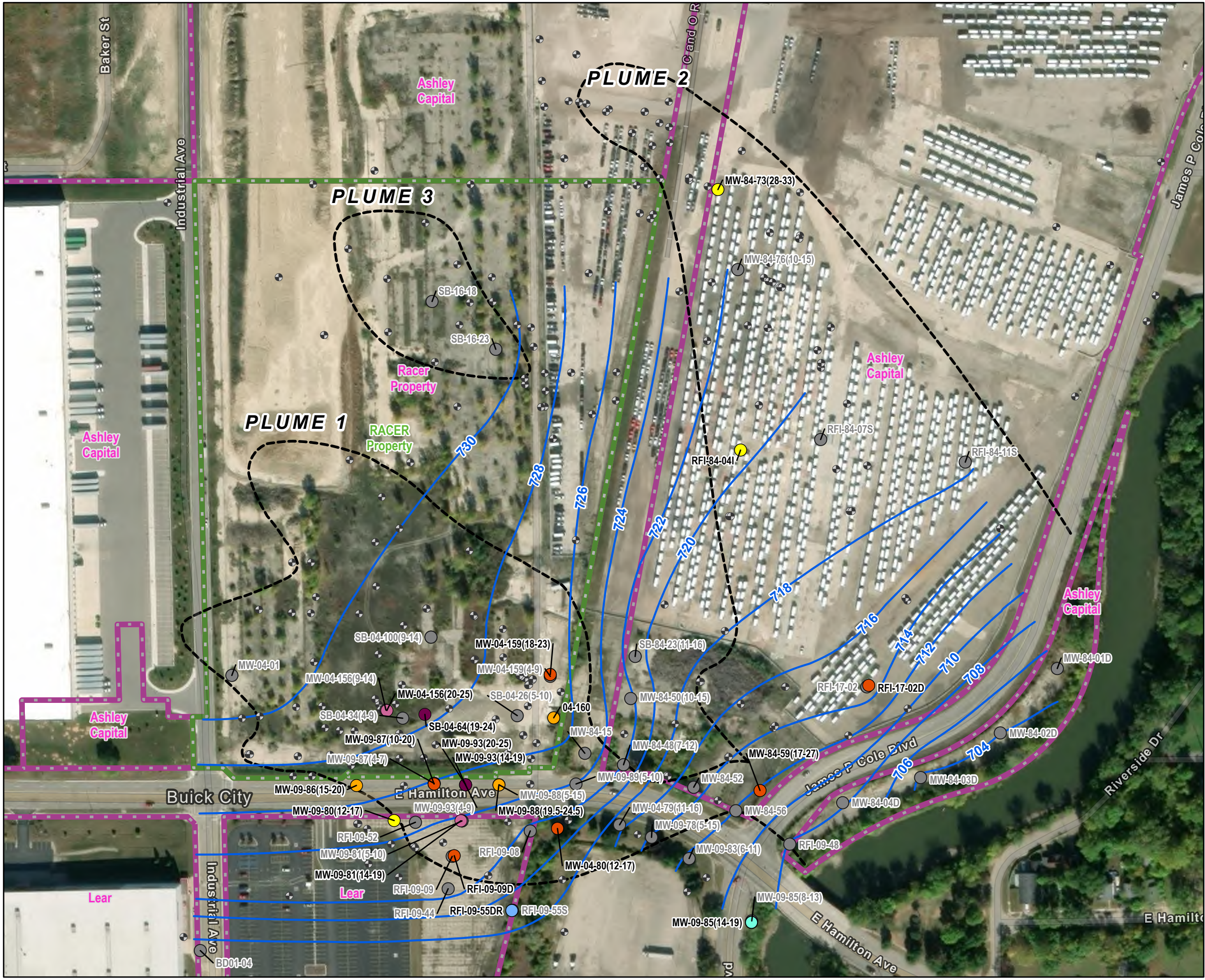


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FLINT, MI

NOVEMBER 2025 PFHxS RESULTS -
SHALLOW WELLS



FIGURE
5



LEGEND

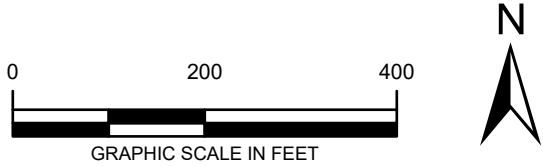
- PFOS Exceedance in Groundwater Sample**
- >10,000x to 100,000x the SL
 - >1,000x to 10,000x the SL
 - >100x to 1,000x the SL
 - >10x to 100x the SL
 - ≥SL to 10x the SL
 - Detection < SL
 - Non-detect (RL ≤ SL)
 - Shallow Well Location Sampled During Event
 - Existing Wells Not Sampled
 - Shallow Groundwater Elevation Contour - November 2025 (ft. amsl)
 - Current RACER-owned Properties
 - Former RACER-owned Properties
 - PFAS Groundwater Plume > 10x the SL

Notes:

- Symbol color represents the SL exceedance for PFOS in groundwater based on November 2025 groundwater sampling.
- SL = screening level, based on Michigan Part 201 Groundwater-Surface Water Interface Criteria:
Perfluorooctane sulfonic acid = 12 ng/L
- Groundwater elevation data is from November 2025.
- Deep wells represent deeper saturated intervals, typically between 15 to 25 feet below ground surface.

Acronyms:

PFAS = Per- and Polyfluoroalkyl Substances
PFOS = Perfluorooctane sulfonic acid
RL = Reporting Limit
ft. amsl = feet above mean sea level
ng/L = nanograms per liter
x = times
> = greater than
< = less than
≥ = greater than or equal to
≤ = less than or equal to

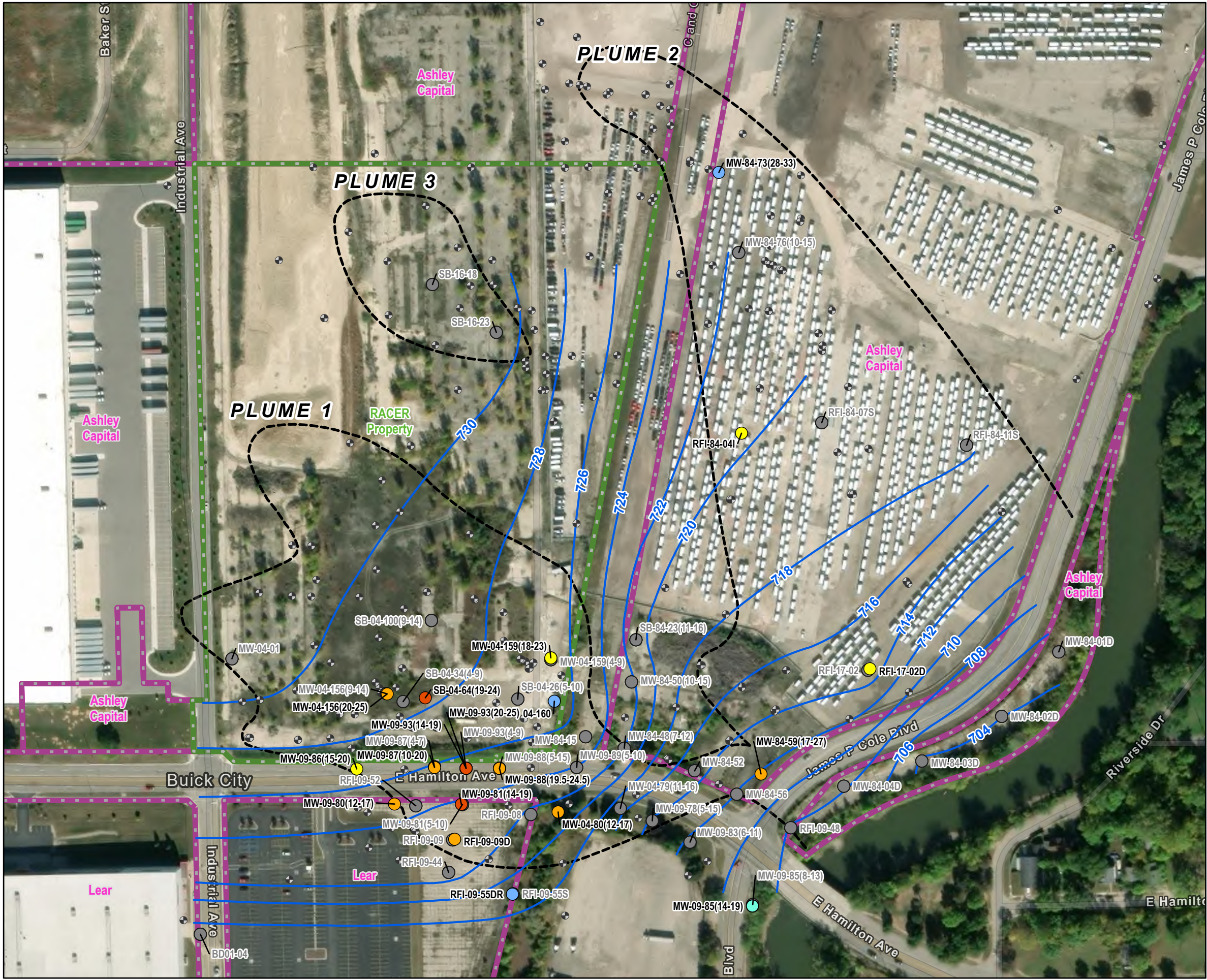


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FLINT, MI

NOVEMBER 2025 PFOS RESULTS -
DEEP WELLS

ARCADIS

FIGURE
6



LEGEND

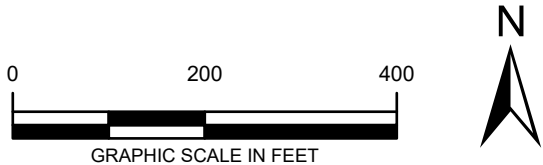
- PFHxS Exceedance in Groundwater Sample
- >100x to 1,000x the SL
 - >10x to 100x the SL
 - ≥SL to 10x the SL
 - Detection < SL
 - Non-detect (RL ≤ SL)
 - Shallow Well Location Sampled During Event
 - Existing Wells Not Sampled
 - Shallow Groundwater Elevation Contour - November 2025 (ft. amsl)
 - Current RACER-owned Properties
 - Former RACER-owned Properties
 - PFAS Groundwater Plume > 10x the SL

Notes:

- Symbol color represents the SL exceedance for PFHxS in groundwater based on November 2025 groundwater sampling.
- SL = screening level, based on Michigan Part 201 Groundwater-Surface Water Interface Criteria:
Perfluorohexane sulfonic acid = 210 ng/L
- Groundwater elevation data is from November 2025.
- Deep wells represent deeper saturated intervals, typically between 15 to 25 feet below ground surface.

Acronyms:

PFAS = Per- and Polyfluoroalkyl Substances
PFHxS = Perfluorohexane sulfonic acid
RL = Reporting Limit
ft. amsl = feet above mean sea level
ng/L = nanograms per liter
x = times
> = greater than
< = less than
≥ = greater than or equal to
≤ = less than or equal to



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BUICK CITY
FLINT, MI

NOVEMBER 2025 PFHxS RESULTS -
DEEP WELLS

ARCADIS

FIGURE
7

Attachment 1

Laboratory Analytical Reports



right solutions.
right partner.

January 08, 2026

Tiffany Linder
Arcadis US, Inc.
120 N. Washington Square
Suite 300
Lansing, MI 48933

Re: **RACER PFAS Analysis**

Date Received: **11/25/2025**
Work Order: **HN2517937**
Revision: **2**

Dear Tiffany,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda

/S/ KATHY JONES-GRONDA

Project Manager



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937
Date Received: 25-Nov-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

65 groundwater samples were received for analysis at ALS Environmental on 25-Nov-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

WorkOrder: HN2517937

Analytical report amended to reflect updated sample IDs for -003 and -010, and the revised sample date for -010 per client instructions. This version supersedes the report dated 12/15/2025.

Analytical report amended to reflect updated sample ID for -040 per client instructions. This version supersedes the report dated 12/30/2025.

Organics

ASTM D7979-W

Run ID: 3768710

The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: 6:2 FTS, PFNA, 8:2 FTS, PFDA, 13C2-FtS 6:2, 13C2-FtS 8:2, 13C2-PFUnDA

Run ID: 3769128

The LCS recovery was above the upper control limit. The sample results for this batch may be biased high for this analyte: (corresponding analyte within range in LCS and non-detect in samples)

HN2517937-062: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed. See attached QC report.

HN2517937-062: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low. See attached QC report.

HN2517937-062: The reporting limit is elevated due to dilution for high concentrations of target analytes.

HN2517937-057: Perfluorooctane sulfonic acid (PFOS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-062: 18O2-PFHxS - Surrogate high due to matrix interference.

Run ID: 3768260

The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: 6:2 FTS, 13C2-FtS 6:2

HN2517937-016: 13C4-PFHpA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

HN2517937-018: Perfluorononanoic acid (PFNA) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-020: 13C5-PFNA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

HN2517937-020: 13C4-PFOS - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937
Date Received: 25-Nov-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Run ID: 3768260

HN2517937-020: Perfluorononane sulfonic acid (PFNS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.
HN2517937-021: 13C2-FtS 4:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2517937-021: 13C2-FtS 4:2 - The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte:
HN2517937-021: d5-N-EtFOSAA - The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:
HN2517937-022: Perfluorononane sulfonic acid (PFNS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.
HN2517937-023: Perfluorononane sulfonic acid (PFNS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.
HN2517937-023: 13C4-PFOS - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.
HN2517937-023: 13C5-PFNA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

Run ID: 3768516

The LCS recovery was above the upper control limit. The sample results for this batch may be biased high for this analyte: 13C2-FtS 6:2 (corresponding analyte within range in LCS and non-detect in samples)
HN2517937-050: Perfluorooctane sulfonic acid (PFOS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.
HN2517937-054: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2517937-061: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2517937-064: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.
HN2517937-065: 13C2-FtS 6:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

Run ID: 3768681

The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: 6:2 FTS, PFNA, 8:2 FTS, PFDA, 13C2-FtS 6:2, 13C2-FtS 8:2, 13C2-PFUnDA
The LCS recovery was above the upper control limit. The sample results for this batch may be biased high for this analyte: 13C2-FtS 6:2 (corresponding analyte within range in LCS and non-detect in samples)
HN2517937-040: Perfluorooctane sulfonic acid (PFOS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.
HN2517937-040: 1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS) - The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte:
HN2517937-040: 1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS) - The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s):

Run ID: 3769125

The LCS recovery was above the upper control limit. The sample results for this batch may be biased high for this analyte: (corresponding analyte within range in LCS and non-detect in samples)

Run ID: 3769125

HN2517937-046: 18O2-PFHxS - Surrogate high due to matrix interference.

HN2517937-049: 13C3-HFPO-DA - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2517937-053: d5-N-EtFOSAA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

HN2517937-053: 13C2-FtS 8:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2517937-053: 18O2-PFHxS - Surrogate high due to matrix interference.

HN2517937-053: Perfluoroheptane sulfonic acid (PFHpS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

Run ID: 3739698

HN2517937-001: Perfluoropentane sulfonic acid (PFPeS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-002: 13C2-FtS 6:2 - The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: (Surrogate within range and corresponding analyte non-detect in parent).

HN2517937-002: 13C2-FtS 6:2 - The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: (Surrogate within range and corresponding analyte non-detect in parent).

HN2517937-007: Perfluorononanoic acid (PFNA) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-007: Perfluorononane sulfonic acid (PFNS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-007: 13C2-FtS 4:2 - One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2517937-007: 13C5-PFNA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

Run ID: 3769023

HN2517937-029: 18O2-PFHxS - Surrogate high due to matrix interference.

HN2517937-029: d3-N-MeFOSAA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

HN2517937-029: d5-N-EtFOSAA - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

HN2517937-035: 13C2-FtS 4:2 - One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

Run ID: 3768475

HN2517937-036: Perfluorooctane sulfonic acid (PFOS) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

HN2517937-045: Perfluorononanoic acid (PFNA) - Ion transition ratios did not meet acceptance criteria due to matrix interference and/or the presence of branched isomers not represented in the quantitation standards.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-84-50(10-15)_111925	Lab ID: HN2517937-001

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	16.3	J	14.1	49.0	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	109		13.3	44.6	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	30.7	J	14.0	49.0	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	48.9		4.97	9.10	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	24.4		9.12	9.81	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	9.05	J	5.22	9.20	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	12.9	J	7.85	49.0	ng/L	ASTM D7979-19

CLIENT ID: SB-84-23(11-16)_111925	Lab ID: HN2517937-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorooctane sulfonic acid (PFOS)	5.07	J	4.94	9.05	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	10.7	J	7.80	48.8	ng/L	ASTM D7979-19

CLIENT ID: RF1-84-04I_111925	Lab ID: HN2517937-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	282		7.98	8.61	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	85.4		14.0	48.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	49.6		15.1	48.7	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	290		13.2	44.3	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	241		13.9	48.7	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	118		4.93	9.03	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	78.9		9.05	9.73	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	170		5.18	9.13	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	113		7.79	48.7	ng/L	ASTM D7979-19

CLIENT ID: MW-84-01D_112025	Lab ID: HN2517937-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	91.7		8.08	8.71	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	36.2	J	14.2	49.3	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	35.0	J	10.7	46.9	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	31.6	J	15.3	49.3	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	522		13.4	44.8	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	90.7		14.1	49.3	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	9.53	J	9.16	9.85	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1000		5.00	9.14	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	81.1		9.16	9.85	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	100		5.24	9.24	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	68.8		7.88	49.3	ng/L	ASTM D7979-19

CLIENT ID: MW-84-02D_112025	Lab ID: HN2517937-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	164		8.22	8.87	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-84-02D_112025	Lab ID: HN2517937-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	37.2	J	14.5	50.2	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	40.4	J	10.8	47.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	21.1	J	15.6	50.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	840		13.6	45.6	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	102		14.3	50.2	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1360		5.08	9.31	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	84.4		9.33	10.0	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	174		5.34	9.41	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	39.4	J	8.02	50.2	ng/L	ASTM D7979-19

CLIENT ID: MW-84-03D_112025	Lab ID: HN2517937-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	258		8.14	8.78	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	48.1	J	14.3	49.7	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	32.8	J	10.7	47.3	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	39.1	J	15.4	49.7	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	1350		13.5	45.2	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	134		14.2	49.7	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	11.6		9.24	9.93	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1070		5.03	9.22	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	143		9.24	9.93	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	285		5.28	9.32	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	58.8		7.94	49.7	ng/L	ASTM D7979-19

CLIENT ID: MW-84-76(10-15)_112025	Lab ID: HN2517937-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	3210		80.7	87.0	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	431		14.2	49.2	ng/L	ASTM D7979-19
Perfluorodecanoic acid (PFDA)	26.6	J	14.8	49.2	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	2920		106	469	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	324		15.3	49.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	29500		1340	4480	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1490		14.1	49.2	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	201		13.2	47.3	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	17.8		9.16	9.84	ng/L	ASTM D7979-19
Perfluorooctane sulfonamide (PFOSAm)	107		8.06	9.84	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	143000		499	914	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	2190		91.6	98.4	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	3760		52.4	92.3	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	570		7.88	49.2	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: RF1-84-07S(10-15)_112125	Lab ID: HN2517937-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	47.8		8.09	8.72	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	19.2	J	14.2	49.3	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	42.0	J	10.7	47.0	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	383		13.4	44.9	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	44.5	J	14.1	49.3	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	5150		20.0	36.6	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	35.7		9.17	9.86	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	55.9		5.25	9.25	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	15.0	J	7.89	49.3	ng/L	ASTM D7979-19

CLIENT ID: RF1-84-11S_112125	Lab ID: HN2517937-009

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	17.8	J	13.8	46.3	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	83.7		5.16	9.44	ng/L	ASTM D7979-19

CLIENT ID: MW-84-04D_112025	Lab ID: HN2517937-010

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	111		8.08	8.71	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	24.6	J	14.2	49.3	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	48.0		10.7	46.9	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	19.5	J	15.3	49.3	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	850		13.4	44.8	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	67.0		14.1	49.3	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	2010		9.99	18.3	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	71.8		9.16	9.85	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	132		5.24	9.24	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	29.9	J	7.88	49.3	ng/L	ASTM D7979-19

CLIENT ID: MW-04-159 (18-23)_111725	Lab ID: HN2517937-011

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	104		7.92	8.54	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	29.1	J	13.9	48.3	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	66.3		10.4	46.0	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	51.5		15.0	48.3	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	1640		13.1	44.0	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	224		13.8	48.3	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1970		9.80	17.9	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	213		8.99	9.66	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	173		5.14	9.06	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	48.5		7.73	48.3	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-04-159(4-9)_111725 Lab ID: HN2517937-012

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	10.2		8.07	8.70	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	14.8	J	14.2	49.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	209		13.4	44.8	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	36.3	J	14.1	49.2	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	351		4.99	9.14	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	38.6		9.16	9.84	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	12.9		5.24	9.23	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	13.5	J	7.88	49.2	ng/L	ASTM D7979-19

CLIENT ID: 04-160_111725 Lab ID: HN2517937-013

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	9.70		7.85	8.46	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	16.4	J	13.8	47.9	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	18.8	J	14.8	47.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	157		13.0	43.5	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	48.8		13.7	47.9	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	366		4.85	8.88	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	41.6		8.90	9.57	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	16.0		5.09	8.98	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	20.0	J	7.66	47.9	ng/L	ASTM D7979-19

CLIENT ID: SB-04-26(5-10)_111725 Lab ID: HN2517937-014

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	15.0		7.96	8.58	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	35.5	J	14.0	48.5	ng/L	ASTM D7979-19
Perfluorodecanoic acid (PFDA)	37.0	J	14.6	48.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	20.6	J	10.5	46.2	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	110		15.1	48.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	522		13.2	44.2	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	179		13.9	48.5	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	56.4		9.03	9.71	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	2140		9.84	18.0	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	294		9.03	9.71	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	27.5		5.16	9.11	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	98.9		7.77	48.5	ng/L	ASTM D7979-19

CLIENT ID: DUP-01 Lab ID: HN2517937-015

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	106		8.11	8.74	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	31.2	J	14.3	49.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	71.6		10.7	47.1	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	59.0		15.3	49.5	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: DUP-01	Lab ID: HN2517937-015

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	1760		13.4	45.0	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	214		14.1	49.5	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1950		10.0	18.4	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	210		9.20	9.89	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	158		5.26	9.28	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	46.9	J	7.91	49.5	ng/L	ASTM D7979-19

CLIENT ID: MW-09-93(14-19)_111825	Lab ID: HN2517937-016

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	6700		79.5	85.7	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	1460		14.0	48.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	5200		105	462	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	1750		15.0	48.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	152000		1320	4410	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	18800		139	485	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	31.7	J	13.0	46.6	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	68.5		9.02	9.70	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	140000		492	900	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	14900		90.2	97.0	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	13300		51.6	91.0	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	2780		77.6	485	ng/L	ASTM D7979-19

CLIENT ID: MW-09-93(4-9)_111825	Lab ID: HN2517937-017

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	69.6		7.96	8.58	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	36.0	J	14.0	48.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	354		10.5	46.2	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	76.3		15.1	48.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	5820		132	442	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	606		13.9	48.5	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	18.7		9.03	9.71	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	13000		49.2	90.1	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	513		9.03	9.71	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	209		5.16	9.11	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	95.3		7.77	48.5	ng/L	ASTM D7979-19

CLIENT ID: MW-09-93(20-25)_111825	Lab ID: HN2517937-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	6210		78.8	85.0	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	1300		13.9	48.1	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	4540		104	458	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	1570		14.9	48.1	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-09-93(20-25)_111825	Lab ID: HN2517937-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	134000		1310	4370	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	16600		137	481	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	18.9	J	12.9	46.1	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	54.4		8.94	9.61	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	92300		487	892	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	13900		89.4	96.1	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	12200		51.1	90.2	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	2520		76.9	481	ng/L	ASTM D7979-19

CLIENT ID: SB-04-64(19-24)_111825	Lab ID: HN2517937-019

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	13700		78.8	85.0	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	2850		139	481	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	5660		104	458	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	4790		149	481	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	175000		2610	8750	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	35400		1370	4810	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	23.2	J	12.9	46.1	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	72.1		8.94	9.61	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	125000		487	892	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	18800		89.4	96.1	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	20800		511	902	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	5430		76.9	481	ng/L	ASTM D7979-19

CLIENT ID: SB-04-34(4-9)_111925	Lab ID: HN2517937-020

Analyte	Results	Flag	MDL	MRL	Units	Method
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	25.1	J	20.7	49.0	ng/L	ASTM D7979-19
Perfluorobutane sulfonic acid (PFBS)	16900		8040	8670	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	1030		14.1	49.0	ng/L	ASTM D7979-19
Perfluorodecanoic acid (PFDA)	27.6	J	14.7	49.0	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	100000		10600	46700	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	995		15.2	49.0	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	1090000		13300	44600	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	166000		14000	49000	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	1730		13.1	47.1	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	57.6		9.12	9.81	ng/L	ASTM D7979-19
Perfluorooctane sulfonamide (PFOSAm)	688		8.03	9.81	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	8270000		24900	45500	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	95000		9120	9810	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	49200		5220	9200	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	24600	J	7850	49000	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: SB-04-34(4-9)_111925	Lab ID: HN2517937-020

Analyte	Results	Flag	MDL	MRL	Units	Method

CLIENT ID: MW-04-156(20-25)_111925	Lab ID: HN2517937-021

Analyte	Results	Flag	MDL	MRL	Units	Method

1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	19.4	J	19.1	45.2	ng/L	ASTM D7979-19
Perfluorobutane sulfonic acid (PFBS)	297		7.94	8.56	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	100		14.0	48.4	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	825		10.5	46.1	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	194		15.0	48.4	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	9250		132	441	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	800		13.8	48.4	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	66.1		9.00	9.68	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	17200		49.1	89.8	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1040		9.00	9.68	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	585		5.15	9.08	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	196		7.75	48.4	ng/L	ASTM D7979-19

CLIENT ID: MW-04-156(9-14)_111925	Lab ID: HN2517937-022

Analyte	Results	Flag	MDL	MRL	Units	Method

Perfluorobutane sulfonic acid (PFBS)	158		8.07	8.69	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	93.1		14.2	49.2	ng/L	ASTM D7979-19
Perfluorodecanoic acid (PFDA)	18.7	J	14.8	49.2	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	354		10.6	46.8	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	177		15.3	49.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	6300		134	448	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	758		14.1	49.2	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	86.9		13.2	47.2	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	40.0		9.15	9.84	ng/L	ASTM D7979-19
Perfluorooctane sulfonamide (PFOSAm)	17.2		8.06	9.84	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	44600		499	913	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	583		9.15	9.84	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	301		5.23	9.23	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	193		7.87	49.2	ng/L	ASTM D7979-19

CLIENT ID: SB-04-100(9-14)_111925	Lab ID: HN2517937-023

Analyte	Results	Flag	MDL	MRL	Units	Method

N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	29.7	J	21.2	50.4	ng/L	ASTM D7979-19
Perfluorobutane sulfonic acid (PFBS)	79.0		8.26	8.90	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	161		14.5	50.4	ng/L	ASTM D7979-19
Perfluorodecanoic acid (PFDA)	50.2	J	15.1	50.4	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	3570	J	1090	4790	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	241		15.6	50.4	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: SB-04-100(9-14)_111925	Lab ID: HN2517937-023

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	5700		1370	4580	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1050		14.4	50.4	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	850		13.5	48.3	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	64.9		9.37	10.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonamide (PFOSAm)	211		8.25	10.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	754000		5100	9350	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1910		9.37	10.1	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	222		5.36	9.45	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	213		8.06	50.4	ng/L	ASTM D7979-19
Perfluoroundecanoic acid (PFUnDA)	31.3	J	12.1	50.4	ng/L	ASTM D7979-19

CLIENT ID: MW-04-01_112025	Lab ID: HN2517937-024

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	24.0	J	14.4	49.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	82.1		13.5	45.4	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	26.2	J	14.2	49.9	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	9.34	J	9.27	9.97	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	189		5.05	9.25	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	21.8		9.27	9.97	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	9.68	J	7.98	49.9	ng/L	ASTM D7979-19

CLIENT ID: SB-16-23_112025	Lab ID: HN2517937-025

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	37.7	J	13.3	44.6	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	149		4.97	9.09	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	15.3		9.11	9.80	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	8.23	J	7.84	49.0	ng/L	ASTM D7979-19

CLIENT ID: SB-16-18_112025	Lab ID: HN2517937-026

Analyte	Results	Flag	MDL	MRL	Units	Method
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	92.7		18.7	44.3	ng/L	ASTM D7979-19
Perfluorobutane sulfonic acid (PFBS)	374		7.78	8.39	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	99.3		13.7	47.4	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	308		10.3	45.2	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	150		14.7	47.4	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	5860		129	432	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	674		13.6	47.4	ng/L	ASTM D7979-19
Perfluorononane sulfonic acid (PFNS)	13.1	J	12.7	45.5	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	21.9		8.82	9.49	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	15800		48.1	88.1	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	526		8.82	9.49	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: SB-16-18_112025	Lab ID: HN2517937-026

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoropentane sulfonic acid (PFPeS)	462		5.05	8.90	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	230		7.59	47.4	ng/L	ASTM D7979-19

CLIENT ID: MW-04-80(12-17)_112025	Lab ID: HN2517937-027

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	86.3		7.96	8.58	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	36.0	J	14.0	48.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	133		10.5	46.2	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	79.4		15.1	48.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	4820		39.6	133	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	270		13.9	48.5	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	2070		14.8	27.0	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	460		9.03	9.71	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	221		5.16	9.11	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	67.2		7.77	48.5	ng/L	ASTM D7979-19

CLIENT ID: MW-04-79(11-16)_112125	Lab ID: HN2517937-028

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	9.70		7.86	8.48	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	16.0	J	13.8	47.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	155		13.0	43.6	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	30.4	J	13.7	47.9	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	11.0		8.92	9.59	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	335		4.86	8.90	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	27.7		8.92	9.59	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	9.69		5.10	8.99	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	13.7	J	7.67	47.9	ng/L	ASTM D7979-19

CLIENT ID: MW-09-78(5-15)_112125	Lab ID: HN2517937-029

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	1110		79.9	86.1	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	263	J	141	487	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	463	J	105	464	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	493		151	487	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	16200		132	443	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	2740		139	487	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	6820		49.4	90.4	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1730		90.6	97.4	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	1860		51.8	91.4	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	466	J	78.0	487	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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CLIENT ID: MW-09-83(6-11)_112125	Lab ID: HN2517937-030

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	54.3		8.01	8.64	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	28.4	J	14.1	48.9	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	20.7	J	15.2	48.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	146		13.3	44.5	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	197		14.0	48.9	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	9.20	J	9.09	9.77	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	9.70		4.95	9.07	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	29.9		9.09	9.77	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	44.0		5.20	9.17	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	40.0	J	7.82	48.9	ng/L	ASTM D7979-19

CLIENT ID: MW-09-88(5-15)_111825	Lab ID: HN2517937-031

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	16.9		8.10	8.73	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	28.1	J	14.2	49.4	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	28.4	J	10.7	47.0	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	81.8		15.3	49.4	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	628		13.4	44.9	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	135		14.1	49.4	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	41.0		9.18	9.87	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1880		10.0	18.3	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	220		9.18	9.87	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	32.8		5.25	9.26	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	65.8		7.90	49.4	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-55S_111825	Lab ID: HN2517937-032

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	94.8		13.5	45.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	30.7		5.02	9.19	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-55DR_111825	Lab ID: HN2517937-033

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	63.3		8.14	8.78	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	44.7	J	14.3	49.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	32.3	J	15.4	49.7	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	148		13.5	45.2	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	254		14.2	49.7	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	6.97	J	5.03	9.22	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	22.7		9.24	9.93	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	39.6		5.28	9.32	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	79.1		7.94	49.7	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: RFI-09-08_111825	Lab ID: HN2517937-034

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	52.6		8.12	8.75	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	24.1	J	14.3	49.5	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	16.9	J	15.4	49.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	486		13.5	45.1	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	132		14.1	49.5	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	27.3		9.21	9.90	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	80.6		5.27	9.29	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	25.7	J	7.92	49.5	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-09D_111925	Lab ID: HN2517937-035

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	474		80.4	86.7	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	187	J	141	490	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	304	J	106	467	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	308	J	152	490	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	13600		133	446	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	2250		140	490	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1210		49.7	91.0	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1300		91.2	98.1	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	1050		52.2	92.0	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	378	J	78.5	490	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-09_111925	Lab ID: HN2517937-036

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	42.0		7.86	8.48	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	35.2	J	13.8	47.9	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	46.1	J	14.9	47.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	2250		130	436	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	318		13.7	47.9	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	17.8		4.86	8.90	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	99.3		8.92	9.59	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	119		5.10	8.99	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	55.1		7.67	47.9	ng/L	ASTM D7979-19

CLIENT ID: MW-84-73(28-33)_111925	Lab ID: HN2517937-037

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutanoic acid (PFBA)	15.5	J	14.0	48.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	30.4	J	13.2	44.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	97.3		4.91	8.99	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	13.4		9.01	9.69	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	9.95	J	7.75	48.5	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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CLIENT ID: RFI-17-02D_111925	Lab ID: HN2517937-038

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	173		8.12	8.75	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	38.7	J	14.3	49.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	102		10.7	47.1	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	35.6	J	15.4	49.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	1360		13.5	45.1	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	118		14.1	49.5	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	11.9		9.21	9.90	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	3750		50.2	91.9	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	140		9.21	9.90	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	214		5.27	9.29	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	63.5		7.92	49.5	ng/L	ASTM D7979-19

CLIENT ID: RFI-17-02_111925	Lab ID: HN2517937-039

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	70.0		8.05	8.68	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	18.2	J	14.2	49.1	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	39.4	J	10.6	46.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	16.9	J	15.2	49.1	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	652		13.3	44.7	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	40.4	J	14.0	49.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1400		4.98	9.11	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	64.6		9.13	9.82	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	83.5		5.22	9.21	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	19.9	J	7.85	49.1	ng/L	ASTM D7979-19

CLIENT ID: MW-09-80(12-17)_111725	Lab ID: HN2517937-040

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	298		8.31	8.96	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	114		14.6	50.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	215		15.7	50.7	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	5320		68.9	231	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1880		72.4	253	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	62.4		5.14	9.40	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	447		9.42	10.1	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	587		5.39	9.51	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	300		8.11	50.7	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-52_111725	Lab ID: HN2517937-041

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	341		8.10	8.74	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	167		14.3	49.4	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	193		15.3	49.4	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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CLIENT ID: RFI-09-52_111725	Lab ID: HN2517937-041

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	872		13.4	45.0	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	2160		70.6	247	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	170		9.19	9.88	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	419		5.26	9.27	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	402		7.91	49.4	ng/L	ASTM D7979-19

CLIENT ID: MW-09-81(5-10)_111725	Lab ID: HN2517937-042

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	146		7.87	8.48	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	76.7		13.8	48.0	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	733		10.4	45.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	175		14.9	48.0	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	11200		1300	4370	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1250		13.7	48.0	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	59.8		8.92	9.60	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	33900		486	890	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	988		8.92	9.60	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	455		5.10	9.00	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	209		7.68	48.0	ng/L	ASTM D7979-19

CLIENT ID: MW-09-81(14-19)_111725	Lab ID: HN2517937-043

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	962		8.27	8.91	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	229		14.5	50.4	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	1560		10.9	48.0	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	511		15.6	50.4	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	35900		1370	4590	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	4210	J	1440	5040	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	40.1		9.38	10.1	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	41600		511	936	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	3500		938	1010	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	2200		536	946	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	579		8.07	50.4	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-44_111725	Lab ID: HN2517937-044

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	19.3		8.15	8.79	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	17.5	J	14.3	49.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	16.1	J	15.4	49.7	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	633		13.5	45.2	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	121		14.2	49.7	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	6.00	J	5.04	9.22	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: RFI-09-44_111725	Lab ID: HN2517937-044

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorooctanoic acid (PFOA)	23.2		9.24	9.94	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	44.3		5.29	9.32	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	21.0	J	7.95	49.7	ng/L	ASTM D7979-19

CLIENT ID: MW-09-89(5-10)_111825	Lab ID: HN2517937-045

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	8.18	J	7.94	8.56	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	19.1	J	14.0	48.4	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	19.6	J	15.0	48.4	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	167		13.2	44.1	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	43.6	J	13.8	48.4	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	9.96		9.00	9.68	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	307		4.91	8.98	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	38.1		9.00	9.68	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	10.4		5.15	9.08	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	23.7	J	7.75	48.4	ng/L	ASTM D7979-19

CLIENT ID: MW-09-88(19.5-24.5)_111825	Lab ID: HN2517937-046

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	1260		40.2	43.4	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	354		70.7	245	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	77.9	J	53.0	233	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	434		76.1	245	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	6520		66.6	223	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	2520		70.1	245	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	253		24.9	45.5	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	817		45.6	49.0	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	1170		26.1	46.0	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	539		39.2	245	ng/L	ASTM D7979-19

CLIENT ID: DUP-06	Lab ID: HN2517937-048

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	145		7.92	8.54	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	78.5		13.9	48.3	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	688		10.4	46.0	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	178		15.0	48.3	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	11500		1310	4400	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1230		13.8	48.3	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	59.8		8.99	9.66	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	35500		490	897	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	995		8.99	9.66	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	437		5.14	9.06	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

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CLIENT ID: DUP-06 Lab ID: HN2517937-048

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoropentanoic acid (PFPeA)	212		7.73	48.3	ng/L	ASTM D7979-19

CLIENT ID: DUP-05 Lab ID: HN2517937-049

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	356		40.4	43.5	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	188	J	71.0	246	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	212	J	76.3	246	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	910		66.9	224	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	2230		70.3	246	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	169		45.8	49.2	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	453		26.2	46.2	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	399		39.4	246	ng/L	ASTM D7979-19

CLIENT ID: MW-84-56_111725 Lab ID: HN2517937-050

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	11.3		8.19	8.83	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	154		13.6	45.5	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	18.8	J	14.3	50.0	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	27.7		5.06	9.27	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	17.3		9.29	9.99	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	13.5		5.31	9.37	ng/L	ASTM D7979-19

CLIENT ID: MW-84-52_111725 Lab ID: HN2517937-051

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	13.5		7.91	8.53	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	25.0	J	13.9	48.2	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	24.9	J	15.0	48.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	202		13.1	43.9	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	74.8		13.8	48.2	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	131		4.89	8.95	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	45.0		8.97	9.65	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	21.2		5.13	9.05	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	34.5	J	7.72	48.2	ng/L	ASTM D7979-19

CLIENT ID: MW-84-59(17-27)_111825 Lab ID: HN2517937-053

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	303		81.5	87.9	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	171	J	107	473	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	183	J	154	497	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	4220		135	452	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	539		142	497	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	1360		50.4	92.2	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-84-59(17-27)_111825	Lab ID: HN2517937-053

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorooctanoic acid (PFOA)	543		92.4	99.4	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	407		52.9	93.2	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	131	J	79.5	497	ng/L	ASTM D7979-19

CLIENT ID: MW-09-86(15-20)_111825	Lab ID: HN2517937-054

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	17.2		8.00	8.62	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	24.9	J	14.1	48.8	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	25.2	J	15.1	48.8	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	211		13.3	44.4	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	116		13.9	48.8	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	10.3		9.07	9.75	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	140		4.94	9.05	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	47.8		9.07	9.75	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	25.4		5.19	9.15	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	36.7	J	7.80	48.8	ng/L	ASTM D7979-19

CLIENT ID: DUP-03	Lab ID: HN2517937-055

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	193		8.11	8.74	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	85.7		14.3	49.5	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	781		10.7	47.1	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	208		15.3	49.5	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	17800		1340	4500	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1550		14.1	49.5	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	18.2		9.20	9.89	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	17900		501	918	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1500		9.20	9.89	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	647		5.26	9.28	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	216		7.91	49.5	ng/L	ASTM D7979-19

CLIENT ID: MW-09-87(4-7)_111825	Lab ID: HN2517937-056

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	204		8.40	9.05	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	88.2		14.8	51.2	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	819		11.1	48.7	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	213		15.9	51.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	16100		1390	4660	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	1560		14.6	51.2	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	22.5		9.52	10.2	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	18300		519	950	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1580		9.52	10.2	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: MW-09-87(4-7)_111825	Lab ID: HN2517937-056

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoropentane sulfonic acid (PFPeS)	672		5.45	9.61	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	221		8.19	51.2	ng/L	ASTM D7979-19

CLIENT ID: MW-09-87(10-20)_111825	Lab ID: HN2517937-057

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	927		8.03	8.65	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	232		14.1	48.9	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	397		10.6	46.6	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	463		15.2	48.9	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	19100		1330	4450	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	3950	J	1400	4890	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	7560		496	908	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1600		9.10	9.79	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	1820		5.21	9.18	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	568		7.83	48.9	ng/L	ASTM D7979-19

CLIENT ID: MW-84-48(7-12)_111825	Lab ID: HN2517937-058

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	15.4		8.22	8.87	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	16.2	J	14.5	50.2	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	188		13.6	45.6	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	28.4	J	14.3	50.2	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	11.5		9.33	10.0	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	437		5.08	9.31	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	34.2		9.33	10.0	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	13.7		5.34	9.41	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	14.2	J	8.02	50.2	ng/L	ASTM D7979-19

CLIENT ID: DUP-04	Lab ID: HN2517937-059

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	14.2		8.09	8.72	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	14.5	J	14.2	49.3	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	194		13.4	44.9	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	32.6	J	14.1	49.3	ng/L	ASTM D7979-19
Perfluorononanoic acid (PFNA)	11.1		9.17	9.86	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	446		5.00	9.15	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	36.0		9.17	9.86	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	19.0		5.25	9.25	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	13.7	J	7.89	49.3	ng/L	ASTM D7979-19

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: DUP-02	Lab ID: HN2517937-062

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluoroheptane sulfonic acid (PFHpS)	3430	J	1080	4750	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	5200		1350	4540	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	773000		2530	4630	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	1660		927	997	ng/L	ASTM D7979-19

CLIENT ID: RFI-09-48_112125	Lab ID: HN2517937-063

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	97.4		8.16	8.80	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	38.1	J	14.3	49.8	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	53.1		15.4	49.8	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	855		13.5	45.3	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	188		14.2	49.8	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	95.0		5.04	9.23	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	133		9.25	9.95	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	118		5.29	9.33	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	58.1		7.96	49.8	ng/L	ASTM D7979-19

CLIENT ID: BD01-04_112425	Lab ID: HN2517937-064

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorobutane sulfonic acid (PFBS)	41.8		8.34	8.99	ng/L	ASTM D7979-19
Perfluorobutanoic acid (PFBA)	35.3	J	14.7	50.8	ng/L	ASTM D7979-19
Perfluoroheptane sulfonic acid (PFHpS)	19.1	J	11.0	48.4	ng/L	ASTM D7979-19
Perfluoroheptanoic acid (PFHpA)	50.3	J	15.8	50.8	ng/L	ASTM D7979-19
Perfluorohexane sulfonic acid (PFHxS)	1460		13.8	46.3	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	348		14.5	50.8	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	174		5.15	9.43	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	179		9.45	10.2	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	100		5.41	9.54	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	74.6		8.13	50.8	ng/L	ASTM D7979-19

CLIENT ID: MW-84-15_112425	Lab ID: HN2517937-065

Analyte	Results	Flag	MDL	MRL	Units	Method
Perfluorohexane sulfonic acid (PFHxS)	104		13.6	45.5	ng/L	ASTM D7979-19
Perfluorohexanoic acid (PFHxA)	28.9	J	14.3	50.0	ng/L	ASTM D7979-19
Perfluorooctane sulfonic acid (PFOS)	120		5.06	9.27	ng/L	ASTM D7979-19
Perfluorooctanoic acid (PFOA)	39.2		9.29	9.99	ng/L	ASTM D7979-19
Perfluoropentane sulfonic acid (PFPeS)	8.63	J	5.31	9.37	ng/L	ASTM D7979-19
Perfluoropentanoic acid (PFPeA)	13.3	J	7.99	50.0	ng/L	ASTM D7979-19

SAMPLE SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Workorder: HN2517937

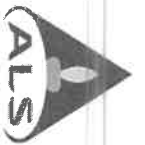
Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2517937-001	MW-84-50(10-15)_111925	GROUNDWATER	11/19/25 11:30	11/25/25 11:00
HN2517937-002	SB-84-23(11-16)_111925	GROUNDWATER	11/19/25 12:50	11/25/25 11:00
HN2517937-003	RF1-84-04I_111925	GROUNDWATER	11/19/25 14:55	11/25/25 11:00
HN2517937-004	MW-84-01D_112025	GROUNDWATER	11/20/25 10:35	11/25/25 11:00
HN2517937-005	MW-84-02D_112025	GROUNDWATER	11/20/25 11:30	11/25/25 11:00
HN2517937-006	MW-84-03D_112025	GROUNDWATER	11/20/25 12:20	11/25/25 11:00
HN2517937-007	MW-84-76(10-15)_112025	GROUNDWATER	11/21/25 11:45	11/25/25 11:00
HN2517937-008	RF1-84-07S(10-15)_112125	GROUNDWATER	11/21/25 12:55	11/25/25 11:00
HN2517937-009	RF1-84-11S_112125	GROUNDWATER	11/21/25 13:55	11/25/25 11:00
HN2517937-010	MW-84-04D_112025	GROUNDWATER	11/20/25 14:55	11/25/25 11:00
HN2517937-011	MW-04-159 (18-23)_111725	GROUNDWATER	11/17/25 11:50	11/25/25 11:00
HN2517937-012	MW-04-159(4-9)_111725	GROUNDWATER	11/17/25 13:00	11/25/25 11:00
HN2517937-013	04-160_111725	GROUNDWATER	11/17/25 14:30	11/25/25 11:00
HN2517937-014	SB-04-26(5-10)_111725	GROUNDWATER	11/17/25 15:35	11/25/25 11:00
HN2517937-015	DUP-01	GROUNDWATER	11/17/25	11/25/25 11:00
HN2517937-016	MW-09-93(14-19)_111825	GROUNDWATER	11/18/25 11:00	11/25/25 11:00
HN2517937-017	MW-09-93(4-9)_111825	GROUNDWATER	11/18/25 12:20	11/25/25 11:00
HN2517937-018	MW-09-93(20-25)_111825	GROUNDWATER	11/18/25 13:20	11/25/25 11:00
HN2517937-019	SB-04-64(19-24)_111825	GROUNDWATER	11/18/25 15:00	11/25/25 11:00
HN2517937-020	SB-04-34(4-9)_111925	GROUNDWATER	11/19/25 10:15	11/25/25 11:00
HN2517937-021	MW-04-156(20-25)_111925	GROUNDWATER	11/19/25 12:30	11/25/25 11:00
HN2517937-022	MW-04-156(9-14)_111925	GROUNDWATER	11/19/25 11:15	11/25/25 11:00
HN2517937-023	SB-04-100(9-14)_111925	GROUNDWATER	11/19/25 14:05	11/25/25 11:00
HN2517937-024	MW-04-01_112025	GROUNDWATER	11/20/25 10:35	11/25/25 11:00
HN2517937-025	SB-16-23_112025	GROUNDWATER	11/20/25 12:00	11/25/25 11:00
HN2517937-026	SB-16-18_112025	GROUNDWATER	11/20/25 13:10	11/25/25 11:00
HN2517937-027	MW-04-80(12-17)_112025	GROUNDWATER	11/20/25 14:30	11/25/25 11:00
HN2517937-028	MW-04-79(11-16)_112125	GROUNDWATER	11/21/25 09:20	11/25/25 11:00
HN2517937-029	MW-09-78(5-15)_112125	GROUNDWATER	11/21/25 10:25	11/25/25 11:00
HN2517937-030	MW-09-83(6-11)_112125	GROUNDWATER	11/21/25 11:30	11/25/25 11:00
HN2517937-031	MW-09-88(5-15)_111825	GROUNDWATER	11/18/25 13:10	11/25/25 11:00
HN2517937-032	RFI-09-55S_111825	GROUNDWATER	11/18/25 14:20	11/25/25 11:00
HN2517937-033	RFI-09-55DR_111825	GROUNDWATER	11/18/25 15:10	11/25/25 11:00
HN2517937-034	RFI-09-08_111825	GROUNDWATER	11/18/25 15:55	11/25/25 11:00

SAMPLE SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Workorder: HN2517937

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2517937-035	RFI-09-09D_111925	GROUNDWATER	11/19/25 10:00	11/25/25 11:00
HN2517937-036	RFI-09-09_111925	GROUNDWATER	11/19/25 10:30	11/25/25 11:00
HN2517937-037	MW-84-73(28-33)_111925	GROUNDWATER	11/19/25 12:10	11/25/25 11:00
HN2517937-038	RFI-17-02D_111925	GROUNDWATER	11/19/25 14:45	11/25/25 11:00
HN2517937-039	RFI-17-02_111925	GROUNDWATER	11/19/25 15:50	11/25/25 11:00
HN2517937-040	MW-09-80(12-17)_111725	GROUNDWATER	11/17/25 12:15	11/25/25 11:00
HN2517937-041	RFI-09-52_111725	GROUNDWATER	11/17/25 13:30	11/25/25 11:00
HN2517937-042	MW-09-81(5-10)_111725	GROUNDWATER	11/17/25 14:35	11/25/25 11:00
HN2517937-043	MW-09-81(14-19)_111725	GROUNDWATER	11/17/25 15:40	11/25/25 11:00
HN2517937-044	RFI-09-44_111725	GROUNDWATER	11/17/25 16:40	11/25/25 11:00
HN2517937-045	MW-09-89(5-10)_111825	GROUNDWATER	11/18/25 11:15	11/25/25 11:00
HN2517937-046	MW-09-88(19.5-24.5)_111825	GROUNDWATER	11/18/25 12:10	11/25/25 11:00
HN2517937-047	EB-02_111825	GROUNDWATER	11/18/25 11:00	11/25/25 11:00
HN2517937-048	DUP-06	GROUNDWATER	11/17/25	11/25/25 11:00
HN2517937-049	DUP-05	GROUNDWATER	11/17/25	11/25/25 11:00
HN2517937-050	MW-84-56_111725	GROUNDWATER	11/17/25 14:40	11/25/25 11:00
HN2517937-051	MW-84-52_111725	GROUNDWATER	11/17/25 15:45	11/25/25 11:00
HN2517937-052	EB-01_111825	GROUNDWATER	11/18/25 13:40	11/25/25 11:00
HN2517937-053	MW-84-59(17-27)_111825	GROUNDWATER	11/18/25 14:30	11/25/25 11:00
HN2517937-054	MW-09-86(15-20)_111825	GROUNDWATER	11/18/25 13:00	11/25/25 11:00
HN2517937-055	DUP-03	GROUNDWATER	11/18/25	11/25/25 11:00
HN2517937-056	MW-09-87(4-7)_111825	GROUNDWATER	11/18/25 10:45	11/25/25 11:00
HN2517937-057	MW-09-87(10-20)_111825	GROUNDWATER	11/18/25 11:40	11/25/25 11:00
HN2517937-058	MW-84-48(7-12)_111825	GROUNDWATER	11/18/25 15:30	11/25/25 11:00
HN2517937-059	DUP-04	GROUNDWATER	11/18/25	11/25/25 11:00
HN2517937-060	MW-09-85(14-19)_112125	GROUNDWATER	11/21/25 12:50	11/25/25 11:00
HN2517937-061	MW-09-85(8-13)_112125	GROUNDWATER	11/21/25 14:00	11/25/25 11:00
HN2517937-062	DUP-02	GROUNDWATER	11/19/25	11/25/25 11:00
HN2517937-063	RFI-09-48_112125	GROUNDWATER	11/21/25 15:45	11/25/25 11:00
HN2517937-064	BD01-04_112425	GROUNDWATER	11/24/25 10:25	11/25/25 11:00
HN2517937-065	MW-84-15_112425	GROUNDWATER	11/24/25 12:40	11/25/25 11:00



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name		Arcadis U.S., Inc.		Purchase Order		Arcadis U.S., Inc.		Parameter/Method Request for Analysis											
Send Report To		RACER Lansing 2025		Invoice Attn		30267725.0370B		A 597M-MT-10-22 ASIM D7179											
Project Name		RACER Lansing 2025		Project #		30267725.0370B		B											
Address		28550 Cabot Drive Suite 500		Address		28550 Cabot Drive Suite 500 Suite 500		C											
City/State/Zip		Novi, MI 48377		City/State/Zip		Novi, MI 48377		D											
Phone		2489942240		Phone		2489942240		E											
e-Mail Address				e-Mail Address				F											
								G											
								H											
								I											
								J											

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-84-50(10-15)-111925	11-19-23	1130	GW	NONE	3											
2	SB-84-23(11-16)-111925		1250			9											MS/MSD
3	RF1-84-041-111925		1455			3											
4	MW-84-01D-112025	11-20-25	1035	GW	NONE	3											
5	MW-84-02D-112025	11-20-25	1130	GW	NONE	3											
6	MW-84-03D-112025	11-20-25	1220	GW	NONE	3											
7	MW-84-76(10-15)-112125	11-21-25	1145	GW	NONE	3											
8	RF1-84-075-112125	11-21-25	1255	GW	NONE	3											
9	RF1-84-115-112125		1355	GW	NONE	3											
10	MW-84-04D-112125		1455	GW	NONE	3											

Notes: Any changes must be made in writing, once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-d degrees C 9-5035

Refrigerated by: Mike Jellu Date: 11-21-25 Time: 1615 Received by: Donald Riedl/Arcadis Date: 11/25/25 Time: 1100

QC Reporting Level: (check box below)

Level II: Standard QC

Level III: Std QC + Raw data

Level IV: SW/846 CLP-Like

Other:

Telephone: + 1 616 399 6070

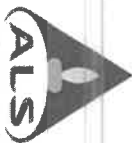
Environmental Division
Holland
Work Order Reference
HN2517937

Parameter/Method Request for Analysis

Required Turnaround Time: Std 10 Wk days 5 Wk days 2 Wk days 24 hr

Results Due:

NOTES: 5.2c 186



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name		Arcadis U.S., Inc.		Purchase Order		Arcadis U.S., Inc.		Parameter/Method Request for Analysis											
Send Report To		RACER Lansing 2025		Invoice Attn		3026725.0370B		A 5824M-MH-10-20-ASTM D7979											
Project Name		28550 Cabot Drive Suite 500		Project #		28550 Cabot Drive Suite 500 Suite 500		B											
Address		28550 Cabot Drive Suite 500		Address		28550 Cabot Drive Suite 500 Suite 500		C											
City/State/Zip		Novi, MI 48377		City/State/Zip		Novi, MI 48377		D											
Phone		2489942240		Phone		2489942240		E											
e-Mail Address				e-Mail Address				F											
								G											
								H											
								I											
								J											

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MM-04-159 (18-23) 111725	11/17/25	1150	GW	N/A	3											X
2	MM-04-159 (4-9) 111725		1300														
3	04-160 111725		1430														
4	SB-04-26 (5-10) 111725		1535														
5	DUP-01		—														
6	MM-04-93 (14-19) 111825	11/18/25	1100														
7	MM-04-93 (4-9) 111825		1220														
8	MM-04-93 (20-25) 111825		1320														
9	SB-04-64 (19-24) 111825		1500														
10	SB-04-34 (4-9) 111925	11/19/25	1015														

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Relinquished by: *Michelle Arnold* Date: *11/24/25* Time: *1615* Received by: *Feder* Date: *11/25/25* Time: *1100*

QC Reporting Level: (check box below)

Level I: Standard QC

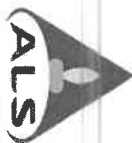
Level II: Std QC + Raw data

Level III: SW846 CLP-Like

Level IV: Other

Required Turnaround Time: Std 10 Wk days 5 Wk days 2 Wk days 24 hr

Results Due: *126 5:2c*



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name	Arcadis U.S., Inc.	Purchase Order	Arcadis U.S., Inc.	Parameter/Method Request for Analysis															
Send Report To		Company Name		532M M-10-0128 ASTM D7979															
Project Name	RACER Lansing 2025	Invoice Attn																	
Address	28550 Cabot Drive Suite 500	Project #	30267725.0370B																
City/State/Zip	Novi, MI 48377	Address	28550 Cabot Drive Suite 500 Suite 500																
Phone	2489942240	City/State/Zip	Novi, MI 48377																
e-Mail Address		Phone	2489942240																
		e-Mail Address																	

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-04-156(10-25)_111925	11/19/25	1230	GW	NA	9											MS/MSD
2	MW-04-156(9-14)_111925		1115			3											
3	SB-04-100(9-14)_111925		1405														
4	MW-04-01_112025	11/20/25	1035														
5	SB-16-23_112025		1200														
6	SB-16-18_112025		1310														
7	MW-04-80 ⁽¹³⁻¹⁷⁾ ₁₁₂₀₂₅		1430														
8	MW-04-79(11-16)_112125	11/21/25	0920														
9	MW-04-78(5-15)_112125		1025														
10	MW-04-83(6-11)_112125		1130														

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C. 9-5035

Relinquished by: Date: Time: Received by: Date: Time:

Required Turnaround Time: Std 10 Wk days 5 Wk days 2 Wk days 24 hr

QC Reporting Level: (check box below)

Level II: Standard QC

Level III: Std QC + Raw data

Level IV: SW846 CLP-Like



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name	Arcadis U.S., Inc.	Purchase Order	Arcadis U.S., Inc.	Parameter/Method Request for Analysis																
Send Report To	ARCADIS U.S. 600	Company Name		A	537M-MH-10-28 ASTM D7979															
Project Name	RACER Lansing 2025	Invoice Attn		B																
Address	28550 Cabot Drive Suite 500	Project #	30267725.0370B	C																
City/State/Zip	Novi, MI 48377	Address	28550 Cabot Drive Suite 500 Suite 500	D																
Phone	2489942240	City/State/Zip	Novi, MI 48377	E																
e-Mail Address		Phone	2489942240	F																
		e-Mail Address		G																
				H																
				I																
				J																

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-09-88(5-15)-111825	11/18/25	1310	None	None	3											
2	RFT-09-55S-111825	11/18/25	1420	None	None	9											
3	RFT-09-55DR-111825	11/18/25	1510	None	None	3											
4	RFT-09-08-111825	11/18/25	1555	None	None	3											
5	RFT-09-09D-111925	11/19/25	1000	None	None	3											
6	RFT-09-09-111925	11/19/25	1030	None	None	3											
7	MW-84-73(28-33)-111925	11/19/25	1210	None	None	3											
8	RFT-17-02D-111925	11/19/25	1445	None	None	3											
9	RFT-17-02-111925	11/19/25	1550	None	None	3											
10																	

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL, 2-HNO3, 3-H2SO4, 4-NAOH, 5-NA2S2O3, 6-NAHSO4, 7-Other, 8-4 degrees C, 9-5035

Relinquished by: Date: Time: Received by: Date: Time:

NOTES:

1210 5:20

Donald D. Alford

11/24/25

1615

Feder

11/25/25

1160

Feder

11/25/25

1100

Alford

11/25/25

1160

QC Reporting Level: (check box below)

Level II: Standard QC

Level III: Std QC + Raw data

Level IV: SW846 CLP-Like

Other:

Results Due:

Required Turnaround Time: Std 10 Wk days 5 Wk days 2 Wk days 24 hr



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name		Arcadis U.S., Inc.		Purchase Order		Arcadis U.S., Inc.		Parameter/Method Request for Analysis											
Send Report To		M.J. Sen, Director of Arcadis U.S.		Invoice Attn				A. ~~687M-MH-10-28~~ ASTM D7479											
Project Name		RACER Lansing 2025		Project #		3026725.0370B		B.											
Address		28550 Cabot Drive Suite 500		Address		28550 Cabot Drive Suite 500 Suite 500		C.											
City/State/Zip		Novi, MI 48377		City/State/Zip		Novi, MI 48377		D.											
Phone		2489942240		Phone		2489942240		E.											
e-Mail Address				e-Mail Address				F.											
								G.											
								H.											
								I.											
								J.											

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-04-80 (12-17)-111725	11/17/25	1215	None	None	9											
2	RFT-09-52-111725	11/17/25	1330	None	None	3											
3	MW-09-81 (5-10)-111725	11/17/25	1435	None	None	3											
4	MW-09-81 (14-19)-111725	11/17/25	1540	None	None	3											
5	RFT-09-44-111725	11/17/25	1640	None	None	3											
6	MW-09-89 (5-10)-111825	11/18/25	1115	None	None	3											
7	MW-09-88 (19.5-24.5)-111825	11/18/25	1210	None	None	3											
8	EB-02-111825	11/18/25	1106	None	None	3											
9	Dcp-06-111725	11/17/25	—	None	None	3											
10	Dcp-05-111725	11/17/25	—	None	None	3											

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NAOH 5-NA2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Relinquished by: Donald Paul Arnold Date: 11/24/25 Time: 1615 Received by: FedEx Date: 11/25/25 Time: 1100

QC Reporting Level: (check box below)

Level I: Standard QC

Level II: Std QC + Raw data

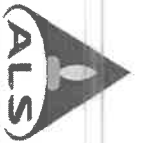
Level III: SW846 CLP-Like

Level IV: SW846 CLP-Like

Required Turnaround Time: Std 10 Wk days 5 Wk days 2 Wk days 24 hr

NOTES: 106 5.2c

Results Due:



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name		Arcadis U.S., Inc.		Purchase Order		Arcadis U.S., Inc.		Parameter/Method Request for Analysis											
Send Report To		RACER Lansing 2025		Invoice Attn		30267725.0370B		ASTM D7974											
Project Name		28550 Cabot Drive Suite 500		Project #		28550 Cabot Drive Suite 500													
Address		28550 Cabot Drive Suite 500		Address		28550 Cabot Drive Suite 500													
City/State/Zip		Novi, MI 48377		City/State/Zip		Novi, MI 48377													
Phone		2489942240		Phone		2489942240													
e-Mail Address				e-Mail Address															

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-84-56-111725	11-17-25	1410	GW	none	3	X										
2	MW-84-57-111725	11-17-25	1545	GW	none	3	X										
3	EB-01-111825	11-18-25	1340	W	none	3	X										
4	MW-84-58(17-27)-111825		1430	GW		3	X										
5	MW-09-86(15-20)-111925		1300	GW		3	X										
6	DV8-03-111825			GW		3	X										
7	MW-09-87(4-7)-111925		1045	GW		3	X										
8	MW-09-87(10-20)-111825		1140	GW		3	X										
9	MW-84-48(7-12)-111825		1530	GW		3	X										
10	DV8-01-111825			GW		3	X										

Reinquired by:	Date:	Time:	Received by:	Date:	Time:	Required Turnaround Time:	Results Due:
Mattie J. Jones	11-18-25		Donald D. Arcadis	11/24/25	1345	Std 10 Wk days	180 5.20
Donald D. Arcadis	11/24/25	1615	Supra B. via FedEx	11/25/25	1100	QC Reporting Level: (check box below)	
							Level II: Standard QC
							Level III: Std QC + Raw data
							Level IV: SW846 CLP-Like



Chain of Custody Form

ALS Group USA, Corp

Work Order

Company Name		Arcadis U.S., Inc.		Purchase Order		Arcadis U.S., Inc.		Parameter/Method Request for Analysis											
Send Report To		RACER Lansing 2025		Invoice Attn		30267725.03708		53246-11-13-28 A3TM 079779											
Project Name		RACER Lansing 2025		Project #		30267725.03708													
Address		28550 Cabot Drive Suite 500		Address		28550 Cabot Drive Suite 500 Suite 500													
City/State/Zip		Novi, MI 48377		City/State/Zip		Novi, MI 48377													
Phone		2489942240		Phone		2489942240													
e-Mail Address				e-Mail Address															

#	Sample Description	Date	Time	Matrix	Preservative	# Bottles	A	B	C	D	E	F	G	H	I	J	Sample Notes
1	MW-09-85(14-19)-112125	11/21/25	1250	GW	NA	3	X										
2	MW-09-85(8-13)-112125	11/21/25	1400	GW	NA	3	X										
3	DUP-02	11/19/25	---	GW	NA	3	X										
4	RFI-09-48-112125	11-21-25	1545	GW	none	3	X										
5	BD01-04-112425	11/24/25	1025	GW	NA	3	X										
6	MW-84-15-112425	11/24/25	1240	GW	NA	3	X										
7																	
8																	
9																	
10																	

Notes: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NAOH 5-NA2S2O3 6-NAHSO4 7-Other 8-4 degrees C 9-5035

Relinquished by: Donald Davis/Arcadis Date: 11/24/25 Time: 1615 Received by: FedEx Date: 11/25/25 Time: 1100

Required Turnaround Time: Std 10 wk days 5 wk days 2 wk days 24 hr

Results Due: 11/25/25

NOTES: 1K6 5.2C

QC Reporting Level: (check box below)

Level I: Standard QC

Level II: Std QC + Raw data

Level III: Std QC + Raw data

Level IV: SW846 CLP-Like

Other:



ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by:

Clyma B

Date/Time:

11/25/25 1100

Carrier Name:

FedEx

Shipping container/cooler in good condition?

☒ Yes / No / Not Present

Custody seals intact on shipping container/cooler?

Yes / No / ☒ Present

Custody seals intact on sample bottles?

Yes / No / ☒ Present

Chain of Custody present?

☒ Yes / No

COC signed when relinquished and received?

☒ Yes / No

COC agrees with sample labels?

☒ Yes / No

Samples in proper container/bottle?

☒ Yes / No

Sample containers intact?

☒ Yes / No

Sufficient sample volume for indicated test?

☒ Yes / No

All samples received within holding time?

☒ Yes / No

Container/Temp Blank temperature in compliance?

☒ Yes / No

Temperature(s) (°C):

5.2c / 5.2c

Thermometer(s):

1 R6

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

groundwater

Cooler(s)/Kit(s):

-

Date/Time sample(s) sent to storage:

11/26/25 1110

Water – VOA vials have zero headspace?

Yes / No / ☒ No Vials

Water – pH acceptable upon receipt?

Yes / No / ☒ N/A

pH strip lot #: < 2 > 12 Other

pH adjusted (note adjustments below)?

Yes / No / ☒ N/A

pH adjusted by:

Login Notes:

HN-SHT-160-R01, Sample Receipt Checklist

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/01/2025	09/01/2027
Kansas	NELAP (Secondary)	E-10411	08/01/2025	07/31/2026
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	07/07/2025	06/30/2026
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2025	6/30/2026
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	11/25/2025	07/31/2026
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/08/2025	08/31/2026

¹ - Scope available upon request

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-84-50(10-15)_111925
Laboratory Code: HN2517937-001
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	001-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: SB-84-23(11-16)_111925
Laboratory Code: HN2517937-002
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	002-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: RF1-84-04I_111925
Laboratory Code: HN2517937-003
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	003-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: MW-84-01D_112025
Laboratory Code: HN2517937-004
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	004-AA	2363523	Audrey	3739698	Michelle McClendon

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-84-02D_112025
Laboratory Code: HN2517937-005
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	005-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: MW-84-03D_112025
Laboratory Code: HN2517937-006
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	006-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: MW-84-76(10-15)_112025
Laboratory Code: HN2517937-007
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	007-AA	2363523	Audrey	3739698	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	007-AA	2363523	Audrey	3741932	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	007-AA	2363523	Audrey	3742382	Michelle McClendon

Sample Name: RF1-84-07S(10-15)_112125
Laboratory Code: HN2517937-008
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	008-AA	2363523	Audrey	3739698	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	008-AA	2363523	Audrey	3741932	Michelle McClendon

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: RF1-84-11S_112125
Laboratory Code: HN2517937-009
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	009-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: MW-84-04D_112025
Laboratory Code: HN2517937-010
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	010-AA	2363523	Audrey	3739698	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	010-AA	2363523	Audrey	3741932	Michelle McClendon

Sample Name: MW-04-159 (18-23)_111725
Laboratory Code: HN2517937-011
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	011-AA	2363523	Audrey	3739698	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	011-AA	2363523	Audrey	3741932	Michelle McClendon

Sample Name: MW-04-159(4-9)_111725
Laboratory Code: HN2517937-012
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	012-AA	2363523	Audrey	3739698	Michelle McClendon

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: 04-160_111725 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-013 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	013-AA	2363523	Audrey	3739698	Michelle McClendon

Sample Name: SB-04-26(5-10)_111725 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-014 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	014-AA	2363523	Audrey	3739698	Michelle McClendon
ASTM D7979-19	ASTM D7979-19	014-AA	2363523	Audrey	3741932	Michelle McClendon

Sample Name: DUP-01 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-015 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	015-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	015-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-09-93(14-19)_111825 **Date Collected:** 11/18/25
Laboratory Code: HN2517937-016 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	016-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	016-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	016-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-09-93(4-9)_111825
Laboratory Code: HN2517937-017
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	017-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	017-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-09-93(20-25)_111825
Laboratory Code: HN2517937-018
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	018-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	018-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	018-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse

Sample Name: SB-04-64(19-24)_111825
Laboratory Code: HN2517937-019
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	019-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	019-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	019-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	019-AA	2364667	Clayton Rzepka	3769375	Morgan Morehouse

Sample Name: SB-04-34(4-9)_111925
Laboratory Code: HN2517937-020
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	020-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	020-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: SB-04-34(4-9)_111925
Laboratory Code: HN2517937-020
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	020-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse

Sample Name: MW-04-156(20-25)_111925
Laboratory Code: HN2517937-021
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	021-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	021-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-04-156(9-14)_111925
Laboratory Code: HN2517937-022
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	022-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	022-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	022-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse

Sample Name: SB-04-100(9-14)_111925
Laboratory Code: HN2517937-023
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	023-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	023-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	023-AA	2364667	Clayton Rzepka	3769214	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-04-01_112025
Laboratory Code: HN2517937-024
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	024-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: SB-16-23_112025
Laboratory Code: HN2517937-025
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	025-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: SB-16-18_112025
Laboratory Code: HN2517937-026
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	026-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	026-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-04-80(12-17)_112025
Laboratory Code: HN2517937-027
Sample Matrix: GROUNDWATER

Date Collected: 11/20/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	027-AA	2364667	Clayton Rzepka	3768260	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	027-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-04-79(11-16)_112125
Laboratory Code: HN2517937-028
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	028-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: MW-09-78(5-15)_112125
Laboratory Code: HN2517937-029
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	029-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-09-83(6-11)_112125
Laboratory Code: HN2517937-030
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	030-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: MW-09-88(5-15)_111825
Laboratory Code: HN2517937-031
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	031-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	031-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: RFI-09-55S_111825
Laboratory Code: HN2517937-032
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	032-AA	2364673	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: RFI-09-55DR_111825
Laboratory Code: HN2517937-033
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	033-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: RFI-09-08_111825
Laboratory Code: HN2517937-034
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	034-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: RFI-09-09D_111925
Laboratory Code: HN2517937-035
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	035-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: RFI-09-09_111925 **Date Collected:** 11/19/25
Laboratory Code: HN2517937-036 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	036-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	036-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-84-73(28-33)_111925 **Date Collected:** 11/19/25
Laboratory Code: HN2517937-037 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	037-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: RFI-17-02D_111925 **Date Collected:** 11/19/25
Laboratory Code: HN2517937-038 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	038-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	038-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: RFI-17-02_111925 **Date Collected:** 11/19/25
Laboratory Code: HN2517937-039 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	039-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-09-80(12-17)_111725
Laboratory Code: HN2517937-040
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	040-AA	2367154	Clayton Rzepka	3768681	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	040-AA	2367154	Clayton Rzepka	3769125	Morgan Morehouse

Sample Name: RFI-09-52_111725
Laboratory Code: HN2517937-041
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	041-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	041-AA	2364667	Clayton Rzepka	3769023	Morgan Morehouse

Sample Name: MW-09-81(5-10)_111725
Laboratory Code: HN2517937-042
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	042-AA	2364667	Clayton Rzepka	3768710	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	042-AA	2364667	Clayton Rzepka	3769060	Morgan Morehouse

Sample Name: MW-09-81(14-19)_111725
Laboratory Code: HN2517937-043
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	043-AA	2364667	Clayton Rzepka	3768710	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	043-AA	2364667	Clayton Rzepka	3769060	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: RFI-09-44_111725
Laboratory Code: HN2517937-044
Sample Matrix: GROUNDWATER

Date Collected: 11/17/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	044-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: MW-09-89(5-10)_111825
Laboratory Code: HN2517937-045
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	045-AA	2364667	Clayton Rzepka	3768475	Morgan Morehouse

Sample Name: MW-09-88(19.5-24.5)_111825
Laboratory Code: HN2517937-046
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	046-AA	2367154	Clayton Rzepka	3769125	Morgan Morehouse

Sample Name: EB-02_111825
Laboratory Code: HN2517937-047
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	047-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: DUP-06 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-048 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	048-AA	2367154	Clayton Rzepka	3768681	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	048-AA	2367154	Clayton Rzepka	3769128	Morgan Morehouse

Sample Name: DUP-05 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-049 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	049-AA	2367154	Clayton Rzepka	3769125	Morgan Morehouse

Sample Name: MW-84-56_111725 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-050 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	050-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: MW-84-52_111725 **Date Collected:** 11/17/25
Laboratory Code: HN2517937-051 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	051-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: EB-01_111825 **Date Collected:** 11/18/25
Laboratory Code: HN2517937-052 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	052-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: MW-84-59(17-27)_111825 **Date Collected:** 11/18/25
Laboratory Code: HN2517937-053 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	053-AA	2367154	Clayton Rzepka	3769125	Morgan Morehouse

Sample Name: MW-09-86(15-20)_111825 **Date Collected:** 11/18/25
Laboratory Code: HN2517937-054 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	054-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: DUP-03 **Date Collected:** 11/18/25
Laboratory Code: HN2517937-055 **Date Received:** 11/25/25
Sample Matrix: GROUNDWATER

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	055-AA	2367154	Clayton Rzepka	3768681	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	055-AA	2367154	Clayton Rzepka	3769128	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-09-87(4-7)_111825
Laboratory Code: HN2517937-056
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	056-AA	2367154	Clayton Rzepka	3768681	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	056-AA	2367154	Clayton Rzepka	3769128	Morgan Morehouse

Sample Name: MW-09-87(10-20)_111825
Laboratory Code: HN2517937-057
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	057-AA	2367154	Clayton Rzepka	3768681	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	057-AA	2367154	Clayton Rzepka	3769128	Morgan Morehouse

Sample Name: MW-84-48(7-12)_111825
Laboratory Code: HN2517937-058
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	058-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: DUP-04
Laboratory Code: HN2517937-059
Sample Matrix: GROUNDWATER

Date Collected: 11/18/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	059-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: MW-09-85(14-19)_112125
Laboratory Code: HN2517937-060
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	060-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: MW-09-85(8-13)_112125
Laboratory Code: HN2517937-061
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	061-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: DUP-02
Laboratory Code: HN2517937-062
Sample Matrix: GROUNDWATER

Date Collected: 11/19/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	062-AA	2367154	Clayton Rzepka	3769128	Morgan Morehouse
ASTM D7979-19	ASTM D7979-19	062-AA	2367154	Clayton Rzepka	3769463	Morgan Morehouse

Sample Name: RFI-09-48_112125
Laboratory Code: HN2517937-063
Sample Matrix: GROUNDWATER

Date Collected: 11/21/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
ASTM D7979-19	ASTM D7979-19	063-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

ANALYST SUMMARY



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis

Work Order: HN2517937

Sample Name: BD01-04_112425
Laboratory Code: HN2517937-064
Sample Matrix: GROUNDWATER

Date Collected: 11/24/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analized By
ASTM D7979-19	ASTM D7979-19	064-AA	2367154	Clayton Rzepka	3768516	Morgan Morehouse

Sample Name: MW-84-15_112425
Laboratory Code: HN2517937-065
Sample Matrix: GROUNDWATER

Date Collected: 11/24/25
Date Received: 11/25/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analized By
ASTM D7979-19	ASTM D7979-19	065-AA	2367154	Morgan	3768516	Morgan Morehouse

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-50(10-15)_111925

Lab ID: HN2517937-001

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.65	U	ng/L	8.65	9.24	1	12/03/25 01:15	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.9	U	ng/L	26.9	47.0	1	12/03/25 01:15	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.4	U	ng/L	36.4	45.8	1	12/03/25 01:15	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	45.8	1	12/03/25 01:15	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.24	1	12/03/25 01:15	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.99	U	ng/L	2.99	9.14	1	12/03/25 01:15	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.4	U	ng/L	38.4	49.0	1	12/03/25 01:15	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.5	U	ng/L	26.5	49.0	1	12/03/25 01:15	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.7	U	ng/L	20.7	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.04	U	ng/L	8.04	8.67	1	12/03/25 01:15	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	16.3	J	ng/L	14.1	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.27	U	ng/L	7.27	9.45	1	12/03/25 01:15	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.7	U	ng/L	14.7	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.1	U	ng/L	29.1	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.6	U	ng/L	10.6	46.7	1	12/03/25 01:15	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.2	U	ng/L	15.2	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	109		ng/L	13.3	44.6	1	12/03/25 01:15	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	30.7	J	ng/L	14.0	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	47.1	1	12/03/25 01:15	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-50(10-15)_111925

Lab ID: HN2517937-001

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.12	U	ng/L	9.12	9.81	1	12/03/25 01:15	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.03	U	ng/L	8.03	9.81	1	12/03/25 01:15	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	48.9		ng/L	4.97	9.10	1	12/03/25 01:15	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	24.4		ng/L	9.12	9.81	1	12/03/25 01:15	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	9.05	J	ng/L	5.22	9.20	1	12/03/25 01:15	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	12.9	J	ng/L	7.85	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.0	U	ng/L	37.0	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	49.0	1	12/03/25 01:15	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.0	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	92.4		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	117		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	110		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	80.0		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	106		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	99.0		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	101		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	99.1		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	100		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	97.7		%REC		70-130	1	12/03/25 01:15	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	95.5		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-50(10-15)_111925

Lab ID: HN2517937-001

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	111		%REC		50-130	1	12/03/25 01:15	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: SB-84-23(11-16)_111925

Lab ID: HN2517937-002

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.60	U	ng/L	8.60	9.19	1	12/03/25 01:00	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.7	U	ng/L	26.7	46.7	1	12/03/25 01:00	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.2	U	ng/L	36.2	45.5	1	12/03/25 01:00	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.3	U	ng/L	19.3	45.5	1	12/03/25 01:00	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.30	U	ng/L	7.30	9.19	1	12/03/25 01:00	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.97	U	ng/L	2.97	9.09	1	12/03/25 01:00	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.2	U	ng/L	38.2	48.8	1	12/03/25 01:00	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.3	U	ng/L	26.3	48.8	1	12/03/25 01:00	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.6	U	ng/L	20.6	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.00	U	ng/L	8.00	8.62	1	12/03/25 01:00	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.1	U	ng/L	14.1	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.22	U	ng/L	7.22	9.40	1	12/03/25 01:00	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.9	U	ng/L	28.9	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.4	1	12/03/25 01:00	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.1	U	ng/L	15.1	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	<13.3	U	ng/L	13.3	44.4	1	12/03/25 01:00	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<13.9	U	ng/L	13.9	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	46.8	1	12/03/25 01:00	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: SB-84-23(11-16)_111925

Lab ID: HN2517937-002

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.07	U	ng/L	9.07	9.75	1	12/03/25 01:00	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.99	U	ng/L	7.99	9.75	1	12/03/25 01:00	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	5.07	J	ng/L	4.94	9.05	1	12/03/25 01:00	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.07	U	ng/L	9.07	9.75	1	12/03/25 01:00	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.19	U	ng/L	5.19	9.15	1	12/03/25 01:00	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	10.7	J	ng/L	7.80	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.8	U	ng/L	36.8	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.3	U	ng/L	17.3	48.8	1	12/03/25 01:00	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.8	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	113		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	119		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	108		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	82.0		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	100		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	108		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	99.0		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	105		%REC		70-130	1	12/03/25 01:00	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: SB-84-23(11-16)_111925

Lab ID: HN2517937-002

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 01:00	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-04I_111925

Lab ID: HN2517937-003

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.59	U	ng/L	8.59	9.17	1	12/03/25 01:29	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.7	U	ng/L	26.7	46.6	1	12/03/25 01:29	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.1	U	ng/L	36.1	45.5	1	12/03/25 01:29	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.5	1	12/03/25 01:29	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.28	U	ng/L	7.28	9.17	1	12/03/25 01:29	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.07	1	12/03/25 01:29	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.1	U	ng/L	38.1	48.7	1	12/03/25 01:29	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.3	U	ng/L	26.3	48.7	1	12/03/25 01:29	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	282		ng/L	7.98	8.61	1	12/03/25 01:29	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	85.4		ng/L	14.0	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.21	U	ng/L	7.21	9.38	1	12/03/25 01:29	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.9	U	ng/L	28.9	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.3	1	12/03/25 01:29	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	49.6		ng/L	15.1	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	290		ng/L	13.2	44.3	1	12/03/25 01:29	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	241		ng/L	13.9	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.7	1	12/03/25 01:29	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-04I_111925

Lab ID: HN2517937-003

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.05	U	ng/L	9.05	9.73	1	12/03/25 01:29	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.97	U	ng/L	7.97	9.73	1	12/03/25 01:29	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	118		ng/L	4.93	9.03	1	12/03/25 01:29	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	78.9		ng/L	9.05	9.73	1	12/03/25 01:29	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	170		ng/L	5.18	9.13	1	12/03/25 01:29	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	113		ng/L	7.79	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.7	U	ng/L	36.7	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.3	U	ng/L	17.3	48.7	1	12/03/25 01:29	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.7	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	97.1		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	119		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	98.0		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	84.3		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	112		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	108		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	102		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	87.1		%REC		70-130	1	12/03/25 01:29	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	94.4		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-04I_111925

Lab ID: HN2517937-003

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	109		%REC		50-130	1	12/03/25 01:29	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-01D_112025

Lab ID: HN2517937-004

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.69	U	ng/L	8.69	9.28	1	12/03/25 01:43	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/03/25 01:43	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.5	U	ng/L	36.5	46.0	1	12/03/25 01:43	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.0	1	12/03/25 01:43	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.37	U	ng/L	7.37	9.28	1	12/03/25 01:43	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.18	1	12/03/25 01:43	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.3	1	12/03/25 01:43	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.3	1	12/03/25 01:43	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	91.7		ng/L	8.08	8.71	1	12/03/25 01:43	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	36.2	J	ng/L	14.2	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.30	U	ng/L	7.30	9.50	1	12/03/25 01:43	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	35.0	J	ng/L	10.7	46.9	1	12/03/25 01:43	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	31.6	J	ng/L	15.3	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	522		ng/L	13.4	44.8	1	12/03/25 01:43	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	90.7		ng/L	14.1	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.3	1	12/03/25 01:43	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-01D_112025

Lab ID: HN2517937-004

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	9.53	J	ng/L	9.16	9.85	1	12/03/25 01:43	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.07	U	ng/L	8.07	9.85	1	12/03/25 01:43	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1000		ng/L	5.00	9.14	1	12/03/25 01:43	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	81.1		ng/L	9.16	9.85	1	12/03/25 01:43	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	100		ng/L	5.24	9.24	1	12/03/25 01:43	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	68.8		ng/L	7.88	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.1	U	ng/L	37.1	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.3	1	12/03/25 01:43	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.3	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	108		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	116		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	85.4		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	106		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	114		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	99.0		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	95.9		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	106		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	99.1		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	92.2		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	99.4		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	99.3		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	94.6		%REC		70-130	1	12/03/25 01:43	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-01D_112025

Lab ID: HN2517937-004

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	94.4		%REC		50-130	1	12/03/25 01:43	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-02D_112025

Lab ID: HN2517937-005

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.85	U	ng/L	8.85	9.45	1	12/03/25 01:58	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.5	U	ng/L	27.5	48.0	1	12/03/25 01:58	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.2	U	ng/L	37.2	46.8	1	12/03/25 01:58	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.8	U	ng/L	19.8	46.8	1	12/03/25 01:58	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.50	U	ng/L	7.50	9.45	1	12/03/25 01:58	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.05	U	ng/L	3.05	9.35	1	12/03/25 01:58	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.3	U	ng/L	39.3	50.2	1	12/03/25 01:58	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.1	U	ng/L	27.1	50.2	1	12/03/25 01:58	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.2	U	ng/L	21.2	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	164		ng/L	8.22	8.87	1	12/03/25 01:58	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	37.2	J	ng/L	14.5	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.43	U	ng/L	7.43	9.67	1	12/03/25 01:58	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.1	U	ng/L	15.1	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.8	U	ng/L	29.8	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	40.4	J	ng/L	10.8	47.7	1	12/03/25 01:58	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	21.1	J	ng/L	15.6	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	840		ng/L	13.6	45.6	1	12/03/25 01:58	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	102		ng/L	14.3	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.4	U	ng/L	13.4	48.1	1	12/03/25 01:58	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-02D_112025

Lab ID: HN2517937-005

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.33	U	ng/L	9.33	10.0	1	12/03/25 01:58	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.21	U	ng/L	8.21	10.0	1	12/03/25 01:58	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1360		ng/L	5.08	9.31	1	12/03/25 01:58	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	84.4		ng/L	9.33	10.0	1	12/03/25 01:58	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	174		ng/L	5.34	9.41	1	12/03/25 01:58	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	39.4	J	ng/L	8.02	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.8	U	ng/L	37.8	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.8	U	ng/L	17.8	50.2	1	12/03/25 01:58	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.1	U	ng/L	12.1	50.2	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	102		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	124		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	95.2		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	85.5		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	110		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	99.6		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	104		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	98.1		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	104		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	98.5		%REC		70-130	1	12/03/25 01:58	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-02D_112025

Lab ID: HN2517937-005

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 01:58	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-03D_112025

Lab ID: HN2517937-006

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.76	U	ng/L	8.76	9.35	1	12/03/25 02:12	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.2	U	ng/L	27.2	47.6	1	12/03/25 02:12	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.8	U	ng/L	36.8	46.4	1	12/03/25 02:12	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.6	U	ng/L	19.6	46.4	1	12/03/25 02:12	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.43	U	ng/L	7.43	9.35	1	12/03/25 02:12	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.02	U	ng/L	3.02	9.26	1	12/03/25 02:12	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.9	U	ng/L	38.9	49.7	1	12/03/25 02:12	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.8	U	ng/L	26.8	49.7	1	12/03/25 02:12	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.0	U	ng/L	21.0	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	258		ng/L	8.14	8.78	1	12/03/25 02:12	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	48.1	J	ng/L	14.3	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.57	1	12/03/25 02:12	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.5	U	ng/L	29.5	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	32.8	J	ng/L	10.7	47.3	1	12/03/25 02:12	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	39.1	J	ng/L	15.4	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1350		ng/L	13.5	45.2	1	12/03/25 02:12	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	134		ng/L	14.2	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.7	1	12/03/25 02:12	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-03D_112025

Lab ID: HN2517937-006

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	11.6		ng/L	9.24	9.93	1	12/03/25 02:12	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.13	U	ng/L	8.13	9.93	1	12/03/25 02:12	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1070		ng/L	5.03	9.22	1	12/03/25 02:12	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	143		ng/L	9.24	9.93	1	12/03/25 02:12	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	285		ng/L	5.28	9.32	1	12/03/25 02:12	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	58.8		ng/L	7.94	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.4	U	ng/L	37.4	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.7	1	12/03/25 02:12	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.7	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	113		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	119		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	101		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	100		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	77.7		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	98.8		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	95.4		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	99.6		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	99.5		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	94.5		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	95.2		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	88.6		%REC		70-130	1	12/03/25 02:12	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	93.1		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-03D_112025

Lab ID: HN2517937-006

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	89.7		%REC		50-130	1	12/03/25 02:12	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-76(10-15)_112025

Lab ID: HN2517937-007

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.68	U	ng/L	8.68	9.27	1	12/03/25 02:27	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/03/25 02:27	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.5	U	ng/L	36.5	46.0	1	12/03/25 02:27	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	46.0	1	12/03/25 02:27	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.27	1	12/03/25 02:27	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.18	1	12/03/25 02:27	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.2	1	12/03/25 02:27	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.2	1	12/03/25 02:27	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	3210		ng/L	80.7	87.0	10	12/03/25 17:55	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	431		ng/L	14.2	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.29	U	ng/L	7.29	9.49	1	12/03/25 02:27	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	26.6	J	ng/L	14.8	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	2920		ng/L	106	469	10	12/03/25 17:55	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	324		ng/L	15.3	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	29500		ng/L	1340	4480	100	12/03/25 17:41	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1490		ng/L	14.1	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	201		ng/L	13.2	47.3	1	12/03/25 02:27	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-76(10-15)_112025

Lab ID: HN2517937-007

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	17.8		ng/L	9.16	9.84	1	12/03/25 02:27	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	107		ng/L	8.06	9.84	1	12/03/25 02:27	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	143000		ng/L	499	914	100	12/03/25 17:41	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	2190		ng/L	91.6	98.4	10	12/03/25 17:55	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	3760		ng/L	52.4	92.3	10	12/03/25 17:55	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	570		ng/L	7.88	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.1	U	ng/L	37.1	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.2	1	12/03/25 02:27	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.2	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	131	S	%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	117		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	99.1		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	106		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	108		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	92.1		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	109		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	98.5		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	111		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	86.4		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	88.8		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	67.7	S	%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	113		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	107		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	92.0		%REC		70-130	1	12/03/25 02:27	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	96.6		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-76(10-15)_112025

Lab ID: HN2517937-007

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 02:27	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-07S(10-15)_112125

Lab ID: HN2517937-008

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.70	U	ng/L	8.70	9.29	1	12/03/25 02:41	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/03/25 02:41	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.6	U	ng/L	36.6	46.1	1	12/03/25 02:41	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.1	1	12/03/25 02:41	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.38	U	ng/L	7.38	9.29	1	12/03/25 02:41	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.19	1	12/03/25 02:41	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.3	1	12/03/25 02:41	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.3	1	12/03/25 02:41	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	47.8		ng/L	8.09	8.72	1	12/03/25 02:41	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	19.2	J	ng/L	14.2	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.31	U	ng/L	7.31	9.51	1	12/03/25 02:41	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.3	U	ng/L	29.3	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	42.0	J	ng/L	10.7	47.0	1	12/03/25 02:41	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.3	U	ng/L	15.3	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	383		ng/L	13.4	44.9	1	12/03/25 02:41	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	44.5	J	ng/L	14.1	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.3	1	12/03/25 02:41	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-07S(10-15)_112125

Lab ID: HN2517937-008

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.17	U	ng/L	9.17	9.86	1	12/03/25 02:41	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.08	U	ng/L	8.08	9.86	1	12/03/25 02:41	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	5150		ng/L	20.0	36.6	4	12/03/25 18:10	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	35.7		ng/L	9.17	9.86	1	12/03/25 02:41	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	55.9		ng/L	5.25	9.25	1	12/03/25 02:41	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	15.0	J	ng/L	7.89	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.2	U	ng/L	37.2	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.3	1	12/03/25 02:41	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.3	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	116		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	91.0		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	99.9		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	99.9		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	83.4		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	85.2		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	104		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	97.7		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	101		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	100		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	95.2		%REC		70-130	1	12/03/25 02:41	12/01/25 16:44
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	88.8		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-07S(10-15)_112125

Lab ID: HN2517937-008

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	99.5		%REC		50-130	1	12/03/25 02:41	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 13:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-11S_112125

Lab ID: HN2517937-009

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.98	U	ng/L	8.98	9.59	1	12/03/25 03:24	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.9	U	ng/L	27.9	48.7	1	12/03/25 03:24	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.7	U	ng/L	37.7	47.5	1	12/03/25 03:24	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<20.1	U	ng/L	20.1	47.5	1	12/03/25 03:24	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.61	U	ng/L	7.61	9.59	1	12/03/25 03:24	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.10	U	ng/L	3.10	9.48	1	12/03/25 03:24	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.8	U	ng/L	39.8	50.9	1	12/03/25 03:24	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.5	U	ng/L	27.5	50.9	1	12/03/25 03:24	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.5	U	ng/L	21.5	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.34	U	ng/L	8.34	9.00	1	12/03/25 03:24	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.7	U	ng/L	14.7	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.54	U	ng/L	7.54	9.81	1	12/03/25 03:24	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.3	U	ng/L	15.3	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<30.2	U	ng/L	30.2	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<11.0	U	ng/L	11.0	48.4	1	12/03/25 03:24	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.8	U	ng/L	15.8	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	17.8	J	ng/L	13.8	46.3	1	12/03/25 03:24	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<14.5	U	ng/L	14.5	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.6	U	ng/L	13.6	48.8	1	12/03/25 03:24	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 13:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-11S_112125

Lab ID: HN2517937-009

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.46	U	ng/L	9.46	10.2	1	12/03/25 03:24	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.33	U	ng/L	8.33	10.2	1	12/03/25 03:24	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	83.7		ng/L	5.16	9.44	1	12/03/25 03:24	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.46	U	ng/L	9.46	10.2	1	12/03/25 03:24	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.41	U	ng/L	5.41	9.55	1	12/03/25 03:24	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<8.14	U	ng/L	8.14	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.4	U	ng/L	38.4	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<18.1	U	ng/L	18.1	50.9	1	12/03/25 03:24	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.2	U	ng/L	12.2	50.9	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	122		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	93.1		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	101		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	106		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	94.9		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	106		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	106		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	99.9		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	92.8		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	101		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	97.1		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	98.0		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	99.5		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	98.8		%REC		70-130	1	12/03/25 03:24	12/01/25 16:44
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 13:55
Date Received: 11/25/25 11:00

CLIENT ID: RF1-84-11S_112125

Lab ID: HN2517937-009

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	109		%REC		50-130	1	12/03/25 03:24	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-04D_112025

Lab ID: HN2517937-010

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.69	U	ng/L	8.69	9.28	1	12/03/25 03:39	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/03/25 03:39	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.5	U	ng/L	36.5	46.0	1	12/03/25 03:39	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.0	1	12/03/25 03:39	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.37	U	ng/L	7.37	9.28	1	12/03/25 03:39	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.18	1	12/03/25 03:39	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.3	1	12/03/25 03:39	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.3	1	12/03/25 03:39	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	111		ng/L	8.08	8.71	1	12/03/25 03:39	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	24.6	J	ng/L	14.2	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.30	U	ng/L	7.30	9.50	1	12/03/25 03:39	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	48.0		ng/L	10.7	46.9	1	12/03/25 03:39	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	19.5	J	ng/L	15.3	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	850		ng/L	13.4	44.8	1	12/03/25 03:39	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	67.0		ng/L	14.1	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.3	1	12/03/25 03:39	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-04D_112025

Lab ID: HN2517937-010

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.16	U	ng/L	9.16	9.85	1	12/03/25 03:39	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.07	U	ng/L	8.07	9.85	1	12/03/25 03:39	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	2010		ng/L	9.99	18.3	2	12/03/25 18:24	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	71.8		ng/L	9.16	9.85	1	12/03/25 03:39	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	132		ng/L	5.24	9.24	1	12/03/25 03:39	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	29.9	J	ng/L	7.88	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.1	U	ng/L	37.1	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.3	1	12/03/25 03:39	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.3	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	101		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	101		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	99.1		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	81.6		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	108		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	105		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	100		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	92.0		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	100.0		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	107		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	93.1		%REC		70-130	1	12/03/25 03:39	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	99.0		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:55
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-04D_112025

Lab ID: HN2517937-010

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	111		%REC		50-130	1	12/03/25 03:39	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 11:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159 (18-23)_111725

Lab ID: HN2517937-011

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.52	U	ng/L	8.52	9.10	1	12/03/25 03:53	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.5	U	ng/L	26.5	46.3	1	12/03/25 03:53	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.8	U	ng/L	35.8	45.1	1	12/03/25 03:53	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.1	1	12/03/25 03:53	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.23	U	ng/L	7.23	9.10	1	12/03/25 03:53	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.94	U	ng/L	2.94	9.01	1	12/03/25 03:53	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.8	U	ng/L	37.8	48.3	1	12/03/25 03:53	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.1	U	ng/L	26.1	48.3	1	12/03/25 03:53	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	104		ng/L	7.92	8.54	1	12/03/25 03:53	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	29.1	J	ng/L	13.9	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.16	U	ng/L	7.16	9.32	1	12/03/25 03:53	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.5	U	ng/L	14.5	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.7	U	ng/L	28.7	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	66.3		ng/L	10.4	46.0	1	12/03/25 03:53	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	51.5		ng/L	15.0	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1640		ng/L	13.1	44.0	1	12/03/25 03:53	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	224		ng/L	13.8	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.4	1	12/03/25 03:53	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 11:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159 (18-23)_111725

Lab ID: HN2517937-011

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<8.99	U	ng/L	8.99	9.66	1	12/03/25 03:53	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.91	U	ng/L	7.91	9.66	1	12/03/25 03:53	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1970		ng/L	9.80	17.9	2	12/03/25 18:39	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	213		ng/L	8.99	9.66	1	12/03/25 03:53	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	173		ng/L	5.14	9.06	1	12/03/25 03:53	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	48.5		ng/L	7.73	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.4	U	ng/L	36.4	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.3	1	12/03/25 03:53	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.3	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	114		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	91.0		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	106		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	103		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	111		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	77.0		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	109		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	96.6		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	105		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	103		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	93.9		%REC		70-130	1	12/03/25 03:53	12/01/25 16:44
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 11:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159 (18-23)_111725

Lab ID: HN2517937-011

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 03:53	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159(4-9)_111725

Lab ID: HN2517937-012

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.68	U	ng/L	8.68	9.27	1	12/03/25 04:08	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/03/25 04:08	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.5	U	ng/L	36.5	46.0	1	12/03/25 04:08	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	46.0	1	12/03/25 04:08	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.27	1	12/03/25 04:08	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.18	1	12/03/25 04:08	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.2	1	12/03/25 04:08	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.2	1	12/03/25 04:08	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	10.2		ng/L	8.07	8.70	1	12/03/25 04:08	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	14.8	J	ng/L	14.2	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.29	U	ng/L	7.29	9.49	1	12/03/25 04:08	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.6	U	ng/L	10.6	46.9	1	12/03/25 04:08	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.3	U	ng/L	15.3	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	209		ng/L	13.4	44.8	1	12/03/25 04:08	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	36.3	J	ng/L	14.1	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.3	1	12/03/25 04:08	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159(4-9)_111725

Lab ID: HN2517937-012

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.16	U	ng/L	9.16	9.84	1	12/03/25 04:08	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.06	U	ng/L	8.06	9.84	1	12/03/25 04:08	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	351		ng/L	4.99	9.14	1	12/03/25 04:08	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	38.6		ng/L	9.16	9.84	1	12/03/25 04:08	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	12.9		ng/L	5.24	9.23	1	12/03/25 04:08	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	13.5	J	ng/L	7.88	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.1	U	ng/L	37.1	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.2	1	12/03/25 04:08	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.2	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	96.2		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	115		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	90.3		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	99.3		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	97.6		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	69.8		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	102		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	98.8		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	99.4		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	99.3		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	99.6		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	99.0		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	95.0		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	87.8		%REC		70-130	1	12/03/25 04:08	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	97.0		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-159(4-9)_111725

Lab ID: HN2517937-012

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	92.8		%REC		50-130	1	12/03/25 04:08	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: 04-160_111725

Lab ID: HN2517937-013

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.44	U	ng/L	8.44	9.02	1	12/03/25 04:22	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.2	U	ng/L	26.2	45.8	1	12/03/25 04:22	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.5	U	ng/L	35.5	44.7	1	12/03/25 04:22	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<18.9	U	ng/L	18.9	44.7	1	12/03/25 04:22	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.16	U	ng/L	7.16	9.02	1	12/03/25 04:22	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.91	U	ng/L	2.91	8.92	1	12/03/25 04:22	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.5	U	ng/L	37.5	47.9	1	12/03/25 04:22	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.8	U	ng/L	25.8	47.9	1	12/03/25 04:22	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.2	U	ng/L	20.2	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	9.70		ng/L	7.85	8.46	1	12/03/25 04:22	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	16.4	J	ng/L	13.8	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.09	U	ng/L	7.09	9.23	1	12/03/25 04:22	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.4	U	ng/L	28.4	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.3	U	ng/L	10.3	45.6	1	12/03/25 04:22	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	18.8	J	ng/L	14.8	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	157		ng/L	13.0	43.5	1	12/03/25 04:22	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	48.8		ng/L	13.7	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<12.8	U	ng/L	12.8	45.9	1	12/03/25 04:22	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: 04-160_111725

Lab ID: HN2517937-013

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<8.90	U	ng/L	8.90	9.57	1	12/03/25 04:22	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.84	U	ng/L	7.84	9.57	1	12/03/25 04:22	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	366		ng/L	4.85	8.88	1	12/03/25 04:22	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	41.6		ng/L	8.90	9.57	1	12/03/25 04:22	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	16.0		ng/L	5.09	8.98	1	12/03/25 04:22	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	20.0	J	ng/L	7.66	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.1	U	ng/L	36.1	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.0	U	ng/L	17.0	47.9	1	12/03/25 04:22	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.5	U	ng/L	11.5	47.9	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	117		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	124		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	104		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	77.8		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	113		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	100		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	107		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	102		%REC		70-130	1	12/03/25 04:22	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: 04-160_111725

Lab ID: HN2517937-013

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	101		%REC		50-130	1	12/03/25 04:22	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:35
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-26(5-10)_111725

Lab ID: HN2517937-014

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.56	U	ng/L	8.56	9.15	1	12/03/25 04:37	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/03/25 04:37	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.3	1	12/03/25 04:37	12/01/25 16:44
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.3	1	12/03/25 04:37	12/01/25 16:44
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.15	1	12/03/25 04:37	12/01/25 16:44
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.05	1	12/03/25 04:37	12/01/25 16:44
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.0	U	ng/L	38.0	48.5	1	12/03/25 04:37	12/01/25 16:44
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.5	1	12/03/25 04:37	12/01/25 16:44
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	15.0		ng/L	7.96	8.58	1	12/03/25 04:37	12/01/25 16:44
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	35.5	J	ng/L	14.0	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.36	1	12/03/25 04:37	12/01/25 16:44
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	37.0	J	ng/L	14.6	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	20.6	J	ng/L	10.5	46.2	1	12/03/25 04:37	12/01/25 16:44
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	110		ng/L	15.1	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	522		ng/L	13.2	44.2	1	12/03/25 04:37	12/01/25 16:44
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	179		ng/L	13.9	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.6	1	12/03/25 04:37	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:35
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-26(5-10)_111725

Lab ID: HN2517937-014

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	56.4		ng/L	9.03	9.71	1	12/03/25 04:37	12/01/25 16:44
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.95	U	ng/L	7.95	9.71	1	12/03/25 04:37	12/01/25 16:44
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	2140		ng/L	9.84	18.0	2	12/03/25 18:53	12/01/25 16:44
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	294		ng/L	9.03	9.71	1	12/03/25 04:37	12/01/25 16:44
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	27.5		ng/L	5.16	9.11	1	12/03/25 04:37	12/01/25 16:44
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	98.9		ng/L	7.77	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/03/25 04:37	12/01/25 16:44
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.5	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-FtS 4:2	ASTM D7979-19	108		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-FtS 6:2	ASTM D7979-19	124		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-FtS 8:2	ASTM D7979-19	118		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-PFDA	ASTM D7979-19	101		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-PFDoA	ASTM D7979-19	105		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-PFHxA	ASTM D7979-19	108		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-PFTeDA	ASTM D7979-19	84.7		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C2-PFUnDA	ASTM D7979-19	108		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C3-HFPO-DA	ASTM D7979-19	87.4		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C3-PFBS	ASTM D7979-19	105		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C4-PFBA	ASTM D7979-19	106		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C4-PFHpA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C4-PFOA	ASTM D7979-19	107		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C4-PFOS	ASTM D7979-19	108		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C5-PFNA	ASTM D7979-19	104		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C5-PFPeA	ASTM D7979-19	105		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 13C8-FOSA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44
Surr: 18O2-PFHxS	ASTM D7979-19	96.4		%REC		70-130	1	12/03/25 04:37	12/01/25 16:44
Surr: d3-N-MeFOSAA	ASTM D7979-19	102		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:35
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-26(5-10)_111725

Lab ID: HN2517937-014

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	104		%REC		50-130	1	12/03/25 04:37	12/01/25 16:44

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-01

Lab ID: HN2517937-015

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.73	U	ng/L	8.73	9.32	1	12/05/25 08:09	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.1	U	ng/L	27.1	47.4	1	12/05/25 08:09	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	1	12/05/25 08:09	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/05/25 08:09	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.40	U	ng/L	7.40	9.32	1	12/05/25 08:09	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.01	U	ng/L	3.01	9.22	1	12/05/25 08:09	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.7	U	ng/L	38.7	49.5	1	12/05/25 08:09	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.5	1	12/05/25 08:09	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	106		ng/L	8.11	8.74	1	12/05/25 08:09	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	31.2	J	ng/L	14.3	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.33	U	ng/L	7.33	9.54	1	12/05/25 08:09	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.4	U	ng/L	29.4	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	71.6		ng/L	10.7	47.1	1	12/05/25 08:09	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	59.0		ng/L	15.3	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1760		ng/L	13.4	45.0	1	12/05/25 08:09	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	214		ng/L	14.1	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.5	1	12/05/25 08:09	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-01

Lab ID: HN2517937-015

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.20	U	ng/L	9.20	9.89	1	12/05/25 08:09	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.10	U	ng/L	8.10	9.89	1	12/05/25 08:09	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1950		ng/L	10.0	18.4	2	12/11/25 23:46	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	210		ng/L	9.20	9.89	1	12/05/25 08:09	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	158		ng/L	5.26	9.28	1	12/05/25 08:09	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	46.9	J	ng/L	7.91	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.3	U	ng/L	37.3	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.5	1	12/05/25 08:09	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.5	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	97.1		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	60.8		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	78.3		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	97.4		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	99.8		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	91.7		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	104		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	82.1		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	106		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	89.2		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	100		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	103		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	96.1		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	94.4		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	98.7		%REC		70-130	1	12/05/25 08:09	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	112		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-01

Lab ID: HN2517937-015

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	117		%REC		50-130	1	12/05/25 08:09	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(14-19)_111825

Lab ID: HN2517937-016

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.55	U	ng/L	8.55	9.14	1	12/05/25 08:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/05/25 08:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.3	1	12/05/25 08:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.3	1	12/05/25 08:23	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.14	1	12/05/25 08:23	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.95	U	ng/L	2.95	9.04	1	12/05/25 08:23	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.0	U	ng/L	38.0	48.5	1	12/05/25 08:23	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.5	1	12/05/25 08:23	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	6700		ng/L	79.5	85.7	10	12/11/25 18:24	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	1460		ng/L	14.0	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.35	1	12/05/25 08:23	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	5200		ng/L	105	462	10	12/11/25 18:24	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	1750		ng/L	15.0	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	152000		ng/L	1320	4410	100	12/11/25 15:59	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	18800		ng/L	139	485	10	12/11/25 18:24	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	31.7	J	ng/L	13.0	46.6	1	12/05/25 08:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(14-19)_111825

Lab ID: HN2517937-016

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	68.5		ng/L	9.02	9.70	1	12/05/25 08:23	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.94	U	ng/L	7.94	9.70	1	12/05/25 08:23	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	140000		ng/L	492	900	100	12/11/25 15:59	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	14900		ng/L	90.2	97.0	10	12/11/25 18:24	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	13300		ng/L	51.6	91.0	10	12/11/25 18:24	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	2780		ng/L	77.6	485	10	12/11/25 18:24	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/05/25 08:23	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.5	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	116		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	65.5		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	76.4		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	93.9		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	101		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	76.7		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	100.0		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	94.9		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	104		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	48.2	S	%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	86.3		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	84.0		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	80.8		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	100		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	94.7		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	80.7		%REC		70-130	1	12/05/25 08:23	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(14-19)_111825

Lab ID: HN2517937-016

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	120		%REC		50-130	1	12/05/25 08:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(4-9)_111825

Lab ID: HN2517937-017

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.56	U	ng/L	8.56	9.15	1	12/05/25 08:38	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/05/25 08:38	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.3	1	12/05/25 08:38	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.3	1	12/05/25 08:38	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.15	1	12/05/25 08:38	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.05	1	12/05/25 08:38	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.0	U	ng/L	38.0	48.5	1	12/05/25 08:38	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.5	1	12/05/25 08:38	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	69.6		ng/L	7.96	8.58	1	12/05/25 08:38	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	36.0	J	ng/L	14.0	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.36	1	12/05/25 08:38	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	354		ng/L	10.5	46.2	1	12/05/25 08:38	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	76.3		ng/L	15.1	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	5820		ng/L	132	442	10	12/11/25 18:39	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	606		ng/L	13.9	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.6	1	12/05/25 08:38	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(4-9)_111825

Lab ID: HN2517937-017

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	18.7		ng/L	9.03	9.71	1	12/05/25 08:38	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.95	U	ng/L	7.95	9.71	1	12/05/25 08:38	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	13000		ng/L	49.2	90.1	10	12/11/25 18:39	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	513		ng/L	9.03	9.71	1	12/05/25 08:38	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	209		ng/L	5.16	9.11	1	12/05/25 08:38	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	95.3		ng/L	7.77	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/05/25 08:38	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.5	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	111		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	87.6		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	79.7		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	101		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	105		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	95.2		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	106		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	98.5		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	89.6		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	96.0		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	96.3		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	93.6		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	107		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	97.4		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	98.6		%REC		70-130	1	12/05/25 08:38	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	105		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(4-9)_111825	Lab ID: HN2517937-017

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 08:38	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(20-25)_111825

Lab ID: HN2517937-018

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.48	U	ng/L	8.48	9.06	1	12/05/25 08:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.4	U	ng/L	26.4	46.0	1	12/05/25 08:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.6	U	ng/L	35.6	44.9	1	12/05/25 08:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.0	U	ng/L	19.0	44.9	1	12/05/25 08:52	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.06	1	12/05/25 08:52	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.93	U	ng/L	2.93	8.96	1	12/05/25 08:52	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.6	U	ng/L	37.6	48.1	1	12/05/25 08:52	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.9	U	ng/L	25.9	48.1	1	12/05/25 08:52	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.3	U	ng/L	20.3	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	6210		ng/L	78.8	85.0	10	12/11/25 18:54	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	1300		ng/L	13.9	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.12	U	ng/L	7.12	9.27	1	12/05/25 08:52	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.5	U	ng/L	28.5	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	4540		ng/L	104	458	10	12/11/25 18:54	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	1570		ng/L	14.9	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	134000		ng/L	1310	4370	100	12/11/25 16:14	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	16600		ng/L	137	481	10	12/11/25 18:54	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	18.9	J	ng/L	12.9	46.1	1	12/05/25 08:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(20-25)_111825

Lab ID: HN2517937-018

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	54.4		ng/L	8.94	9.61	1	12/05/25 08:52	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.87	U	ng/L	7.87	9.61	1	12/05/25 08:52	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	92300		ng/L	487	892	100	12/11/25 16:14	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	13900		ng/L	89.4	96.1	10	12/11/25 18:54	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	12200		ng/L	51.1	90.2	10	12/11/25 18:54	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	2520		ng/L	76.9	481	10	12/11/25 18:54	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.2	U	ng/L	36.2	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.1	U	ng/L	17.1	48.1	1	12/05/25 08:52	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.1	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	67.0		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	86.2		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	98.1		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	85.1		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	99.4		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	104		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	52.9		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	91.5		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	99.2		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	86.8		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	105		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	98.0		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	90.2		%REC		70-130	1	12/05/25 08:52	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	107		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-93(20-25)_111825

Lab ID: HN2517937-018

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	116		%REC		50-130	1	12/05/25 08:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-64(19-24)_111825

Lab ID: HN2517937-019

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.48	U	ng/L	8.48	9.06	1	12/05/25 09:07	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.4	U	ng/L	26.4	46.0	1	12/05/25 09:07	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.6	U	ng/L	35.6	44.9	1	12/05/25 09:07	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.0	U	ng/L	19.0	44.9	1	12/05/25 09:07	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.06	1	12/05/25 09:07	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.93	U	ng/L	2.93	8.96	1	12/05/25 09:07	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.6	U	ng/L	37.6	48.1	1	12/05/25 09:07	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.9	U	ng/L	25.9	48.1	1	12/05/25 09:07	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.3	U	ng/L	20.3	48.1	1	12/05/25 09:07	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	13700		ng/L	78.8	85.0	10	12/11/25 19:08	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	2850		ng/L	139	481	10	12/11/25 19:08	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.12	U	ng/L	7.12	9.27	1	12/05/25 09:07	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	48.1	1	12/05/25 09:07	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.5	U	ng/L	28.5	48.1	1	12/05/25 09:07	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	5660		ng/L	104	458	10	12/11/25 19:08	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	4790		ng/L	149	481	10	12/11/25 19:08	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	175000		ng/L	2610	8750	200	12/12/25 11:40	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	35400		ng/L	1370	4810	100	12/11/25 16:28	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	23.2	J	ng/L	12.9	46.1	1	12/05/25 09:07	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-64(19-24)_111825

Lab ID: HN2517937-019

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	72.1		ng/L	8.94	9.61	1	12/05/25 09:07	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.87	U	ng/L	7.87	9.61	1	12/05/25 09:07	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	125000		ng/L	487	892	100	12/11/25 16:28	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	18800		ng/L	89.4	96.1	10	12/11/25 19:08	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	20800		ng/L	511	902	100	12/11/25 16:28	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	5430		ng/L	76.9	481	10	12/11/25 19:08	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.2	U	ng/L	36.2	48.1	1	12/05/25 09:07	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.1	U	ng/L	17.1	48.1	1	12/05/25 09:07	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.1	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	127		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	66.0		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	88.2		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	102		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	104		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	97.5		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	86.3		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	104		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	95.8		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	100		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	51.9		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	87.3		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	84.0		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	84.6		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	96.5		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	81.6		%REC		70-130	1	12/05/25 09:07	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-64(19-24)_111825

Lab ID: HN2517937-019

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 09:07	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:15
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-34(4-9)_111925

Lab ID: HN2517937-020

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.65	U	ng/L	8.65	9.24	1	12/05/25 09:21	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.9	U	ng/L	26.9	47.0	1	12/05/25 09:21	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.4	U	ng/L	36.4	45.8	1	12/05/25 09:21	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	45.8	1	12/05/25 09:21	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.24	1	12/05/25 09:21	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.99	U	ng/L	2.99	9.14	1	12/05/25 09:21	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.4	U	ng/L	38.4	49.0	1	12/05/25 09:21	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.5	U	ng/L	26.5	49.0	1	12/05/25 09:21	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	25.1	J	ng/L	20.7	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	16900		ng/L	8040	8670	1000	12/11/25 15:13	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	1030		ng/L	14.1	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.27	U	ng/L	7.27	9.45	1	12/05/25 09:21	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	27.6	J	ng/L	14.7	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.1	U	ng/L	29.1	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	100000		ng/L	10600	46700	1000	12/11/25 15:13	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	995		ng/L	15.2	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1090000		ng/L	13300	44600	1000	12/11/25 15:13	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	166000		ng/L	14000	49000	1000	12/11/25 15:13	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	1730		ng/L	13.1	47.1	1	12/05/25 09:21	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:15
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-34(4-9)_111925

Lab ID: HN2517937-020

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	57.6		ng/L	9.12	9.81	1	12/05/25 09:21	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	688		ng/L	8.03	9.81	1	12/05/25 09:21	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	8270000		ng/L	24900	45500	5000	12/12/25 00:30	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	95000		ng/L	9120	9810	1000	12/11/25 15:13	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	49200		ng/L	5220	9200	1000	12/11/25 15:13	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	24600	J	ng/L	7850	49000	1000	12/11/25 15:13	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.0	U	ng/L	37.0	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	49.0	1	12/05/25 09:21	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.0	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	111		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	57.6		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	88.9		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	102		%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	112		%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	98.2		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	94.0		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	106		%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	104		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	54.5		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	91.0		%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	33.4	S	%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	43.7	S	%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	96.4		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	88.8		%REC		70-130	1	12/05/25 09:21	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:15
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-34(4-9)_111925

Lab ID: HN2517937-020

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	112		%REC		50-130	1	12/05/25 09:21	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(20-25)_111925

Lab ID: HN2517937-021

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.54	U	ng/L	8.54	9.12	1	12/05/25 07:55	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.5	U	ng/L	26.5	46.4	1	12/05/25 07:55	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.9	U	ng/L	35.9	45.2	1	12/05/25 07:55	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	19.4	J	ng/L	19.1	45.2	1	12/05/25 07:55	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.24	U	ng/L	7.24	9.12	1	12/05/25 07:55	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.95	U	ng/L	2.95	9.02	1	12/05/25 07:55	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.9	U	ng/L	37.9	48.4	1	12/05/25 07:55	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.1	U	ng/L	26.1	48.4	1	12/05/25 07:55	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	297		ng/L	7.94	8.56	1	12/05/25 07:55	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	100		ng/L	14.0	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.17	U	ng/L	7.17	9.33	1	12/05/25 07:55	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.5	U	ng/L	14.5	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.7	U	ng/L	28.7	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	825		ng/L	10.5	46.1	1	12/05/25 07:55	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	194		ng/L	15.0	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	9250		ng/L	132	441	10	12/11/25 18:09	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	800		ng/L	13.8	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.5	1	12/05/25 07:55	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(20-25)_111925

Lab ID: HN2517937-021

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	66.1		ng/L	9.00	9.68	1	12/05/25 07:55	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.93	U	ng/L	7.93	9.68	1	12/05/25 07:55	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	17200		ng/L	49.1	89.8	10	12/11/25 18:09	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1040		ng/L	9.00	9.68	1	12/05/25 07:55	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	585		ng/L	5.15	9.08	1	12/05/25 07:55	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	196		ng/L	7.75	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.5	U	ng/L	36.5	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.4	1	12/05/25 07:55	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.4	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	124		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	74.3		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	75.0		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	99.2		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	105		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	83.3		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	113		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	113		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	108		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	85.2		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	102		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	93.0		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	98.4		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	106		%REC		70-130	1	12/05/25 07:55	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	123		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(20-25)_111925

Lab ID: HN2517937-021

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	116		%REC		50-130	1	12/05/25 07:55	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(9-14)_111925

Lab ID: HN2517937-022

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.67	U	ng/L	8.67	9.27	1	12/05/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.1	1	12/05/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.5	U	ng/L	36.5	45.9	1	12/05/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	45.9	1	12/05/25 09:36	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.27	1	12/05/25 09:36	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.99	U	ng/L	2.99	9.17	1	12/05/25 09:36	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.5	U	ng/L	38.5	49.2	1	12/05/25 09:36	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.5	U	ng/L	26.5	49.2	1	12/05/25 09:36	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	158		ng/L	8.07	8.69	1	12/05/25 09:36	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	93.1		ng/L	14.2	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.29	U	ng/L	7.29	9.48	1	12/05/25 09:36	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	18.7	J	ng/L	14.8	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	354		ng/L	10.6	46.8	1	12/05/25 09:36	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	177		ng/L	15.3	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	6300		ng/L	134	448	10	12/11/25 19:23	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	758		ng/L	14.1	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	86.9		ng/L	13.2	47.2	1	12/05/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(9-14)_111925

Lab ID: HN2517937-022

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	40.0		ng/L	9.15	9.84	1	12/05/25 09:36	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	17.2		ng/L	8.06	9.84	1	12/05/25 09:36	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	44600		ng/L	499	913	100	12/11/25 16:42	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	583		ng/L	9.15	9.84	1	12/05/25 09:36	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	301		ng/L	5.23	9.23	1	12/05/25 09:36	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	193		ng/L	7.87	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.1	U	ng/L	37.1	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.2	1	12/05/25 09:36	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.2	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	109		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	82.9		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	83.5		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	110		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	109		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	90.6		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	110		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	107		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	110		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	109		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	101		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	101		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	103		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	93.3		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	100		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	106		%REC		70-130	1	12/05/25 09:36	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	109		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-156(9-14)_111925

Lab ID: HN2517937-022

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:05
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-100(9-14)_111925

Lab ID: HN2517937-023

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.88	U	ng/L	8.88	9.49	1	12/05/25 10:19	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.6	U	ng/L	27.6	48.2	1	12/05/25 10:19	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.3	U	ng/L	37.3	47.0	1	12/05/25 10:19	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.9	U	ng/L	19.9	47.0	1	12/05/25 10:19	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.53	U	ng/L	7.53	9.49	1	12/05/25 10:19	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.07	U	ng/L	3.07	9.39	1	12/05/25 10:19	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.4	U	ng/L	39.4	50.4	1	12/05/25 10:19	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.2	U	ng/L	27.2	50.4	1	12/05/25 10:19	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	29.7	J	ng/L	21.2	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	79.0		ng/L	8.26	8.90	1	12/05/25 10:19	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	161		ng/L	14.5	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.46	U	ng/L	7.46	9.71	1	12/05/25 10:19	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	50.2	J	ng/L	15.1	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.9	U	ng/L	29.9	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	3570	J	ng/L	1090	4790	100	12/11/25 16:57	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	241		ng/L	15.6	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	5700		ng/L	1370	4580	100	12/11/25 16:57	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1050		ng/L	14.4	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	850		ng/L	13.5	48.3	1	12/05/25 10:19	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:05
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-100(9-14)_111925

Lab ID: HN2517937-023

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	64.9		ng/L	9.37	10.1	1	12/05/25 10:19	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	211		ng/L	8.25	10.1	1	12/05/25 10:19	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	754000		ng/L	5100	9350	1000	12/11/25 15:28	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1910		ng/L	9.37	10.1	1	12/05/25 10:19	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	222		ng/L	5.36	9.45	1	12/05/25 10:19	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	213		ng/L	8.06	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.0	U	ng/L	38.0	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.9	U	ng/L	17.9	50.4	1	12/05/25 10:19	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	31.3	J	ng/L	12.1	50.4	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	126		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	118		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	107		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	110		%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	111		%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	114		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	94.2		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	108		%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	91.4		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	105		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	108		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	102		%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	36.7	S	%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	54.9	S	%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	103		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	97.1		%REC		70-130	1	12/05/25 10:19	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	115		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:05
Date Received: 11/25/25 11:00

CLIENT ID: SB-04-100(9-14)_111925

Lab ID: HN2517937-023

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	127		%REC		50-130	1	12/05/25 10:19	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-01_112025

Lab ID: HN2517937-024

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.79	U	ng/L	8.79	9.39	1	12/11/25 06:11	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.3	U	ng/L	27.3	47.8	1	12/11/25 06:11	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.0	U	ng/L	37.0	46.6	1	12/11/25 06:11	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.7	U	ng/L	19.7	46.6	1	12/11/25 06:11	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.46	U	ng/L	7.46	9.39	1	12/11/25 06:11	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.04	U	ng/L	3.04	9.29	1	12/11/25 06:11	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.0	U	ng/L	39.0	49.9	1	12/11/25 06:11	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.9	U	ng/L	26.9	49.9	1	12/11/25 06:11	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.0	U	ng/L	21.0	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.18	U	ng/L	8.18	8.81	1	12/11/25 06:11	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	24.0	J	ng/L	14.4	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.39	U	ng/L	7.39	9.61	1	12/11/25 06:11	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.0	U	ng/L	15.0	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.6	U	ng/L	29.6	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.8	U	ng/L	10.8	47.5	1	12/11/25 06:11	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.5	U	ng/L	15.5	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	82.1		ng/L	13.5	45.4	1	12/11/25 06:11	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	26.2	J	ng/L	14.2	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.4	U	ng/L	13.4	47.9	1	12/11/25 06:11	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-01_112025

Lab ID: HN2517937-024

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	9.34	J	ng/L	9.27	9.97	1	12/11/25 06:11	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.17	U	ng/L	8.17	9.97	1	12/11/25 06:11	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	189		ng/L	5.05	9.25	1	12/11/25 06:11	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	21.8		ng/L	9.27	9.97	1	12/11/25 06:11	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.30	U	ng/L	5.30	9.35	1	12/11/25 06:11	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	9.68	J	ng/L	7.98	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.6	U	ng/L	37.6	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.7	U	ng/L	17.7	49.9	1	12/11/25 06:11	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.0	U	ng/L	12.0	49.9	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	106		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	120		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	92.0		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	97.0		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	97.2		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	94.7		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	83.7		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	95.3		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	87.1		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	98.5		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	99.9		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	107		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	97.7		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	96.3		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	96.1		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	93.6		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	89.2		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	94.4		%REC		70-130	1	12/11/25 06:11	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	95.2		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 10:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-01_112025

Lab ID: HN2517937-024

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	92.6		%REC		50-130	1	12/11/25 06:11	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-23_112025

Lab ID: HN2517937-025

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.64	U	ng/L	8.64	9.23	1	12/11/25 06:25	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.9	U	ng/L	26.9	46.9	1	12/11/25 06:25	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.3	U	ng/L	36.3	45.8	1	12/11/25 06:25	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.3	U	ng/L	19.3	45.8	1	12/11/25 06:25	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.33	U	ng/L	7.33	9.23	1	12/11/25 06:25	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.98	U	ng/L	2.98	9.13	1	12/11/25 06:25	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.4	U	ng/L	38.4	49.0	1	12/11/25 06:25	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.4	U	ng/L	26.4	49.0	1	12/11/25 06:25	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.7	U	ng/L	20.7	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.03	U	ng/L	8.03	8.66	1	12/11/25 06:25	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.1	U	ng/L	14.1	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.45	1	12/11/25 06:25	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.7	U	ng/L	14.7	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.1	U	ng/L	29.1	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.6	U	ng/L	10.6	46.6	1	12/11/25 06:25	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.2	U	ng/L	15.2	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	37.7	J	ng/L	13.3	44.6	1	12/11/25 06:25	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<14.0	U	ng/L	14.0	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	47.0	1	12/11/25 06:25	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-23_112025

Lab ID: HN2517937-025

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.11	U	ng/L	9.11	9.80	1	12/11/25 06:25	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.02	U	ng/L	8.02	9.80	1	12/11/25 06:25	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	149		ng/L	4.97	9.09	1	12/11/25 06:25	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	15.3		ng/L	9.11	9.80	1	12/11/25 06:25	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.21	U	ng/L	5.21	9.19	1	12/11/25 06:25	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	8.23	J	ng/L	7.84	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.9	U	ng/L	36.9	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	49.0	1	12/11/25 06:25	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.0	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	99.2		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	101		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	94.5		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	96.4		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	97.1		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	84.7		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	95.5		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	112		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	99.3		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	102		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	102		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	95.3		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	102		%REC		70-130	1	12/11/25 06:25	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	91.5		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 12:00
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-23_112025

Lab ID: HN2517937-025

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 06:25	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-18_112025

Lab ID: HN2517937-026

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.37	U	ng/L	8.37	8.94	1	12/05/25 11:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.0	U	ng/L	26.0	45.4	1	12/05/25 11:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.2	U	ng/L	35.2	44.3	1	12/05/25 11:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	92.7		ng/L	18.7	44.3	1	12/05/25 11:02	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.10	U	ng/L	7.10	8.94	1	12/05/25 11:02	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.89	U	ng/L	2.89	8.84	1	12/05/25 11:02	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.2	U	ng/L	37.2	47.4	1	12/05/25 11:02	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.6	U	ng/L	25.6	47.4	1	12/05/25 11:02	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.0	U	ng/L	20.0	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	374		ng/L	7.78	8.39	1	12/05/25 11:02	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	99.3		ng/L	13.7	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.03	U	ng/L	7.03	9.15	1	12/05/25 11:02	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.3	U	ng/L	14.3	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.2	U	ng/L	28.2	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	308		ng/L	10.3	45.2	1	12/05/25 11:02	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	150		ng/L	14.7	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	5860		ng/L	129	432	10	12/11/25 19:37	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	674		ng/L	13.6	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	13.1	J	ng/L	12.7	45.5	1	12/05/25 11:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-18_112025

Lab ID: HN2517937-026

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	21.9		ng/L	8.82	9.49	1	12/05/25 11:02	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.77	U	ng/L	7.77	9.49	1	12/05/25 11:02	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	15800		ng/L	48.1	88.1	10	12/11/25 19:37	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	526		ng/L	8.82	9.49	1	12/05/25 11:02	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	462		ng/L	5.05	8.90	1	12/05/25 11:02	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	230		ng/L	7.59	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<35.8	U	ng/L	35.8	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<16.9	U	ng/L	16.9	47.4	1	12/05/25 11:02	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.4	U	ng/L	11.4	47.4	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	115		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	79.4		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	81.5		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	98.7		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	109		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	96.7		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	77.8		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	100		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	111		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	110		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	89.9		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	102		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	94.2		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	96.7		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	105		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	98.6		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	104		%REC		70-130	1	12/05/25 11:02	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: SB-16-18_112025

Lab ID: HN2517937-026

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	107		%REC		50-130	1	12/05/25 11:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-80(12-17)_112025

Lab ID: HN2517937-027

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.56	U	ng/L	8.56	9.15	1	12/05/25 11:17	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/05/25 11:17	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.3	1	12/05/25 11:17	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.3	1	12/05/25 11:17	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.15	1	12/05/25 11:17	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.05	1	12/05/25 11:17	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.0	U	ng/L	38.0	48.5	1	12/05/25 11:17	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.5	1	12/05/25 11:17	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	86.3		ng/L	7.96	8.58	1	12/05/25 11:17	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	36.0	J	ng/L	14.0	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.36	1	12/05/25 11:17	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	133		ng/L	10.5	46.2	1	12/05/25 11:17	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	79.4		ng/L	15.1	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	4820		ng/L	39.6	133	3	12/11/25 23:31	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	270		ng/L	13.9	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.6	1	12/05/25 11:17	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-80(12-17)_112025

Lab ID: HN2517937-027

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.03	U	ng/L	9.03	9.71	1	12/05/25 11:17	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.95	U	ng/L	7.95	9.71	1	12/05/25 11:17	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	2070		ng/L	14.8	27.0	3	12/11/25 23:31	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	460		ng/L	9.03	9.71	1	12/05/25 11:17	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	221		ng/L	5.16	9.11	1	12/05/25 11:17	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	67.2		ng/L	7.77	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/05/25 11:17	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.5	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	85.0		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	78.3		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	74.7		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	96.9		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	99.9		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	97.2		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	91.1		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	100		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	89.0		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	93.2		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	99.3		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	81.0		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	94.4		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	98.2		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	90.2		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	99.2		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	92.3		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	97.1		%REC		70-130	1	12/05/25 11:17	12/02/25 15:35
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	95.1		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/20/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-80(12-17)_112025

Lab ID: HN2517937-027

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	97.3		%REC		50-130	1	12/05/25 11:17	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 09:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-79(11-16)_112125

Lab ID: HN2517937-028

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.46	U	ng/L	8.46	9.03	1	12/11/25 06:39	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.3	U	ng/L	26.3	45.9	1	12/11/25 06:39	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.5	U	ng/L	35.5	44.8	1	12/11/25 06:39	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<18.9	U	ng/L	18.9	44.8	1	12/11/25 06:39	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.17	U	ng/L	7.17	9.03	1	12/11/25 06:39	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.92	U	ng/L	2.92	8.94	1	12/11/25 06:39	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.5	U	ng/L	37.5	47.9	1	12/11/25 06:39	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.9	U	ng/L	25.9	47.9	1	12/11/25 06:39	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.2	U	ng/L	20.2	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	9.70		ng/L	7.86	8.48	1	12/11/25 06:39	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	16.0	J	ng/L	13.8	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.10	U	ng/L	7.10	9.24	1	12/11/25 06:39	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.5	U	ng/L	28.5	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.4	U	ng/L	10.4	45.6	1	12/11/25 06:39	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<14.9	U	ng/L	14.9	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	155		ng/L	13.0	43.6	1	12/11/25 06:39	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	30.4	J	ng/L	13.7	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<12.8	U	ng/L	12.8	46.0	1	12/11/25 06:39	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 09:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-79(11-16)_112125

Lab ID: HN2517937-028

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	11.0		ng/L	8.92	9.59	1	12/11/25 06:39	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.85	U	ng/L	7.85	9.59	1	12/11/25 06:39	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	335		ng/L	4.86	8.90	1	12/11/25 06:39	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	27.7		ng/L	8.92	9.59	1	12/11/25 06:39	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	9.69		ng/L	5.10	8.99	1	12/11/25 06:39	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	13.7	J	ng/L	7.67	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.1	U	ng/L	36.1	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.0	U	ng/L	17.0	47.9	1	12/11/25 06:39	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.5	U	ng/L	11.5	47.9	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	82.0		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	104		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	92.7		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	92.0		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	99.5		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	90.2		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	79.4		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	98.3		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	105		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	97.6		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	100.0		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	97.3		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	105		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	98.1		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	97.8		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	101		%REC		70-130	1	12/11/25 06:39	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	92.2		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 09:20
Date Received: 11/25/25 11:00

CLIENT ID: MW-04-79(11-16)_112125

Lab ID: HN2517937-028

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 06:39	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-78(5-15)_112125

Lab ID: HN2517937-029

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<85.9	U	ng/L	85.9	91.8	10	12/11/25 19:53	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<267	U	ng/L	267	467	10	12/11/25 19:53	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<361	U	ng/L	361	455	10	12/11/25 19:53	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<192	U	ng/L	192	455	10	12/11/25 19:53	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<72.9	U	ng/L	72.9	91.8	10	12/11/25 19:53	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<29.7	U	ng/L	29.7	90.8	10	12/11/25 19:53	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<382	U	ng/L	382	487	10	12/11/25 19:53	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<263	U	ng/L	263	487	10	12/11/25 19:53	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<206	U	ng/L	206	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	1110		ng/L	79.9	86.1	10	12/11/25 19:53	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	263	J	ng/L	141	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<72.2	U	ng/L	72.2	93.9	10	12/11/25 19:53	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<146	U	ng/L	146	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<289	U	ng/L	289	487	10	12/11/25 19:53	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	463	J	ng/L	105	464	10	12/11/25 19:53	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	493		ng/L	151	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	16200		ng/L	132	443	10	12/11/25 19:53	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	2740		ng/L	139	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<131	U	ng/L	131	468	10	12/11/25 19:53	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-78(5-15)_112125

Lab ID: HN2517937-029

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<90.6	U	ng/L	90.6	97.4	10	12/11/25 19:53	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<79.8	U	ng/L	79.8	97.4	10	12/11/25 19:53	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	6820		ng/L	49.4	90.4	10	12/11/25 19:53	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1730		ng/L	90.6	97.4	10	12/11/25 19:53	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	1860		ng/L	51.8	91.4	10	12/11/25 19:53	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	466	J	ng/L	78.0	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<367	U	ng/L	367	487	10	12/11/25 19:53	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<173	U	ng/L	173	487	10	12/11/25 19:53	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<117	U	ng/L	117	487	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	89.5		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	97.5		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	109		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	76.0		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	101		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	90.1		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	79.6		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	98.4		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	71.3		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	97.4		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	92.6		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	96.0		%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	90.6		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	88.8		%REC		50-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	150	S	%REC		70-130	10	12/11/25 19:53	12/02/25 15:35
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	29.4	S	%REC		50-130	10	12/11/25 19:53	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-78(5-15)_112125	Lab ID: HN2517937-029

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	7.20	S	%REC		50-130	10	12/11/25 19:53	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-83(6-11)_112125	Lab ID: HN2517937-030

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.62	U	ng/L	8.62	9.20	1	12/11/25 06:54	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.8	U	ng/L	26.8	46.8	1	12/11/25 06:54	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.2	U	ng/L	36.2	45.6	1	12/11/25 06:54	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.3	U	ng/L	19.3	45.6	1	12/11/25 06:54	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.31	U	ng/L	7.31	9.20	1	12/11/25 06:54	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.98	U	ng/L	2.98	9.11	1	12/11/25 06:54	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.3	U	ng/L	38.3	48.9	1	12/11/25 06:54	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.4	U	ng/L	26.4	48.9	1	12/11/25 06:54	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.6	U	ng/L	20.6	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	54.3		ng/L	8.01	8.64	1	12/11/25 06:54	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	28.4	J	ng/L	14.1	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.24	U	ng/L	7.24	9.42	1	12/11/25 06:54	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.7	U	ng/L	14.7	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.0	U	ng/L	29.0	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.6	U	ng/L	10.6	46.5	1	12/11/25 06:54	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	20.7	J	ng/L	15.2	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	146		ng/L	13.3	44.5	1	12/11/25 06:54	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	197		ng/L	14.0	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	46.9	1	12/11/25 06:54	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-83(6-11)_112125 **Lab ID:** HN2517937-030

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	9.20	J	ng/L	9.09	9.77	1	12/11/25 06:54	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.00	U	ng/L	8.00	9.77	1	12/11/25 06:54	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	9.70		ng/L	4.95	9.07	1	12/11/25 06:54	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	29.9		ng/L	9.09	9.77	1	12/11/25 06:54	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	44.0		ng/L	5.20	9.17	1	12/11/25 06:54	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	40.0	J	ng/L	7.82	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.8	U	ng/L	36.8	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	48.9	1	12/11/25 06:54	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.9	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	95.0		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	93.4		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	91.4		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	97.6		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	108		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	95.3		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	94.5		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	97.7		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	99.4		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	107		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	98.4		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	94.4		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	96.0		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	108		%REC		70-130	1	12/11/25 06:54	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	97.7		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 11:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-83(6-11)_112125

Lab ID: HN2517937-030

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	93.1		%REC		50-130	1	12/11/25 06:54	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(5-15)_111825

Lab ID: HN2517937-031

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.71	U	ng/L	8.71	9.30	1	12/11/25 07:08	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.1	U	ng/L	27.1	47.3	1	12/11/25 07:08	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.6	U	ng/L	36.6	46.1	1	12/11/25 07:08	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.1	1	12/11/25 07:08	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.39	U	ng/L	7.39	9.30	1	12/11/25 07:08	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.01	U	ng/L	3.01	9.20	1	12/11/25 07:08	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.7	U	ng/L	38.7	49.4	1	12/11/25 07:08	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.4	1	12/11/25 07:08	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	16.9		ng/L	8.10	8.73	1	12/11/25 07:08	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	28.1	J	ng/L	14.2	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.31	U	ng/L	7.31	9.52	1	12/11/25 07:08	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.3	U	ng/L	29.3	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	28.4	J	ng/L	10.7	47.0	1	12/11/25 07:08	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	81.8		ng/L	15.3	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	628		ng/L	13.4	44.9	1	12/11/25 07:08	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	135		ng/L	14.1	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.4	1	12/11/25 07:08	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(5-15)_111825

Lab ID: HN2517937-031

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	41.0		ng/L	9.18	9.87	1	12/11/25 07:08	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.09	U	ng/L	8.09	9.87	1	12/11/25 07:08	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1880		ng/L	10.0	18.3	2	12/12/25 00:01	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	220		ng/L	9.18	9.87	1	12/11/25 07:08	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	32.8		ng/L	5.25	9.26	1	12/11/25 07:08	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	65.8		ng/L	7.90	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.2	U	ng/L	37.2	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.4	1	12/11/25 07:08	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.4	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	88.7		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	110		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	97.7		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	95.0		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	96.7		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	85.2		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	102		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	95.5		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	102		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	94.4		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	98.1		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	100.0		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	103		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	97.1		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	95.8		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	97.9		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	97.2		%REC		70-130	1	12/11/25 07:08	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	95.6		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(5-15)_111825	Lab ID: HN2517937-031

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	105		%REC		50-130	1	12/11/25 07:08	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55S_111825

Lab ID: HN2517937-032

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.73	U	ng/L	8.73	9.33	1	12/11/25 11:03	12/02/25 15:41
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.2	U	ng/L	27.2	47.4	1	12/11/25 11:03	12/02/25 15:41
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	1	12/11/25 11:03	12/02/25 15:41
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/11/25 11:03	12/02/25 15:41
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.41	U	ng/L	7.41	9.33	1	12/11/25 11:03	12/02/25 15:41
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.02	U	ng/L	3.02	9.23	1	12/11/25 11:03	12/02/25 15:41
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.8	U	ng/L	38.8	49.5	1	12/11/25 11:03	12/02/25 15:41
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.5	1	12/11/25 11:03	12/02/25 15:41
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.12	U	ng/L	8.12	8.75	1	12/11/25 11:03	12/02/25 15:41
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.3	U	ng/L	14.3	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.55	1	12/11/25 11:03	12/02/25 15:41
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.4	U	ng/L	29.4	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.1	1	12/11/25 11:03	12/02/25 15:41
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.4	U	ng/L	15.4	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	94.8		ng/L	13.5	45.1	1	12/11/25 11:03	12/02/25 15:41
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<14.1	U	ng/L	14.1	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.5	1	12/11/25 11:03	12/02/25 15:41

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55S_111825

Lab ID: HN2517937-032

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.21	U	ng/L	9.21	9.90	1	12/11/25 11:03	12/02/25 15:41
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.11	U	ng/L	8.11	9.90	1	12/11/25 11:03	12/02/25 15:41
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	30.7		ng/L	5.02	9.19	1	12/11/25 11:03	12/02/25 15:41
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.21	U	ng/L	9.21	9.90	1	12/11/25 11:03	12/02/25 15:41
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.27	U	ng/L	5.27	9.29	1	12/11/25 11:03	12/02/25 15:41
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.92	U	ng/L	7.92	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.3	U	ng/L	37.3	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.5	1	12/11/25 11:03	12/02/25 15:41
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.5	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-FtS 4:2	ASTM D7979-19	99.2		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-FtS 6:2	ASTM D7979-19	99.9		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-FtS 8:2	ASTM D7979-19	89.5		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-PFDA	ASTM D7979-19	90.2		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-PFDoA	ASTM D7979-19	97.3		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-PFHxA	ASTM D7979-19	95.1		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-PFTeDA	ASTM D7979-19	88.5		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C2-PFUnDA	ASTM D7979-19	95.4		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C3-HFPO-DA	ASTM D7979-19	96.2		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C3-PFBS	ASTM D7979-19	95.9		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C4-PFBA	ASTM D7979-19	91.4		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C4-PFHpA	ASTM D7979-19	95.0		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C4-PFOA	ASTM D7979-19	96.5		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C4-PFOS	ASTM D7979-19	101		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C5-PFNA	ASTM D7979-19	90.4		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C5-PFPeA	ASTM D7979-19	88.2		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 13C8-FOSA	ASTM D7979-19	91.0		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41
Surr: 18O2-PFHxS	ASTM D7979-19	94.8		%REC		70-130	1	12/11/25 11:03	12/02/25 15:41
Surr: d3-N-MeFOSAA	ASTM D7979-19	92.8		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55S_111825

Lab ID: HN2517937-032

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	91.7		%REC		50-130	1	12/11/25 11:03	12/02/25 15:41

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:10
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55DR_111825

Lab ID: HN2517937-033

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.76	U	ng/L	8.76	9.35	1	12/11/25 07:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.2	U	ng/L	27.2	47.6	1	12/11/25 07:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.8	U	ng/L	36.8	46.4	1	12/11/25 07:23	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.6	U	ng/L	19.6	46.4	1	12/11/25 07:23	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.43	U	ng/L	7.43	9.35	1	12/11/25 07:23	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.02	U	ng/L	3.02	9.26	1	12/11/25 07:23	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.9	U	ng/L	38.9	49.7	1	12/11/25 07:23	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.8	U	ng/L	26.8	49.7	1	12/11/25 07:23	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.0	U	ng/L	21.0	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	63.3		ng/L	8.14	8.78	1	12/11/25 07:23	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	44.7	J	ng/L	14.3	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.57	1	12/11/25 07:23	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.5	U	ng/L	29.5	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.3	1	12/11/25 07:23	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	32.3	J	ng/L	15.4	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	148		ng/L	13.5	45.2	1	12/11/25 07:23	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	254		ng/L	14.2	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.7	1	12/11/25 07:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:10
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55DR_111825

Lab ID: HN2517937-033

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.24	U	ng/L	9.24	9.93	1	12/11/25 07:23	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.13	U	ng/L	8.13	9.93	1	12/11/25 07:23	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	6.97	J	ng/L	5.03	9.22	1	12/11/25 07:23	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	22.7		ng/L	9.24	9.93	1	12/11/25 07:23	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	39.6		ng/L	5.28	9.32	1	12/11/25 07:23	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	79.1		ng/L	7.94	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.4	U	ng/L	37.4	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.7	1	12/11/25 07:23	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.7	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	96.4		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	113		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	104		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	98.4		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	108		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	98.3		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	89.3		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	107		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	93.2		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	100		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	111		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	99.7		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	98.3		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	99.4		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	99.5		%REC		70-130	1	12/11/25 07:23	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	100.0		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:10
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-55DR_111825

Lab ID: HN2517937-033

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 07:23	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:55
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-08_111825

Lab ID: HN2517937-034

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.73	U	ng/L	8.73	9.33	1	12/11/25 07:37	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.2	U	ng/L	27.2	47.4	1	12/11/25 07:37	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	1	12/11/25 07:37	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/11/25 07:37	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.41	U	ng/L	7.41	9.33	1	12/11/25 07:37	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.02	U	ng/L	3.02	9.23	1	12/11/25 07:37	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.8	U	ng/L	38.8	49.5	1	12/11/25 07:37	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.5	1	12/11/25 07:37	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	52.6		ng/L	8.12	8.75	1	12/11/25 07:37	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	24.1	J	ng/L	14.3	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.55	1	12/11/25 07:37	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.4	U	ng/L	29.4	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.1	1	12/11/25 07:37	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	16.9	J	ng/L	15.4	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	486		ng/L	13.5	45.1	1	12/11/25 07:37	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	132		ng/L	14.1	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.5	1	12/11/25 07:37	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:55
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-08_111825

Lab ID: HN2517937-034

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.21	U	ng/L	9.21	9.90	1	12/11/25 07:37	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.11	U	ng/L	8.11	9.90	1	12/11/25 07:37	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<5.02	U	ng/L	5.02	9.19	1	12/11/25 07:37	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	27.3		ng/L	9.21	9.90	1	12/11/25 07:37	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	80.6		ng/L	5.27	9.29	1	12/11/25 07:37	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	25.7	J	ng/L	7.92	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.3	U	ng/L	37.3	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.5	1	12/11/25 07:37	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.5	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	93.8		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	113		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	86.1		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	91.8		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	98.8		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	95.7		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	91.5		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	99.6		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	93.2		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	94.1		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	99.2		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	105		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	96.7		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	98.1		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	97.7		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	93.1		%REC		70-130	1	12/11/25 07:37	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	93.0		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:55
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-08_111825

Lab ID: HN2517937-034

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	98.5		%REC		50-130	1	12/11/25 07:37	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:00
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09D_111925

Lab ID: HN2517937-035

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<86.5	U	ng/L	86.5	92.4	10	12/11/25 20:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<269	U	ng/L	269	470	10	12/11/25 20:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<364	U	ng/L	364	458	10	12/11/25 20:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<194	U	ng/L	194	458	10	12/11/25 20:36	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<73.4	U	ng/L	73.4	92.4	10	12/11/25 20:36	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<29.9	U	ng/L	29.9	91.4	10	12/11/25 20:36	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<384	U	ng/L	384	490	10	12/11/25 20:36	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<265	U	ng/L	265	490	10	12/11/25 20:36	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<207	U	ng/L	207	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	474		ng/L	80.4	86.7	10	12/11/25 20:36	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	187	J	ng/L	141	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<72.7	U	ng/L	72.7	94.5	10	12/11/25 20:36	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<147	U	ng/L	147	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<291	U	ng/L	291	490	10	12/11/25 20:36	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	304	J	ng/L	106	467	10	12/11/25 20:36	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	308	J	ng/L	152	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	13600		ng/L	133	446	10	12/11/25 20:36	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	2250		ng/L	140	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<131	U	ng/L	131	471	10	12/11/25 20:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:00
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09D_111925

Lab ID: HN2517937-035

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<91.2	U	ng/L	91.2	98.1	10	12/11/25 20:36	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<80.3	U	ng/L	80.3	98.1	10	12/11/25 20:36	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1210		ng/L	49.7	91.0	10	12/11/25 20:36	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1300		ng/L	91.2	98.1	10	12/11/25 20:36	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	1050		ng/L	52.2	92.0	10	12/11/25 20:36	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	378	J	ng/L	78.5	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<370	U	ng/L	370	490	10	12/11/25 20:36	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<174	U	ng/L	174	490	10	12/11/25 20:36	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<118	U	ng/L	118	490	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	41.2	S	%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	80.0		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	116		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	77.9		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	94.4		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	96.4		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	73.1		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	107		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	62.0		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	112		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	94.5		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	93.4		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	92.6		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	88.1		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	108		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	122		%REC		70-130	10	12/11/25 20:36	12/02/25 15:35
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	121		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:00
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09D_111925

Lab ID: HN2517937-035

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	128		%REC		50-130	10	12/11/25 20:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09_111925

Lab ID: HN2517937-036

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.46	U	ng/L	8.46	9.03	1	12/11/25 07:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.3	U	ng/L	26.3	45.9	1	12/11/25 07:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.5	U	ng/L	35.5	44.8	1	12/11/25 07:52	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<18.9	U	ng/L	18.9	44.8	1	12/11/25 07:52	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.17	U	ng/L	7.17	9.03	1	12/11/25 07:52	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.92	U	ng/L	2.92	8.94	1	12/11/25 07:52	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.5	U	ng/L	37.5	47.9	1	12/11/25 07:52	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.9	U	ng/L	25.9	47.9	1	12/11/25 07:52	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.2	U	ng/L	20.2	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	42.0		ng/L	7.86	8.48	1	12/11/25 07:52	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	35.2	J	ng/L	13.8	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.10	U	ng/L	7.10	9.24	1	12/11/25 07:52	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.5	U	ng/L	28.5	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.4	U	ng/L	10.4	45.6	1	12/11/25 07:52	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	46.1	J	ng/L	14.9	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	2250		ng/L	130	436	10	12/11/25 20:51	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	318		ng/L	13.7	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<12.8	U	ng/L	12.8	46.0	1	12/11/25 07:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09_111925

Lab ID: HN2517937-036

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<8.92	U	ng/L	8.92	9.59	1	12/11/25 07:52	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.85	U	ng/L	7.85	9.59	1	12/11/25 07:52	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	17.8		ng/L	4.86	8.90	1	12/11/25 07:52	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	99.3		ng/L	8.92	9.59	1	12/11/25 07:52	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	119		ng/L	5.10	8.99	1	12/11/25 07:52	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	55.1		ng/L	7.67	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.1	U	ng/L	36.1	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.0	U	ng/L	17.0	47.9	1	12/11/25 07:52	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.5	U	ng/L	11.5	47.9	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	83.1		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	110		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	85.3		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	93.2		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	95.7		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	79.3		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	78.9		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	92.7		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	94.4		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	99.3		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	106		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	95.9		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	94.1		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	99.5		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	91.0		%REC		70-130	1	12/11/25 07:52	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	92.8		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 10:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-09_111925

Lab ID: HN2517937-036

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	96.6		%REC		50-130	1	12/11/25 07:52	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-73(28-33)_111925

Lab ID: HN2517937-037

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.55	U	ng/L	8.55	9.13	1	12/11/25 08:06	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.4	1	12/11/25 08:06	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.9	U	ng/L	35.9	45.3	1	12/11/25 08:06	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.3	1	12/11/25 08:06	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.25	U	ng/L	7.25	9.13	1	12/11/25 08:06	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.95	U	ng/L	2.95	9.03	1	12/11/25 08:06	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.9	U	ng/L	37.9	48.5	1	12/11/25 08:06	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.1	U	ng/L	26.1	48.5	1	12/11/25 08:06	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<7.95	U	ng/L	7.95	8.57	1	12/11/25 08:06	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	15.5	J	ng/L	14.0	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.18	U	ng/L	7.18	9.34	1	12/11/25 08:06	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.1	1	12/11/25 08:06	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.0	U	ng/L	15.0	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	30.4	J	ng/L	13.2	44.1	1	12/11/25 08:06	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<13.8	U	ng/L	13.8	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.5	1	12/11/25 08:06	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-73(28-33)_111925

Lab ID: HN2517937-037

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.01	U	ng/L	9.01	9.69	1	12/11/25 08:06	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.94	U	ng/L	7.94	9.69	1	12/11/25 08:06	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	97.3		ng/L	4.91	8.99	1	12/11/25 08:06	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	13.4		ng/L	9.01	9.69	1	12/11/25 08:06	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.16	U	ng/L	5.16	9.09	1	12/11/25 08:06	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	9.95	J	ng/L	7.75	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.5	U	ng/L	36.5	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/11/25 08:06	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.5	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	104		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	118		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	99.0		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	88.9		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	105		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	84.2		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	100		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	87.6		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	98.7		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	95.9		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	107		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	99.2		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	93.8		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	95.2		%REC		70-130	1	12/11/25 08:06	12/02/25 15:35
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-73(28-33)_111925

Lab ID: HN2517937-037

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	97.7		%REC		50-130	1	12/11/25 08:06	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02D_111925

Lab ID: HN2517937-038

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.73	U	ng/L	8.73	9.33	1	12/11/25 09:22	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.2	U	ng/L	27.2	47.4	1	12/11/25 09:22	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	1	12/11/25 09:22	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/11/25 09:22	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.41	U	ng/L	7.41	9.33	1	12/11/25 09:22	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.02	U	ng/L	3.02	9.23	1	12/11/25 09:22	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.8	U	ng/L	38.8	49.5	1	12/11/25 09:22	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.5	1	12/11/25 09:22	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	173		ng/L	8.12	8.75	1	12/11/25 09:22	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	38.7	J	ng/L	14.3	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.55	1	12/11/25 09:22	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.4	U	ng/L	29.4	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	102		ng/L	10.7	47.1	1	12/11/25 09:22	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	35.6	J	ng/L	15.4	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1360		ng/L	13.5	45.1	1	12/11/25 09:22	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	118		ng/L	14.1	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.5	1	12/11/25 09:22	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02D_111925

Lab ID: HN2517937-038

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	11.9		ng/L	9.21	9.90	1	12/11/25 09:22	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.11	U	ng/L	8.11	9.90	1	12/11/25 09:22	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	3750		ng/L	50.2	91.9	10	12/11/25 21:05	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	140		ng/L	9.21	9.90	1	12/11/25 09:22	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	214		ng/L	5.27	9.29	1	12/11/25 09:22	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	63.5		ng/L	7.92	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.3	U	ng/L	37.3	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.5	1	12/11/25 09:22	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.5	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	101		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	117		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	107		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	109		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	97.1		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	89.0		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	98.6		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	98.1		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	102		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	94.9		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	99.7		%REC		70-130	1	12/11/25 09:22	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	94.8		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 14:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02D_111925

Lab ID: HN2517937-038

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	108		%REC		50-130	1	12/11/25 09:22	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 15:50
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02_111925

Lab ID: HN2517937-039

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.66	U	ng/L	8.66	9.25	1	12/11/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.9	U	ng/L	26.9	47.0	1	12/11/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.4	U	ng/L	36.4	45.8	1	12/11/25 09:36	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	45.8	1	12/11/25 09:36	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.34	U	ng/L	7.34	9.25	1	12/11/25 09:36	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.99	U	ng/L	2.99	9.15	1	12/11/25 09:36	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.4	U	ng/L	38.4	49.1	1	12/11/25 09:36	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.5	U	ng/L	26.5	49.1	1	12/11/25 09:36	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.7	U	ng/L	20.7	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	70.0		ng/L	8.05	8.68	1	12/11/25 09:36	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	18.2	J	ng/L	14.2	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.27	U	ng/L	7.27	9.46	1	12/11/25 09:36	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.7	U	ng/L	14.7	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.1	U	ng/L	29.1	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	39.4	J	ng/L	10.6	46.7	1	12/11/25 09:36	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	16.9	J	ng/L	15.2	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	652		ng/L	13.3	44.7	1	12/11/25 09:36	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	40.4	J	ng/L	14.0	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.1	1	12/11/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 15:50
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02_111925

Lab ID: HN2517937-039

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.13	U	ng/L	9.13	9.82	1	12/11/25 09:36	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.04	U	ng/L	8.04	9.82	1	12/11/25 09:36	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1400		ng/L	4.98	9.11	1	12/11/25 09:36	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	64.6		ng/L	9.13	9.82	1	12/11/25 09:36	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	83.5		ng/L	5.22	9.21	1	12/11/25 09:36	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	19.9	J	ng/L	7.85	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.0	U	ng/L	37.0	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	49.1	1	12/11/25 09:36	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.1	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	107		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	120		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	109		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	89.0		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	108		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	98.5		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	98.8		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	99.2		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	105		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	106		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	109		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	103		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/11/25 09:36	12/02/25 15:35
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	104		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25 15:50
Date Received: 11/25/25 11:00

CLIENT ID: RFI-17-02_111925

Lab ID: HN2517937-039

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/11/25 09:36	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-80(12-17)_111725

Lab ID: HN2517937-040

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.94	U	ng/L	8.94	9.55	1	12/14/25 15:34	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.8	SU	ng/L	27.8	48.5	1	12/14/25 15:34	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.6	U	ng/L	37.6	47.3	1	12/14/25 15:34	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<20.0	U	ng/L	20.0	47.3	1	12/14/25 15:34	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.58	U	ng/L	7.58	9.55	1	12/14/25 15:34	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.09	U	ng/L	3.09	9.44	1	12/14/25 15:34	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.7	U	ng/L	39.7	50.7	1	12/14/25 15:34	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.3	U	ng/L	27.3	50.7	1	12/14/25 15:34	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.4	U	ng/L	21.4	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	298		ng/L	8.31	8.96	1	12/14/25 15:34	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	114		ng/L	14.6	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.51	U	ng/L	7.51	9.77	1	12/14/25 15:34	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.2	U	ng/L	15.2	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<30.1	U	ng/L	30.1	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<11.0	U	ng/L	11.0	48.2	1	12/14/25 15:34	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	215		ng/L	15.7	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	5320		ng/L	68.9	231	5	12/11/25 22:03	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1880		ng/L	72.4	253	5	12/11/25 22:03	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.6	U	ng/L	13.6	48.6	1	12/14/25 15:34	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-80(12-17)_111725

Lab ID: HN2517937-040

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.42	U	ng/L	9.42	10.1	1	12/14/25 15:34	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.30	U	ng/L	8.30	10.1	1	12/14/25 15:34	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	62.4		ng/L	5.14	9.40	1	12/14/25 15:34	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	447		ng/L	9.42	10.1	1	12/14/25 15:34	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	587		ng/L	5.39	9.51	1	12/14/25 15:34	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	300		ng/L	8.11	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.2	U	ng/L	38.2	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<18.0	U	ng/L	18.0	50.7	1	12/14/25 15:34	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.2	U	ng/L	12.2	50.7	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	100		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	66.6		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	70.7		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	84.3		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	102		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	89.0		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	90.7		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	82.5		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	81.3		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	94.6		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	92.3		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	86.5		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	89.7		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	91.4		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	82.5		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	85.0		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	86.6		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	104		%REC		70-130	1	12/14/25 15:34	12/03/25 15:34
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	90.9		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-80(12-17)_111725

Lab ID: HN2517937-040

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	99.6		%REC		50-130	1	12/14/25 15:34	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-52_111725

Lab ID: HN2517937-041

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.72	U	ng/L	8.72	9.31	1	12/11/25 09:51	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.1	U	ng/L	27.1	47.3	1	12/11/25 09:51	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.6	U	ng/L	36.6	46.2	1	12/11/25 09:51	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/11/25 09:51	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.39	U	ng/L	7.39	9.31	1	12/11/25 09:51	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.01	U	ng/L	3.01	9.21	1	12/11/25 09:51	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.7	U	ng/L	38.7	49.4	1	12/11/25 09:51	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.4	1	12/11/25 09:51	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	341		ng/L	8.10	8.74	1	12/11/25 09:51	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	167		ng/L	14.3	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.32	U	ng/L	7.32	9.53	1	12/11/25 09:51	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.3	U	ng/L	29.3	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.0	1	12/11/25 09:51	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	193		ng/L	15.3	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	872		ng/L	13.4	45.0	1	12/11/25 09:51	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	2160		ng/L	70.6	247	5	12/11/25 22:18	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.4	1	12/11/25 09:51	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-52_111725

Lab ID: HN2517937-041

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.19	U	ng/L	9.19	9.88	1	12/11/25 09:51	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.09	U	ng/L	8.09	9.88	1	12/11/25 09:51	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<5.01	U	ng/L	5.01	9.17	1	12/11/25 09:51	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	170		ng/L	9.19	9.88	1	12/11/25 09:51	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	419		ng/L	5.26	9.27	1	12/11/25 09:51	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	402		ng/L	7.91	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.2	U	ng/L	37.2	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.4	1	12/11/25 09:51	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.4	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	103		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	105		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	99.2		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	96.6		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	102		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	86.0		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	82.1		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	95.8		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	90.2		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	98.3		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	96.5		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	98.2		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	96.4		%REC		70-130	1	12/11/25 09:51	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 13:30
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-52_111725

Lab ID: HN2517937-041

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	94.9		%REC		50-130	1	12/11/25 09:51	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(5-10)_111725

Lab ID: HN2517937-042

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.46	U	ng/L	8.46	9.04	1	12/14/25 16:48	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.3	U	ng/L	26.3	46.0	1	12/14/25 16:48	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.6	U	ng/L	35.6	44.8	1	12/14/25 16:48	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<18.9	U	ng/L	18.9	44.8	1	12/14/25 16:48	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.18	U	ng/L	7.18	9.04	1	12/14/25 16:48	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.92	U	ng/L	2.92	8.94	1	12/14/25 16:48	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.6	U	ng/L	37.6	48.0	1	12/14/25 16:48	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<25.9	U	ng/L	25.9	48.0	1	12/14/25 16:48	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.2	U	ng/L	20.2	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	146		ng/L	7.87	8.48	1	12/14/25 16:48	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	76.7		ng/L	13.8	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.11	U	ng/L	7.11	9.25	1	12/14/25 16:48	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.4	U	ng/L	14.4	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.5	U	ng/L	28.5	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	733		ng/L	10.4	45.7	1	12/14/25 16:48	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	175		ng/L	14.9	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	11200		ng/L	1300	4370	100	12/12/25 12:10	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1250		ng/L	13.7	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<12.9	U	ng/L	12.9	46.1	1	12/14/25 16:48	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(5-10)_111725

Lab ID: HN2517937-042

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	59.8		ng/L	8.92	9.60	1	12/14/25 16:48	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.86	U	ng/L	7.86	9.60	1	12/14/25 16:48	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	33900		ng/L	486	890	100	12/12/25 12:10	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	988		ng/L	8.92	9.60	1	12/14/25 16:48	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	455		ng/L	5.10	9.00	1	12/14/25 16:48	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	209		ng/L	7.68	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.2	U	ng/L	36.2	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.0	U	ng/L	17.0	48.0	1	12/14/25 16:48	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.5	U	ng/L	11.5	48.0	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	93.9		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	74.0		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	67.5		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	76.5		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	94.3		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	87.1		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	67.8		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	75.8		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	76.6		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	90.2		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	88.7		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	81.2		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	90.4		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	86.2		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	71.5		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	81.4		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	84.6		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	103		%REC		70-130	1	12/14/25 16:48	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	85.0		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:35
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(5-10)_111725	Lab ID: HN2517937-042

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	87.9		%REC		50-130	1	12/14/25 16:48	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(14-19)_111725

Lab ID: HN2517937-043

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.89	U	ng/L	8.89	9.50	1	12/14/25 17:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.6	U	ng/L	27.6	48.3	1	12/14/25 17:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.4	U	ng/L	37.4	47.1	1	12/14/25 17:02	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.9	U	ng/L	19.9	47.1	1	12/14/25 17:02	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.54	U	ng/L	7.54	9.50	1	12/14/25 17:02	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.07	U	ng/L	3.07	9.40	1	12/14/25 17:02	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.5	U	ng/L	39.5	50.4	1	12/14/25 17:02	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.2	U	ng/L	27.2	50.4	1	12/14/25 17:02	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.3	U	ng/L	21.3	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	962		ng/L	8.27	8.91	1	12/14/25 17:02	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	229		ng/L	14.5	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.47	U	ng/L	7.47	9.72	1	12/14/25 17:02	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.1	U	ng/L	15.1	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.9	U	ng/L	29.9	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	1560		ng/L	10.9	48.0	1	12/14/25 17:02	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	511		ng/L	15.6	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	35900		ng/L	1370	4590	100	12/12/25 12:24	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	4210	J	ng/L	1440	5040	100	12/12/25 12:24	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.5	U	ng/L	13.5	48.4	1	12/14/25 17:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(14-19)_111725

Lab ID: HN2517937-043

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	40.1		ng/L	9.38	10.1	1	12/14/25 17:02	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.26	U	ng/L	8.26	10.1	1	12/14/25 17:02	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	41600		ng/L	511	936	100	12/12/25 12:24	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	3500		ng/L	938	1010	100	12/12/25 12:24	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	2200		ng/L	536	946	100	12/12/25 12:24	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	579		ng/L	8.07	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.0	U	ng/L	38.0	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.9	U	ng/L	17.9	50.4	1	12/14/25 17:02	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.1	U	ng/L	12.1	50.4	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	89.9		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	60.5		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	64.8		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	80.6		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	94.0		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	83.7		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	79.8		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	77.7		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	72.8		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	92.8		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	87.3		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	74.4		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	88.1		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	92.7		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	79.5		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	84.8		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	94.0		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	90.9		%REC		70-130	1	12/14/25 17:02	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	84.5		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-81(14-19)_111725

Lab ID: HN2517937-043

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	88.5		%REC		50-130	1	12/14/25 17:02	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 16:40
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-44_111725

Lab ID: HN2517937-044

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.77	U	ng/L	8.77	9.36	1	12/11/25 10:05	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.3	U	ng/L	27.3	47.6	1	12/11/25 10:05	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.9	U	ng/L	36.9	46.4	1	12/11/25 10:05	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.6	U	ng/L	19.6	46.4	1	12/11/25 10:05	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.44	U	ng/L	7.44	9.36	1	12/11/25 10:05	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.03	U	ng/L	3.03	9.26	1	12/11/25 10:05	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.9	U	ng/L	38.9	49.7	1	12/11/25 10:05	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.8	U	ng/L	26.8	49.7	1	12/11/25 10:05	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.0	U	ng/L	21.0	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	19.3		ng/L	8.15	8.79	1	12/11/25 10:05	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	17.5	J	ng/L	14.3	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.36	U	ng/L	7.36	9.58	1	12/11/25 10:05	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.5	U	ng/L	29.5	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.3	1	12/11/25 10:05	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	16.1	J	ng/L	15.4	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	633		ng/L	13.5	45.2	1	12/11/25 10:05	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	121		ng/L	14.2	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.7	1	12/11/25 10:05	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 16:40
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-44_111725

Lab ID: HN2517937-044

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.24	U	ng/L	9.24	9.94	1	12/11/25 10:05	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.14	U	ng/L	8.14	9.94	1	12/11/25 10:05	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	6.00	J	ng/L	5.04	9.22	1	12/11/25 10:05	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	23.2		ng/L	9.24	9.94	1	12/11/25 10:05	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	44.3		ng/L	5.29	9.32	1	12/11/25 10:05	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	21.0	J	ng/L	7.95	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.5	U	ng/L	37.5	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.7	U	ng/L	17.7	49.7	1	12/11/25 10:05	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.7	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	94.2		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	112		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	107		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	98.2		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	95.9		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	84.5		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	102		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	87.3		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	103		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	98.7		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	92.9		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	108		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	104		%REC		70-130	1	12/11/25 10:05	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 16:40
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-44_111725

Lab ID: HN2517937-044

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	99.5		%REC		50-130	1	12/11/25 10:05	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-89(5-10)_111825

Lab ID: HN2517937-045

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.54	U	ng/L	8.54	9.12	1	12/11/25 10:20	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.5	U	ng/L	26.5	46.4	1	12/11/25 10:20	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.9	U	ng/L	35.9	45.2	1	12/11/25 10:20	12/02/25 15:35
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.2	1	12/11/25 10:20	12/02/25 15:35
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.24	U	ng/L	7.24	9.12	1	12/11/25 10:20	12/02/25 15:35
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.95	U	ng/L	2.95	9.02	1	12/11/25 10:20	12/02/25 15:35
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.9	U	ng/L	37.9	48.4	1	12/11/25 10:20	12/02/25 15:35
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.1	U	ng/L	26.1	48.4	1	12/11/25 10:20	12/02/25 15:35
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	8.18	J	ng/L	7.94	8.56	1	12/11/25 10:20	12/02/25 15:35
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	19.1	J	ng/L	14.0	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.17	U	ng/L	7.17	9.33	1	12/11/25 10:20	12/02/25 15:35
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.5	U	ng/L	14.5	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.7	U	ng/L	28.7	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.1	1	12/11/25 10:20	12/02/25 15:35
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	19.6	J	ng/L	15.0	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	167		ng/L	13.2	44.1	1	12/11/25 10:20	12/02/25 15:35
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	43.6	J	ng/L	13.8	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.5	1	12/11/25 10:20	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-89(5-10)_111825

Lab ID: HN2517937-045

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	9.96		ng/L	9.00	9.68	1	12/11/25 10:20	12/02/25 15:35
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.93	U	ng/L	7.93	9.68	1	12/11/25 10:20	12/02/25 15:35
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	307		ng/L	4.91	8.98	1	12/11/25 10:20	12/02/25 15:35
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	38.1		ng/L	9.00	9.68	1	12/11/25 10:20	12/02/25 15:35
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	10.4		ng/L	5.15	9.08	1	12/11/25 10:20	12/02/25 15:35
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	23.7	J	ng/L	7.75	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.5	U	ng/L	36.5	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.4	1	12/11/25 10:20	12/02/25 15:35
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.4	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-FtS 4:2	ASTM D7979-19	86.8		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-FtS 6:2	ASTM D7979-19	109		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-FtS 8:2	ASTM D7979-19	89.8		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-PFDA	ASTM D7979-19	92.7		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-PFDoA	ASTM D7979-19	95.2		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-PFHxA	ASTM D7979-19	95.1		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-PFTeDA	ASTM D7979-19	76.8		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C2-PFUnDA	ASTM D7979-19	96.6		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C3-HFPO-DA	ASTM D7979-19	82.9		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C3-PFBS	ASTM D7979-19	94.3		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C4-PFBA	ASTM D7979-19	94.0		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C4-PFHpA	ASTM D7979-19	99.7		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C4-PFOA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C4-PFOS	ASTM D7979-19	97.0		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C5-PFNA	ASTM D7979-19	96.7		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C5-PFPeA	ASTM D7979-19	99.5		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 13C8-FOSA	ASTM D7979-19	96.8		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35
Surr: 18O2-PFHxS	ASTM D7979-19	101		%REC		70-130	1	12/11/25 10:20	12/02/25 15:35
Surr: d3-N-MeFOSAA	ASTM D7979-19	88.7		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:15
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-89(5-10)_111825

Lab ID: HN2517937-045

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	91.5		%REC		50-130	1	12/11/25 10:20	12/02/25 15:35

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(19.5-24.5)_111825

Lab ID: HN2517937-046

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<43.3	U	ng/L	43.3	46.2	5	12/11/25 22:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<134	U	ng/L	134	235	5	12/11/25 22:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<182	U	ng/L	182	229	5	12/11/25 22:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<96.8	U	ng/L	96.8	229	5	12/11/25 22:32	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	5	12/11/25 22:32	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<14.9	U	ng/L	14.9	45.7	5	12/11/25 22:32	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<192	U	ng/L	192	245	5	12/11/25 22:32	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<132	U	ng/L	132	245	5	12/11/25 22:32	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<103	U	ng/L	103	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	1260		ng/L	40.2	43.4	5	12/11/25 22:32	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	354		ng/L	70.7	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<36.3	U	ng/L	36.3	47.3	5	12/11/25 22:32	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<73.7	U	ng/L	73.7	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<146	U	ng/L	146	245	5	12/11/25 22:32	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	77.9	J	ng/L	53.0	233	5	12/11/25 22:32	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	434		ng/L	76.1	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	6520		ng/L	66.6	223	5	12/11/25 22:32	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	2520		ng/L	70.1	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<65.7	U	ng/L	65.7	235	5	12/11/25 22:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(19.5-24.5)_111825

Lab ID: HN2517937-046

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<45.6	U	ng/L	45.6	49.0	5	12/11/25 22:32	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<40.2	U	ng/L	40.2	49.0	5	12/11/25 22:32	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	253		ng/L	24.9	45.5	5	12/11/25 22:32	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	817		ng/L	45.6	49.0	5	12/11/25 22:32	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	1170		ng/L	26.1	46.0	5	12/11/25 22:32	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	539		ng/L	39.2	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<185	U	ng/L	185	245	5	12/11/25 22:32	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<87.1	U	ng/L	87.1	245	5	12/11/25 22:32	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<58.9	U	ng/L	58.9	245	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	79.1		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	98.6		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	94.0		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	91.6		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	102		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	114		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	77.7		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	102		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	105		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	108		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	104		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	110		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	107		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	113		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	108		%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	96.4		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	98.5		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	138	S	%REC		70-130	5	12/11/25 22:32	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	59.9		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 12:10
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-88(19.5-24.5)_111825

Lab ID: HN2517937-046

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	79.8		%REC		50-130	5	12/11/25 22:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: EB-02_111825

Lab ID: HN2517937-047

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.57	U	ng/L	8.57	9.15	1	12/11/25 11:19	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/11/25 11:19	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.4	1	12/11/25 11:19	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.4	1	12/11/25 11:19	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.27	U	ng/L	7.27	9.15	1	12/11/25 11:19	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.06	1	12/11/25 11:19	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.1	U	ng/L	38.1	48.6	1	12/11/25 11:19	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.6	1	12/11/25 11:19	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<7.97	U	ng/L	7.97	8.59	1	12/11/25 11:19	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.0	U	ng/L	14.0	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.20	U	ng/L	7.20	9.37	1	12/11/25 11:19	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.3	1	12/11/25 11:19	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.1	U	ng/L	15.1	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	<13.2	U	ng/L	13.2	44.2	1	12/11/25 11:19	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<13.9	U	ng/L	13.9	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.6	1	12/11/25 11:19	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: EB-02_111825

Lab ID: HN2517937-047

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.04	U	ng/L	9.04	9.72	1	12/11/25 11:19	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.96	U	ng/L	7.96	9.72	1	12/11/25 11:19	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<4.93	U	ng/L	4.93	9.02	1	12/11/25 11:19	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.04	U	ng/L	9.04	9.72	1	12/11/25 11:19	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.17	U	ng/L	5.17	9.11	1	12/11/25 11:19	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.77	U	ng/L	7.77	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.3	U	ng/L	17.3	48.6	1	12/11/25 11:19	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.6	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	91.9		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	130		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	106		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	112		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	77.2		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	109		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	115		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	108		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	107		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	119		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	111		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	114		%REC		70-130	1	12/11/25 11:19	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	109		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:00
Date Received: 11/25/25 11:00

CLIENT ID: EB-02_111825

Lab ID: HN2517937-047

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	112		%REC		50-130	1	12/11/25 11:19	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-06

Lab ID: HN2517937-048

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.52	U	ng/L	8.52	9.10	1	12/14/25 16:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.5	U	ng/L	26.5	46.3	1	12/14/25 16:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.8	U	ng/L	35.8	45.1	1	12/14/25 16:32	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.1	1	12/14/25 16:32	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.23	U	ng/L	7.23	9.10	1	12/14/25 16:32	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.94	U	ng/L	2.94	9.01	1	12/14/25 16:32	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.8	U	ng/L	37.8	48.3	1	12/14/25 16:32	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.1	U	ng/L	26.1	48.3	1	12/14/25 16:32	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	145		ng/L	7.92	8.54	1	12/14/25 16:32	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	78.5		ng/L	13.9	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.16	U	ng/L	7.16	9.32	1	12/14/25 16:32	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.5	U	ng/L	14.5	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.7	U	ng/L	28.7	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	688		ng/L	10.4	46.0	1	12/14/25 16:32	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	178		ng/L	15.0	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	11500		ng/L	1310	4400	100	12/12/25 12:39	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1230		ng/L	13.8	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.4	1	12/14/25 16:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-06

Lab ID: HN2517937-048

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	59.8		ng/L	8.99	9.66	1	12/14/25 16:32	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.91	U	ng/L	7.91	9.66	1	12/14/25 16:32	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	35500		ng/L	490	897	100	12/12/25 12:39	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	995		ng/L	8.99	9.66	1	12/14/25 16:32	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	437		ng/L	5.14	9.06	1	12/14/25 16:32	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	212		ng/L	7.73	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.4	U	ng/L	36.4	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.3	1	12/14/25 16:32	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.3	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	108		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	73.2		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	64.9		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	85.2		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	109		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	93.3		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	72.1		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	85.9		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	91.8		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	101		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	96.2		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	91.5		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	96.0		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	95.8		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	82.7		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	90.9		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	94.1		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	98.2		%REC		70-130	1	12/14/25 16:32	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	95.7		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-06

Lab ID: HN2517937-048

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	93.3		%REC		50-130	1	12/14/25 16:32	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-05

Lab ID: HN2517937-049

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<43.4	U	ng/L	43.4	46.4	5	12/11/25 22:46	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<135	U	ng/L	135	236	5	12/11/25 22:46	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<183	U	ng/L	183	230	5	12/11/25 22:46	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<97.2	U	ng/L	97.2	230	5	12/11/25 22:46	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<36.8	U	ng/L	36.8	46.4	5	12/11/25 22:46	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<15.0	U	ng/L	15.0	45.9	5	12/11/25 22:46	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<193	U	ng/L	193	246	5	12/11/25 22:46	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<133	U	ng/L	133	246	5	12/11/25 22:46	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<104	U	ng/L	104	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	356		ng/L	40.4	43.5	5	12/11/25 22:46	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	188	J	ng/L	71.0	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<36.5	U	ng/L	36.5	47.5	5	12/11/25 22:46	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<73.9	U	ng/L	73.9	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<146	U	ng/L	146	246	5	12/11/25 22:46	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<53.2	U	ng/L	53.2	234	5	12/11/25 22:46	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	212	J	ng/L	76.3	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	910		ng/L	66.9	224	5	12/11/25 22:46	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	2230		ng/L	70.3	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<66.0	U	ng/L	66.0	236	5	12/11/25 22:46	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-05

Lab ID: HN2517937-049

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<45.8	U	ng/L	45.8	49.2	5	12/11/25 22:46	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<40.3	U	ng/L	40.3	49.2	5	12/11/25 22:46	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<25.0	U	ng/L	25.0	45.7	5	12/11/25 22:46	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	169		ng/L	45.8	49.2	5	12/11/25 22:46	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	453		ng/L	26.2	46.2	5	12/11/25 22:46	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	399		ng/L	39.4	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<186	U	ng/L	186	246	5	12/11/25 22:46	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<87.4	U	ng/L	87.4	246	5	12/11/25 22:46	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<59.2	U	ng/L	59.2	246	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	116		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	96.8		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	124		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	93.5		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	109		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	118		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	72.0		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	97.7		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	141	S	%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	113		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	120		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	109		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	104		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	104		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	109		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	110		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	103		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	120		%REC		70-130	5	12/11/25 22:46	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	60.9		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-05

Lab ID: HN2517937-049

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	75.5		%REC		50-130	5	12/11/25 22:46	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-56_111725

Lab ID: HN2517937-050

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.81	U	ng/L	8.81	9.41	1	12/11/25 11:33	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.4	U	ng/L	27.4	47.9	1	12/11/25 11:33	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.0	U	ng/L	37.0	46.7	1	12/11/25 11:33	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.7	U	ng/L	19.7	46.7	1	12/11/25 11:33	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.47	U	ng/L	7.47	9.41	1	12/11/25 11:33	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.04	U	ng/L	3.04	9.31	1	12/11/25 11:33	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.1	U	ng/L	39.1	50.0	1	12/11/25 11:33	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.0	U	ng/L	27.0	50.0	1	12/11/25 11:33	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.1	U	ng/L	21.1	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	11.3		ng/L	8.19	8.83	1	12/11/25 11:33	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.4	U	ng/L	14.4	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.40	U	ng/L	7.40	9.63	1	12/11/25 11:33	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.0	U	ng/L	15.0	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.7	U	ng/L	29.7	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.8	U	ng/L	10.8	47.6	1	12/11/25 11:33	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.5	U	ng/L	15.5	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	154		ng/L	13.6	45.5	1	12/11/25 11:33	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	18.8	J	ng/L	14.3	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.4	U	ng/L	13.4	48.0	1	12/11/25 11:33	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-56_111725

Lab ID: HN2517937-050

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.29	U	ng/L	9.29	9.99	1	12/11/25 11:33	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.18	U	ng/L	8.18	9.99	1	12/11/25 11:33	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	27.7		ng/L	5.06	9.27	1	12/11/25 11:33	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	17.3		ng/L	9.29	9.99	1	12/11/25 11:33	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	13.5		ng/L	5.31	9.37	1	12/11/25 11:33	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.99	U	ng/L	7.99	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.7	U	ng/L	37.7	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.7	U	ng/L	17.7	50.0	1	12/11/25 11:33	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.0	U	ng/L	12.0	50.0	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	95.7		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	115		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	111		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	108		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	87.9		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	95.6		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	107		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	92.4		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	108		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	107		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	99.0		%REC		70-130	1	12/11/25 11:33	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 14:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-56_111725

Lab ID: HN2517937-050

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 11:33	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-52_111725

Lab ID: HN2517937-051

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.51	U	ng/L	8.51	9.09	1	12/11/25 12:17	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.5	U	ng/L	26.5	46.2	1	12/11/25 12:17	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<35.8	U	ng/L	35.8	45.1	1	12/11/25 12:17	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.0	U	ng/L	19.0	45.1	1	12/11/25 12:17	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.22	U	ng/L	7.22	9.09	1	12/11/25 12:17	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.94	U	ng/L	2.94	8.99	1	12/11/25 12:17	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<37.8	U	ng/L	37.8	48.2	1	12/11/25 12:17	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.0	U	ng/L	26.0	48.2	1	12/11/25 12:17	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.4	U	ng/L	20.4	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	13.5		ng/L	7.91	8.53	1	12/11/25 12:17	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	25.0	J	ng/L	13.9	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.15	U	ng/L	7.15	9.30	1	12/11/25 12:17	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.5	U	ng/L	14.5	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.6	U	ng/L	28.6	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.4	U	ng/L	10.4	45.9	1	12/11/25 12:17	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	24.9	J	ng/L	15.0	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	202		ng/L	13.1	43.9	1	12/11/25 12:17	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	74.8		ng/L	13.8	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<12.9	U	ng/L	12.9	46.3	1	12/11/25 12:17	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-52_111725

Lab ID: HN2517937-051

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<8.97	U	ng/L	8.97	9.65	1	12/11/25 12:17	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.90	U	ng/L	7.90	9.65	1	12/11/25 12:17	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	131		ng/L	4.89	8.95	1	12/11/25 12:17	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	45.0		ng/L	8.97	9.65	1	12/11/25 12:17	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	21.2		ng/L	5.13	9.05	1	12/11/25 12:17	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	34.5	J	ng/L	7.72	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.4	U	ng/L	36.4	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.1	U	ng/L	17.1	48.2	1	12/11/25 12:17	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.6	U	ng/L	11.6	48.2	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-FtS 4:2</i>	<i>ASTM D7979-19</i>	102		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-FtS 6:2</i>	<i>ASTM D7979-19</i>	114		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-FtS 8:2</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-PFDA</i>	<i>ASTM D7979-19</i>	105		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-PFDoA</i>	<i>ASTM D7979-19</i>	111		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-PFHxA</i>	<i>ASTM D7979-19</i>	109		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-PFTeDA</i>	<i>ASTM D7979-19</i>	87.2		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C2-PFUnDA</i>	<i>ASTM D7979-19</i>	109		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C3-HFPO-DA</i>	<i>ASTM D7979-19</i>	101		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C3-PFBS</i>	<i>ASTM D7979-19</i>	111		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C4-PFBA</i>	<i>ASTM D7979-19</i>	106		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C4-PFHpA</i>	<i>ASTM D7979-19</i>	107		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C4-PFOA</i>	<i>ASTM D7979-19</i>	116		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C4-PFOS</i>	<i>ASTM D7979-19</i>	117		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C5-PFNA</i>	<i>ASTM D7979-19</i>	110		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C5-PFPeA</i>	<i>ASTM D7979-19</i>	105		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 13C8-FOSA</i>	<i>ASTM D7979-19</i>	110		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: 18O2-PFHxS</i>	<i>ASTM D7979-19</i>	99.1		%REC		70-130	1	12/11/25 12:17	12/03/25 15:34
<i>Surr: d3-N-MeFOSAA</i>	<i>ASTM D7979-19</i>	121		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/17/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-52_111725

Lab ID: HN2517937-051

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	114		%REC		50-130	1	12/11/25 12:17	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:40
Date Received: 11/25/25 11:00

CLIENT ID: EB-01_111825

Lab ID: HN2517937-052

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.55	U	ng/L	8.55	9.14	1	12/11/25 12:31	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.6	U	ng/L	26.6	46.5	1	12/11/25 12:31	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.0	U	ng/L	36.0	45.3	1	12/11/25 12:31	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.1	U	ng/L	19.1	45.3	1	12/11/25 12:31	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.26	U	ng/L	7.26	9.14	1	12/11/25 12:31	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.95	U	ng/L	2.95	9.04	1	12/11/25 12:31	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.0	U	ng/L	38.0	48.5	1	12/11/25 12:31	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.2	U	ng/L	26.2	48.5	1	12/11/25 12:31	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<7.95	U	ng/L	7.95	8.57	1	12/11/25 12:31	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.0	U	ng/L	14.0	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.19	U	ng/L	7.19	9.35	1	12/11/25 12:31	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.8	U	ng/L	28.8	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.2	1	12/11/25 12:31	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.0	U	ng/L	15.0	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	<13.2	U	ng/L	13.2	44.1	1	12/11/25 12:31	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<13.9	U	ng/L	13.9	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.6	1	12/11/25 12:31	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:40
Date Received: 11/25/25 11:00

CLIENT ID: EB-01_111825

Lab ID: HN2517937-052

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.02	U	ng/L	9.02	9.70	1	12/11/25 12:31	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.94	U	ng/L	7.94	9.70	1	12/11/25 12:31	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<4.92	U	ng/L	4.92	9.00	1	12/11/25 12:31	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.02	U	ng/L	9.02	9.70	1	12/11/25 12:31	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.16	U	ng/L	5.16	9.10	1	12/11/25 12:31	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.76	U	ng/L	7.76	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.6	U	ng/L	36.6	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.2	U	ng/L	17.2	48.5	1	12/11/25 12:31	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.5	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	105		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	127		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	98.9		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	113		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	108		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	99.8		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	111		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	111		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	110		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	113		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	105		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	114		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	120		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	107		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	111		%REC		70-130	1	12/11/25 12:31	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	113		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:40
Date Received: 11/25/25 11:00

CLIENT ID: EB-01_111825

Lab ID: HN2517937-052

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/11/25 12:31	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-59(17-27)_111825

Lab ID: HN2517937-053

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<87.7	U	ng/L	87.7	93.6	10	12/11/25 21:20	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<273	U	ng/L	273	476	10	12/11/25 21:20	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<369	U	ng/L	369	464	10	12/11/25 21:20	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<196	U	ng/L	196	464	10	12/11/25 21:20	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<74.4	U	ng/L	74.4	93.6	10	12/11/25 21:20	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<30.3	U	ng/L	30.3	92.6	10	12/11/25 21:20	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<389	U	ng/L	389	497	10	12/11/25 21:20	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<268	U	ng/L	268	497	10	12/11/25 21:20	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<210	U	ng/L	210	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	303		ng/L	81.5	87.9	10	12/11/25 21:20	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<143	U	ng/L	143	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<73.6	U	ng/L	73.6	95.8	10	12/11/25 21:20	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<149	U	ng/L	149	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<295	U	ng/L	295	497	10	12/11/25 21:20	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	171	J	ng/L	107	473	10	12/11/25 21:20	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	183	J	ng/L	154	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	4220		ng/L	135	452	10	12/11/25 21:20	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	539		ng/L	142	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<133	U	ng/L	133	477	10	12/11/25 21:20	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-59(17-27)_111825

Lab ID: HN2517937-053

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<92.4	U	ng/L	92.4	99.4	10	12/11/25 21:20	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<81.4	U	ng/L	81.4	99.4	10	12/11/25 21:20	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	1360		ng/L	50.4	92.2	10	12/11/25 21:20	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	543		ng/L	92.4	99.4	10	12/11/25 21:20	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	407		ng/L	52.9	93.2	10	12/11/25 21:20	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	131	J	ng/L	79.5	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<375	U	ng/L	375	497	10	12/11/25 21:20	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<177	U	ng/L	177	497	10	12/11/25 21:20	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<119	U	ng/L	119	497	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	56.7		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	114		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	162	S	%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	90.4		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	88.3		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	108		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	56.2		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	90.9		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	52.9		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	125		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	111		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	85.1		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	102		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	128		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	107		%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	92.7		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	89.3		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	134	S	%REC		70-130	10	12/11/25 21:20	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	64.7		%REC		50-130	10	12/11/25 21:20	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 14:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-59(17-27)_111825

Lab ID: HN2517937-053

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	35.0	S	%REC		50-130	10	12/11/25 21:20	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-86(15-20)_111825

Lab ID: HN2517937-054

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.60	U	ng/L	8.60	9.19	1	12/11/25 12:45	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.7	U	ng/L	26.7	46.7	1	12/11/25 12:45	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.2	U	ng/L	36.2	45.5	1	12/11/25 12:45	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.3	U	ng/L	19.3	45.5	1	12/11/25 12:45	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.30	U	ng/L	7.30	9.19	1	12/11/25 12:45	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.97	U	ng/L	2.97	9.09	1	12/11/25 12:45	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.2	U	ng/L	38.2	48.8	1	12/11/25 12:45	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.3	U	ng/L	26.3	48.8	1	12/11/25 12:45	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.6	U	ng/L	20.6	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	17.2		ng/L	8.00	8.62	1	12/11/25 12:45	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	24.9	J	ng/L	14.1	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.22	U	ng/L	7.22	9.40	1	12/11/25 12:45	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.9	U	ng/L	28.9	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.4	1	12/11/25 12:45	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	25.2	J	ng/L	15.1	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	211		ng/L	13.3	44.4	1	12/11/25 12:45	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	116		ng/L	13.9	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	46.8	1	12/11/25 12:45	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-86(15-20)_111825

Lab ID: HN2517937-054

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	10.3		ng/L	9.07	9.75	1	12/11/25 12:45	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.99	U	ng/L	7.99	9.75	1	12/11/25 12:45	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	140		ng/L	4.94	9.05	1	12/11/25 12:45	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	47.8		ng/L	9.07	9.75	1	12/11/25 12:45	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	25.4		ng/L	5.19	9.15	1	12/11/25 12:45	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	36.7	J	ng/L	7.80	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.8	U	ng/L	36.8	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.3	U	ng/L	17.3	48.8	1	12/11/25 12:45	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.8	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	115		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	148	S	%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	103		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	109		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	109		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	89.5		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	107		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	112		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	110		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	99.1		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	105		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	95.1		%REC		70-130	1	12/11/25 12:45	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	117		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 13:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-86(15-20)_111825

Lab ID: HN2517937-054

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/11/25 12:45	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-03

Lab ID: HN2517937-055

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.73	U	ng/L	8.73	9.32	1	12/14/25 16:03	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.1	U	ng/L	27.1	47.4	1	12/14/25 16:03	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.7	U	ng/L	36.7	46.2	1	12/14/25 16:03	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.2	1	12/14/25 16:03	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.40	U	ng/L	7.40	9.32	1	12/14/25 16:03	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.01	U	ng/L	3.01	9.22	1	12/14/25 16:03	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.7	U	ng/L	38.7	49.5	1	12/14/25 16:03	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.7	U	ng/L	26.7	49.5	1	12/14/25 16:03	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.9	U	ng/L	20.9	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	193		ng/L	8.11	8.74	1	12/14/25 16:03	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	85.7		ng/L	14.3	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.33	U	ng/L	7.33	9.54	1	12/14/25 16:03	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.4	U	ng/L	29.4	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	781		ng/L	10.7	47.1	1	12/14/25 16:03	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	208		ng/L	15.3	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	17800		ng/L	1340	4500	100	12/12/25 12:53	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1550		ng/L	14.1	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.5	1	12/14/25 16:03	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-03	Lab ID: HN2517937-055

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	18.2		ng/L	9.20	9.89	1	12/14/25 16:03	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.10	U	ng/L	8.10	9.89	1	12/14/25 16:03	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	17900		ng/L	501	918	100	12/12/25 12:53	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1500		ng/L	9.20	9.89	1	12/14/25 16:03	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	647		ng/L	5.26	9.28	1	12/14/25 16:03	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	216		ng/L	7.91	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.3	U	ng/L	37.3	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.6	U	ng/L	17.6	49.5	1	12/14/25 16:03	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.5	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	101		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	111		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	79.3		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	90.3		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	101		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	91.5		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	75.3		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	87.1		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	81.4		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	99.6		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	92.7		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	88.6		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	95.7		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	94.0		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	79.0		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	88.7		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	92.1		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	104		%REC		70-130	1	12/14/25 16:03	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-03

Lab ID: HN2517937-055

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	101		%REC		50-130	1	12/14/25 16:03	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 10:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(4-7)_111825

Lab ID: HN2517937-056

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<9.03	U	ng/L	9.03	9.65	1	12/14/25 16:18	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<28.1	U	ng/L	28.1	49.1	1	12/14/25 16:18	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<38.0	U	ng/L	38.0	47.8	1	12/14/25 16:18	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<20.2	U	ng/L	20.2	47.8	1	12/14/25 16:18	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.66	U	ng/L	7.66	9.65	1	12/14/25 16:18	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.12	U	ng/L	3.12	9.54	1	12/14/25 16:18	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<40.1	U	ng/L	40.1	51.2	1	12/14/25 16:18	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.6	U	ng/L	27.6	51.2	1	12/14/25 16:18	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.6	U	ng/L	21.6	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	204		ng/L	8.40	9.05	1	12/14/25 16:18	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	88.2		ng/L	14.8	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.59	U	ng/L	7.59	9.87	1	12/14/25 16:18	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.4	U	ng/L	15.4	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<30.4	U	ng/L	30.4	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	819		ng/L	11.1	48.7	1	12/14/25 16:18	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	213		ng/L	15.9	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	16100		ng/L	1390	4660	100	12/12/25 13:08	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	1560		ng/L	14.6	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.7	U	ng/L	13.7	49.2	1	12/14/25 16:18	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 10:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(4-7)_111825

Lab ID: HN2517937-056

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	22.5		ng/L	9.52	10.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.39	U	ng/L	8.39	10.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	18300		ng/L	519	950	100	12/12/25 13:08	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1580		ng/L	9.52	10.2	1	12/14/25 16:18	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	672		ng/L	5.45	9.61	1	12/14/25 16:18	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	221		ng/L	8.19	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.6	U	ng/L	38.6	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<18.2	U	ng/L	18.2	51.2	1	12/14/25 16:18	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.3	U	ng/L	12.3	51.2	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	108		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	107		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	78.6		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	90.3		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	111		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	97.9		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	91.1		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	84.5		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	89.5		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	102		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	95.8		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	94.8		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	99.2		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	103		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	87.1		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	91.4		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	95.9		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	102		%REC		70-130	1	12/14/25 16:18	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	104		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 10:45
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(4-7)_111825

Lab ID: HN2517937-056

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	98.4		%REC		50-130	1	12/14/25 16:18	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(10-20)_111825

Lab ID: HN2517937-057

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.63	U	ng/L	8.63	9.22	1	12/14/25 15:49	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.8	U	ng/L	26.8	46.9	1	12/14/25 15:49	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.3	U	ng/L	36.3	45.7	1	12/14/25 15:49	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.3	U	ng/L	19.3	45.7	1	12/14/25 15:49	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.32	U	ng/L	7.32	9.22	1	12/14/25 15:49	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.98	U	ng/L	2.98	9.12	1	12/14/25 15:49	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.3	U	ng/L	38.3	48.9	1	12/14/25 15:49	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.4	U	ng/L	26.4	48.9	1	12/14/25 15:49	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.7	U	ng/L	20.7	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	927		ng/L	8.03	8.65	1	12/14/25 15:49	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	232		ng/L	14.1	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.25	U	ng/L	7.25	9.44	1	12/14/25 15:49	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.7	U	ng/L	14.7	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.1	U	ng/L	29.1	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	397		ng/L	10.6	46.6	1	12/14/25 15:49	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	463		ng/L	15.2	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	19100		ng/L	1330	4450	100	12/12/25 13:22	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	3950	J	ng/L	1400	4890	100	12/12/25 13:22	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.1	U	ng/L	13.1	47.0	1	12/14/25 15:49	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(10-20)_111825

Lab ID: HN2517937-057

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.10	U	ng/L	9.10	9.79	1	12/14/25 15:49	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.02	U	ng/L	8.02	9.79	1	12/14/25 15:49	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	7560		ng/L	496	908	100	12/12/25 13:22	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1600		ng/L	9.10	9.79	1	12/14/25 15:49	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	1820		ng/L	5.21	9.18	1	12/14/25 15:49	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	568		ng/L	7.83	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.9	U	ng/L	36.9	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.4	U	ng/L	17.4	48.9	1	12/14/25 15:49	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	48.9	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	93.4		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	79.9		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	57.2		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	82.6		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	108		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	89.6		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	78.2		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	79.5		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	91.2		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	95.9		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	86.6		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	85.9		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	88.4		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	90.3		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	79.4		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	90.3		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	87.8		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	95.8		%REC		70-130	1	12/14/25 15:49	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	95.4		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 11:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-87(10-20)_111825

Lab ID: HN2517937-057

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	97.5		%REC		50-130	1	12/14/25 15:49	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-48(7-12)_111825	Lab ID: HN2517937-058

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.85	U	ng/L	8.85	9.45	1	12/11/25 13:00	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.5	U	ng/L	27.5	48.0	1	12/11/25 13:00	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.2	U	ng/L	37.2	46.8	1	12/11/25 13:00	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.8	U	ng/L	19.8	46.8	1	12/11/25 13:00	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.50	U	ng/L	7.50	9.45	1	12/11/25 13:00	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.05	U	ng/L	3.05	9.35	1	12/11/25 13:00	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.3	U	ng/L	39.3	50.2	1	12/11/25 13:00	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.1	U	ng/L	27.1	50.2	1	12/11/25 13:00	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.2	U	ng/L	21.2	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	15.4		ng/L	8.22	8.87	1	12/11/25 13:00	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	16.2	J	ng/L	14.5	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.43	U	ng/L	7.43	9.67	1	12/11/25 13:00	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.1	U	ng/L	15.1	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.8	U	ng/L	29.8	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.8	U	ng/L	10.8	47.7	1	12/11/25 13:00	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.6	U	ng/L	15.6	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	188		ng/L	13.6	45.6	1	12/11/25 13:00	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	28.4	J	ng/L	14.3	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.4	U	ng/L	13.4	48.1	1	12/11/25 13:00	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-48(7-12)_111825

Lab ID: HN2517937-058

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	11.5		ng/L	9.33	10.0	1	12/11/25 13:00	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.21	U	ng/L	8.21	10.0	1	12/11/25 13:00	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	437		ng/L	5.08	9.31	1	12/11/25 13:00	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	34.2		ng/L	9.33	10.0	1	12/11/25 13:00	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	13.7		ng/L	5.34	9.41	1	12/11/25 13:00	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	14.2	J	ng/L	8.02	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.8	U	ng/L	37.8	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.8	U	ng/L	17.8	50.2	1	12/11/25 13:00	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.1	U	ng/L	12.1	50.2	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	105		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	122		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	103		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	90.1		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	99.7		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	84.9		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	100		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	90.0		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	94.9		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	103		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	107		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	97.0		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	98.8		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	97.2		%REC		70-130	1	12/11/25 13:00	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	98.7		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25 15:30
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-48(7-12)_111825

Lab ID: HN2517937-058

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	99.1		%REC		50-130	1	12/11/25 13:00	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-04

Lab ID: HN2517937-059

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.70	U	ng/L	8.70	9.29	1	12/11/25 13:14	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.0	U	ng/L	27.0	47.2	1	12/11/25 13:14	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.6	U	ng/L	36.6	46.1	1	12/11/25 13:14	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.5	U	ng/L	19.5	46.1	1	12/11/25 13:14	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.38	U	ng/L	7.38	9.29	1	12/11/25 13:14	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.00	U	ng/L	3.00	9.19	1	12/11/25 13:14	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.6	U	ng/L	38.6	49.3	1	12/11/25 13:14	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.6	U	ng/L	26.6	49.3	1	12/11/25 13:14	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.8	U	ng/L	20.8	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	14.2		ng/L	8.09	8.72	1	12/11/25 13:14	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	14.5	J	ng/L	14.2	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.31	U	ng/L	7.31	9.51	1	12/11/25 13:14	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.3	U	ng/L	29.3	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.7	U	ng/L	10.7	47.0	1	12/11/25 13:14	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.3	U	ng/L	15.3	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	194		ng/L	13.4	44.9	1	12/11/25 13:14	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	32.6	J	ng/L	14.1	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.3	1	12/11/25 13:14	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-04

Lab ID: HN2517937-059

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	11.1		ng/L	9.17	9.86	1	12/11/25 13:14	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.08	U	ng/L	8.08	9.86	1	12/11/25 13:14	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	446		ng/L	5.00	9.15	1	12/11/25 13:14	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	36.0		ng/L	9.17	9.86	1	12/11/25 13:14	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	19.0		ng/L	5.25	9.25	1	12/11/25 13:14	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	13.7	J	ng/L	7.89	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.2	U	ng/L	37.2	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.3	1	12/11/25 13:14	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.9	U	ng/L	11.9	49.3	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	109		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	123		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	112		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	91.6		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	85.8		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	112		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	96.7		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	106		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	98.9		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	112		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	116		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	109		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	103		%REC		70-130	1	12/11/25 13:14	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	112		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/18/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-04

Lab ID: HN2517937-059

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 13:14	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(14-19)_112125

Lab ID: HN2517937-060

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.67	U	ng/L	8.67	9.26	1	12/11/25 13:29	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.9	U	ng/L	26.9	47.1	1	12/11/25 13:29	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.4	U	ng/L	36.4	45.9	1	12/11/25 13:29	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.4	U	ng/L	19.4	45.9	1	12/11/25 13:29	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.35	U	ng/L	7.35	9.26	1	12/11/25 13:29	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.99	U	ng/L	2.99	9.16	1	12/11/25 13:29	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.5	U	ng/L	38.5	49.1	1	12/11/25 13:29	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.5	U	ng/L	26.5	49.1	1	12/11/25 13:29	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.7	U	ng/L	20.7	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.06	U	ng/L	8.06	8.69	1	12/11/25 13:29	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.2	U	ng/L	14.2	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.28	U	ng/L	7.28	9.47	1	12/11/25 13:29	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.8	U	ng/L	14.8	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.2	U	ng/L	29.2	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.6	U	ng/L	10.6	46.8	1	12/11/25 13:29	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.2	U	ng/L	15.2	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	<13.4	U	ng/L	13.4	44.7	1	12/11/25 13:29	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<14.0	U	ng/L	14.0	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.2	U	ng/L	13.2	47.2	1	12/11/25 13:29	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(14-19)_112125

Lab ID: HN2517937-060

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.14	U	ng/L	9.14	9.83	1	12/11/25 13:29	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.05	U	ng/L	8.05	9.83	1	12/11/25 13:29	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<4.98	U	ng/L	4.98	9.12	1	12/11/25 13:29	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.14	U	ng/L	9.14	9.83	1	12/11/25 13:29	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.23	U	ng/L	5.23	9.22	1	12/11/25 13:29	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.86	U	ng/L	7.86	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.0	U	ng/L	37.0	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.5	U	ng/L	17.5	49.1	1	12/11/25 13:29	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.8	U	ng/L	11.8	49.1	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	106		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	124		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	113		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	101		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	110		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	92.4		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	94.8		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	107		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	114		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	110		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	105		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	107		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:29	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	98.9		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 12:50
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(14-19)_112125

Lab ID: HN2517937-060

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	101		%REC		50-130	1	12/11/25 13:29	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 14:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(8-13)_112125

Lab ID: HN2517937-061

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.59	U	ng/L	8.59	9.17	1	12/11/25 13:43	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<26.7	U	ng/L	26.7	46.6	1	12/11/25 13:43	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.1	U	ng/L	36.1	45.5	1	12/11/25 13:43	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.2	U	ng/L	19.2	45.5	1	12/11/25 13:43	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.28	U	ng/L	7.28	9.17	1	12/11/25 13:43	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<2.96	U	ng/L	2.96	9.07	1	12/11/25 13:43	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<38.1	U	ng/L	38.1	48.7	1	12/11/25 13:43	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.3	U	ng/L	26.3	48.7	1	12/11/25 13:43	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<20.5	U	ng/L	20.5	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<7.98	U	ng/L	7.98	8.61	1	12/11/25 13:43	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.0	U	ng/L	14.0	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.21	U	ng/L	7.21	9.38	1	12/11/25 13:43	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.6	U	ng/L	14.6	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<28.9	U	ng/L	28.9	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.5	U	ng/L	10.5	46.3	1	12/11/25 13:43	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.1	U	ng/L	15.1	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	<13.2	U	ng/L	13.2	44.3	1	12/11/25 13:43	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<13.9	U	ng/L	13.9	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.0	U	ng/L	13.0	46.7	1	12/11/25 13:43	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 14:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(8-13)_112125

Lab ID: HN2517937-061

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.05	U	ng/L	9.05	9.73	1	12/11/25 13:43	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<7.97	U	ng/L	7.97	9.73	1	12/11/25 13:43	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	<4.93	U	ng/L	4.93	9.03	1	12/11/25 13:43	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	<9.05	U	ng/L	9.05	9.73	1	12/11/25 13:43	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<5.18	U	ng/L	5.18	9.13	1	12/11/25 13:43	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<7.79	U	ng/L	7.79	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<36.7	U	ng/L	36.7	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.3	U	ng/L	17.3	48.7	1	12/11/25 13:43	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<11.7	U	ng/L	11.7	48.7	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	134	S	%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	89.5		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	98.4		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	83.9		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	110		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	108		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	110		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	112		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	109		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	106		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	109		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:43	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	110		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 14:00
Date Received: 11/25/25 11:00

CLIENT ID: MW-09-85(8-13)_112125

Lab ID: HN2517937-061

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:43	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-02

Lab ID: HN2517937-062

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<879	U	ng/L	879	939	100	12/12/25 13:36	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<2730	U	ng/L	2730	4780	100	12/12/25 13:36	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<3700	U	ng/L	3700	4660	100	12/12/25 13:36	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<1970	U	ng/L	1970	4660	100	12/12/25 13:36	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<746	U	ng/L	746	939	100	12/12/25 13:36	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<304	U	ng/L	304	929	100	12/12/25 13:36	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<3900	U	ng/L	3900	4990	100	12/12/25 13:36	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<2690	U	ng/L	2690	4990	100	12/12/25 13:36	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<2100	U	ng/L	2100	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<818	U	ng/L	818	881	100	12/12/25 13:36	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<1440	U	ng/L	1440	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<739	U	ng/L	739	961	100	12/12/25 13:36	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<1500	U	ng/L	1500	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<2960	U	ng/L	2960	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	3430	J	ng/L	1080	4750	100	12/12/25 13:36	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<1550	U	ng/L	1550	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	5200		ng/L	1350	4540	100	12/12/25 13:36	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	<1420	U	ng/L	1420	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<1340	U	ng/L	1340	4790	100	12/12/25 13:36	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-02

Lab ID: HN2517937-062

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<927	U	ng/L	927	997	100	12/12/25 13:36	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<817	U	ng/L	817	997	100	12/12/25 13:36	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	773000		ng/L	2530	4630	500	12/11/25 15:43	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	1660		ng/L	927	997	100	12/12/25 13:36	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	<530	U	ng/L	530	935	100	12/12/25 13:36	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	<798	U	ng/L	798	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<3760	U	ng/L	3760	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<1770	U	ng/L	1770	4990	100	12/12/25 13:36	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<1200	U	ng/L	1200	4990	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	0.00	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	0.277	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	433	S	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	101	U	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	26.5	SU	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	59.8	U	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	104		%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	55.9	SU	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	184	S	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	50.7	U	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	154	S	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	20.3	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	11.1	SU	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	130		%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	42.1	SU	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	33.7	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	56.4	U	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	284	S	%REC		70-130	100	12/12/25 13:36	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	739	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/19/25
Date Received: 11/25/25 11:00

CLIENT ID: DUP-02

Lab ID: HN2517937-062

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	833	SU	%REC		50-130	100	12/12/25 13:36	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-48_112125

Lab ID: HN2517937-063

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.78	U	ng/L	8.78	9.37	1	12/11/25 13:58	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.3	U	ng/L	27.3	47.7	1	12/11/25 13:58	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<36.9	U	ng/L	36.9	46.5	1	12/11/25 13:58	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.6	U	ng/L	19.6	46.5	1	12/11/25 13:58	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.44	U	ng/L	7.44	9.37	1	12/11/25 13:58	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.03	U	ng/L	3.03	9.27	1	12/11/25 13:58	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.0	U	ng/L	39.0	49.8	1	12/11/25 13:58	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<26.8	U	ng/L	26.8	49.8	1	12/11/25 13:58	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.0	U	ng/L	21.0	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	97.4		ng/L	8.16	8.80	1	12/11/25 13:58	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	38.1	J	ng/L	14.3	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.37	U	ng/L	7.37	9.59	1	12/11/25 13:58	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<14.9	U	ng/L	14.9	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.5	U	ng/L	29.5	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.8	U	ng/L	10.8	47.4	1	12/11/25 13:58	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	53.1		ng/L	15.4	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	855		ng/L	13.5	45.3	1	12/11/25 13:58	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	188		ng/L	14.2	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.3	U	ng/L	13.3	47.8	1	12/11/25 13:58	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-48_112125

Lab ID: HN2517937-063

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.25	U	ng/L	9.25	9.95	1	12/11/25 13:58	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.15	U	ng/L	8.15	9.95	1	12/11/25 13:58	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	95.0		ng/L	5.04	9.23	1	12/11/25 13:58	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	133		ng/L	9.25	9.95	1	12/11/25 13:58	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	118		ng/L	5.29	9.33	1	12/11/25 13:58	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	58.1		ng/L	7.96	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.5	U	ng/L	37.5	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.7	U	ng/L	17.7	49.8	1	12/11/25 13:58	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.0	U	ng/L	12.0	49.8	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	89.6		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	113		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	112		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	100		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	97.6		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	82.0		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	99.9		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	85.5		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	108		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	106		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	105		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	99.8		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	90.9		%REC		70-130	1	12/11/25 13:58	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	87.0		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/21/25 15:45
Date Received: 11/25/25 11:00

CLIENT ID: RFI-09-48_112125

Lab ID: HN2517937-063

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	94.8		%REC		50-130	1	12/11/25 13:58	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: BD01-04_112425

Lab ID: HN2517937-064

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.97	U	ng/L	8.97	9.58	1	12/11/25 14:12	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.9	U	ng/L	27.9	48.7	1	12/11/25 14:12	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.7	U	ng/L	37.7	47.5	1	12/11/25 14:12	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<20.1	U	ng/L	20.1	47.5	1	12/11/25 14:12	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.60	U	ng/L	7.60	9.58	1	12/11/25 14:12	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.10	U	ng/L	3.10	9.47	1	12/11/25 14:12	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.8	U	ng/L	39.8	50.8	1	12/11/25 14:12	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.4	U	ng/L	27.4	50.8	1	12/11/25 14:12	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.4	U	ng/L	21.4	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	41.8		ng/L	8.34	8.99	1	12/11/25 14:12	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	35.3	J	ng/L	14.7	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.53	U	ng/L	7.53	9.80	1	12/11/25 14:12	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.3	U	ng/L	15.3	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<30.2	U	ng/L	30.2	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	19.1	J	ng/L	11.0	48.4	1	12/11/25 14:12	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	50.3	J	ng/L	15.8	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	1460		ng/L	13.8	46.3	1	12/11/25 14:12	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	348		ng/L	14.5	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.6	U	ng/L	13.6	48.8	1	12/11/25 14:12	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: BD01-04_112425

Lab ID: HN2517937-064

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.45	U	ng/L	9.45	10.2	1	12/11/25 14:12	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.33	U	ng/L	8.33	10.2	1	12/11/25 14:12	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	174		ng/L	5.15	9.43	1	12/11/25 14:12	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	179		ng/L	9.45	10.2	1	12/11/25 14:12	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	100		ng/L	5.41	9.54	1	12/11/25 14:12	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	74.6		ng/L	8.13	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<38.3	U	ng/L	38.3	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<18.1	U	ng/L	18.1	50.8	1	12/11/25 14:12	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.2	U	ng/L	12.2	50.8	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	94.5		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	144	S	%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	109		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	95.9		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	107		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	98.7		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	99.6		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	85.6		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	105		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	100		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	104		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	109		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	103		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	104		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	109		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	106		%REC		70-130	1	12/11/25 14:12	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	114		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 10:25
Date Received: 11/25/25 11:00

CLIENT ID: BD01-04_112425

Lab ID: HN2517937-064

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	91.7		%REC		50-130	1	12/11/25 14:12	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 12:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-15_112425

Lab ID: HN2517937-065

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Per- and Polyfluorinated Alkyl Substances by LC-MS									
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ASTM D7979-19	<8.81	U	ng/L	8.81	9.41	1	12/11/25 14:27	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ASTM D7979-19	<27.4	U	ng/L	27.4	47.9	1	12/11/25 14:27	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ASTM D7979-19	<37.0	U	ng/L	37.0	46.7	1	12/11/25 14:27	12/03/25 15:34
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ASTM D7979-19	<19.7	U	ng/L	19.7	46.7	1	12/11/25 14:27	12/03/25 15:34
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ASTM D7979-19	<7.47	U	ng/L	7.47	9.41	1	12/11/25 14:27	12/03/25 15:34
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ASTM D7979-19	<3.04	U	ng/L	3.04	9.31	1	12/11/25 14:27	12/03/25 15:34
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ASTM D7979-19	<39.1	U	ng/L	39.1	50.0	1	12/11/25 14:27	12/03/25 15:34
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ASTM D7979-19	<27.0	U	ng/L	27.0	50.0	1	12/11/25 14:27	12/03/25 15:34
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ASTM D7979-19	<21.1	U	ng/L	21.1	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorobutane sulfonic acid (PFBS)	ASTM D7979-19	<8.19	U	ng/L	8.19	8.83	1	12/11/25 14:27	12/03/25 15:34
Perfluorobutanoic acid (PFBA)	ASTM D7979-19	<14.4	U	ng/L	14.4	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorodecane sulfonic acid (PFDS)	ASTM D7979-19	<7.40	U	ng/L	7.40	9.63	1	12/11/25 14:27	12/03/25 15:34
Perfluorodecanoic acid (PFDA)	ASTM D7979-19	<15.0	U	ng/L	15.0	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorododecanoic acid (PFDOA)	ASTM D7979-19	<29.7	U	ng/L	29.7	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluoroheptane sulfonic acid (PFHpS)	ASTM D7979-19	<10.8	U	ng/L	10.8	47.6	1	12/11/25 14:27	12/03/25 15:34
Perfluoroheptanoic acid (PFHpA)	ASTM D7979-19	<15.5	U	ng/L	15.5	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorohexane sulfonic acid (PFHxS)	ASTM D7979-19	104		ng/L	13.6	45.5	1	12/11/25 14:27	12/03/25 15:34
Perfluorohexanoic acid (PFHxA)	ASTM D7979-19	28.9	J	ng/L	14.3	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorononane sulfonic acid (PFNS)	ASTM D7979-19	<13.4	U	ng/L	13.4	48.0	1	12/11/25 14:27	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 12:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-15_112425

Lab ID: HN2517937-065

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorononanoic acid (PFNA)	ASTM D7979-19	<9.29	U	ng/L	9.29	9.99	1	12/11/25 14:27	12/03/25 15:34
Perfluorooctane sulfonamide (PFOSAm)	ASTM D7979-19	<8.18	U	ng/L	8.18	9.99	1	12/11/25 14:27	12/03/25 15:34
Perfluorooctane sulfonic acid (PFOS)	ASTM D7979-19	120		ng/L	5.06	9.27	1	12/11/25 14:27	12/03/25 15:34
Perfluorooctanoic acid (PFOA)	ASTM D7979-19	39.2		ng/L	9.29	9.99	1	12/11/25 14:27	12/03/25 15:34
Perfluoropentane sulfonic acid (PFPeS)	ASTM D7979-19	8.63	J	ng/L	5.31	9.37	1	12/11/25 14:27	12/03/25 15:34
Perfluoropentanoic acid (PFPeA)	ASTM D7979-19	13.3	J	ng/L	7.99	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorotetradecanoic acid (PFTDA)	ASTM D7979-19	<37.7	U	ng/L	37.7	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluorotridecanoic acid (PFTrDA)	ASTM D7979-19	<17.7	U	ng/L	17.7	50.0	1	12/11/25 14:27	12/03/25 15:34
Perfluoroundecanoic acid (PFUnDA)	ASTM D7979-19	<12.0	U	ng/L	12.0	50.0	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-FtS 4:2	ASTM D7979-19	97.6		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-FtS 6:2	ASTM D7979-19	132	S	%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-FtS 8:2	ASTM D7979-19	114		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-PFDA	ASTM D7979-19	99.2		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-PFDoA	ASTM D7979-19	108		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-PFHxA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-PFTeDA	ASTM D7979-19	99.5		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C2-PFUnDA	ASTM D7979-19	109		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C3-HFPO-DA	ASTM D7979-19	89.4		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C3-PFBS	ASTM D7979-19	106		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C4-PFBA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C4-PFHpA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C4-PFOA	ASTM D7979-19	119		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C4-PFOS	ASTM D7979-19	101		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C5-PFNA	ASTM D7979-19	98.3		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C5-PFPeA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 13C8-FOSA	ASTM D7979-19	102		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34
Surr: 18O2-PFHxS	ASTM D7979-19	101		%REC		70-130	1	12/11/25 14:27	12/03/25 15:34
Surr: d3-N-MeFOSAA	ASTM D7979-19	93.4		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34

Analytical Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER

Work Order: HN2517937
Date Collected: 11/24/25 12:40
Date Received: 11/25/25 11:00

CLIENT ID: MW-84-15_112425

Lab ID: HN2517937-065

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: d5-N-EtFOSAA	ASTM D7979-19	103		%REC		50-130	1	12/11/25 14:27	12/03/25 15:34



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2363523-001

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/02/25 21:38**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	131	ng/L			149		87.9	50-130			
Surr: 13C2-FtS 6:2	165	ng/L			152		108	50-130			
Surr: 13C2-FtS 8:2	142	ng/L			153		92.8	50-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

MB		CLIENT ID: Method Blank				Lab ID: QC-2363523-001					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/02/25 21:38					
						Prep Date: 12/01/25 16:45					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	162	ng/L			160		101	70-130			
Surr: 13C2-PFDoA	163	ng/L			160		102	70-130			
Surr: 13C2-PFHxA	155	ng/L			160		96.9	50-130			
Surr: 13C2-PFTeDA	125	ng/L			160		78.0	50-130			
Surr: 13C2-PFUnDA	161	ng/L			160		101	70-130			
Surr: 13C3-HFPO-DA	140	ng/L			160		87.4	50-130			
Surr: 13C3-PFBS	150	ng/L			149		100	50-130			
Surr: 13C4-PFBA	157	ng/L			160		97.9	50-130			
Surr: 13C4-PFHpA	158	ng/L			160		98.5	50-130			
Surr: 13C4-PFOA	166	ng/L			160		104	70-130			
Surr: 13C4-PFOS	150	ng/L			153		98.0	70-130			
Surr: 13C5-PFNA	168	ng/L			160		105	70-130			
Surr: 13C5-PFPeA	157	ng/L			160		98.2	50-130			
Surr: 13C8-FOSA	156	ng/L			160		97.8	50-130			
Surr: 18O2-PFHxS	146	ng/L			151		96.5	70-130			
Surr: d3-N-MeFOSAA	169	ng/L			160		106	50-130			
Surr: d5-N-EtFOSAA	165	ng/L			160		103	50-130			

MB		CLIENT ID: Method Blank				Lab ID: QC-2363523-002					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/02/25 22:07					
						Prep Date: 12/01/25 16:45					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

MB	CLIENT ID: Method Blank	Lab ID: QC-2363523-002

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/02/25 22:07**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	143	ng/L			149		96.2	50-130			
Surr: 13C2-FtS 6:2	169	ng/L			152		111	50-130			
Surr: 13C2-FtS 8:2	162	ng/L			153		106	50-130			
Surr: 13C2-PFDA	166	ng/L			160		104	70-130			
Surr: 13C2-PFDoA	160	ng/L			160		99.7	70-130			
Surr: 13C2-PFHxA	168	ng/L			160		105	50-130			
Surr: 13C2-PFTeDA	127	ng/L			160		79.5	50-130			
Surr: 13C2-PFUnDA	163	ng/L			160		102	70-130			
Surr: 13C3-HFPO-DA	183	ng/L			160		114	50-130			
Surr: 13C3-PFBS	147	ng/L			149		98.8	50-130			
Surr: 13C4-PFBA	158	ng/L			160		98.8	50-130			
Surr: 13C4-PFHpA	165	ng/L			160		103	50-130			
Surr: 13C4-PFOA	164	ng/L			160		102	70-130			
Surr: 13C4-PFOS	146	ng/L			153		95.7	70-130			
Surr: 13C5-PFNA	162	ng/L			160		101	70-130			
Surr: 13C5-PFPeA	166	ng/L			160		104	50-130			
Surr: 13C8-FOSA	158	ng/L			160		99.0	50-130			
Surr: 18O2-PFHxS	148	ng/L			151		97.7	70-130			
Surr: d3-N-MeFOSAA	151	ng/L			160		94.5	50-130			
Surr: d5-N-EtFOSAA	154	ng/L			160		96.3	50-130			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2363523-003

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/02/25 22:36**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2363523-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/02/25 22:36

Prep Date: 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	473	ng/L	8.82	9.42	471		100	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	520	ng/L	27.4	47.9	479		109	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	464	ng/L	37.1	46.7	467		99.4	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	587	ng/L	19.7	47.4	474		124	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	495	ng/L	7.48	9.42	471		105	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	489	ng/L	3.04	9.32	466		105	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	529	ng/L	39.2	50.0	500		106	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	545	ng/L	27.0	50.0	500		109	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	510	ng/L	21.1	50.0	500		102	70-130			
Perfluorobutane sulfonic acid (PFBS)	459	ng/L	8.20	8.84	442		104	70-130			
Perfluorobutanoic acid (PFBA)	514	ng/L	14.4	50.0	500		103	50-130			
Perfluorodecane sulfonic acid (PFDS)	511	ng/L	7.41	9.64	482		106	70-130			
Perfluorodecanoic acid (PFDA)	523	ng/L	15.0	50.0	500		105	70-130			
Perfluorododecanoic acid (PFDOA)	524	ng/L	29.7	50.0	500		105	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	501	ng/L	10.8	47.6	476		105	70-130			
Perfluoroheptanoic acid (PFHpA)	516	ng/L	15.5	50.0	500		103	50-130			
Perfluorohexane sulfonic acid (PFHxS)	464	ng/L	13.6	45.5	455		102	70-130			
Perfluorohexanoic acid (PFHxA)	524	ng/L	14.3	50.0	500		105	50-130			
Perfluorononane sulfonic acid (PFNS)	503	ng/L	13.4	48.0	480		105	70-130			
Perfluorononanoic acid (PFNA)	524	ng/L	9.30	10.0	500		105	70-130			
Perfluorooctane sulfonamide (PFOSAm)	511	ng/L	8.19	10.0	500		102	70-130			
Perfluorooctane sulfonic acid (PFOS)	470	ng/L	5.07	9.28	464		101	70-130			
Perfluorooctanoic acid (PFOA)	542	ng/L	9.30	10.0	500		108	70-130			
Perfluoropentane sulfonic acid (PFPeS)	482	ng/L	8.19	9.38	469		103	70-130			
Perfluoropentanoic acid (PFPeA)	517	ng/L	5.07	50.0	500		103	70-130			
Perfluorotetradecanoic acid (PFTDA)	464	ng/L	9.30	50.0	500		92.8	70-130			
Perfluorotridecanoic acid (PFTrDA)	513	ng/L	5.32	50.0	500		103	70-130			
Perfluoroundecanoic acid (PFUnDA)	531	ng/L	12.0	50.0	500		106	70-130			
Surr: 13C2-FtS 4:2	160	ng/L			149		108	50-130			
Surr: 13C2-FtS 6:2	189	ng/L			152		125	50-130			
Surr: 13C2-FtS 8:2	183	ng/L			153		119	50-130			
Surr: 13C2-PFDA	158	ng/L			160		98.9	70-130			
Surr: 13C2-PFDoA	155	ng/L			160		96.8	70-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2363523-003

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/02/25 22:36**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFHxA	155	ng/L			160		96.6	50-130			
Surr: 13C2-PFTeDA	159	ng/L			160		99.4	50-130			
Surr: 13C2-PFUnDA	162	ng/L			160		101	70-130			
Surr: 13C3-HFPO-DA	146	ng/L			160		91.4	50-130			
Surr: 13C3-PFBS	146	ng/L			149		98.1	50-130			
Surr: 13C4-PFBA	157	ng/L			160		98.3	50-130			
Surr: 13C4-PFHpA	159	ng/L			160		99.1	50-130			
Surr: 13C4-PFOA	157	ng/L			160		98.4	70-130			
Surr: 13C4-PFOS	150	ng/L			153		98.3	70-130			
Surr: 13C5-PFNA	159	ng/L			160		99.1	70-130			
Surr: 13C5-PFPeA	157	ng/L			160		98.4	50-130			
Surr: 13C8-FOSA	150	ng/L			160		93.6	50-130			
Surr: 18O2-PFHxS	147	ng/L			151		97.3	70-130			
Surr: d3-N-MeFOSAA	153	ng/L			160		95.8	50-130			
Surr: d5-N-EtFOSAA	147	ng/L			160		92.1	50-130			

MS	CLIENT ID: SB-84-23(11-16)_111925	Lab ID: QC-2363523-008

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 00:31**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	447	ng/L	8.65	9.24	452.88	<8.65	98.8	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	488	ng/L	26.9	47.0	460.58	<26.9	106	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	510	ng/L	36.4	45.8	449.04	<36.4	114	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	589	ng/L	19.4	45.8	455.77	<19.4	130	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	469	ng/L	7.34	9.24	452.88	<7.34	103	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	460	ng/L	2.99	9.14	448.08	<2.99	103	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	469	ng/L	38.4	49.0	480.77	<38.4	97.5	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	510	ng/L	26.5	49.0	480.77	<26.5	106	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	475	ng/L	20.7	49.0	480.77	<20.7	98.2	70-130			
Perfluorobutane sulfonic acid (PFBS)	439	ng/L	8.04	8.67	425	<8.04	103	70-130			
Perfluorobutanoic acid (PFBA)	505	ng/L	14.1	49.0	480.77	<14.1	102	50-130			
Perfluorodecane sulfonic acid (PFDS)	463	ng/L	7.27	9.45	463.46	<7.27	99.9	70-130			
Perfluorodecanoic acid (PFDA)	484	ng/L	14.7	49.0	480.77	<14.7	101	70-130			
Perfluorododecanoic acid (PFDOA)	490	ng/L	29.1	49.0	480.77	<29.1	102	70-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

MS	CLIENT ID: SB-84-23(11-16)_111925	Lab ID: QC-2363523-008

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 00:31**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptane sulfonic acid (PFHpS)	454	ng/L	10.6	46.7	457.69	<10.6	99.2	70-130			
Perfluoroheptanoic acid (PFHpA)	511	ng/L	15.2	49.0	480.77	<15.2	106	50-130			
Perfluorohexane sulfonic acid (PFHxS)	463	ng/L	13.3	44.6	437.5	<13.3	105	70-130			
Perfluorohexanoic acid (PFHxA)	517	ng/L	14.0	49.0	480.77	<14.0	105	50-130			
Perfluorononane sulfonic acid (PFNS)	476	ng/L	13.1	47.1	461.54	<13.1	102	70-130			
Perfluorononanoic acid (PFNA)	499	ng/L	9.12	9.81	480.77	<9.12	104	70-130			
Perfluorooctane sulfonamide (PFOSAm)	484	ng/L	8.03	9.81	480.77	<8.03	100	70-130			
Perfluorooctane sulfonic acid (PFOS)	484	ng/L	4.97	9.10	446.15	5.07	107	70-130			
Perfluorooctanoic acid (PFOA)	506	ng/L	9.12	9.81	480.77	<9.12	105	70-130			
Perfluoropentane sulfonic acid (PFPeS)	458	ng/L	5.22	9.20	450.96	<5.22	101	70-130			
Perfluoropentanoic acid (PFPeA)	495	ng/L	7.85	49.0	480.77	10.7	101	70-130			
Perfluorotetradecanoic acid (PFTDA)	394	ng/L	37.0	49.0	480.77	<37.0	81.3	70-130			
Perfluorotridecanoic acid (PFTrDA)	481	ng/L	17.4	49.0	480.77	<17.4	99.4	70-130			
Perfluoroundecanoic acid (PFUnDA)	500	ng/L	11.8	49.0	480.77	<11.8	104	70-130			
Surr: 13C2-FtS 4:2	174	ng/L			143.27		122	50-130			
Surr: 13C2-FtS 6:2	199	ng/L			146.15		136	50-130			S
Surr: 13C2-FtS 8:2	158	ng/L			147.12		107	50-130			
Surr: 13C2-PFDA	155	ng/L			153.85		101	70-130			
Surr: 13C2-PFDoA	163	ng/L			153.85		106	70-130			
Surr: 13C2-PFHxA	171	ng/L			153.85		111	50-130			
Surr: 13C2-PFTeDA	144	ng/L			153.85		93.4	50-130			
Surr: 13C2-PFUnDA	166	ng/L			153.85		108	70-130			
Surr: 13C3-HFPO-DA	129	ng/L			153.85		84.0	50-130			
Surr: 13C3-PFBS	154	ng/L			143.27		108	50-130			
Surr: 13C4-PFBA	158	ng/L			153.85		103	50-130			
Surr: 13C4-PFHpA	167	ng/L			153.85		109	50-130			
Surr: 13C4-PFOA	166	ng/L			153.85		108	70-130			
Surr: 13C4-PFOS	140	ng/L			147.12		95.4	70-130			
Surr: 13C5-PFNA	159	ng/L			153.85		103	70-130			
Surr: 13C5-PFPeA	152	ng/L			153.85		98.7	50-130			
Surr: 13C8-FOSA	150	ng/L			153.85		97.3	50-130			
Surr: 18O2-PFHxS	134	ng/L			145.19		92.3	70-130			
Surr: d3-N-MeFOSAA	162	ng/L			153.85		105	50-130			
Surr: d5-N-EtFOSAA	162	ng/L			153.85		105	50-130			

MSD	CLIENT ID: SB-84-23(11-16)_111925	Lab ID: QC-2363523-009

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 00:46**Prep Date:** 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	438	ng/L	8.82	9.42	438.55	<8.82	99.8	70-130	2.21	30	

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

MSD		CLIENT ID: SB-84-23(11-16)_111925					Lab ID: QC-2363523-009				
Method: ASTM D7979-19		Dilution: 1					Analysis Date: 12/03/25 00:46				
							Prep Date: 12/01/25 16:45				
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	507	ng/L	27.4	47.9	446	<27.4	114	70-130	3.81	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	486	ng/L	37.1	46.7	434.82	<37.1	112	70-130	4.97	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	565	ng/L	19.7	47.4	441.34	<19.7	128	70-130	4.15	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	466	ng/L	7.48	9.42	438.55	<7.48	106	70-130	0.589	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	455	ng/L	3.04	9.32	433.89	<3.04	105	70-130	1.15	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	472	ng/L	39.2	50.0	465.55	<39.2	101	50-130	0.691	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	489	ng/L	27.0	50.0	465.55	<27.0	104	70-130	4.20	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	513	ng/L	21.1	50.0	465.55	<21.1	110	70-130	7.82	30	
Perfluorobutane sulfonic acid (PFBS)	436	ng/L	8.20	8.84	411.55	<8.20	106	70-130	0.654	30	
Perfluorobutanoic acid (PFBA)	508	ng/L	14.4	50.0	465.55	<14.4	106	50-130	0.587	30	
Perfluorodecane sulfonic acid (PFDS)	455	ng/L	7.41	9.64	448.79	<7.41	101	70-130	1.71	30	
Perfluorodecanoic acid (PFDA)	488	ng/L	15.0	50.0	465.55	<15.0	105	70-130	0.885	30	
Perfluorododecanoic acid (PFDOA)	490	ng/L	29.7	50.0	465.55	<29.7	105	70-130	0.0692	30	
Perfluoroheptane sulfonic acid (PFHpS)	454	ng/L	10.8	47.6	443.2	<10.8	102	70-130	0.0750	30	
Perfluoroheptanoic acid (PFHpA)	497	ng/L	15.5	50.0	465.55	<15.5	106	50-130	2.94	30	
Perfluorohexane sulfonic acid (PFHxS)	438	ng/L	13.6	45.5	423.65	<13.6	103	70-130	5.66	30	
Perfluorohexanoic acid (PFHxA)	499	ng/L	14.3	50.0	465.55	<14.3	105	50-130	3.58	30	
Perfluorononane sulfonic acid (PFNS)	457	ng/L	13.4	48.0	446.93	<13.4	102	70-130	4.12	30	
Perfluorononanoic acid (PFNA)	498	ng/L	9.30	10.0	465.55	<9.30	107	70-130	0.272	30	
Perfluorooctane sulfonamide (PFOSAm)	497	ng/L	8.19	10.0	465.55	<8.19	107	70-130	2.74	30	
Perfluorooctane sulfonic acid (PFOS)	441	ng/L	5.07	9.28	432.03	5.07	101	70-130	9.36	30	
Perfluorooctanoic acid (PFOA)	505	ng/L	9.30	10.0	465.55	<9.30	108	70-130	0.264	30	
Perfluoropentane sulfonic acid (PFPeS)	457	ng/L	5.32	9.38	436.69	<5.32	104	70-130	0.222	30	
Perfluoropentanoic acid (PFPeA)	499	ng/L	8.00	50.0	465.55	10.7	105	70-130	0.775	30	
Perfluorotetradecanoic acid (PFTDA)	371	ng/L	37.7	50.0	465.55	<37.7	78.8	70-130	6.25	30	
Perfluorotridecanoic acid (PFTrDA)	464	ng/L	17.8	50.0	465.55	<17.8	99.0	70-130	3.58	30	
Perfluoroundecanoic acid (PFUnDA)	495	ng/L	12.0	50.0	465.55	<12.0	106	70-130	0.948	30	
Surr: 13C2-FtS 4:2	155	ng/L			138.73		111	50-130	11.9	30	
Surr: 13C2-FtS 6:2	189	ng/L			141.53		133	50-130	5.47	30	S
Surr: 13C2-FtS 8:2	177	ng/L			142.46		124	50-130	11.4	30	
Surr: 13C2-PFDA	161	ng/L			148.98		108	70-130	3.81	30	
Surr: 13C2-PFDoA	153	ng/L			148.98		103	70-130	6.01	30	
Surr: 13C2-PFHxA	161	ng/L			148.98		108	50-130	5.81	30	
Surr: 13C2-PFTeDA	131	ng/L			148.98		87.9	50-130	9.30	30	



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2363523

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739698

MSD	CLIENT ID: SB-84-23(11-16)_111925	Lab ID: QC-2363523-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/03/25 00:46

Prep Date: 12/01/25 16:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFUnDA	161	ng/L			148.98		108	70-130	3.15	30	
Surr: 13C3-HFPO-DA	124	ng/L			148.98		83.5	50-130	3.87	30	
Surr: 13C3-PFBS	142	ng/L			138.73		102	50-130	8.40	30	
Surr: 13C4-PFBA	151	ng/L			148.98		102	50-130	4.46	30	
Surr: 13C4-PFHpA	144	ng/L			148.98		96.9	50-130	14.5	30	
Surr: 13C4-PFOA	155	ng/L			148.98		104	70-130	6.94	30	
Surr: 13C4-PFOS	150	ng/L			142.46		105	70-130	6.46	30	
Surr: 13C5-PFNA	155	ng/L			148.98		104	70-130	2.37	30	
Surr: 13C5-PFPeA	150	ng/L			148.98		101	50-130	1.000	30	
Surr: 13C8-FOSA	152	ng/L			148.98		102	50-130	1.41	30	
Surr: 18O2-PFHxS	139	ng/L			140.6		98.8	70-130	3.53	30	
Surr: d3-N-MeFOSAA	144	ng/L			148.98		96.9	50-130	11.6	30	
Surr: d5-N-EtFOSAA	147	ng/L			148.98		98.9	50-130	9.36	30	

The following samples were analyzed in this batch: HN2517937-001, HN2517937-002, HN2517937-003, HN2517937-004,
 HN2517937-005, HN2517937-006, HN2517937-007, HN2517937-008,
 HN2517937-009, HN2517937-010, HN2517937-011, HN2517937-012,
 HN2517937-013, HN2517937-014



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739711

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2364667-001

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 07:17**Prep Date:** 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	151	ng/L			149		101	50-130			
Surr: 13C2-FtS 6:2	179	ng/L			152		118	50-130			
Surr: 13C2-FtS 8:2	146	ng/L			153		95.1	50-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739711

MB		CLIENT ID: Method Blank				Lab ID: QC-2364667-001					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/03/25 07:17					
						Prep Date: 12/02/25 15:36					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	164	ng/L			160		102	70-130			
Surr: 13C2-PFDoA	166	ng/L			160		104	70-130			
Surr: 13C2-PFHxA	171	ng/L			160		107	50-130			
Surr: 13C2-PFTeDA	138	ng/L			160		86.4	50-130			
Surr: 13C2-PFUnDA	172	ng/L			160		107	70-130			
Surr: 13C3-HFPO-DA	153	ng/L			160		95.6	50-130			
Surr: 13C3-PFBS	154	ng/L			149		103	50-130			
Surr: 13C4-PFBA	164	ng/L			160		102	50-130			
Surr: 13C4-PFHpA	158	ng/L			160		98.6	50-130			
Surr: 13C4-PFOA	165	ng/L			160		103	70-130			
Surr: 13C4-PFOS	161	ng/L			153		105	70-130			
Surr: 13C5-PFNA	161	ng/L			160		101	70-130			
Surr: 13C5-PFPeA	168	ng/L			160		105	50-130			
Surr: 13C8-FOSA	162	ng/L			160		101	50-130			
Surr: 18O2-PFHxS	144	ng/L			151		95.5	70-130			
Surr: d3-N-MeFOSAA	171	ng/L			160		107	50-130			
Surr: d5-N-EtFOSAA	189	ng/L			160		118	50-130			

MB		CLIENT ID: Method Blank				Lab ID: QC-2364667-002					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/03/25 07:46					
						Prep Date: 12/02/25 15:36					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739711

MB	CLIENT ID: Method Blank	Lab ID: QC-2364667-002

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 07:46**Prep Date:** 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	118	ng/L			149		79.3	50-130			
Surr: 13C2-FtS 6:2	171	ng/L			152		112	50-130			
Surr: 13C2-FtS 8:2	155	ng/L			153		101	50-130			
Surr: 13C2-PFDA	160	ng/L			160		100	70-130			
Surr: 13C2-PFDoA	168	ng/L			160		105	70-130			
Surr: 13C2-PFHxA	164	ng/L			160		102	50-130			
Surr: 13C2-PFTeDA	147	ng/L			160		92.0	50-130			
Surr: 13C2-PFUnDA	174	ng/L			160		108	70-130			
Surr: 13C3-HFPO-DA	170	ng/L			160		106	50-130			
Surr: 13C3-PFBS	149	ng/L			149		100	50-130			
Surr: 13C4-PFBA	161	ng/L			160		100	50-130			
Surr: 13C4-PFHpA	162	ng/L			160		101	50-130			
Surr: 13C4-PFOA	167	ng/L			160		105	70-130			
Surr: 13C4-PFOS	163	ng/L			153		107	70-130			
Surr: 13C5-PFNA	166	ng/L			160		104	70-130			
Surr: 13C5-PFPeA	160	ng/L			160		100	50-130			
Surr: 13C8-FOSA	163	ng/L			160		102	50-130			
Surr: 18O2-PFHxS	138	ng/L			151		91.7	70-130			
Surr: d3-N-MeFOSAA	164	ng/L			160		102	50-130			
Surr: d5-N-EtFOSAA	166	ng/L			160		104	50-130			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364667-003

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 09:27**Prep Date:** 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739711

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364667-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/03/25 09:27

Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	503	ng/L	8.82	9.42	471		107	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	523	ng/L	27.4	47.9	479		109	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	514	ng/L	37.1	46.7	467		110	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	556	ng/L	19.7	47.4	474		117	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	503	ng/L	7.48	9.42	471		107	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	495	ng/L	3.04	9.32	466		106	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	566	ng/L	39.2	50.0	500		113	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	559	ng/L	27.0	50.0	500		112	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	556	ng/L	21.1	50.0	500		111	70-130			
Perfluorobutane sulfonic acid (PFBS)	471	ng/L	8.20	8.84	442		106	70-130			
Perfluorobutanoic acid (PFBA)	531	ng/L	14.4	50.0	500		106	50-130			
Perfluorodecane sulfonic acid (PFDS)	497	ng/L	7.41	9.64	482		103	70-130			
Perfluorodecanoic acid (PFDA)	538	ng/L	15.0	50.0	500		108	70-130			
Perfluorododecanoic acid (PFDOA)	540	ng/L	29.7	50.0	500		108	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	494	ng/L	10.8	47.6	476		104	70-130			
Perfluoroheptanoic acid (PFHpA)	497	ng/L	15.5	50.0	500		99.3	50-130			
Perfluorohexane sulfonic acid (PFHxS)	466	ng/L	13.6	45.5	455		102	70-130			
Perfluorohexanoic acid (PFHxA)	531	ng/L	14.3	50.0	500		106	50-130			
Perfluorononane sulfonic acid (PFNS)	518	ng/L	13.4	48.0	480		108	70-130			
Perfluorononanoic acid (PFNA)	532	ng/L	9.30	10.0	500		106	70-130			
Perfluorooctane sulfonamide (PFOSAm)	535	ng/L	8.19	10.0	500		107	70-130			
Perfluorooctane sulfonic acid (PFOS)	496	ng/L	5.07	9.28	464		107	70-130			
Perfluorooctanoic acid (PFOA)	538	ng/L	9.30	10.0	500		108	70-130			
Perfluoropentane sulfonic acid (PFPeS)	483	ng/L	8.19	9.38	469		103	70-130			
Perfluoropentanoic acid (PFPeA)	522	ng/L	5.07	50.0	500		104	70-130			
Perfluorotetradecanoic acid (PFTDA)	507	ng/L	9.30	50.0	500		101	70-130			
Perfluorotridecanoic acid (PFTrDA)	518	ng/L	5.32	50.0	500		104	70-130			
Perfluoroundecanoic acid (PFUnDA)	546	ng/L	12.0	50.0	500		109	70-130			
Surr: 13C2-FtS 4:2	156	ng/L			149		105	50-130			
Surr: 13C2-FtS 6:2	177	ng/L			152		116	50-130			
Surr: 13C2-FtS 8:2	195	ng/L			153		127	50-130			
Surr: 13C2-PFDA	160	ng/L			160		99.7	70-130			
Surr: 13C2-PFDoA	165	ng/L			160		103	70-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3739711

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364667-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/03/25 09:27

Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFHxA	161	ng/L			160		100	50-130			
Surr: 13C2-PFTeDA	172	ng/L			160		107	50-130			
Surr: 13C2-PFUnDA	165	ng/L			160		103	70-130			
Surr: 13C3-HFPO-DA	169	ng/L			160		106	50-130			
Surr: 13C3-PFBS	150	ng/L			149		101	50-130			
Surr: 13C4-PFBA	154	ng/L			160		96.4	50-130			
Surr: 13C4-PFHpA	150	ng/L			160		94.0	50-130			
Surr: 13C4-PFOA	163	ng/L			160		102	70-130			
Surr: 13C4-PFOS	169	ng/L			153		110	70-130			
Surr: 13C5-PFNA	161	ng/L			160		101	70-130			
Surr: 13C5-PFPeA	156	ng/L			160		97.2	50-130			
Surr: 13C8-FOSA	164	ng/L			160		102	50-130			
Surr: 18O2-PFHxS	154	ng/L			151		102	70-130			
Surr: d3-N-MeFOSAA	151	ng/L			160		94.1	50-130			
Surr: d5-N-EtFOSAA	160	ng/L			160		100	50-130			

The following samples were analyzed in this batch: HN2517937-015, HN2517937-016, HN2517937-017, HN2517937-018, HN2517937-019, HN2517937-020, HN2517937-021, HN2517937-022, HN2517937-023, HN2517937-024, HN2517937-025, HN2517937-026, HN2517937-027, HN2517937-028, HN2517937-029, HN2517937-030, HN2517937-031, HN2517937-033, HN2517937-034, HN2517937-035, HN2517937-036, HN2517937-037, HN2517937-038, HN2517937-039, HN2517937-041, HN2517937-042, HN2517937-043, HN2517937-044, HN2517937-045



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00
Run ID: 3768260

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-008

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/05/25 07:26**Prep Date:** 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	447	ng/L	8.57	9.15	444.34	<8.57	100	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	374	ng/L	26.6	46.5	451.89	<26.6	82.8	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	537	ng/L	36.0	45.4	440.57	<36.0	122	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	414	ng/L	19.2	45.4	447.17	19.4	88.3	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	434	ng/L	7.27	9.15	444.34	<7.27	97.2	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	462	ng/L	2.96	9.06	439.62	<2.96	105	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	492	ng/L	38.1	48.6	471.7	<38.1	104	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	536	ng/L	26.2	48.6	471.7	<26.2	109	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	518	ng/L	20.5	48.6	471.7	<20.5	106	70-130			
Perfluorobutane sulfonic acid (PFBS)	781	ng/L	7.97	8.59	416.98	297	116	70-130			
Perfluorobutanoic acid (PFBA)	577	ng/L	14.0	48.6	471.7	100	101	50-130			
Perfluorodecane sulfonic acid (PFDS)	465	ng/L	7.20	9.37	454.72	<7.20	102	70-130			
Perfluorodecanoic acid (PFDA)	480	ng/L	14.6	48.6	471.7	<14.6	102	70-130			
Perfluorododecanoic acid (PFDOA)	489	ng/L	28.8	48.6	471.7	<28.8	103	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	1280	ng/L	10.5	46.3	449.06	825	101	70-130			
Perfluoroheptanoic acid (PFHpA)	626	ng/L	15.1	48.6	471.7	194	91.6	50-130			
Perfluorohexanoic acid (PFHxA)	1320	ng/L	13.9	48.6	471.7	800	110	50-130			
Perfluorononane sulfonic acid (PFNS)	476	ng/L	13.0	46.6	452.83	<13.0	104	70-130			
Perfluorononanoic acid (PFNA)	526	ng/L	9.04	9.72	471.7	66.1	97.6	70-130			
Perfluorooctane sulfonamide (PFOSAm)	504	ng/L	7.96	9.72	471.7	<7.96	106	70-130			
Perfluorooctanoic acid (PFOA)	1550	ng/L	9.04	9.72	471.7	1040	108	70-130			
Perfluoropentane sulfonic acid (PFPeS)	1060	ng/L	5.17	9.11	442.45	585	107	70-130			
Perfluoropentanoic acid (PFPeA)	744	ng/L	7.77	48.6	471.7	196	116	70-130			
Perfluorotetradecanoic acid (PFTDA)	413	ng/L	36.6	48.6	471.7	<36.6	86.6	70-130			
Perfluorotridecanoic acid (PFTrDA)	446	ng/L	17.3	48.6	471.7	<17.3	93.6	70-130			
Perfluoroundecanoic acid (PFUnDA)	498	ng/L	11.7	48.6	471.7	<11.7	105	70-130			
Surr: 13C2-FtS 4:2	191	ng/L			140.57		136	50-130			S
Surr: 13C2-FtS 6:2	130	ng/L			143.4		90.8	50-130			
Surr: 13C2-FtS 8:2	116	ng/L			144.34		80.5	50-130			
Surr: 13C2-PFDA	156	ng/L			150.94		103	70-130			
Surr: 13C2-PFDoA	168	ng/L			150.94		111	70-130			
Surr: 13C2-PFHxA	159	ng/L			150.94		105	50-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00
Run ID: 3768260

MS	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-008

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/05/25 07:26

Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeDA	158	ng/L			150.94		104	50-130			
Surr: 13C2-PFUnDA	158	ng/L			150.94		105	70-130			
Surr: 13C3-HFPO-DA	169	ng/L			150.94		112	50-130			
Surr: 13C3-PFBS	152	ng/L			140.57		108	50-130			
Surr: 13C4-PFBA	164	ng/L			150.94		109	50-130			
Surr: 13C4-PFHpA	128	ng/L			150.94		84.5	50-130			
Surr: 13C4-PFOA	153	ng/L			150.94		102	70-130			
Surr: 13C4-PFOS	150	ng/L			144.34		104	70-130			
Surr: 13C5-PFNA	150	ng/L			150.94		99.4	70-130			
Surr: 13C5-PFPeA	167	ng/L			150.94		110	50-130			
Surr: 13C8-FOSA	159	ng/L			150.94		106	50-130			
Surr: 18O2-PFHxS	143	ng/L			142.45		100	70-130			
Surr: d3-N-MeFOSAA	189	ng/L			150.94		125	50-130			
Surr: d5-N-EtFOSAA	205	ng/L			150.94		136	50-130			S

MSD	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/05/25 07:40

Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	438	ng/L	8.82	9.42	432.11	<8.82	101	70-130	2.04	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	384	ng/L	27.4	47.9	439.45	<27.4	87.4	70-130	2.61	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	502	ng/L	37.1	46.7	428.44	<37.1	117	70-130	6.74	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	407	ng/L	19.7	47.4	434.86	19.4	89.2	70-130	1.62	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	439	ng/L	7.48	9.42	432.11	<7.48	101	70-130	1.05	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	454	ng/L	3.04	9.32	427.52	<3.04	106	70-130	1.86	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	451	ng/L	39.2	50.0	458.72	<39.2	98.1	50-130	8.79	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	517	ng/L	27.0	50.0	458.72	<27.0	108	70-130	3.64	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	503	ng/L	21.1	50.0	458.72	<21.1	106	70-130	2.90	30	
Perfluorobutane sulfonic acid (PFBS)	739	ng/L	8.20	8.84	405.5	297	109	70-130	5.50	30	
Perfluorobutanoic acid (PFBA)	576	ng/L	14.4	50.0	458.72	100	104	50-130	0.116	30	
Perfluorodecane sulfonic acid (PFDS)	449	ng/L	7.41	9.64	442.2	<7.41	102	70-130	3.52	30	
Perfluorodecanoic acid (PFDA)	452	ng/L	15.0	50.0	458.72	<15.0	98.6	70-130	5.98	30	
Perfluorododecanoic acid (PFDOA)	486	ng/L	29.7	50.0	458.72	<29.7	105	70-130	0.604	30	

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00
Run ID: 3768260

MSD	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/05/25 07:40

Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptane sulfonic acid (PFHpS)	1310	ng/L	10.8	47.6	436.7	825	112	70-130	2.83	30	
Perfluoroheptanoic acid (PFHpA)	633	ng/L	15.5	50.0	458.72	194	95.7	50-130	1.09	30	
Perfluorohexanoic acid (PFHxA)	1280	ng/L	14.3	50.0	458.72	800	104	50-130	3.28	30	
Perfluorononane sulfonic acid (PFNS)	464	ng/L	13.4	48.0	440.37	<13.4	104	70-130	2.71	30	
Perfluorononanoic acid (PFNA)	539	ng/L	9.30	10.0	458.72	66.1	103	70-130	2.41	30	
Perfluorooctane sulfonamide (PFOSAm)	475	ng/L	8.19	10.0	458.72	<8.19	103	70-130	5.81	30	
Perfluorooctanoic acid (PFOA)	1520	ng/L	9.30	10.0	458.72	1040	105	70-130	1.65	30	
Perfluoropentane sulfonic acid (PFPeS)	1050	ng/L	5.32	9.38	430.28	585	109	70-130	0.584	30	
Perfluoropentanoic acid (PFPeA)	724	ng/L	8.00	50.0	458.72	196	115	70-130	2.77	30	
Perfluorotetradecanoic acid (PFTDA)	379	ng/L	37.7	50.0	458.72	<37.7	81.6	70-130	8.61	30	
Perfluorotridecanoic acid (PFTTrDA)	432	ng/L	17.8	50.0	458.72	<17.8	93.3	70-130	3.15	30	
Perfluoroundecanoic acid (PFUnDA)	485	ng/L	12.0	50.0	458.72	<12.0	106	70-130	2.49	30	
Surr: 13C2-FtS 4:2	188	ng/L			136.7		137	50-130	1.49	30	S
Surr: 13C2-FtS 6:2	132	ng/L			139.45		94.9	50-130	1.67	30	
Surr: 13C2-FtS 8:2	154	ng/L			140.37		110	50-130	28.0	30	
Surr: 13C2-PFDA	150	ng/L			146.79		102	70-130	3.84	30	
Surr: 13C2-PFDoA	159	ng/L			146.79		109	70-130	5.06	30	
Surr: 13C2-PFHxA	159	ng/L			146.79		108	50-130	0.232	30	
Surr: 13C2-PFTeDA	139	ng/L			146.79		94.9	50-130	12.3	30	
Surr: 13C2-PFUnDA	160	ng/L			146.79		109	70-130	1.59	30	
Surr: 13C3-HFPO-DA	161	ng/L			146.79		110	50-130	4.39	30	
Surr: 13C3-PFBS	150	ng/L			136.7		109	50-130	1.48	30	
Surr: 13C4-PFBA	155	ng/L			146.79		106	50-130	5.37	30	
Surr: 13C4-PFHpA	131	ng/L			146.79		89.1	50-130	2.43	30	
Surr: 13C4-PFOA	154	ng/L			146.79		105	70-130	0.515	30	
Surr: 13C4-PFOS	148	ng/L			140.37		105	70-130	1.38	30	
Surr: 13C5-PFNA	146	ng/L			146.79		99.7	70-130	2.47	30	
Surr: 13C5-PFPeA	164	ng/L			146.79		112	50-130	1.35	30	
Surr: 13C8-FOSA	150	ng/L			146.79		102	50-130	6.23	30	
Surr: 18O2-PFHxS	144	ng/L			138.53		104	70-130	0.830	30	
Surr: d3-N-MeFOSAA	175	ng/L			146.79		119	50-130	7.68	30	
Surr: d5-N-EtFOSAA	178	ng/L			146.79		121	50-130	14.1	30	

The following samples were analyzed in this batch: HN2517937-015, HN2517937-016, HN2517937-017, HN2517937-018, HN2517937-019, HN2517937-020, HN2517937-021, HN2517937-022, HN2517937-023, HN2517937-024, HN2517937-025, HN2517937-026, HN2517937-027, HN2517937-028, HN2517937-029, HN2517937-030, HN2517937-031, HN2517937-033, HN2517937-034, HN2517937-035, HN2517937-036, HN2517937-037, HN2517937-038, HN2517937-039, HN2517937-041, HN2517937-042, HN2517937-043, HN2517937-044, HN2517937-045



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364667

Work Order: HN2517937
Date Collected: 11/19/25 12:30
Date Received: 11/25/25 11:00
Run ID: 3769023

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-008

Method: ASTM D7979-19 **Dilution:** 10 **Analysis Date:** 12/11/25 17:40
Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	9640	ng/L	132	442	455	9250	NC	70-130			O
Perfluorooctane sulfonic acid (PFOS)	16000	ng/L	49.3	90.2	464	17200	NC	70-130			O

MSD	CLIENT ID: MW-04-156(20-25)_111925	Lab ID: QC-2364667-009

Method: ASTM D7979-19 **Dilution:** 10 **Analysis Date:** 12/11/25 17:55
Prep Date: 12/02/25 15:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	9370	ng/L	130	436	455	9250	NC	70-130	2.90	30	O
Perfluorooctane sulfonic acid (PFOS)	15900	ng/L	48.6	89.0	464	17200	NC	70-130	0.726	30	O

The following samples were analyzed in this batch: HN2517937-015, HN2517937-016, HN2517937-017, HN2517937-018, HN2517937-019, HN2517937-020, HN2517937-021, HN2517937-022, HN2517937-023, HN2517937-024, HN2517937-025, HN2517937-026, HN2517937-027, HN2517937-028, HN2517937-029, HN2517937-030, HN2517937-031, HN2517937-033, HN2517937-034, HN2517937-035, HN2517937-036, HN2517937-037, HN2517937-038, HN2517937-039, HN2517937-041, HN2517937-042, HN2517937-043, HN2517937-044, HN2517937-045



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3740041

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2364673-001

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 07:17**Prep Date:** 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	151	ng/L			149		101	50-130			
Surr: 13C2-FtS 6:2	179	ng/L			152		118	50-130			
Surr: 13C2-FtS 8:2	146	ng/L			153		95.1	50-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3740041

MB		CLIENT ID: Method Blank				Lab ID: QC-2364673-001					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/03/25 07:17					
						Prep Date: 12/02/25 15:42					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	164	ng/L			160		102	70-130			
Surr: 13C2-PFDoA	166	ng/L			160		104	70-130			
Surr: 13C2-PFHxA	171	ng/L			160		107	50-130			
Surr: 13C2-PFTeDA	138	ng/L			160		86.4	50-130			
Surr: 13C2-PFUnDA	172	ng/L			160		107	70-130			
Surr: 13C3-HFPO-DA	153	ng/L			160		95.6	50-130			
Surr: 13C3-PFBS	154	ng/L			149		103	50-130			
Surr: 13C4-PFBA	164	ng/L			160		102	50-130			
Surr: 13C4-PFHpA	158	ng/L			160		98.6	50-130			
Surr: 13C4-PFOA	165	ng/L			160		103	70-130			
Surr: 13C4-PFOS	161	ng/L			153		105	70-130			
Surr: 13C5-PFNA	161	ng/L			160		101	70-130			
Surr: 13C5-PFPeA	168	ng/L			160		105	50-130			
Surr: 13C8-FOSA	162	ng/L			160		101	50-130			
Surr: 18O2-PFHxS	144	ng/L			151		95.5	70-130			
Surr: d3-N-MeFOSAA	171	ng/L			160		107	50-130			
Surr: d5-N-EtFOSAA	189	ng/L			160		118	50-130			

MB		CLIENT ID: Method Blank				Lab ID: QC-2364673-002					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/03/25 07:46					
						Prep Date: 12/02/25 15:42					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3740041

MB	CLIENT ID: Method Blank	Lab ID: QC-2364673-002

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 07:46**Prep Date:** 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	118	ng/L			149		79.3	50-130			
Surr: 13C2-FtS 6:2	171	ng/L			152		112	50-130			
Surr: 13C2-FtS 8:2	155	ng/L			153		101	50-130			
Surr: 13C2-PFDA	160	ng/L			160		100	70-130			
Surr: 13C2-PFDoA	168	ng/L			160		105	70-130			
Surr: 13C2-PFHxA	164	ng/L			160		102	50-130			
Surr: 13C2-PFTeDA	147	ng/L			160		92.0	50-130			
Surr: 13C2-PFUnDA	174	ng/L			160		108	70-130			
Surr: 13C3-HFPO-DA	170	ng/L			160		106	50-130			
Surr: 13C3-PFBS	149	ng/L			149		100	50-130			
Surr: 13C4-PFBA	161	ng/L			160		100	50-130			
Surr: 13C4-PFHpA	162	ng/L			160		101	50-130			
Surr: 13C4-PFOA	167	ng/L			160		105	70-130			
Surr: 13C4-PFOS	163	ng/L			153		107	70-130			
Surr: 13C5-PFNA	166	ng/L			160		104	70-130			
Surr: 13C5-PFPeA	160	ng/L			160		100	50-130			
Surr: 13C8-FOSA	163	ng/L			160		102	50-130			
Surr: 18O2-PFHxS	138	ng/L			151		91.7	70-130			
Surr: d3-N-MeFOSAA	164	ng/L			160		102	50-130			
Surr: d5-N-EtFOSAA	166	ng/L			160		104	50-130			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364673-003

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/03/25 09:27**Prep Date:** 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3740041

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364673-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/03/25 09:27

Prep Date: 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	503	ng/L	8.82	9.42	471		107	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	523	ng/L	27.4	47.9	479		109	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	514	ng/L	37.1	46.7	467		110	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	556	ng/L	19.7	47.4	474		117	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	503	ng/L	7.48	9.42	471		107	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	495	ng/L	3.04	9.32	466		106	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	566	ng/L	39.2	50.0	500		113	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	559	ng/L	27.0	50.0	500		112	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	556	ng/L	21.1	50.0	500		111	70-130			
Perfluorobutane sulfonic acid (PFBS)	471	ng/L	8.20	8.84	442		106	70-130			
Perfluorobutanoic acid (PFBA)	531	ng/L	14.4	50.0	500		106	50-130			
Perfluorodecane sulfonic acid (PFDS)	497	ng/L	7.41	9.64	482		103	70-130			
Perfluorodecanoic acid (PFDA)	538	ng/L	15.0	50.0	500		108	70-130			
Perfluorododecanoic acid (PFDOA)	540	ng/L	29.7	50.0	500		108	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	494	ng/L	10.8	47.6	476		104	70-130			
Perfluoroheptanoic acid (PFHpA)	497	ng/L	15.5	50.0	500		99.3	50-130			
Perfluorohexane sulfonic acid (PFHxS)	466	ng/L	13.6	45.5	455		102	70-130			
Perfluorohexanoic acid (PFHxA)	531	ng/L	14.3	50.0	500		106	50-130			
Perfluorononane sulfonic acid (PFNS)	518	ng/L	13.4	48.0	480		108	70-130			
Perfluorononanoic acid (PFNA)	532	ng/L	9.30	10.0	500		106	70-130			
Perfluorooctane sulfonamide (PFOSAm)	535	ng/L	8.19	10.0	500		107	70-130			
Perfluorooctane sulfonic acid (PFOS)	496	ng/L	5.07	9.28	464		107	70-130			
Perfluorooctanoic acid (PFOA)	538	ng/L	9.30	10.0	500		108	70-130			
Perfluoropentane sulfonic acid (PFPeS)	483	ng/L	8.19	9.38	469		103	70-130			
Perfluoropentanoic acid (PFPeA)	522	ng/L	5.07	50.0	500		104	70-130			
Perfluorotetradecanoic acid (PFTDA)	507	ng/L	9.30	50.0	500		101	70-130			
Perfluorotridecanoic acid (PFTrDA)	518	ng/L	5.32	50.0	500		104	70-130			
Perfluoroundecanoic acid (PFUnDA)	546	ng/L	12.0	50.0	500		109	70-130			
Surr: 13C2-FtS 4:2	156	ng/L			149		105	50-130			
Surr: 13C2-FtS 6:2	177	ng/L			152		116	50-130			
Surr: 13C2-FtS 8:2	195	ng/L			153		127	50-130			
Surr: 13C2-PFDA	160	ng/L			160		99.7	70-130			
Surr: 13C2-PFDoA	165	ng/L			160		103	70-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3740041

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364673-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/03/25 09:27

Prep Date: 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFHxA	161	ng/L			160		100	50-130			
Surr: 13C2-PFTeDA	172	ng/L			160		107	50-130			
Surr: 13C2-PFUnDA	165	ng/L			160		103	70-130			
Surr: 13C3-HFPO-DA	169	ng/L			160		106	50-130			
Surr: 13C3-PFBS	150	ng/L			149		101	50-130			
Surr: 13C4-PFBA	154	ng/L			160		96.4	50-130			
Surr: 13C4-PFHpA	150	ng/L			160		94.0	50-130			
Surr: 13C4-PFOA	163	ng/L			160		102	70-130			
Surr: 13C4-PFOS	169	ng/L			153		110	70-130			
Surr: 13C5-PFNA	161	ng/L			160		101	70-130			
Surr: 13C5-PFPeA	156	ng/L			160		97.2	50-130			
Surr: 13C8-FOSA	164	ng/L			160		102	50-130			
Surr: 18O2-PFHxS	154	ng/L			151		102	70-130			
Surr: d3-N-MeFOSAA	151	ng/L			160		94.1	50-130			
Surr: d5-N-EtFOSAA	160	ng/L			160		100	50-130			

The following samples were analyzed in this batch: HN2517937-032



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00
Run ID: 3768475

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS	CLIENT ID: RFI-09-55S_111825	Lab ID: QC-2364673-008

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/11/25 10:34**Prep Date:** 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	457	ng/L	8.69	9.28	457.28	<8.69	100	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	491	ng/L	27.0	47.2	465.05	<27.0	106	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	439	ng/L	36.5	46.0	453.4	<36.5	96.9	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	523	ng/L	19.5	46.0	460.19	<19.5	114	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	475	ng/L	7.37	9.28	457.28	<7.37	104	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	457	ng/L	3.00	9.18	452.43	<3.00	101	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	440	ng/L	38.6	49.3	485.44	<38.6	90.6	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	498	ng/L	26.6	49.3	485.44	<26.6	102	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	519	ng/L	20.8	49.3	485.44	<20.8	105	70-130			
Perfluorobutane sulfonic acid (PFBS)	453	ng/L	8.08	8.71	429.13	<8.08	105	70-130			
Perfluorobutanoic acid (PFBA)	487	ng/L	14.2	49.3	485.44	<14.2	98.7	50-130			
Perfluorodecane sulfonic acid (PFDS)	495	ng/L	7.30	9.50	467.96	<7.30	106	70-130			
Perfluorodecanoic acid (PFDA)	477	ng/L	14.8	49.3	485.44	<14.8	97.8	70-130			
Perfluorododecanoic acid (PFDOA)	520	ng/L	29.2	49.3	485.44	<29.2	106	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	479	ng/L	10.7	46.9	462.14	<10.7	103	70-130			
Perfluoroheptanoic acid (PFHpA)	471	ng/L	15.3	49.3	485.44	<15.3	96.6	50-130			
Perfluorohexane sulfonic acid (PFHxS)	549	ng/L	13.4	44.8	441.75	94.8	103	70-130			
Perfluorohexanoic acid (PFHxA)	487	ng/L	14.1	49.3	485.44	<14.1	97.8	50-130			
Perfluorononane sulfonic acid (PFNS)	496	ng/L	13.2	47.3	466.02	<13.2	106	70-130			
Perfluorononanoic acid (PFNA)	464	ng/L	9.16	9.85	485.44	<9.16	94.9	70-130			
Perfluorooctane sulfonamide (PFOSAm)	502	ng/L	8.07	9.85	485.44	<8.07	103	70-130			
Perfluorooctane sulfonic acid (PFOS)	505	ng/L	5.00	9.14	450.49	30.7	105	70-130			
Perfluorooctanoic acid (PFOA)	517	ng/L	9.16	9.85	485.44	<9.16	105	70-130			
Perfluoropentane sulfonic acid (PFPeS)	500	ng/L	5.24	9.24	455.34	<5.24	109	70-130			
Perfluoropentanoic acid (PFPeA)	497	ng/L	7.88	49.3	485.44	<7.88	102	70-130			
Perfluorotetradecanoic acid (PFTDA)	430	ng/L	37.1	49.3	485.44	<37.1	87.4	70-130			
Perfluorotridecanoic acid (PFTrDA)	458	ng/L	17.5	49.3	485.44	<17.5	93.3	70-130			
Perfluoroundecanoic acid (PFUnDA)	496	ng/L	11.8	49.3	485.44	<11.8	102	70-130			
Surr: 13C2-FtS 4:2	145	ng/L			144.66		100	50-130			
Surr: 13C2-FtS 6:2	177	ng/L			147.57		120	50-130			
Surr: 13C2-FtS 8:2	172	ng/L			148.54		116	50-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00
Run ID: 3768475

MS	CLIENT ID: RFI-09-55S_111825	Lab ID: QC-2364673-008

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/11/25 10:34

Prep Date: 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	146	ng/L			155.34		94.1	70-130			
Surr: 13C2-PFDoA	153	ng/L			155.34		98.5	70-130			
Surr: 13C2-PFHxA	149	ng/L			155.34		95.9	50-130			
Surr: 13C2-PFTeDA	146	ng/L			155.34		94.0	50-130			
Surr: 13C2-PFUnDA	155	ng/L			155.34		99.5	70-130			
Surr: 13C3-HFPO-DA	137	ng/L			155.34		88.4	50-130			
Surr: 13C3-PFBS	145	ng/L			144.66		100	50-130			
Surr: 13C4-PFBA	151	ng/L			155.34		97.1	50-130			
Surr: 13C4-PFHpA	142	ng/L			155.34		91.6	50-130			
Surr: 13C4-PFOA	155	ng/L			155.34		99.6	70-130			
Surr: 13C4-PFOS	144	ng/L			148.54		96.8	70-130			
Surr: 13C5-PFNA	145	ng/L			155.34		93.4	70-130			
Surr: 13C5-PFPeA	147	ng/L			155.34		94.8	50-130			
Surr: 13C8-FOSA	149	ng/L			155.34		95.6	50-130			
Surr: 18O2-PFHxS	144	ng/L			146.6		98.6	70-130			
Surr: d3-N-MeFOSAA	141	ng/L			155.34		90.6	50-130			
Surr: d5-N-EtFOSAA	143	ng/L			155.34		92.4	50-130			

MSD	CLIENT ID: RFI-09-55S_111825	Lab ID: QC-2364673-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/11/25 10:49

Prep Date: 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	437	ng/L	8.82	9.42	452.88	<8.82	96.6	70-130	4.47	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	453	ng/L	27.4	47.9	460.58	<27.4	98.4	70-130	7.99	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	514	ng/L	37.1	46.7	449.04	<37.1	115	70-130	15.7	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	566	ng/L	19.7	47.4	455.77	<19.7	125	70-130	7.87	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	460	ng/L	7.48	9.42	452.88	<7.48	102	70-130	3.25	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	441	ng/L	3.04	9.32	448.08	<3.04	98.1	70-130	3.59	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	457	ng/L	39.2	50.0	480.77	<39.2	95.1	50-130	3.87	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	492	ng/L	27.0	50.0	480.77	<27.0	102	70-130	1.15	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	503	ng/L	21.1	50.0	480.77	<21.1	103	70-130	3.18	30	
Perfluorobutane sulfonic acid (PFBS)	433	ng/L	8.20	8.84	425	<8.20	101	70-130	4.54	30	
Perfluorobutanoic acid (PFBA)	463	ng/L	14.4	50.0	480.77	<14.4	94.8	50-130	4.96	30	
Perfluorodecane sulfonic acid (PFDS)	502	ng/L	7.41	9.64	463.46	<7.41	108	70-130	1.35	30	

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2364673

Work Order: HN2517937
Date Collected: 11/18/25 14:20
Date Received: 11/25/25 11:00
Run ID: 3768475

MSD	CLIENT ID: RFI-09-55S_111825	Lab ID: QC-2364673-009

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/11/25 10:49**Prep Date:** 12/02/25 15:42

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	447	ng/L	15.0	50.0	480.77	<15.0	92.6	70-130	6.35	30	
Perfluorododecanoic acid (PFDOA)	507	ng/L	29.7	50.0	480.77	<29.7	105	70-130	2.48	30	
Perfluoroheptane sulfonic acid (PFHpS)	463	ng/L	10.8	47.6	457.69	<10.8	100	70-130	3.40	30	
Perfluoroheptanoic acid (PFHpA)	468	ng/L	15.5	50.0	480.77	<15.5	96.9	50-130	0.651	30	
Perfluorohexane sulfonic acid (PFHxS)	526	ng/L	13.6	45.5	437.5	94.8	98.5	70-130	4.27	30	
Perfluorohexanoic acid (PFHxA)	480	ng/L	14.3	50.0	480.77	<14.3	97.2	50-130	1.52	30	
Perfluorononane sulfonic acid (PFNS)	462	ng/L	13.4	48.0	461.54	<13.4	99.9	70-130	7.12	30	
Perfluorononanoic acid (PFNA)	458	ng/L	9.30	10.0	480.77	<9.30	94.7	70-130	1.17	30	
Perfluorooctane sulfonamide (PFOSAm)	483	ng/L	8.19	10.0	480.77	<8.19	99.9	70-130	3.91	30	
Perfluorooctane sulfonic acid (PFOS)	499	ng/L	5.07	9.28	446.15	30.7	105	70-130	1.23	30	
Perfluorooctanoic acid (PFOA)	508	ng/L	9.30	10.0	480.77	<9.30	104	70-130	1.65	30	
Perfluoropentane sulfonic acid (PFPeS)	450	ng/L	5.32	9.38	450.96	<5.32	98.9	70-130	10.4	30	
Perfluoropentanoic acid (PFPeA)	486	ng/L	8.00	50.0	480.77	<8.00	101	70-130	2.12	30	
Perfluorotetradecanoic acid (PFTDA)	416	ng/L	37.7	50.0	480.77	<37.7	85.3	70-130	3.38	30	
Perfluorotridecanoic acid (PFTrDA)	444	ng/L	17.8	50.0	480.77	<17.8	91.2	70-130	3.25	30	
Perfluoroundecanoic acid (PFUnDA)	492	ng/L	12.0	50.0	480.77	<12.0	102	70-130	0.837	30	
Surr: 13C2-FtS 4:2	141	ng/L			143.27		98.1	50-130	2.93	30	
Surr: 13C2-FtS 6:2	186	ng/L			146.15		127	50-130	5.04	30	
Surr: 13C2-FtS 8:2	178	ng/L			147.12		121	50-130	3.68	30	
Surr: 13C2-PFDA	142	ng/L			153.85		92.0	70-130	3.26	30	
Surr: 13C2-PFDoA	155	ng/L			153.85		100	70-130	0.967	30	
Surr: 13C2-PFHxA	141	ng/L			153.85		91.6	50-130	5.48	30	
Surr: 13C2-PFTeDA	146	ng/L			153.85		94.6	50-130	0.256	30	
Surr: 13C2-PFUnDA	152	ng/L			153.85		99.0	70-130	1.48	30	
Surr: 13C3-HFPO-DA	142	ng/L			153.85		92.4	50-130	3.40	30	
Surr: 13C3-PFBS	143	ng/L			143.27		99.6	50-130	1.43	30	
Surr: 13C4-PFBA	143	ng/L			153.85		92.7	50-130	5.65	30	
Surr: 13C4-PFHpA	142	ng/L			153.85		92.3	50-130	0.198	30	
Surr: 13C4-PFOA	157	ng/L			153.85		102	70-130	1.60	30	
Surr: 13C4-PFOS	149	ng/L			147.12		102	70-130	3.82	30	
Surr: 13C5-PFNA	140	ng/L			153.85		91.2	70-130	3.35	30	
Surr: 13C5-PFPeA	144	ng/L			153.85		93.7	50-130	2.17	30	
Surr: 13C8-FOSA	151	ng/L			153.85		98.4	50-130	1.84	30	
Surr: 18O2-PFHxS	134	ng/L			145.19		92.2	70-130	7.66	30	
Surr: d3-N-MeFOSAA	147	ng/L			153.85		95.3	50-130	4.16	30	
Surr: d5-N-EtFOSAA	142	ng/L			153.85		92.0	50-130	1.33	30	

The following samples were analyzed in this batch: HN2517937-024, HN2517937-025, HN2517937-028, HN2517937-030, HN2517937-031, HN2517937-032, HN2517937-033, HN2517937-034, HN2517937-036, HN2517937-037, HN2517937-038, HN2517937-039, HN2517937-041, HN2517937-044, HN2517937-045



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3765536

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2367154-001

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/10/25 19:32**Prep Date:** 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	155	ng/L			149		104	50-130			
Surr: 13C2-FtS 6:2	185	ng/L			152		122	50-130			
Surr: 13C2-FtS 8:2	169	ng/L			153		110	50-130			



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3765536

MB	CLIENT ID: Method Blank	Lab ID: QC-2367154-001

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/10/25 19:32

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDA	159	ng/L			160		99.3	70-130			
Surr: 13C2-PFDoA	168	ng/L			160		105	70-130			
Surr: 13C2-PFHxA	170	ng/L			160		106	50-130			
Surr: 13C2-PFTeDA	141	ng/L			160		87.9	50-130			
Surr: 13C2-PFUnDA	169	ng/L			160		106	70-130			
Surr: 13C3-HFPO-DA	173	ng/L			160		108	50-130			
Surr: 13C3-PFBS	157	ng/L			149		105	50-130			
Surr: 13C4-PFBA	167	ng/L			160		105	50-130			
Surr: 13C4-PFHpA	171	ng/L			160		107	50-130			
Surr: 13C4-PFOA	176	ng/L			160		110	70-130			
Surr: 13C4-PFOS	177	ng/L			153		116	70-130			
Surr: 13C5-PFNA	175	ng/L			160		110	70-130			
Surr: 13C5-PFPeA	162	ng/L			160		101	50-130			
Surr: 13C8-FOSA	173	ng/L			160		108	50-130			
Surr: 18O2-PFHxS	158	ng/L			151		105	70-130			
Surr: d3-N-MeFOSAA	179	ng/L			160		112	50-130			
Surr: d5-N-EtFOSAA	167	ng/L			160		105	50-130			

MB	CLIENT ID: Method Blank	Lab ID: QC-2367154-002

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/10/25 20:01

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	<8.82	ng/L	8.82	9.42							U
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	<27.4	ng/L	27.4	47.9							U
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	<37.1	ng/L	37.1	46.7							U
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	<19.7	ng/L	19.7	47.4							U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	<7.48	ng/L	7.48	9.42							U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	<3.04	ng/L	3.04	9.32							U
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	<39.2	ng/L	39.2	50.0							U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	<27.0	ng/L	27.0	50.0							U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	<21.1	ng/L	21.1	50.0							U
Perfluorobutane sulfonic acid (PFBS)	<8.20	ng/L	8.20	8.84							U
Perfluorobutanoic acid (PFBA)	<14.4	ng/L	14.4	50.0							U
Perfluorodecane sulfonic acid (PFDS)	<7.41	ng/L	7.41	9.64							U

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3765536

MB	CLIENT ID: Method Blank	Lab ID: QC-2367154-002

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/10/25 20:01**Prep Date:** 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorodecanoic acid (PFDA)	<15.0	ng/L	15.0	50.0							U
Perfluorododecanoic acid (PFDOA)	<29.7	ng/L	29.7	50.0							U
Perfluoroheptane sulfonic acid (PFHpS)	<10.8	ng/L	10.8	47.6							U
Perfluoroheptanoic acid (PFHpA)	<15.5	ng/L	15.5	50.0							U
Perfluorohexane sulfonic acid (PFHxS)	<13.6	ng/L	13.6	45.5							U
Perfluorohexanoic acid (PFHxA)	<14.3	ng/L	14.3	50.0							U
Perfluorononane sulfonic acid (PFNS)	<13.4	ng/L	13.4	48.0							U
Perfluorononanoic acid (PFNA)	<9.30	ng/L	9.30	10.0							U
Perfluorooctane sulfonamide (PFOSAm)	<8.19	ng/L	8.19	10.0							U
Perfluorooctane sulfonic acid (PFOS)	<5.07	ng/L	5.07	9.28							U
Perfluorooctanoic acid (PFOA)	<9.30	ng/L	9.30	10.0							U
Perfluoropentane sulfonic acid (PFPeS)	<5.32	ng/L	5.32	9.38							U
Perfluoropentanoic acid (PFPeA)	<8.00	ng/L	8.00	50.0							U
Perfluorotetradecanoic acid (PFTDA)	<37.7	ng/L	37.7	50.0							U
Perfluorotridecanoic acid (PFTrDA)	<17.8	ng/L	17.8	50.0							U
Perfluoroundecanoic acid (PFUnDA)	<12.0	ng/L	12.0	50.0							U
Surr: 13C2-FtS 4:2	156	ng/L			149		105	50-130			
Surr: 13C2-FtS 6:2	178	ng/L			152		117	50-130			
Surr: 13C2-FtS 8:2	149	ng/L			153		97.6	50-130			
Surr: 13C2-PFDA	168	ng/L			160		105	70-130			
Surr: 13C2-PFDoA	191	ng/L			160		119	70-130			
Surr: 13C2-PFHxA	173	ng/L			160		108	50-130			
Surr: 13C2-PFTeDA	174	ng/L			160		109	50-130			
Surr: 13C2-PFUnDA	187	ng/L			160		117	70-130			
Surr: 13C3-HFPO-DA	181	ng/L			160		113	50-130			
Surr: 13C3-PFBS	161	ng/L			149		108	50-130			
Surr: 13C4-PFBA	171	ng/L			160		107	50-130			
Surr: 13C4-PFHpA	165	ng/L			160		103	50-130			
Surr: 13C4-PFOA	173	ng/L			160		108	70-130			
Surr: 13C4-PFOS	173	ng/L			153		113	70-130			
Surr: 13C5-PFNA	168	ng/L			160		105	70-130			
Surr: 13C5-PFPeA	167	ng/L			160		104	50-130			
Surr: 13C8-FOSA	179	ng/L			160		112	50-130			
Surr: 18O2-PFHxS	154	ng/L			151		102	70-130			
Surr: d3-N-MeFOSAA	165	ng/L			160		103	50-130			
Surr: d5-N-EtFOSAA	179	ng/L			160		112	50-130			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2367154-003

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/10/25 20:30**Prep Date:** 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3765536

LCS		CLIENT ID: Laboratory Control Sample				Lab ID: QC-2367154-003					
Method: ASTM D7979-19		Dilution: 1				Analysis Date: 12/10/25 20:30					
						Prep Date: 12/03/25 15:35					
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	505	ng/L	8.82	9.42	471		107	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	527	ng/L	27.4	47.9	479		110	70-130			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	507	ng/L	37.1	46.7	467		109	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	561	ng/L	19.7	47.4	474		118	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	497	ng/L	7.48	9.42	471		106	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	496	ng/L	3.04	9.32	466		106	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	502	ng/L	39.2	50.0	500		100	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	544	ng/L	27.0	50.0	500		109	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	540	ng/L	21.1	50.0	500		108	70-130			
Perfluorobutane sulfonic acid (PFBS)	472	ng/L	8.20	8.84	442		107	70-130			
Perfluorobutanoic acid (PFBA)	506	ng/L	14.4	50.0	500		101	50-130			
Perfluorodecane sulfonic acid (PFDS)	559	ng/L	7.41	9.64	482		116	70-130			
Perfluorodecanoic acid (PFDA)	503	ng/L	15.0	50.0	500		101	70-130			
Perfluorododecanoic acid (PFDOA)	552	ng/L	29.7	50.0	500		110	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	505	ng/L	10.8	47.6	476		106	70-130			
Perfluoroheptanoic acid (PFHpA)	505	ng/L	15.5	50.0	500		101	50-130			
Perfluorohexane sulfonic acid (PFHxS)	489	ng/L	13.6	45.5	455		108	70-130			
Perfluorohexanoic acid (PFHxA)	515	ng/L	14.3	50.0	500		103	50-130			
Perfluorononane sulfonic acid (PFNS)	515	ng/L	13.4	48.0	480		107	70-130			
Perfluorononanoic acid (PFNA)	495	ng/L	9.30	10.0	500		99.1	70-130			
Perfluorooctane sulfonamide (PFOSAm)	531	ng/L	8.19	10.0	500		106	70-130			
Perfluorooctane sulfonic acid (PFOS)	518	ng/L	5.07	9.28	464		112	70-130			
Perfluorooctanoic acid (PFOA)	537	ng/L	9.30	10.0	500		107	70-130			
Perfluoropentane sulfonic acid (PFPeS)	497	ng/L	8.19	9.38	469		106	70-130			
Perfluoropentanoic acid (PFPeA)	519	ng/L	5.07	50.0	500		104	70-130			
Perfluorotetradecanoic acid (PFTDA)	526	ng/L	9.30	50.0	500		105	70-130			
Perfluorotridecanoic acid (PFTrDA)	538	ng/L	5.32	50.0	500		108	70-130			
Perfluoroundecanoic acid (PFUnDA)	554	ng/L	12.0	50.0	500		111	70-130			
Surr: 13C2-FtS 4:2	176	ng/L			149		118	50-130			
Surr: 13C2-FtS 6:2	200	ng/L			152		131	50-130			
Surr: 13C2-FtS 8:2	180	ng/L			153		118	50-130			
Surr: 13C2-PFDA	169	ng/L			160		106	70-130			
Surr: 13C2-PFDoA	178	ng/L			160		111	70-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: WATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: NA
Date Received: NA
Run ID: 3765536

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2367154-003

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/10/25 20:30

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFHxA	164	ng/L			160		103	50-130			
Surr: 13C2-PFTeDA	189	ng/L			160		118	50-130			
Surr: 13C2-PFUnDA	170	ng/L			160		106	70-130			
Surr: 13C3-HFPO-DA	187	ng/L			160		117	50-130			
Surr: 13C3-PFBS	161	ng/L			149		108	50-130			
Surr: 13C4-PFBA	176	ng/L			160		110	50-130			
Surr: 13C4-PFHpA	164	ng/L			160		102	50-130			
Surr: 13C4-PFOA	176	ng/L			160		110	70-130			
Surr: 13C4-PFOS	180	ng/L			153		118	70-130			
Surr: 13C5-PFNA	166	ng/L			160		104	70-130			
Surr: 13C5-PFPeA	170	ng/L			160		106	50-130			
Surr: 13C8-FOSA	173	ng/L			160		108	50-130			
Surr: 18O2-PFHxS	156	ng/L			151		103	70-130			
Surr: d3-N-MeFOSAA	166	ng/L			160		103	50-130			
Surr: d5-N-EtFOSAA	169	ng/L			160		106	50-130			

The following samples were analyzed in this batch: HN2517937-040, HN2517937-046, HN2517937-047, HN2517937-048, HN2517937-049, HN2517937-050, HN2517937-051, HN2517937-052, HN2517937-053, HN2517937-054, HN2517937-055, HN2517937-056, HN2517937-057, HN2517937-058, HN2517937-059, HN2517937-060, HN2517937-061, HN2517937-062, HN2517937-063, HN2517937-064, HN2517937-065



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00
Run ID: 3768681

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS **CLIENT ID:** MW-09-80(12-17)_111725 **Lab ID:** QC-2367154-008

Method: ASTM D7979-19**Dilution:** 1**Analysis Date:** 12/14/25 15:05**Prep Date:** 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	437	ng/L	8.62	9.20	449.43	<8.62	96.7	70-130			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	319	ng/L	26.8	46.8	457.06	<26.8	69.9	70-130			S
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	465	ng/L	36.2	45.6	445.61	<36.2	105	70-130			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	350	ng/L	19.3	45.6	452.29	<19.3	78.0	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	386	ng/L	7.31	9.20	449.43	<7.31	85.9	70-130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	426	ng/L	2.98	9.11	444.66	<2.98	95.3	70-130			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	402	ng/L	38.3	48.9	477.1	<38.3	84.3	50-130			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	510	ng/L	26.4	48.9	477.1	<26.4	106	70-130			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	475	ng/L	20.6	48.9	477.1	<20.6	98.3	70-130			
Perfluorobutane sulfonic acid (PFBS)	722	ng/L	8.01	8.64	421.76	298	100	70-130			
Perfluorobutanoic acid (PFBA)	503	ng/L	14.1	48.9	477.1	114	81.6	50-130			
Perfluorodecane sulfonic acid (PFDS)	472	ng/L	7.24	9.42	459.92	<7.24	103	70-130			
Perfluorodecanoic acid (PFDA)	376	ng/L	14.7	48.9	477.1	<14.7	78.7	70-130			
Perfluorododecanoic acid (PFDOA)	511	ng/L	29.0	48.9	477.1	<29.0	106	70-130			
Perfluoroheptane sulfonic acid (PFHpS)	449	ng/L	10.6	46.5	454.2	<10.6	96.8	70-130			
Perfluoroheptanoic acid (PFHpA)	626	ng/L	15.2	48.9	477.1	215	86.1	50-130			
Perfluorononane sulfonic acid (PFNS)	472	ng/L	13.1	46.9	458.02	<13.1	103	70-130			
Perfluorononanoic acid (PFNA)	368	ng/L	9.09	9.77	477.1	<9.09	76.7	70-130			
Perfluorooctane sulfonamide (PFOSAm)	466	ng/L	8.00	9.77	477.1	<8.00	97.3	70-130			
Perfluorooctane sulfonic acid (PFOS)	463	ng/L	4.95	9.07	442.75	62.4	90.5	70-130			
Perfluorooctanoic acid (PFOA)	874	ng/L	9.09	9.77	477.1	447	89.6	70-130			
Perfluoropentane sulfonic acid (PFPeS)	1030	ng/L	5.20	9.17	447.52	587	99.2	70-130			
Perfluoropentanoic acid (PFPeA)	783	ng/L	7.82	48.9	477.1	300	101	70-130			
Perfluorotetradecanoic acid (PFTDA)	376	ng/L	36.8	48.9	477.1	<36.8	77.5	70-130			
Perfluorotridecanoic acid (PFTrDA)	429	ng/L	17.4	48.9	477.1	<17.4	89.0	70-130			
Perfluoroundecanoic acid (PFUnDA)	390	ng/L	11.7	48.9	477.1	<11.7	81.2	70-130			
Surr: 13C2-FtS 4:2	183	ng/L			142.18		129	50-130			
Surr: 13C2-FtS 6:2	111	ng/L			145.04		76.7	50-130			
Surr: 13C2-FtS 8:2	126	ng/L			145.99		86.5	50-130			
Surr: 13C2-PFDA	136	ng/L			152.67		88.9	70-130			
Surr: 13C2-PFDoA	171	ng/L			152.67		112	70-130			
Surr: 13C2-PFHxA	143	ng/L			152.67		93.7	50-130			

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00
Run ID: 3768681

MS	CLIENT ID: MW-09-80(12-17)_111725	Lab ID: QC-2367154-008

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/14/25 15:05

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFTeDA	138	ng/L			152.67		90.6	50-130			
Surr: 13C2-PFUnDA	125	ng/L			152.67		81.8	70-130			
Surr: 13C3-HFPO-DA	123	ng/L			152.67		80.6	50-130			
Surr: 13C3-PFBS	135	ng/L			142.18		95.1	50-130			
Surr: 13C4-PFBA	147	ng/L			152.67		96.4	50-130			
Surr: 13C4-PFHpA	149	ng/L			152.67		97.4	50-130			
Surr: 13C4-PFOA	133	ng/L			152.67		86.9	70-130			
Surr: 13C4-PFOS	143	ng/L			145.99		98.2	70-130			
Surr: 13C5-PFNA	133	ng/L			152.67		86.9	70-130			
Surr: 13C5-PFPeA	140	ng/L			152.67		91.7	50-130			
Surr: 13C8-FOSA	147	ng/L			152.67		96.1	50-130			
Surr: 18O2-PFHxS	149	ng/L			144.08		103	70-130			
Surr: d3-N-MeFOSAA	164	ng/L			152.67		107	50-130			
Surr: d5-N-EtFOSAA	164	ng/L			152.67		108	50-130			

MSD	CLIENT ID: MW-09-80(12-17)_111725	Lab ID: QC-2367154-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/14/25 15:20

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	440	ng/L	8.82	9.42	451.15	<8.82	97.0	70-130	0.713	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	290	ng/L	27.4	47.9	458.81	<27.4	63.1	70-130	9.78	30	S
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	463	ng/L	37.1	46.7	447.32	<37.1	104	70-130	0.497	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	338	ng/L	19.7	47.4	454.02	<19.7	75.0	70-130	3.61	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	399	ng/L	7.48	9.42	451.15	<7.48	88.5	70-130	3.36	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	439	ng/L	3.04	9.32	446.36	<3.04	98.0	70-130	3.07	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	400	ng/L	39.2	50.0	478.93	<39.2	83.5	50-130	0.640	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	520	ng/L	27.0	50.0	478.93	<27.0	107	70-130	1.90	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	523	ng/L	21.1	50.0	478.93	<21.1	108	70-130	9.70	30	
Perfluorobutane sulfonic acid (PFBS)	726	ng/L	8.20	8.84	423.37	298	101	70-130	0.563	30	
Perfluorobutanoic acid (PFBA)	505	ng/L	14.4	50.0	478.93	114	81.6	50-130	0.321	30	
Perfluorodecane sulfonic acid (PFDS)	481	ng/L	7.41	9.64	461.69	<7.41	104	70-130	1.94	30	
Perfluorodecanoic acid (PFDA)	387	ng/L	15.0	50.0	478.93	<15.0	80.7	70-130	2.94	30	
Perfluorododecanoic acid (PFDOA)	526	ng/L	29.7	50.0	478.93	<29.7	109	70-130	2.92	30	

QA/QC Report



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00
Run ID: 3768681

MSD	CLIENT ID: MW-09-80(12-17)_111725	Lab ID: QC-2367154-009

Method: ASTM D7979-19

Dilution: 1

Analysis Date: 12/14/25 15:20

Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluoroheptane sulfonic acid (PFHpS)	464	ng/L	10.8	47.6	455.94	<10.8	99.8	70-130	3.32	30	
Perfluoroheptanoic acid (PFHpA)	652	ng/L	15.5	50.0	478.93	215	91.2	50-130	4.11	30	
Perfluorononane sulfonic acid (PFNS)	444	ng/L	13.4	48.0	459.77	<13.4	96.5	70-130	6.10	30	
Perfluorononanoic acid (PFNA)	408	ng/L	9.30	10.0	478.93	<9.30	84.6	70-130	10.1	30	
Perfluorooctane sulfonamide (PFOSAm)	482	ng/L	8.19	10.0	478.93	<8.19	100	70-130	3.34	30	
Perfluorooctane sulfonic acid (PFOS)	471	ng/L	5.07	9.28	444.44	62.4	92.0	70-130	1.70	30	
Perfluorooctanoic acid (PFOA)	943	ng/L	9.30	10.0	478.93	447	104	70-130	7.56	30	
Perfluoropentane sulfonic acid (PFPeS)	1060	ng/L	5.32	9.38	449.23	587	105	70-130	2.84	30	
Perfluoropentanoic acid (PFPeA)	764	ng/L	8.00	50.0	478.93	300	96.9	70-130	2.52	30	
Perfluorotetradecanoic acid (PFTDA)	409	ng/L	37.7	50.0	478.93	<37.7	84.1	70-130	8.44	30	
Perfluorotridecanoic acid (PFTrDA)	462	ng/L	17.8	50.0	478.93	<17.8	95.6	70-130	7.42	30	
Perfluoroundecanoic acid (PFUnDA)	416	ng/L	12.0	50.0	478.93	<12.0	86.3	70-130	6.42	30	
Surr: 13C2-FtS 4:2	159	ng/L			142.72		111	50-130	14.0	30	
Surr: 13C2-FtS 6:2	122	ng/L			145.59		83.9	50-130	9.37	30	
Surr: 13C2-FtS 8:2	117	ng/L			146.55		79.8	50-130	7.66	30	
Surr: 13C2-PFDA	129	ng/L			153.26		84.4	70-130	4.76	30	
Surr: 13C2-PFDoA	163	ng/L			153.26		107	70-130	4.30	30	
Surr: 13C2-PFHxA	146	ng/L			153.26		95.3	50-130	2.04	30	
Surr: 13C2-PFTeDA	146	ng/L			153.26		95.1	50-130	5.20	30	
Surr: 13C2-PFUnDA	129	ng/L			153.26		84.2	70-130	3.30	30	
Surr: 13C3-HFPO-DA	129	ng/L			153.26		84.0	50-130	4.44	30	
Surr: 13C3-PFBS	137	ng/L			142.72		96.1	50-130	1.44	30	
Surr: 13C4-PFBA	136	ng/L			153.26		88.8	50-130	7.85	30	
Surr: 13C4-PFHpA	140	ng/L			153.26		91.6	50-130	5.69	30	
Surr: 13C4-PFOA	142	ng/L			153.26		92.8	70-130	6.88	30	
Surr: 13C4-PFOS	137	ng/L			146.55		93.6	70-130	4.41	30	
Surr: 13C5-PFNA	123	ng/L			153.26		79.9	70-130	7.97	30	
Surr: 13C5-PFPeA	135	ng/L			153.26		88.2	50-130	3.51	30	
Surr: 13C8-FOSA	136	ng/L			153.26		88.4	50-130	7.94	30	
Surr: 18O2-PFHxS	146	ng/L			144.64		101	70-130	2.12	30	
Surr: d3-N-MeFOSAA	158	ng/L			153.26		103	50-130	3.56	30	
Surr: d5-N-EtFOSAA	145	ng/L			153.26		94.3	50-130	12.9	30	

The following samples were analyzed in this batch: HN2517937-040, HN2517937-046, HN2517937-047, HN2517937-048, HN2517937-049, HN2517937-050, HN2517937-051, HN2517937-052, HN2517937-053, HN2517937-054, HN2517937-055, HN2517937-056, HN2517937-057, HN2517937-058, HN2517937-059, HN2517937-060, HN2517937-061, HN2517937-062, HN2517937-063, HN2517937-064, HN2517937-065



Client: Arcadis US, Inc.
Project: RACER PFAS Analysis
Matrix: GROUNDWATER
QC Lot: 2367154

Work Order: HN2517937
Date Collected: 11/17/25 12:15
Date Received: 11/25/25 11:00
Run ID: 3769125

Per- and Polyfluorinated Alkyl Substances by LC-MS

MS	CLIENT ID: MW-09-80(12-17)_111725	Lab ID: QC-2367154-008

Method: ASTM D7979-19 **Dilution:** 5 **Analysis Date:** 12/11/25 21:34
Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	5650	ng/L	66.4	222	455	5320	NC	70-130			O
Perfluorohexanoic acid (PFHxA)	2470	ng/L	69.8	244	477.1	1880	125	50-130			

MSD	CLIENT ID: MW-09-80(12-17)_111725	Lab ID: QC-2367154-009

Method: ASTM D7979-19 **Dilution:** 5 **Analysis Date:** 12/11/25 21:49
Prep Date: 12/03/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	5290	ng/L	66.5	223	455	5320	NC	70-130	6.71	30	O
Perfluorohexanoic acid (PFHxA)	2410	ng/L	69.9	245	478.93	1880	111	50-130	2.63	30	

The following samples were analyzed in this batch: HN2517937-040, HN2517937-046, HN2517937-047, HN2517937-048, HN2517937-049, HN2517937-050, HN2517937-051, HN2517937-052, HN2517937-053, HN2517937-054, HN2517937-055, HN2517937-056, HN2517937-057, HN2517937-058, HN2517937-059, HN2517937-060, HN2517937-061, HN2517937-062, HN2517937-063, HN2517937-064, HN2517937-065

Attachment 2

Groundwater Sampling Field Logs

Location ID:BD01-04

Date(s):2025-11-24

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLOUDS, T:39.36 °F, rH:79%, Clouds: 53%, Wind:4mph S

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):11.00-21.00

Casing Diameter (in):2.00

Well Casing Material:NA

Static Water Level (ft-bmp):17.65

Total Depth (ft-bmp):20.65

Water Column(ft):3

Liters in Well:1.85

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:09:50

Total Volume Purged (liters):6

Sample ID:BD01-04_112425

Sample Time:10:25

Purge End Time:10:24

Well Volumes Purged (total):3.24

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:55	0	200	mL/min	17.75	6.72	3.267	9.53	2.47	14.1	95.2	Clear	No Odor
10:00	5	200	mL/min	17.77	6.76	4.07	3.86	0.96	14	98	Clear	No Odor
10:05	10	200	mL/min	17.80	6.77	4.216	2.73	0.79	14.2	97.3	Clear	No Odor
10:10	15	200	mL/min	17.80	6.77	4.393	2.05	0.73	14.3	95.4	Clear	No Odor
10:15	20	200	mL/min	17.80	6.77	4.469	2.08	0.69	14.3	91.3	Clear	No Odor
10:20	25	200	mL/min	17.80	6.77	4.426	1.95	0.68	14.1	87.8	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:None

Well Information:

Well Labeled Properly:NA

Is Well in Good Condition?NA

Well Inspection Comments:NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:	MW-84-15	Date(s):	2025-11-24	Work Order(s):	2025 PFAS GWS			
Client:	RACER	Facility:	Buick City	Facility Location:	1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US		Area:	Buick City
Weather:	CLEAR, T:47.7 °F, rH:54%, Clouds: 0%, Wind:10.36mph S			Field Technician:	Kaylee DeRoo			
Measuring Pt. Description:	Top of Inner Casing	Screen Setting (ft-bgs):	3.00-13.00	Casing Diameter (in):	2.00	Well Casing Material:	NA	
Static Water Level (ft-bmp):	2.07	Total Depth (ft-bmp):	12.52	Water Column(ft):	10.45	Liters in Well:	6.46	
Depth to Product (ft-bmp):	NA	Pump Intake Depth(ft-bmp):	NA	Purge Method:	Low Flow	Purging Equipment:	Peristaltic Pump	
Purge Start Time:	12:05	Total Volume Purged (liters):	6	Sample ID:	MW-84-15_112425	Sample Time:	12:40	
Purge End Time:	12:39	Well Volumes Purged (total):	0.93	Replicate Type / Replicate ID:	N/A	Water Quality Meter/ ID:	YSI ProPlus / NA	

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:10	0	200	mL/min	2.74	7.11	1.042	38.56	1.98	13.4	57.7	Clear	No Odor
12:15	5	200	mL/min	3.00	7.06	0.915	70.82	0.92	13.3	36.4	Clear	No Odor
12:20	10	200	mL/min	3.21	7.05	0.887	38.2	0.68	13	15.7	Clear	No Odor
12:25	15	200	mL/min	3.23	7.05	0.879	20.3	0.65	12.6	9.1	Clear	No Odor
12:30	20	200	mL/min	3.25	7.04	0.875	18.9	0.65	12.6	3.9	Clear	No Odor
12:35	25	200	mL/min	3.27	7.04	0.873	19.96	0.61	12.6	0.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-79(11-16)

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

MIST, T:43.43 °F, rH:97%, Clouds: 40%, Wind:5.75mph SW

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

11.00-16.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

7.82

Total Depth (ft-bmp):

15.25

Water Column(ft):

7.43

Liters in Well:

4.59

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

08:50

Total Volume Purged (liters):

5

Sample ID:

MW-04-79(11-16)_112125

Sample Time:

09:20

Purge End Time:

09:19

Well Volumes Purged (total):

1.09

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:55	0	200	mL/min	8.00	6.46	1.362	2.57	1.09	13.8	95.6	Clear	No Odor
09:00	5	200	mL/min	7.95	6.54	1.358	2.02	0.67	13.4	111.1	Clear	No Odor
09:05	10	200	mL/min	8.03	6.59	1.362	2.04	0.34	13.7	125.2	Clear	No Odor
09:10	15	200	mL/min	8.07	6.63	1.366	1.99	0.29	13.9	131.1	Clear	No Odor
09:15	20	200	mL/min	8.13	6.66	1.37	2.07	0.25	13.9	135	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-78(5-15)

Date(s): 2025-11-21

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:45.77 °F, rH:87%, Clouds: 40%, Wind:8.05mph W-SW

Field Technician: Kaylee DeRoo

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 5.00-15.00

Casing Diameter (in): 2.00

Well Casing Material: NA

Static Water Level (ft-bmp): 8.65

Total Depth (ft-bmp): 14.6

Water Column(ft): 5.95

Liters in Well: 3.68

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 09:45

Total Volume Purged (liters): 7

Sample ID: MW-09-78(5-15)_112125

Sample Time: 10:25

Purge End Time: 10:24

Well Volumes Purged (total): 1.90

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:50	0	200	mL/min	8.70	7.42	1.592	45.52	4.73	13.1	113.9	Clear	No Odor
09:55	5	200	mL/min	8.72	7.1	1.578	55.75	0.45	13.8	-54.9	Clear	No Odor
10:00	10	200	mL/min	8.75	7.1	1.537	13.98	0.35	13.4	-112.8	Clear	No Odor
10:05	15	200	mL/min	8.72	7.1	1.527	10.68	0.28	13.4	-133.5	Clear	No Odor
10:10	20	200	mL/min	8.72	7.08	1.508	12.47	0.31	13.4	-142.9	Clear	No Odor
10:15	25	200	mL/min	8.72	7.07	1.5	12.48	0.36	13.5	-147.2	Clear	No Odor
10:20	30	200	mL/min	8.72	7.05	1.478	12.55	0.32	13.6	-150.9	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-85(14-19)

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:48.83 °F, rH:66%, Clouds: 0%, Wind:14.97mph W

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

14.00-19.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

11.25

Total Depth (ft-bmp):

19.33

Water Column(ft):

8.08

Liters in Well:

4.99

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:55

Total Volume Purged (liters):

10

Sample ID:

MW-09-85(14-19)_112125

Sample Time:

12:50

Purge End Time:

12:49

Well Volumes Purged (total):

2.00

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:00	0	200	mL/min	11.77	6.69	2.247	40.32	1.06	14.7	-7.3	Clear	No Odor
12:05	5	200	mL/min	12.65	6.71	2.246	33.4	0.54	14.7	31.63	Clear	No Odor
12:10	10	200	mL/min	13.40	6.74	2.277	19.03	0.43	14.6	-26	Clear	No Odor
12:15	15	200	mL/min	13.96	6.76	2.191	11.1	0.84	14.7	-25.2	Clear	No Odor
12:20	20	200	mL/min	14.57	6.78	2.166	6.96	1.59	14.8	-19.7	Clear	No Odor
12:25	25	200	mL/min	15.30	6.79	2.163	6.51	1.86	14.7	-14	Clear	No Odor
12:30	30	200	mL/min	15.41	6.8	2.168	5.05	1.98	14.4	-8.6	Clear	No Odor
12:35	35	200	mL/min	15.45	6.79	2.182	4.28	1.2	14.5	-10.2	Clear	No Odor
12:40	40	200	mL/min	15.53	6.78	2.212	3.65	1.18	14.4	-14.6	Clear	No Odor
12:45	45	200	mL/min	15.65	6.78	2.211	3.61	1.16	14.4	-17.3	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:	MW-84-04D	Date(s):	2025-11-21	Work Order(s):	2025 PFAS GWS		
Client:	RACER	Facility:	Buick City	Facility Location:	1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US	Area:	Buick City
Weather:	CLEAR, T:49.28 °F, rH:62%, Clouds: 0%, Wind:10.36mph W-SW			Field Technician:	Patrick Labadie		
Measuring Pt. Description:	Top of Inner Casing	Screen Setting (ft-bgs):	12.00-22.00	Casing Diameter (in):	2.00	Well Casing Material:	
Static Water Level (ft-bmp):	10.3	Total Depth (ft-bmp):	21.55	Water Column(ft):	11.25	Liters in Well:	6.95
Depth to Product (ft-bmp):	NA	Pump Intake Depth(ft-bmp):	NA	Purge Method:	Low Flow	Purging Equipment:	Peristaltic Pump
Purge Start Time:	NA	Total Volume Purged (liters):	3.6	Sample ID:	MW-84-04D	Sample Time:	14:55
Purge End Time:	14:56	Well Volumes Purged (total):	0.52	Replicate Type / Replicate ID:	N/A	Water Quality Meter/ ID:	YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	120	mL/min	10.30	6.96	0.002	28	3.16	15.6	-108.2	Clear	No Odor
14:25	5	120	mL/min	10.40	6.92	0.983	3.7	0.49	15.9	-137.9	Clear	No Odor
14:30	10	120	mL/min	10.40	6.92	0.986	2.8	0.28	16	-157.5	Clear	No Odor
14:35	15	120	mL/min	10.40	6.92	0.985	1.9	0.22	16.4	-177.4	Clear	No Odor
14:40	20	120	mL/min	10.40	6.92	0.985	1.8	0.23	16.4	-178.9	Clear	No Odor
14:45	25	120	mL/min	10.40	6.92	0.985	1.2	0.07	16.3	-186.1	Clear	No Odor
14:50	30	120	mL/min	10.40	6.92	0.984	1.09	0.08	16.3	-188.8	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-76(10-15)

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:47.19 °F, rH:77%, Clouds: 100%, Wind:12.66mph W-NW

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

10.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

6.1

Total Depth (ft-bmp):

15.1

Water Column(ft):

9

Liters in Well:

5.56

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

7.2

Sample ID:

MW-84-76(10-15)

Sample Time:

11:45

Purge End Time:

11:48

Well Volumes Purged (total):

1.29

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:45	0	120	mL/min	6.10	7.64	0.957	80	1.06	14.8	-39.4	Clear	No Odor
10:50	5	120	mL/min	6.15	7.62	0.9	69	0.36	14.8	-96.7	Clear	No Odor
10:55	10	120	mL/min	6.10	7.69	0.835	53	0.22	14.7	-125.2	Clear	No Odor
11:00	15	120	mL/min	6.10	7.73	0.815	54	0.15	14.8	-137.4	Clear	No Odor
11:05	20	120	mL/min	6.10	7.79	0.778	29	0.09	14.8	-150.7	Clear	No Odor
11:10	25	120	mL/min	6.10	7.84	0.749	24.5	0.05	14.9	-158	Clear	No Odor
11:15	30	120	mL/min	6.10	7.88	0.732	14.7	0.01	14.9	-167.6	Clear	No Odor
11:20	35	120	mL/min	6.10	7.86	0.747	16	0.01	14.8	-166.5	Clear	No Odor
11:25	40	120	mL/min	6.10	7.9	0.727	9.57	0	14.8	-170.7	Clear	No Odor
11:30	45	120	mL/min	6.10	7.9	0.727	9.3	0	14.7	-171.4	Clear	No Odor
11:35	50	120	mL/min	6.10	7.88	0.731	7.3	0	15	-172.1	Clear	No Odor
11:40	55	120	mL/min	6.10	7.9	0.73	6.9	0	15.1	-172.6	Clear	No Odor
11:45	60	120	mL/min	6.10	7.89	0.732	6.5	0	15.1	-172	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:RFI-09-48

Date(s):2025-11-21

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLEAR, T:49.73 °F, rH:61%, Clouds: 0%, Wind:12.66mph W-NW

Field Technician:Patrick Labadie

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):8.00-18.00

Casing Diameter (in):2.00

Well Casing Material:

Static Water Level (ft-bmp):11.85

Total Depth (ft-bmp):17.55

Water Column(ft):5.7

Liters in Well:3.52

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:NA

Total Volume Purged (liters):3

Sample ID:RFI-09-48

Sample Time:15:45

Purge End Time:15:49

Well Volumes Purged (total):0.85

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:15	0	120	mL/min	11.85	7.25	1.606	18	5.43	15.6	-137.4	Clear	No Odor
15:20	5	120	mL/min	11.95	7.04	1.632	11.78	0.65	11.7	-139.3	Clear	No Odor
15:25	10	120	mL/min	11.95	7	1.636	19	0.1	15.2	-133.1	Clear	No Odor
15:30	15	120	mL/min	11.95	6.99	1.635	5.7	0.1	15.3	-132	Clear	No Odor
15:35	20	120	mL/min	11.95	7	1.639	5.5	0.11	15.5	-132.3	Clear	No Odor
15:40	25	120	mL/min	11.95	6.99	1.65	5.3	0.06	15.4	-132.3	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:None

Well Information:

Well Labeled Properly:NA

Is Well in Good Condition?NA

Well Inspection Comments:NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-84-07S

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:48.83 °F, rH:65%, Clouds: 75%, Wind:11.5mph W

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

11.00-21.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

8

Total Depth (ft-bmp):

21.8

Water Column(ft):

13.8

Liters in Well:

8.53

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

6.6

Sample ID:

RFI-84-07S

Sample Time:

12:55

Purge End Time:

12:59

Well Volumes Purged (total):

0.77

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:00	0	120	mL/min	8.00	7.35	1	57	5.52	14.9	-90.9	Clear	No Odor
12:05	5	120	mL/min	8.10	7.14	1.003	48	2.12	14.7	-104.2	Clear	No Odor
12:10	10	120	mL/min	8.10	7.17	1.003	83	0.97	14.7	-109.9	Clear	No Odor
12:15	15	120	mL/min	8.10	7.18	0.963	23	0.43	14.5	-118.4	Clear	No Odor
12:20	20	120	mL/min	8.10	7.19	0.903	11	0.41	14.5	-122.3	Clear	No Odor
12:25	25	120	mL/min	8.10	7.2	0.863	9	0.44	14.5	-125.7	Clear	No Odor
12:30	30	120	mL/min	8.10	7.22	0.836	7.1	0.42	14.4	-129	Clear	No Odor
12:35	35	120	mL/min	8.10	7.23	0.798	7	0.09	14.4	-133.1	Clear	No Odor
12:40	40	120	mL/min	8.10	7.23	0.785	7.8	0.12	14.3	-134.9	Clear	No Odor
12:45	45	120	mL/min	8.10	7.24	0.773	10	0.06	14.2	-136.2	Clear	No Odor
12:50	50	120	mL/min	8.10	7.24	0.76	10.2	0.02	14.3	-137.7	Clear	No Odor
12:55	55	120	mL/min	8.10	7.24	0.764	10	0.04	14.2	-137.7	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-84-11S(3-13)

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:50.05 °F, rH:60%, Clouds: 20%, Wind:9.22mph W-SW

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

-

Casing Diameter (in):

NA

Well Casing Material:

NA

Static Water Level (ft-bmp):

3.15

Total Depth (ft-bmp):

12.65

Water Column(ft):

9.5

Liters in Well:

NA

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

3.6

Sample ID:

RFI-84-11S

Sample Time:

13:55

Purge End Time:

13:55

Well Volumes Purged (total):

NA

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	120	mL/min	3.15	7.2	0.39	11	6.93	14.3	-22.2	Clear	No Odor
13:25	5	120	mL/min	3.25	6.86	0.82	12	2.29	14	4.9	Clear	No Odor
13:30	10	120	mL/min	3.30	6.84	0.822	20	0.37	13.8	24.7	Clear	No Odor
13:35	15	120	mL/min	3.30	6.84	0.825	10	0.16	13.8	33.1	Clear	No Odor
13:40	20	120	mL/min	3.30	6.85	0.832	4.9	0.09	13.7	38.7	Clear	No Odor
13:45	25	120	mL/min	3.30	6.85	0.835	4.8	0.08	13.7	43.5	Clear	No Odor
13:50	30	120	mL/min	3.30	6.85	0.835	4.2	0.13	13.7	44.4	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-83(6-11)

Date(s): 2025-11-21

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:47.61 °F, rH:76%, Clouds: 100%, Wind:12.66mph W-NW

Field Technician: Kaylee DeRoo

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 6.00-11.00

Casing Diameter (in): 2.00

Well Casing Material: NA

Static Water Level (ft-bmp): 10.25

Total Depth (ft-bmp): 11.23

Water Column(ft): 0.98

Liters in Well: 0.61

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 10:50

Total Volume Purged (liters): 1.5

Sample ID: MW-09-83(6-11)_112125

Sample Time: 11:30

Purge End Time: 11:06

Well Volumes Purged (total): 2.46

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:55	0	100	mL/min	10.50	6.56	1.559	57.45	3.82	12.9	-37.8	Clear	No Odor
11:00	5	100	mL/min	11.05	6.65	1.568	210.1	1.45	13.2	189.5	Clear	No Odor
11:05	10	100	mL/min	11.20	6.68	1.568	281.3	2.14	13	42.7	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments: Well went dry while purging before stabilizing. Sample collected from recharge.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-85(8-13)

Date(s):

2025-11-21

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:50.23 °F, rH:60%, Clouds: 20%, Wind:9.22mph W-SW

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

8.00-13.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

10.6

Total Depth (ft-bmp):

12.05

Water Column(ft):

1.45

Liters in Well:

0.9

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

13:10

Total Volume Purged (liters):

5

Sample ID:

MW-09-85(8-13)

Sample Time:

14:00

Purge End Time:

13:35

Well Volumes Purged (total):

5.56

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:15	0	200	mL/min	10.82	6.87	1.985	680.7	2.55	14.3	-23.7	Clear	No Odor
13:20	5	200	mL/min	10.92	6.86	1.967	477.6	1.99	13.9	-24.2	Clear	No Odor
13:25	10	200	mL/min	11.34	6.85	1.905	97.58	1.72	14.3	-22.7	Clear	No Odor
13:30	15	200	mL/min	11.65	6.84	1.89	34.52	1.03	14.6	-18.7	Clear	No Odor
13:35	20	200	mL/min	12.05	6.84	1.89	32.1	1.03	14.6	-10.9	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: Well went dry while purging before stabilizing. Sample collected from recharge.

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-04-01

Date(s): 2025-11-20

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: MIST, T:37.27 °F, rH:96%, Clouds: 100%, Wind:4.61mph S-SE

Field Technician: Kaylee DeRoo

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 5.00-10.00

Casing Diameter (in): 2.00

Well Casing Material: NA

Static Water Level (ft-bmp): 8.9

Total Depth (ft-bmp): 12.82

Water Column(ft): 3.92

Liters in Well: 2.42

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 09:50

Total Volume Purged (liters): 8

Sample ID: MW-04-01_112025

Sample Time: 10:35

Purge End Time: 10:34

Well Volumes Purged (total): 3.31

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:55	0	200	mL/min	9.95	6.1	0.958	48.3	1.99	13.5	129.4	Clear	No Odor
10:00	5	200	mL/min	9.95	6.24	1.015	26.57	0.77	12.6	132.56	Clear	No Odor
10:05	10	200	mL/min	9.95	6.43	1.018	13.32	0.33	13.1	134.2	Clear	No Odor
10:10	15	200	mL/min	9.95	6.44	1.016	12.55	0.32	13.2	134.3	Clear	No Odor
10:15	20	200	mL/min	9.95	6.5	1.019	6.7	0.24	13.3	135.7	Clear	No Odor
10:20	25	200	mL/min	9.95	6.51	1.021	4.1	0.24	13.1	135.9	Clear	No Odor
10:25	30	200	mL/min	9.95	6.54	1.017	2.69	0.18	13.1	136.3	Clear	No Odor
10:30	35	200	mL/min	9.95	6.55	1.017	2.39	0.17	13.1	136.2	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-84-01D

Date(s): 2025-11-20

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: MIST, T:37.29 °F, rH:96%, Clouds: 100%, Wind:4.61mph S-SE

Field Technician: Patrick Labadie

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 10.00-20.00

Casing Diameter (in): 2.00

Well Casing Material:

Static Water Level (ft-bmp): 13.25

Total Depth (ft-bmp): 22.85

Water Column(ft): 9.6

Liters in Well: 5.93

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: NA

Total Volume Purged (liters): 3.6

Sample ID: MW-84-01D

Sample Time: 10:35

Purge End Time: 10:43

Well Volumes Purged (total): 0.61

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	120	mL/min	13.25	7.3	1.318	3.6	1.36	13	-110.8	Clear	No Odor
10:05	5	120	mL/min	13.35	7.21	1.32	2.3	0.99	13.1	-113.8	Clear	No Odor
10:10	10	120	mL/min	13.40	7.22	1.32	15	0.49	13.2	-115.3	Clear	No Odor
10:15	15	120	mL/min	13.40	7.34	1.32	12	2.73	13.4	-109.7	Clear	No Odor
10:20	20	120	mL/min	13.40	7.26	1.328	4.2	0.36	13.4	-108	Clear	No Odor
10:25	25	120	mL/min	13.40	7.27	1.32	3.46	0.16	13.3	-110.2	Clear	No Odor
10:30	30	120	mL/min	13.40	7.27	1.327	4.7	0.11	13.3	-112.2	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-02D

Date(s):

2025-11-20

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

MIST, T:39.42 °F, rH:91%, Clouds: 100%, Wind:4.61mph S-SE

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

16.00-26.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

15.9

Total Depth (ft-bmp):

28.6

Water Column(ft):

12.7

Liters in Well:

7.85

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

3.6

Sample ID:

MW-84-02D

Sample Time:

11:30

Purge End Time:

11:34

Well Volumes Purged (total):

0.46

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:00	0	120	mL/min	15.90	7.48	0.974	2.65	4.3	12.9	-92.5	Clear	No Odor
11:05	5	120	mL/min	16.00	4.7	0.952	4.7	0.46	13	-95.5	Clear	No Odor
11:10	10	120	mL/min	16.00	7.17	0.951	5.1	0.42	13	-95.6	Clear	No Odor
11:15	15	120	mL/min	16.00	7.16	0.95	4.46	0.19	12.9	-97.4	Clear	No Odor
11:20	20	120	mL/min	16.00	7.16	0.951	4.5	0.19	12.9	-97.5	Clear	No Odor
11:25	25	120	mL/min	16.00	7.16	0.95	3.4	0.17	12.9	-99.5	Clear	No Odor
11:30	30	120	mL/min	16.00	7.16	0.95	3.6	0.12	12.9	-99.7	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-03D

Date(s):

2025-11-20

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:40.82 °F, rH:89%, Clouds: 100%, Wind:8.05mph S-SE

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

17.00-22.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

15.9

Total Depth (ft-bmp):

25.05

Water Column(ft):

9.15

Liters in Well:

5.65

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

3.6

Sample ID:

MW-84-03D

Sample Time:

12:20

Purge End Time:

12:25

Well Volumes Purged (total):

0.64

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	120	mL/min	15.90	7.07	0.998	18.6	2.52	13.5	-111.3	Clear	No Odor
11:55	5	120	mL/min	16.40	6.95	1.014	9.7	0.91	13.5	-105.6	Clear	No Odor
12:00	10	120	mL/min	16.60	6.95	1.013	13.3	0.36	13.6	-107.5	Clear	No Odor
12:05	15	120	mL/min	16.65	6.96	1.005	3.63	0.26	13.5	-109.3	Clear	No Odor
12:10	20	120	mL/min	16.70	6.99	0.987	2.64	0.1	13.8	-111.9	Clear	No Odor
12:15	25	120	mL/min	16.75	6.99	0.986	2.17	0.1	13.8	-112.3	Clear	No Odor
12:20	30	120	mL/min	16.75	7	0.986	1.86	0.09	13.7	-112.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

SB-16-18(9.5-14.5)

Date(s):

2025-11-20

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:41.85 °F, rH:88%, Clouds: 100%, Wind:6.91mph S-SE

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

9.50-14.50

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

6.23

Total Depth (ft-bmp):

14.2

Water Column(ft):

7.97

Liters in Well:

4.92

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

12:20

Total Volume Purged (liters):

9

Sample ID:

SB-16-18(9.5-14.5)_112025

Sample Time:

13:10

Purge End Time:

13:09

Well Volumes Purged (total):

1.83

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:25	0	200	mL/min	7.35	7.39	1.169	43.25	1.57	13.6	54	Clear	No Odor
12:30	5	200	mL/min	7.37	7.36	1.169	40.39	1.28	13.7	26	Clear	No Odor
12:35	10	200	mL/min	7.55	7.36	1.163	15.32	0.33	14.1	-91.8	Clear	No Odor
12:40	15	200	mL/min	7.60	7.36	1.16	13.9	0.29	14.2	15.27	Clear	No Odor
12:45	20	200	mL/min	7.83	7.38	1.137	7.4	0.18	14.6	-145.7	Clear	No Odor
12:50	25	200	mL/min	7.90	7.38	1.133	7.08	0.18	14.6	-151.9	Clear	No Odor
12:55	30	200	mL/min	7.95	7.4	1.119	3.97	0.13	14.9	-172	Clear	No Odor
13:00	35	200	mL/min	8.00	7.4	1.119	4.46	0.13	14.8	-174.5	Clear	No Odor
13:05	40	200	mL/min	8.05	7.4	1.118	4.31	0.11	14.9	-181.4	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-16-23(7-12)

Date(s):2025-11-20

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLOUDS, T:40.42 °F, rH:90%, Clouds: 100%, Wind:8.05mph S-SE

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):7.00-12.00

Casing Diameter (in):1.00

Well Casing Material:NA

Static Water Level (ft-bmp):6.7

Total Depth (ft-bmp):12.07

Water Column(ft):5.37

Liters in Well:0.83

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:11:15

Total Volume Purged (liters):8

Sample ID:SB-16-23(7-12)_112025

Sample Time:12:00

Purge End Time:11:59

Well Volumes Purged (total):9.64

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:20	0	200	mL/min	7.00	6.65	0.997	26.1	0.68	14.3	101.8	Clear	No Odor
11:25	5	200	mL/min	7.05	6.71	1.032	13.02	0.23	14.5	85.4	Clear	No Odor
11:30	10	200	mL/min	7.05	6.72	1.043	15.1	0.2	14.7	81.3	Clear	No Odor
11:35	15	200	mL/min	7.05	6.76	1.075	14.23	0.14	14.7	54.6	Clear	No Odor
11:40	20	200	mL/min	7.05	6.76	1.077	14.2	0.14	14.7	52.2	Clear	No Odor
11:45	25	200	mL/min	7.05	6.79	1.088	14.1	0.1	14.8	22.8	Clear	No Odor
11:50	30	200	mL/min	7.05	6.8	1.088	13.95	0.1	14.8	20.3	Clear	No Odor
11:55	35	200	mL/min	7.05	6.81	1.092	13.91	0.09	14.8	20.2	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-80(12-17)

Date(s):

2025-11-20

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:43.68 °F, rH:84%, Clouds: 100%, Wind:9.22mph S

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

12.00-17.00

Casing Diameter (in):

1.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

5.9

Total Depth (ft-bmp):

17.07

Water Column(ft):

11.17

Liters in Well:

1.73

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

13:50

Total Volume Purged (liters):

7

Sample ID:

MW-04-80(12-17)

Sample Time:

14:30

Purge End Time:

14:29

Well Volumes Purged (total):

4.05

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	200	mL/min	6.35	7.31	1.04	56.4	0.86	12.7	-14.35	Clear	No Odor
14:00	5	200	mL/min	6.40	7.26	1.037	56.2	0.57	12.7	-170.5	Clear	No Odor
14:05	10	200	mL/min	6.65	7.29	1.041	62.3	0.26	12.9	-197.8	Clear	No Odor
14:10	15	200	mL/min	6.78	7.3	1.042	66.07	0.15	12.8	-204.5	Clear	No Odor
14:15	20	200	mL/min	6.70	7.3	1.042	68.3	0.14	12.8	-205.8	Clear	No Odor
14:20	25	200	mL/min	6.73	7.33	1.045	69.32	0.05	12.9	-210.6	Clear	No Odor
14:25	30	200	mL/min	6.75	7.33	1.045	71.42	0.05	12.9	-212.6	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	9	15 mL	None

Comments: Stabilized after half an hour of purging with high turbidity over 50 NTU.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-156(9-14)

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:35.49 °F, rH:84%, Clouds: 0%, Wind:1.01mph W-NW

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

9.00-14.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

9.17

Total Depth (ft-bmp):

15.3

Water Column(ft):

6.13

Liters in Well:

3.79

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

10:35

Total Volume Purged (liters):

7

Sample ID:

MW-04-156(9-14)_111925

Sample Time:

11:15

Purge End Time:

11:14

Well Volumes Purged (total):

1.85

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:40	0	200	mL/min	9.93	7.17	0.894	12.5	1.79	13.4	81.83	Clear	No Odor
10:45	5	200	mL/min	9.93	7.06	0.895	8.34	0.9	13.3	21	Clear	No Odor
10:50	10	200	mL/min	10.70	7.06	0.892	5.11	0.19	13.4	-83.5	Clear	No Odor
10:55	15	200	mL/min	10.82	7.07	0.892	5.04	0.19	13.3	-86	Clear	No Odor
11:00	20	200	mL/min	12.65	7.07	0.878	4.53	0.21	12.6	-100.2	Clear	No Odor
11:05	25	200	mL/min	12.65	7.07	0.881	4.46	0.22	12.4	-100.8	Clear	No Odor
11:10	30	200	mL/min	9.65	7.09	0.871	4.92	0.2	12.4	-106.8	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-50(10-15)

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:35.67 °F, rH:85%, Clouds: 0%, Wind:3mph NW

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

10.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

7.8

Total Depth (ft-bmp):

18.1

Water Column(ft):

10.3

Liters in Well:

6.36

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

6.6

Sample ID:

MW-84-50(10-15)

Sample Time:

11:30

Purge End Time:

11:32

Well Volumes Purged (total):

1.04

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:25	0	120	mL/min	7.80	6.79	0.963	1.3	3.7	13.9	210.4	Clear	No Odor
10:30	5	120	mL/min	8.30	6.78	0.934	2.6	1.77	14	205.1	Clear	No Odor
10:35	10	120	mL/min	8.80	6.82	0.919	1.28	0.37	14.9	155.1	Clear	No Odor
10:40	15	120	mL/min	9.20	6.84	0.915	1.26	0.26	15	124.2	Clear	No Odor
10:45	20	120	mL/min	9.40	6.9	0.877	1.41	0.53	15.1	81.8	Clear	No Odor
10:50	25	120	mL/min	9.45	6.91	0.87	1.59	0.67	15.3	79.1	Clear	No Odor
10:55	30	120	mL/min	9.65	6.92	0.878	1.45	0.74	15.5	68.4	Clear	No Odor
11:00	35	120	mL/min	9.70	6.91	0.886	1.48	0.61	15.5	47.2	Clear	No Odor
11:05	40	120	mL/min	9.85	6.91	0.89	1.52	0.49	15.8	24.1	Clear	No Odor
11:10	45	120	mL/min	9.90	6.91	0.897	1.46	0.4	15.7	6.4	Clear	No Odor
11:15	50	120	mL/min	10.00	6.9	0.896	1.47	0.4	15.8	4.8	Clear	No Odor
11:20	55	120	mL/min	10.10	6.9	0.901	1.45	0.35	15.9	1.7	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-84-04I

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:42.62 °F, rH:59%, Clouds: 0%, Wind:1.99mph N-NE

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

29.00-34.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

9.35

Total Depth (ft-bmp):

33.65

Water Column(ft):

24.3

Liters in Well:

15.01

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

6.6

Sample ID:

RFI-84-04I

Sample Time:

14:55

Purge End Time:

14:56

Well Volumes Purged (total):

0.44

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	120	mL/min	9.50	8.07	0.218	8.7	6.12	14.6	11.9	Clear	No Odor
14:00	5	120	mL/min	9.80	7.95	0.463	15.4	1.03	14	6.8	Clear	No Odor
14:05	10	120	mL/min	9.80	7.8	0.536	10.5	0.68	13.8	-19.7	Clear	No Odor
14:10	15	120	mL/min	9.80	7.66	0.663	7.3	0.3	13.6	-73.2	Clear	No Odor
14:15	20	120	mL/min	9.80	7.61	0.736	4.6	0.28	13.5	-70.6	Clear	No Odor
14:20	25	120	mL/min	9.80	7.5	0.829	3.8	0.24	13.7	-60.8	Clear	No Odor
14:25	30	120	mL/min	9.80	7.4	0.947	3.06	0.21	13.6	-45.6	Clear	No Odor
14:30	35	120	mL/min	9.80	7.35	1.041	3.3	0.17	13.6	-30.2	Clear	No Odor
14:35	40	120	mL/min	9.80	7.32	1.089	3.3	0.14	13.6	-22.5	Clear	No Odor
14:40	45	120	mL/min	9.80	7.3	1.17	2.1	0.12	13.7	-14.8	Clear	No Odor
14:45	50	120	mL/min	9.80	7.29	1.161	1.9	0.11	13.7	-9.9	Clear	No Odor
14:50	55	120	mL/min	9.80	7.28	1.18	2.03	0.09	13.7	-6.3	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-04-34(4-9)

Date(s):2025-11-19

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLEAR, T:29.71 °F, rH:96%, Clouds: 0%, Wind:1.99mph SW

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):4.00-9.00

Casing Diameter (in):2.00

Well Casing Material:NA

Static Water Level (ft-bmp):8.23

Total Depth (ft-bmp):9.9

Water Column(ft):1.67

Liters in Well:1.03

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:09:40

Total Volume Purged (liters):6

Sample ID:SB-04-34(4-9)_111925

Sample Time:10:15

Purge End Time:10:14

Well Volumes Purged (total):5.83

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:45	0	200	mL/min	8.72	6.5	1.02	12.2	1.4	13	84.3	Clear	No Odor
09:50	5	200	mL/min	8.60	6.67	0.934	3.7	0.41	12.4	71.5	Clear	No Odor
09:55	10	200	mL/min	8.60	6.67	0.932	2.55	0.4	12.3	-70.1	Clear	No Odor
10:00	15	200	mL/min	8.65	6.72	0.932	2.93	0.23	12.2	59.1	Clear	No Odor
10:05	20	200	mL/min	8.65	6.73	0.932	2.48	0.23	12.2	57.8	Clear	No Odor
10:10	25	200	mL/min	8.65	6.75	0.926	1.87	0.16	12.5	52.3	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:None

Well Information:

Well Labeled Properly:NA

Is Well in Good Condition?NA

Well Inspection Comments:NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-84-23(11-16)

Date(s):2025-11-19

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLEAR, T:41.22 °F, rH:65%, Clouds: 0%, Wind:1.99mph NE

Field Technician:Patrick Labadie

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):11.00-16.00

Casing Diameter (in):2.00

Well Casing Material:

Static Water Level (ft-bmp):9.6

Total Depth (ft-bmp):18

Water Column(ft):8.4

Liters in Well:5.19

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:NA

Total Volume Purged (liters):3.6

Sample ID:SB-84-23(11-16)

Sample Time:12:50

Purge End Time:12:58

Well Volumes Purged (total):0.69

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:15	0	120	mL/min	10.55	7.29	0.985	82	6.35	15.7	-120.2	Clear	No Odor
12:20	5	120	mL/min	11.10	7.07	0.98	61	0.73	15.3	-119	Clear	No Odor
12:25	10	120	mL/min	11.50	7.06	0.973	29	0.34	15.3	-114.5	Clear	No Odor
12:30	15	120	mL/min	11.80	7.05	0.972	18.9	0.22	15.3	-110.5	Clear	No Odor
12:35	20	120	mL/min	12.95	7.04	0.973	8.6	0.16	15.3	-108.5	Clear	No Odor
12:40	25	120	mL/min	12.20	7.04	0.972	8.5	0.11	15.2	-106.8	Clear	No Odor
12:45	30	120	mL/min	12.40	7.04	0.971	8	0.09	15.4	-106.4	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

9

15 mL

None

Comments:

None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-73(28-33)

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:39.74 °F, rH:70%, Clouds: 0%, Wind:4.61mph N

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

28.00-33.00

Casing Diameter (in):

2.00

Well Casing Material:

,PVC

Static Water Level (ft-bmp):

11.28

Total Depth (ft-bmp):

32.78

Water Column(ft):

21.5

Gallons in Well:

3.51

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:35

Total Volume Purged (gallons):

1.584

Sample ID:

NA

Sample Time:

NA

Purge End Time:

12:10

Well Volumes Purged (total):

0.45

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:40	0	200	mL/min	11.280	7.07	1.823	111	1.08	13.3	-137.8	Clear	No Odor
11:50	10	200	mL/min	11.280	7.09	1.842	24	0.6	13.5	-147.2	Clear	No Odor
11:55	15	200	mL/min	11.280	7.09	1.842	12.74	0.51	13.7	-149.4	Clear	No Odor
12:00	20	200	mL/min	11.280	7.09	1.842	9.82	0.49	13.7	-149.8	Clear	No Odor
12:05	25	200	mL/min	11.280	7.08	1.827	11.2	0.44	13.8	-150.1	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-09

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:34.39 °F, rH:88%, Clouds: 0%, Wind:1.99mph N-NW

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

3.80-13.80

Casing Diameter (in):

2.00

Well Casing Material:

,PVC

Static Water Level (ft-bmp):

5.45

Total Depth (ft-bmp):

14

Water Column(ft):

8.55

Gallons in Well:

1.4

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

10:05

Total Volume Purged (gallons):

1.056

Sample ID:

NA

Sample Time:

NA

Purge End Time:

10:30

Well Volumes Purged (total):

0.75

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:10	0	200	mL/min	5.450	6.9	1.205	5.9	0.88	15.5	-44.2	Clear	No Odor
10:15	5	200	mL/min	5.450	6.9	1.198	5.31	0.62	15.3	-36.5	Clear	No Odor
10:20	10	200	mL/min	5.450	6.91	1.206	3.17	0.55	15.3	-33.1	Clear	No Odor
10:25	15	200	mL/min	5.450	6.91	1.24	3.07	0.49	15.2	-33.3	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-09D

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:32.77 °F, rH:93%, Clouds: 7%, Wind:3.47mph NE

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

17.00-22.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

6.52

Total Depth (ft-bmp):

21.92

Water Column(ft):

15.4

Gallons in Well:

2.51

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

09:35

Total Volume Purged (gallons):

1.056

Sample ID:

NA

Sample Time:

NA

Purge End Time:

10:00

Well Volumes Purged (total):

0.42

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:45	0	200	mL/min	6.520	7.47	1.669	2.41	0.64	15.5	-151.9	Clear	No Odor
09:50	5	200	mL/min	6.520	7.54	1.428	2.57	0.58	15.4	-154.8	Clear	No Odor
09:55	10	200	mL/min	6.520	7.54	1.408	2.66	0.54	15.5	-155.5	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:	RFI-17-02	Date(s):	2025-11-19	Work Order(s):	2025 PFAS GWS			
Client:	RACER	Facility:	Buick City	Facility Location:	1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US		Area:	Buick City
Weather:	CLEAR, T:43.12 °F, rH:58%, Clouds: 0%, Wind:1.99mph W			Field Technician:	Donald Richmond			
Measuring Pt. Description:	Top of Inner Casing	Screen Setting (ft-bgs):	4.00-14.00	Casing Diameter (in):	2.00	Well Casing Material:	,PVC	
Static Water Level (ft-bmp):	4.89	Total Depth (ft-bmp):	13.48	Water Column(ft):	8.59	Gallons in Well:	1.4	
Depth to Product (ft-bmp):	NA	Pump Intake Depth(ft-bmp):	NA	Purge Method:	Low Flow	Purging Equipment:	Peristaltic Pump	
Purge Start Time:	14:50	Total Volume Purged (gallons):	3.169	Sample ID:	NA	Sample Time:	NA	
Purge End Time:	15:50	Well Volumes Purged (total):	2.26	Replicate Type / Replicate ID:	N/A	Water Quality Meter/ ID:	YSI ProPlus / NA	

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:55	0	200	mL/min	4.890	6.82	0.788	208	1.53	12.7	-24.1	Clear	No Odor
15:00	5	200	mL/min	4.890	6.8	0.793	93	1.05	13.1	-13.1	Clear	No Odor
15:05	10	200	mL/min	4.890	6.81	0.81	95	0.85	12.6	-3.2	Clear	No Odor
15:10	15	200	mL/min	4.890	6.81	0.816	59	0.81	12.7	-0.8	Clear	No Odor
15:15	20	200	mL/min	4.890	6.81	0.82	44	0.77	12.9	2.8	Clear	No Odor
15:20	25	200	mL/min	4.890	6.82	0.833	35	0.71	12.9	6.3	Clear	No Odor
15:25	30	200	mL/min	4.890	6.83	0.84	29	0.68	12.9	9.1	Clear	No Odor
15:30	35	200	mL/min	4.890	6.83	0.845	39	0.66	12.9	11.2	Clear	No Odor
15:35	40	200	mL/min	4.890	6.84	0.851	19	0.62	12.7	12.9	Clear	No Odor
15:40	45	200	mL/min	4.890	6.85	0.861	17.6	0.55	12.5	17.8	Clear	No Odor
15:50	55	200	mL/min	4.890	6.85	0.866	35	0.53	13.1	19.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-17-02D

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:42.78 °F, rH:58%, Clouds: 0%, Wind:1.99mph E-SE

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

14.00-24.00

Casing Diameter (in):

2.00

Well Casing Material:

,PVC

Static Water Level (ft-bmp):

4.39

Total Depth (ft-bmp):

25.09

Water Column(ft):

20.7

Gallons in Well:

3.38

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

14:05

Total Volume Purged (gallons):

1.848

Sample ID:

NA

Sample Time:

NA

Purge End Time:

14:45

Well Volumes Purged (total):

0.55

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:15	0	200	mL/min	4.390	4.39	1.031	44	1.31	13.4	-126.4	Clear	No Odor
14:20	5	200	mL/min	4.390	7.27	1.041	17	0.95	13.5	-133	Clear	No Odor
14:25	10	200	mL/min	4.390	7.27	1.049	12	0.76	13.5	-138.5	Clear	No Odor
14:30	15	200	mL/min	4.390	7.27	1.056	12	0.63	13.5	-141	Clear	No Odor
14:35	20	200	mL/min	4.390	7.26	1.06	10	0.61	13.3	-140.5	Clear	No Odor
14:40	25	200	mL/min	4.390	7.25	1.062	12.61	0.59	13.3	-139.7	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-73(7-12)

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:41.45 °F, rH:64%, Clouds: 0%, Wind:0mph N

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

7.00-12.00

Casing Diameter (in):

2.00

Well Casing Material:

,PVC

Static Water Level (ft-bmp):

NA

Total Depth (ft-bmp):

12.11

Water Column(ft):

Gallons in Well:

NA

Depth to Product (ft-bmp):

11.14

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (gallons):

NA

Sample ID:

NA

Sample Time:

NA

Purge End Time:

NA

Well Volumes Purged (total):

NA

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	Appearance	
					Color	Odor
					--	--

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-156(20-25)

Date(s):

2025-11-19

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:40.37 °F, rH:69%, Clouds: 0%, Wind:4.61mph N

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

20.00-25.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

8.9

Total Depth (ft-bmp):

25.25

Water Column(ft):

16.35

Liters in Well:

10.1

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:50

Total Volume Purged (liters):

7

Sample ID:

MW-04-156(20-25)_111925

Sample Time:

12:30

Purge End Time:

12:29

Well Volumes Purged (total):

0.69

Replicate Type / Replicate ID:

MS/MSD / MW-04-156(20-25)_111825

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:55	0	200	mL/min	9.54	7.25	0.854	4.57	1.92	12	-70.3	Clear	No Odor
12:00	5	200	mL/min	9.54	7.22	0.866	3.52	1.11	12.4	-52	Clear	No Odor
12:05	10	200	mL/min	10.23	7.25	0.877	2.92	0.33	12.4	-122.9	Clear	No Odor
12:10	15	200	mL/min	10.54	7.25	0.876	2.95	0.31	12.4	-126.4	Clear	No Odor
12:15	20	200	mL/min	10.35	7.27	0.882	2.56	0.22	11.9	-113.4	Clear	No Odor
12:20	25	200	mL/min	10.40	7.26	0.883	2.44	0.21	12	-114.7	Clear	No Odor
12:25	30	200	mL/min	10.53	7.27	0.899	2.3	0.15	12.2	-114.1	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

9

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-04-100(9-14)

Date(s):2025-11-19

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLEAR, T:42.4 °F, rH:60%, Clouds: 0%, Wind:1.99mph W

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):9.00-14.00

Casing Diameter (in):1.00

Well Casing Material:NA

Static Water Level (ft-bmp):8.72

Total Depth (ft-bmp):17.65

Water Column(ft):8.93

Liters in Well:1.38

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:13:15

Total Volume Purged (liters):9

Sample ID:SB-04-100(9-14)_111925

Sample Time:14:05

Purge End Time:14:04

Well Volumes Purged (total):6.52

Replicate Type / Replicate ID:Duplicate / DUP-02

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	200	mL/min	9.32	9.17	0.539	77.87	1.27	13.6	-77.5	Clear	No Odor
13:25	5	200	mL/min	9.25	9.39	0.558	28.2	0.81	13.5	-104.2	Clear	No Odor
13:30	10	200	mL/min	9.25	9.41	0.559	28.81	0.3	13.5	-105.3	Clear	No Odor
13:35	15	200	mL/min	9.38	9.45	0.562	17.49	0.17	13.6	-115	Clear	No Odor
13:40	20	200	mL/min	9.38	9.45	0.561	16.28	0.16	13.8	-116	Clear	No Odor
13:45	25	200	mL/min	9.38	9.46	0.555	13.14	0.09	13.6	-119.2	Clear	No Odor
13:50	30	200	mL/min	9.38	9.5	0.551	10.38	0.08	13.9	-119.4	Clear	No Odor
13:55	35	200	mL/min	9.38	9.56	0.539	10.56	0.04	13.9	-117.8	Clear	No Odor
14:00	40	200	mL/min	9.38	9.56	0.54	10.7	0.04	14	-117.8	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

6

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-86(15-20)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:36.63 °F, rH:68%, Clouds: 100%, Wind:4mph E

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

15.00-20.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

4.2

Total Depth (ft-bmp):

12.55

Water Column(ft):

8.35

Liters in Well:

5.16

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

7.2

Sample ID:

MW-09-86(15-20)

Sample Time:

13:00

Purge End Time:

13:02

Well Volumes Purged (total):

1.40

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:55	0	120	mL/min	4.45	7.27	1.65	50	3.4	14.2	-158.9	Clear	No Odor
12:00	5	120	mL/min	5.00	7.1	1.67	26	0.93	14.3	-155.8	Clear	No Odor
12:05	10	120	mL/min	5.60	7.11	1.67	14	0.28	14	-157.1	Clear	No Odor
12:10	15	120	mL/min	5.90	7.11	1.66	27	0.15	14.6	-160	Clear	No Odor
12:15	20	120	mL/min	5.95	7.15	1.68	135	0.06	14.6	-166.4	Clear	No Odor
12:20	25	120	mL/min	6.00	7.42	1.76	143	0.01	15	-186.2	Clear	No Odor
12:25	30	120	mL/min	6.05	7.38	1.76	85	0	14.8	-184.4	Clear	No Odor
12:30	35	120	mL/min	6.10	7.45	1.77	113	0	15	-203	Clear	No Odor
12:35	40	120	mL/min	6.10	7.49	1.61	160	0	14.8	-186.7	Clear	No Odor
12:40	45	120	mL/min	6.10	7.38	1.47	125	0	14.9	-179.3	Clear	No Odor
12:45	50	120	mL/min	6.10	7.35	1.48	125	0	14.9	-177	Clear	No Odor
12:50	55	120	mL/min	6.10	7.27	1.45	122	0	15	-170	Clear	No Odor
12:55	60	120	mL/min	6.10	7.23	1.47	91	0.01	15	-167	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-87(10-20)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:34.2 °F, rH:72%, Clouds: 100%, Wind:5.75mph E-NE

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

10.00-20.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

4.15

Total Depth (ft-bmp):

19.25

Water Column(ft):

15.1

Liters in Well:

9.33

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

3.6

Sample ID:

MW-09-84(10-20)

Sample Time:

11:40

Purge End Time:

11:40

Well Volumes Purged (total):

0.39

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	120	mL/min	4.20	7.49	1.245	7.91	1.2	14	-160.3	Clear	No Odor
11:10	5	120	mL/min	4.70	7.47	1.255	4.4	0.88	14	-163.2	Clear	No Odor
11:15	10	120	mL/min	5.10	7.45	1.284	3.7	0.35	14.3	-172.7	Clear	No Odor
11:20	15	120	mL/min	5.25	7.46	1.307	3.7	0.21	14.4	-177.3	Clear	No Odor
11:25	20	120	mL/min	5.40	7.48	1.33	3.6	0.11	14.4	-182	Clear	No Odor
11:30	25	120	mL/min	5.55	7.48	1.355	3.7	0.06	14.5	-184.2	Clear	No Odor
11:35	30	120	mL/min	5.65	7.5	1.359	3	0.04	14.6	-185.6	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-87(4-7)

Date(s): 2025-11-18

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: SNOW, T:31.42 °F, rH:80%, Clouds: 100%, Wind:6.91mph E

Field Technician: Patrick Labadie

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 4.00-7.00

Casing Diameter (in): 2.00

Well Casing Material:

Static Water Level (ft-bmp): 2.7

Total Depth (ft-bmp): 6.7

Water Column(ft): 4

Liters in Well: 2.47

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: NA

Total Volume Purged (liters): 3.6

Sample ID: MW-08-87(4-7)_111825

Sample Time: 10:45

Purge End Time: 10:50

Well Volumes Purged (total): 1.46

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:10	0	120	mL/min	2.70	7.44	1.559	20	3.5	11.9	36.2	Clear	No Odor
10:15	5	120	mL/min	2.85	7.38	1.57	9	0.42	11.6	-159.3	Clear	No Odor
10:20	10	120	mL/min	2.90	7.51	1.552	4.75	0.17	11.5	-176.9	Clear	No Odor
10:25	15	120	mL/min	2.95	7.62	1.54	3.6	0.11	11.6	-184.3	Clear	No Odor
10:30	20	120	mL/min	3.00	7.67	1.53	2.97	0.06	11.4	-190.8	Clear	No Odor
10:35	25	120	mL/min	3.05	7.68	1.53	4.2	0.03	11.6	-192.9	Clear	No Odor
10:40	30	120	mL/min	3.05	7.73	1.534	3.3	0.01	11.6	-196.8	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

6

15 mL

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:	MW-09-93(14-19)	Date(s):	2025-11-18	Work Order(s):	2025 PFAS GWS		
Client:	RACER	Facility:	Buick City	Facility Location:	1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US	Area:	Buick City
Weather:	SNOW, T:31.08 °F, rH:80%, Clouds: 100%, Wind:4.61mph E			Field Technician:	Kaylee DeRoo		
Measuring Pt. Description:	Top of Inner Casing	Screen Setting (ft-bgs):	-	Casing Diameter (in):	NA	Well Casing Material:	NA
Static Water Level (ft-bmp):	2.57	Total Depth (ft-bmp):	17.6	Water Column(ft):	15.03	Liters in Well:	NA
Depth to Product (ft-bmp):	NA	Pump Intake Depth(ft-bmp):	NA	Purge Method:	Low Flow	Purging Equipment:	Peristaltic Pump
Purge Start Time:	10:00	Total Volume Purged (liters):	11	Sample ID:	MW-09-93(14-19)_111825	Sample Time:	11:00
Purge End Time:	10:59	Well Volumes Purged (total):	NA	Replicate Type / Replicate ID:	N/A	Water Quality Meter/ ID:	YSI ProPlus / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	200	mL/min	2.77	6.93	1.075	144.56	2.71	13.3	132.4	Clear	No Odor
10:10	5	200	mL/min	2.77	7.09	1.033	146.5	1.41	12.2	79.5	Clear	No Odor
10:15	10	200	mL/min	2.83	7.3	1.047	84.3	0.31	12.5	-84.2	Clear	No Odor
10:20	15	200	mL/min	2.85	7.31	1.047	86.5	0.31	12.4	-88.6	Clear	No Odor
10:25	20	200	mL/min	3.03	7.23	1.074	37.53	0.14	14.3	-128.3	Clear	No Odor
10:30	25	200	mL/min	3.08	7.34	1.077	31.82	0.14	14	-130.7	Clear	No Odor
10:35	30	200	mL/min	2.93	7.38	1.084	19.34	0.13	13.5	-145.1	Clear	No Odor
10:40	35	200	mL/min	2.97	7.38	1.084	17.65	0.13	13.5	-145.9	Clear	No Odor
10:45	40	200	mL/min	3.00	7.39	1.088	12.05	0.1	13.7	-156.6	Clear	No Odor
10:50	45	200	mL/min	3.00	7.39	1.088	12.1	0.1	13.7	-157.2	Clear	No Odor
10:55	50	200	mL/min	3.00	7.41	1.092	12.3	0.08	13.8	-163.2	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-93(20-25)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:36.72 °F, rH:66%, Clouds: 100%, Wind:11.5mph E-NE

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

-

Casing Diameter (in):

NA

Well Casing Material:

NA

Static Water Level (ft-bmp):

2.55

Total Depth (ft-bmp):

22.2

Water Column(ft):

19.65

Liters in Well:

NA

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

12:30

Total Volume Purged (liters):

9

Sample ID:

MW-09-93(20-25)_111825

Sample Time:

13:20

Purge End Time:

13:19

Well Volumes Purged (total):

NA

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	200	mL/min	3.55	7.8	0.299	226.83	0.56	14.6	-190.4	Clear	No Odor
12:40	5	200	mL/min	3.65	7.82	0.303	204.36	0.4	14	-200.9	Clear	No Odor
12:45	10	200	mL/min	3.65	7.83	0.415	129.14	0.15	13.5	-227	Clear	No Odor
12:50	15	200	mL/min	3.65	7.83	0.435	124.3	0.14	13.5	-228.3	Clear	No Odor
12:55	20	200	mL/min	3.65	7.71	0.785	29.16	0.06	13.7	-233.4	Clear	No Odor
13:00	25	200	mL/min	3.65	7.71	0.802	27.69	0.06	13.6	-233.5	Clear	No Odor
13:05	30	200	mL/min	3.65	7.66	0.987	11.61	0.04	14	-232.3	Clear	No Odor
13:10	35	200	mL/min	3.65	7.65	0.991	11.84	0.04	14	-238.7	Clear	No Odor
13:15	40	200	mL/min	3.70	7.63	1.011	10.67	0.02	14	-239.3	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-84-48(7-12)

Date(s): 2025-11-18

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:37.94 °F, rH:65%, Clouds: 100%, Wind:4.61mph E

Field Technician: Patrick Labadie

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 7.00-12.00

Casing Diameter (in): 2.00

Well Casing Material:

Static Water Level (ft-bmp): 6.1

Total Depth (ft-bmp): 15.15

Water Column(ft): 9.05

Liters in Well: 5.59

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: NA

Total Volume Purged (liters): 3.6

Sample ID: MW-84-48(7-12)

Sample Time: 15:30

Purge End Time: 15:42

Well Volumes Purged (total): 0.64

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00	0	120	mL/min	6.25	7.43	0.911	13.39	4.3	13.2	-20	Clear	No Odor
15:05	5	120	mL/min	6.90	6.92	0.905	6.18	0.37	13.6	12.1	Clear	No Odor
15:10	10	120	mL/min	7.00	6.92	0.904	3.83	0.23	13.6	15.7	Clear	No Odor
15:15	15	120	mL/min	7.10	6.92	0.903	3.7	0.12	13.7	19	Clear	No Odor
15:20	20	120	mL/min	7.25	6.92	0.903	3.9	0.07	13.8	20.4	Clear	No Odor
15:25	25	120	mL/min	7.25	6.93	0.904	3.6	0.05	13.9	21.4	Clear	No Odor
15:30	30	120	mL/min	7.25	6.93	0.904	3.04	0.03	13.9	22.1	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

6

15 mL

None

Comments:

None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-59(17-27)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:37.53 °F, rH:65%, Clouds: 100%, Wind:4.61mph E-SE

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

17.00-27.00

Casing Diameter (in):

2.00

Well Casing Material:

Static Water Level (ft-bmp):

10.25

Total Depth (ft-bmp):

28.8

Water Column(ft):

18.55

Liters in Well:

11.46

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

3.6

Sample ID:

MW-84-59(17-27)

Sample Time:

14:30

Purge End Time:

14:45

Well Volumes Purged (total):

0.31

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	120	mL/min	10.30	7.41	1.29	248	3.68	14.8	-91.7	Clear	No Odor
14:00	5	120	mL/min	10.30	7.24	1.35	170	0.42	15	-112.7	Clear	No Odor
14:05	10	120	mL/min	10.30	7.25	1.35	240	0.23	14.8	-117.3	Clear	No Odor
14:10	15	120	mL/min	10.30	7.26	1.35	51	0.56	14.9	-110.1	Clear	No Odor
14:15	20	120	mL/min	10.30	7.26	1.35	14	0.16	15	-111.7	Clear	No Odor
14:20	25	120	mL/min	10.30	7.27	1.35	14	0.1	14.8	-112.8	Clear	No Odor
14:25	30	120	mL/min	10.30	7.27	1.35	14	0.07	14.8	-113.8	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-04-64(19-24)

Date(s):2025-11-18

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather: CLOUDS, T:37.49 °F, rH:65%, Clouds: 100%, Wind:4.61mph E-SE

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):19.00-24.00

Casing Diameter (in):2.00

Well Casing Material:NA

Static Water Level (ft-bmp):8.28

Total Depth (ft-bmp):25.11

Water Column(ft):16.83

Liters in Well:10.4

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:13:55

Total Volume Purged (liters):12

Sample ID:SB-04-64(19-24)

Sample Time:15:00

Purge End Time:14:59

Well Volumes Purged (total):1.15

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:00	0	200	mL/min	8.75	7.46	1.032	127.58	2.27	12.6	-57	Clear	No Odor
14:05	5	200	mL/min	8.75	7.28	1.038	31.35	0.2	13.1	-82.9	Clear	No Odor
14:10	10	200	mL/min	8.75	7.29	1.042	31.36	0.18	12.8	-86	Clear	No Odor
14:15	15	200	mL/min	8.75	7.31	1.032	22.96	0.21	11.2	-101.8	Clear	No Odor
14:20	20	200	mL/min	8.75	7.31	1.036	21.68	0.21	11.1	-104.3	Clear	No Odor
14:25	25	200	mL/min	8.75	7.29	1.042	22.17	0.1	12.4	-121.7	Clear	No Odor
14:30	30	200	mL/min	8.75	7.29	1.025	23.06	0.09	12.5	-123.4	Clear	No Odor
14:35	35	200	mL/min	8.75	7.3	1.022	25.33	0.06	12.5	-135.8	Clear	No Odor
14:40	40	200	mL/min	8.75	7.29	1.021	25.75	0.06	12.5	-136.7	Clear	No Odor
14:45	45	200	mL/min	8.75	7.3	1.014	30.35	0.05	12.1	-147	Clear	No Odor
14:50	50	200	mL/min	8.75	7.3	1.011	30.78	0.05	12.2	-147.7	Clear	No Odor
14:55	55	200	mL/min	8.75	7.33	1.004	30.74	0.03	12.2	-156.7	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:None

Well Information:

Well Labeled Properly:NA

Is Well in Good Condition?NA

Well Inspection Comments:NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-88(19.5-24.5)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:36.21 °F, rH:69%, Clouds: 100%, Wind:4mph NE

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

19.50-24.50

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

2.92

Total Depth (ft-bmp):

24.67

Water Column(ft):

21.75

Gallons in Well:

3.55

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:40

Total Volume Purged (gallons):

1.32

Sample ID:

NA

Sample Time:

NA

Purge End Time:

12:10

Well Volumes Purged (total):

0.37

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	200	mL/min	2.920	7.42	1.828	32	3.43	13.4	7	Clear	No Odor
11:55	5	200	mL/min	2.920	7.45	1.851	26	3.08	13.2	17.6	Clear	No Odor
12:00	10	200	mL/min	2.920	7.45	1.845	26	2.95	13.6	17.3	Clear	No Odor
12:05	15	200	mL/min	2.920	7.44	1.844	27	2.78	13.8	7.4	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-88(5-15)

Date(s): 2025-11-18

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:37.04 °F, rH:66%, Clouds: 100%, Wind:11.5mph E-NE

Field Technician: Donald Richmond

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 5.00-15.00

Casing Diameter (in): 2.00

Well Casing Material: NA

Static Water Level (ft-bmp): 2.35

Total Depth (ft-bmp): 13.26

Water Column(ft): 10.91

Gallons in Well: 1.78

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 12:15

Total Volume Purged (gallons): 2.64

Sample ID: NA

Sample Time: NA

Purge End Time: 13:10

Well Volumes Purged (total): 1.48

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:20	0	200	mL/min	2.350	6.96	0.862	621	0.86	13.7	-21.8	Clear	No Odor
12:25	5	200	mL/min	2.350	6.96	0.855	78	0.58	13.6	-20.4	Clear	No Odor
12:30	10	200	mL/min	2.350	6.96	0.854	27	0.52	13.7	-7.8	Clear	No Odor
12:35	15	200	mL/min	2.350	6.96	0.856	28	0.48	13.6	-5.7	Clear	No Odor
12:40	20	200	mL/min	2.350	6.96	0.855	18	0.47	13.4	-8	Clear	No Odor
12:45	25	200	mL/min	2.350	6.96	0.856	17.33	0.46	13.3	-15	Clear	No Odor
12:50	30	200	mL/min	2.350	6.95	0.856	17	0.45	13.3	-20.5	Clear	No Odor
12:55	35	200	mL/min	2.350	6.95	0.858	13.64	0.45	13.3	-27.7	Clear	No Odor
13:00	40	200	mL/min	2.350	6.95	0.859	10	0.44	13.2	-32.7	Clear	No Odor
13:05	45	200	mL/min	2.350	6.94	0.86	10	0.43	13.5	-36.8	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-89(5-10)

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

SNOW, T:33.24 °F, rH:77%, Clouds: 100%, Wind:1.01mph N

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

5.00-10.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

2.9

Total Depth (ft-bmp):

9.82

Water Column(ft):

6.92

Gallons in Well:

1.13

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

10:30

Total Volume Purged (gallons):

1.849

Sample ID:

NA

Sample Time:

NA

Purge End Time:

11:05

Well Volumes Purged (total):

1.64

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:40	0	200	mL/min	2.900	6.88	0.961	18.75	2.55	13.1	-39.7	Clear	No Odor
10:45	5	200	mL/min	2.900	6.84	0.966	26	1.72	13.4	-47.1	Clear	No Odor
10:50	10	200	mL/min	2.900	6.85	0.972	83	1.08	13.7	-56.8	Clear	No Odor
10:55	15	200	mL/min	2.900	6.85	0.979	87	0.92	13.7	-61.1	Clear	No Odor
11:05	25	200	mL/min	9.820	6.93	0.895	861	2.79	13.3	-61.3	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-08

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:38.1 °F, rH:65%, Clouds: 100%, Wind:8.05mph E-NE

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

3.80-13.80

Casing Diameter (in):

2.00

Well Casing Material:

,PVC

Static Water Level (ft-bmp):

6.97

Total Depth (ft-bmp):

13.87

Water Column(ft):

6.9

Gallons in Well:

1.13

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

15:25

Total Volume Purged (gallons):

1.32

Sample ID:

NA

Sample Time:

NA

Purge End Time:

15:55

Well Volumes Purged (total):

1.17

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:30	0	200	mL/min	6.970	6.89	1.021	18.36	0.74	14.7	-127.6	Clear	No Odor
15:35	5	200	mL/min	6.970	6.87	0.991	14.85	0.6	14.8	-127.3	Clear	No Odor
15:40	10	200	mL/min	6.970	6.88	0.982	10.27	0.51	14.7	-129.8	Clear	No Odor
15:45	15	200	mL/min	6.970	6.9	0.97	6.69	0.48	14.5	-132.7	Clear	No Odor
15:50	20	200	mL/min	6.970	6.9	0.979	5	0.46	14.5	-134.8	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-55S

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:37.53 °F, rH:65%, Clouds: 100%, Wind:4.61mph E-SE

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

5.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

8.2

Total Depth (ft-bmp):

14.25

Water Column(ft):

6.05

Gallons in Well:

0.99

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

13:50

Total Volume Purged (gallons):

1.32

Sample ID:

NA

Sample Time:

NA

Purge End Time:

14:20

Well Volumes Purged (total):

1.33

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	200	mL/min	8.200	6.58	1.09	41	1.04	14.4	-97	Clear	No Odor
14:00	5	200	mL/min	8.200	6.55	1.109	15	0.56	14.6	-109	Clear	No Odor
14:05	10	200	mL/min	8.200	6.58	1.111	8.68	0.46	14.7	-108.8	Clear	No Odor
14:10	15	200	mL/min	8.200	6.58	1.112	6.99	0.45	14.6	-108	Clear	No Odor
14:15	20	200	mL/min	8.200	6.6	1.117	8.38	0.42	14.7	-108.6	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

9

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-55DR

Date(s):

2025-11-18

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:37.92 °F, rH:65%, Clouds: 100%, Wind:4.61mph E

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

-

Casing Diameter (in):

NA

Well Casing Material:

NA

Static Water Level (ft-bmp):

8

Total Depth (ft-bmp):

16.74

Water Column(ft):

8.74

Gallons in Well:

NA

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

14:35

Total Volume Purged (gallons):

1.584

Sample ID:

NA

Sample Time:

NA

Purge End Time:

15:10

Well Volumes Purged (total):

NA

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:45	0	200	mL/min	8.000	6.74	4.345	37	1.23	14.3	-123.4	Clear	No Odor
14:50	5	200	mL/min	8.000	6.77	4.155	22	0.59	14.6	-127.2	Clear	No Odor
14:55	10	200	mL/min	8.000	6.77	3.827	9.55	0.49	14.6	-128.7	Clear	No Odor
15:00	15	200	mL/min	8.000	6.76	3.742	6.15	0.45	14.7	-129	Clear	No Odor
15:05	20	200	mL/min	14.700	6.76	3.696	4.72	0.41	14.7	-129.6	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-93(4-9)

Date(s): 2025-11-18

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:34.2 °F, rH:72%, Clouds: 100%, Wind:5.75mph E-NE

Field Technician: Kaylee DeRoo

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): -

Casing Diameter (in): NA

Well Casing Material: NA

Static Water Level (ft-bmp): 2.33

Total Depth (ft-bmp): 8.3

Water Column(ft): 5.97

Liters in Well: NA

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 11:10

Total Volume Purged (liters): 13

Sample ID: MW-09-93(4-9)_111825

Sample Time: 12:20

Purge End Time: 12:19

Well Volumes Purged (total): NA

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	200	mL/min	3.10	8.01	0.623	536.3	1.86	12.5	-192.3	Clear	No Odor
11:20	5	200	mL/min	3.25	7.43	0.478	103.14	0.46	12.5	-193.1	Clear	No Odor
11:25	10	200	mL/min	3.27	7.43	0.485	95.34	0.51	12.3	-190.3	Clear	No Odor
11:30	15	200	mL/min	5.20	7.43	0.528	94.4	1.48	12	-181.4	Clear	No Odor
11:35	20	200	mL/min	5.23	7.42	0.541	80.46	1.74	12	-179	Clear	No Odor
11:40	25	200	mL/min	4.48	7.43	0.581	57.4	2.26	11.3	-161.8	Clear	No Odor
11:45	30	200	mL/min	4.90	7.44	0.583	47.2	2.26	10.5	-160	Clear	No Odor
11:50	35	200	mL/min	5.20	7.31	0.69	180.6	2.37	12.7	-155.8	Clear	No Odor
11:55	40	200	mL/min	5.25	7.31	0.692	126.5	2.46	12.7	-154.8	Clear	No Odor
12:00	45	200	mL/min	5.95	7.39	0.746	78.87	3	12.9	-147.4	Clear	No Odor
12:05	50	200	mL/min	5.97	7.4	0.754	111.8	3.04	13.1	-147	Clear	No Odor
12:10	55	200	mL/min	5.97	7.41	0.757	118.3	3	13.2	-147.7	Clear	No Odor
12:15	60	200	mL/min	6.02	7.41	0.753	112.4	3	13.3	-155.7	Clear	No Odor

Constituent Sampled	Container	Number	Volume	Preservative
PFAS	HDPE Plastic	3	15 mL	None

Comments: Stabilized after 1 hour of purging with turbidity >50 NTU.

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:SB-04-26(5-10)

Date(s):2025-11-17

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather: CLOUDS, T:42.93 °F, rH:47%, Clouds: 20%, Wind:10.36mph NW

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):5.00-10.00

Casing Diameter (in):2.00

Well Casing Material:NA

Static Water Level (ft-bmp):2.13

Total Depth (ft-bmp):9.23

Water Column(ft):7.1

Liters in Well:4.39

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:14:55

Total Volume Purged (liters):7

Sample ID:SB-04-26(5-10)_111725

Sample Time:15:35

Purge End Time:15:34

Well Volumes Purged (total):1.59

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00	0	200	mL/min	2.13	7.06	0.781	138.5	1.28	14.4	22.1	Clear	No Odor
15:05	5	200	mL/min	2.13	7.06	0.785	9.33	0.19	14.6	-32	Clear	No Odor
15:10	10	200	mL/min	2.13	7.06	0.785	6.4	0.48	14.6	-32.8	Clear	No Odor
15:15	15	200	mL/min	2.13	7.07	0.788	3.41	0.13	13.5	-40.7	Clear	No Odor
15:20	20	200	mL/min	2.13	7.08	0.791	2.5	0.13	14.3	-41.1	Clear	No Odor
15:25	25	200	mL/min	2.13	7.05	0.787	1.92	0.07	14.3	-47.5	Clear	No Odor
15:30	30	200	mL/min	2.13	7.05	0.786	1.9	0.07	14.3	-47.9	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:04-160

Date(s):2025-11-17

Work Order(s):2025 PFAS GWS

Client:RACER

Facility:Buick City

Facility Location:1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:Buick City

Weather:CLEAR, T:42.1 °F, rH:47%, Clouds: 0%, Wind:13.8mph W-NW

Field Technician:Kaylee DeRoo

Measuring Pt. Description:Top of Inner Casing

Screen Setting (ft-bgs):15.00-22.00

Casing Diameter (in):2.00

Well Casing Material:NA

Static Water Level (ft-bmp):3.95

Total Depth (ft-bmp):21.08

Water Column(ft):17.13

Liters in Well:10.58

Depth to Product (ft-bmp):NA

Pump Intake Depth(ft-bmp):NA

Purge Method:Low Flow

Purging Equipment:Peristaltic Pump

Purge Start Time:13:35

Total Volume Purged (liters):10

Sample ID:04-160_111725

Sample Time:14:30

Purge End Time:14:29

Well Volumes Purged (total):0.95

Replicate Type / Replicate ID:N/A

Water Quality Meter/ ID:YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:40	0	200	mL/min	4.60	7.47	0.519	34.3	2.25	14.9	4	Clear	No Odor
13:45	5	200	mL/min	4.60	7.43	0.518	34.88	2.17	14.9	-7	Clear	No Odor
13:50	10	200	mL/min	4.65	7.26	0.553	21.63	1.01	14.6	-53	Clear	No Odor
13:55	15	200	mL/min	4.65	7.26	0.554	18.83	1.01	14.7	-53.6	Clear	No Odor
14:00	20	200	mL/min	4.65	7.25	0.556	17.8	1.02	14.7	-54.3	Clear	No Odor
14:05	25	200	mL/min	4.70	7.21	0.567	19.32	0.84	14.7	-61.4	Clear	No Odor
14:10	30	200	mL/min	4.70	7.21	0.568	17.85	0.82	14.7	-61.9	Clear	No Odor
14:15	35	200	mL/min	4.70	7.16	0.578	13.09	0.66	14.5	-66	Clear	No Odor
14:20	40	200	mL/min	4.70	7.16	0.577	13.55	0.65	14.6	-66.7	Clear	No Odor
14:25	45	200	mL/min	4.70	7.15	0.585	12.35	0.6	14.7	-70.3	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments:None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-04-159(4-9)

Date(s): 2025-11-17

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:40.8 °F, rH:49%, Clouds: 75%, Wind:18.41mph W-NW

Field Technician: Kaylee DeRoo

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): -

Casing Diameter (in): NA

Well Casing Material: PVC

Static Water Level (ft-bmp): 2.57

Total Depth (ft-bmp): 8.58

Water Column(ft): 6.01

Liters in Well: NA

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 12:20

Total Volume Purged (liters): 7

Sample ID: MW-04-159(4-9)_111725

Sample Time: 13:00

Purge End Time: 12:59

Well Volumes Purged (total): NA

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:25	0	200	mL/min	2.60	7.44	0.974	11.97	2.01	13.8	90.9	Clear	No Odor
12:30	5	200	mL/min	2.60	7.25	0.973	12.35	1.08	13.7	97.6	Clear	No Odor
12:35	10	200	mL/min	2.60	7	0.961	3.57	0.22	13.8	106.3	Clear	No Odor
12:40	15	200	mL/min	2.60	6.99	0.96	3.32	0.21	13.6	107.3	Clear	No Odor
12:45	20	200	mL/min	2.60	6.98	0.954	2.93	0.1	13.9	128.8	Clear	No Odor
12:50	25	200	mL/min	2.60	6.98	0.951	2.94	0.09	13.9	129.5	Clear	No Odor
12:55	30	200	mL/min	2.60	6.97	0.957	2.88	0.08	13.7	129.7	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

3

15 mL

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-52(10-15)

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:5.81 °C, rH:48%, Clouds: 20%, Wind:4.63m/s W-NW

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

10.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

11.3

Total Depth (ft-bmp):

17.8

Water Column(ft):

6.5

Liters in Well:

4.02

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

4.2

Sample ID:

MW-84-52

Sample Time:

15:45

Purge End Time:

15:50

Well Volumes Purged (total):

1.04

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:05	0	120	mL/min	13.30	6.85	1.043	122	2	13.9	-8.3	Clear	No Odor
15:10	5	120	mL/min	11.80	6.85	1.048	47	0.74	13.8	-28	Clear	No Odor
15:15	10	120	mL/min	11.80	6.85	1.048	25	0.42	13.6	-35.6	Clear	No Odor
15:20	15	120	mL/min	11.80	6.86	1.027	17	0.13	13.9	-40.9	Clear	No Odor
15:25	20	120	mL/min	11.80	6.86	1.025	13	0.1	14	-40.8	Clear	No Odor
15:30	25	120	mL/min	11.80	6.87	1.021	4.9	0.07	13.8	-39.2	Clear	No Odor
15:35	30	120	mL/min	11.80	6.87	1.013	4.5	0.05	13.9	-37.6	Clear	No Odor
15:40	35	120	mL/min	11.80	6.88	1	3.07	0.03	14	-36.7	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-84-56(10-15)

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:5.62 °C, rH:47%, Clouds: 0%, Wind:6.17m/s W-NW

Field Technician:

Patrick Labadie

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

10.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

13.95

Total Depth (ft-bmp):

19.5

Water Column(ft):

5.55

Liters in Well:

3.43

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

NA

Total Volume Purged (liters):

5.4

Sample ID:

MW-84-56_091725

Sample Time:

14:40

Purge End Time:

14:40

Well Volumes Purged (total):

1.57

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:50	0	120	mL/min	13.95	6.66	0.79	105	2.46	14.3	84.1	Clear	No Odor
13:55	5	120	mL/min	14.25	6.66	0.787	101	1.32	14.3	84.4	Clear	No Odor
14:00	10	120	mL/min	14.25	6.67	0.788	83	0.77	14.2	82.3	Clear	No Odor
14:05	15	120	mL/min	14.25	6.68	0.787	42	0.43	14.2	77.9	Clear	No Odor
14:10	20	120	mL/min	14.25	6.68	0.791	17	0.34	14.2	75.4	Clear	No Odor
14:15	25	120	mL/min	14.25	6.69	0.794	12	0.32	14.6	74.7	Clear	No Odor
14:20	30	120	mL/min	14.25	6.7	0.797	5.3	0.27	14.6	73.6	Clear	No Odor
14:25	35	120	mL/min	14.25	6.7	0.804	4.9	0.23	14.2	72	Clear	No Odor
14:30	40	120	mL/min	14.25	6.7	0.807	4.66	0.2	14.1	70	Clear	No Odor
14:35	45	120	mL/min	14.25	6.71	0.814	4.3	0.15	14	69.8	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-80(12-17)

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:39.49 °F, rH:52%, Clouds: 100%, Wind:11.5mph W-NW

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

12.00-17.00

Casing Diameter (in):

1.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

6.39

Total Depth (ft-bmp):

16.8

Water Column(ft):

10.41

Gallons in Well:

0.42

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:40

Total Volume Purged (gallons):

1.584

Sample ID:

NA

Sample Time:

NA

Purge End Time:

12:15

Well Volumes Purged (total):

3.77

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	200	mL/min	6.390	7.39	1.448	13.66	0.65	14.9	-156.1	Clear	No Odor
11:55	5	200	mL/min	6.390	7.4	1.433	10.65	0.61	15	-164.2	Clear	No Odor
12:00	10	200	mL/min	6.390	7.41	1.442	8.78	0.56	15	-169.9	Clear	No Odor
12:05	15	200	mL/min	6.390	7.42	1.448	7.55	0.52	14.9	-174.7	Clear	No Odor
12:10	20	200	mL/min	6.390	7.43	1.453	7.57	0.5	15.4	-176.3	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-09-81(14-19)

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:42.53 °F, rH:47%, Clouds: 20%, Wind:10.36mph NW

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

14.00-19.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

5

Total Depth (ft-bmp):

18.95

Water Column(ft):

13.95

Gallons in Well:

2.28

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

14:45

Total Volume Purged (gallons):

2.64

Sample ID:

NA

Sample Time:

NA

Purge End Time:

15:40

Well Volumes Purged (total):

1.16

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:50	0	200	mL/min	5.000	7.59	1.1	44	0.69	14.3	-116	Clear	No Odor
14:55	5	200	mL/min	5.000	7.56	1.098	37	0.6	14.5	-126.3	Clear	No Odor
15:00	10	200	mL/min	5.000	7.52	1.098	37.07	0.53	14.5	-134.3	Clear	No Odor
15:05	15	200	mL/min	5.000	7.5	1.097	58	0.48	14.7	-137.2	Clear	No Odor
15:10	20	200	mL/min	5.000	7.49	1.097	53	0.45	14.8	-138	Clear	No Odor
15:15	25	200	mL/min	5.000	7.45	1.097	26	0.41	14.7	-138.4	Clear	No Odor
15:20	30	200	mL/min	5.000	7.43	1.097	16	0.4	14.6	-139	Clear	No Odor
15:25	35	200	mL/min	5.000	7.41	1.094	13	0.4	14.8	-139.2	Clear	No Odor
15:30	40	200	mL/min	5.000	7.4	1.097	10	0.39	14.8	-139.6	Clear	No Odor
15:35	45	200	mL/min	5.000	7.39	1.096	9.48	0.38	14.8	-139.5	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments:

None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID: MW-09-81(5-10)

Date(s): 2025-11-17

Work Order(s): 2025 PFAS GWS

Client: RACER

Facility: Buick City

Facility Location: 1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area: Buick City

Weather: CLOUDS, T:42.1 °F, rH:47%, Clouds: 20%, Wind:10.36mph NW

Field Technician: Donald Richmond

Measuring Pt. Description: Top of Inner Casing

Screen Setting (ft-bgs): 5.00-10.00

Casing Diameter (in): 2.00

Well Casing Material: NA

Static Water Level (ft-bmp): 5.19

Total Depth (ft-bmp): 0.38

Water Column(ft): -4.81

Gallons in Well: -0.78

Depth to Product (ft-bmp): NA

Pump Intake Depth(ft-bmp): NA

Purge Method: Low Flow

Purging Equipment: Peristaltic Pump

Purge Start Time: 13:55

Total Volume Purged (gallons): 1.848

Sample ID: NA

Sample Time: NA

Purge End Time: 14:35

Well Volumes Purged (total): -2.37

Replicate Type / Replicate ID: N/A

Water Quality Meter/ ID: YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:05	0	200	mL/min	5.190	6.84	1.092	21	1.12	13.8	-12.9	Clear	No Odor
14:10	5	200	mL/min	5.190	6.87	1.087	13	0.76	14.2	-10.1	Clear	No Odor
14:15	10	200	mL/min	5.190	6.89	1.095	9.98	0.66	14.1	-9.4	Clear	No Odor
14:20	15	200	mL/min	5.190	6.91	1.097	5.67	0.54	14	-10	Clear	No Odor
14:25	20	200	mL/min	5.190	6.92	1.105	4.61	0.5	14.2	-11	Clear	No Odor
14:30	25	200	mL/min	5.190	6.93	1.105	4.05	0.47	14.2	-12.2	Clear	No Odor

Constituent Sampled

Container

Number

Volume

Preservative

PFAS

HDPE Plastic

6

15 mL

None

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-44

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:42.26 °F, rH:48%, Clouds: 0%, Wind:11.5mph W-NW

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

5.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

5.42

Total Depth (ft-bmp):

14.4

Water Column(ft):

8.98

Gallons in Well:

1.47

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

16:10

Total Volume Purged (gallons):

1.32

Sample ID:

NA

Sample Time:

NA

Purge End Time:

16:40

Well Volumes Purged (total):

0.90

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm°)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:15	0	200	mL/min	5.420	6.67	1.176	10.13	1.46	15.4	27	Clear	No Odor
16:20	5	200	mL/min	5.420	6.68	1.174	8.77	1.12	15.2	29.9	Clear	No Odor
16:25	10	200	mL/min	5.420	6.69	1.172	8.62	1.04	15.3	31.2	Clear	No Odor
16:30	15	200	mL/min	5.420	6.69	1.172	6.5	0.95	15.4	31.9	Clear	No Odor
16:35	20	200	mL/min	5.420	6.71	1.172	4.88	0.86	15.2	33.1	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

3

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

RFI-09-52

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLEAR, T:41.77 °F, rH:47%, Clouds: 0%, Wind:13.8mph W-NW

Field Technician:

Donald Richmond

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

5.00-15.00

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

6.08

Total Depth (ft-bmp):

14.31

Water Column(ft):

8.23

Gallons in Well:

1.34

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

NA

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

13:00

Total Volume Purged (gallons):

1.584

Sample ID:

NA

Sample Time:

NA

Purge End Time:

13:35

Well Volumes Purged (total):

1.18

Replicate Type / Replicate ID:

N/A

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed? Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:10	0	200	mL/min	6.080	7.2	1.482	63	1.02	14.3	-113.5	Clear	No Odor
13:15	5	200	mL/min	6.080	7.18	1.477	31.39	0.69	13.7	-117	Clear	No Odor
13:20	10	200	mL/min	6.080	7.17	1.477	11.52	0.55	14.3	-120.2	Clear	No Odor
13:25	15	200	mL/min	6.080	7.17	1.477	11.69	0.51	13.9	-122.5	Clear	No Odor
13:30	20	200	mL/min	6.080	7.17	1.463	7.52	0.47	14.4	-122.6	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

6

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Location ID:

MW-04-159(18-23)

Date(s):

2025-11-17

Work Order(s):

2025 PFAS GWS

Client:

RACER

Facility:

Buick City

Facility Location:

1107 E Stewart Ave Flint, MI 48505, Flint, MI, 48505, US

Area:

Buick City

Weather:

CLOUDS, T:39.18 °F, rH:55%, Clouds: 100%, Wind:11.5mph W-NW

Field Technician:

Kaylee DeRoo

Measuring Pt. Description:

Top of Inner Casing

Screen Setting (ft-bgs):

-

Casing Diameter (in):

2.00

Well Casing Material:

NA

Static Water Level (ft-bmp):

5.72

Total Depth (ft-bmp):

22.88

Water Column(ft):

17.16

Liters in Well:

10.6

Depth to Product (ft-bmp):

NA

Pump Intake Depth(ft-bmp):

20

Purge Method:

Low Flow

Purging Equipment:

Peristaltic Pump

Purge Start Time:

11:05

Total Volume Purged (liters):

8

Sample ID:

MW-04-159(18-23)_111725

Sample Time:

11:50

Purge End Time:

11:49

Well Volumes Purged (total):

0.75

Replicate Type Duplicate / DUP-01 / Replicate ID:

Water Quality Meter/ ID:

YSI ProPlus / NA

Scope of work completed?

Yes

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm ^e)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:10	0	200	mL/min	6.23	6.9	0.949	159.5	1.8	14.7	30.5	Clear	No Odor
11:15	5	200	mL/min	6.33	6.98	0.972	52.85	0.973	14.1	62.39	Clear	No Odor
11:20	10	200	mL/min	6.48	7.01	0.968	28.54	0.37	14.1	24.86	Clear	No Odor
11:25	15	200	mL/min	6.64	7.04	0.95	8.73	0.21	14.4	-55.1	Clear	No Odor
11:30	20	200	mL/min	6.65	7.05	0.947	7.14	0.21	14.5	-56.2	Clear	No Odor
11:35	25	200	mL/min	6.65	7.1	0.958	4.85	0.15	15.1	-66	Clear	No Odor
11:40	30	200	mL/min	6.65	7.1	0.958	4.7	0.17	15	-66.2	Clear	No Odor
11:45	35	200	mL/min	6.65	7.14	0.969	4.17	0.17	15.1	-69.1	Clear	No Odor

Constituent Sampled

PFAS

Container

HDPE Plastic

Number

6

Volume

15 mL

Preservative

None

Comments: None

Well Information:

Well Labeled Properly:

NA

Is Well in Good Condition?

NA

Well Inspection Comments:

NA

No Photos Found

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli