## Lauridsen, Keld B - DNR

**From:** Savale, Michael <Michael.Savale@tetratech.com>
**Sent:** Tuesday, October 26, 2021 4:31 PM
**To:** Lauridsen, Keld B - DNR
**Cc:** Christopher, Michael L
**Subject:** Site Investigation Sample Results Notification - Ashview Terrace Apartments, BRRTS #: 02-05-564043
**Attachments:** 20211026_Ashview Terrace Apartments PFAS Summary Letter_BRRTS # 02-05-564043 (002).pdf



Mr. Lauridsen,

Please find the attached summary letter which includes PFAS analytical results from groundwater samples collected at the Ashview Terrace Apartments, BRRTS #: 02-05-564043, and the written notification that was submitted to the property owner.

Please feel free to contact me if you have any questions regarding this submittal.

Thank you,
Mike Savale

**Mike Savale** | Senior Project Geologist
Mobile **(810) 923-8076** | Fax **(734) 213-5008** | michael.savale@tetratech.com

**Tetra Tech** | *Leading with Science®* | ECA
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Georgia-Pacific LLC

133 Peachtree Street NE (30303-1847)
Atlanta, Georgia 30303
(281) 947-0083 office

michael.christopher@gapac.com

October 26, 2021

**Submitted via Email**
Mr. Keld Lauridsen
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

**RE: Georgia-Pacific LLC (GP) - Submission of Analytical Results**
**Ashview Terrace Apartments, BRRTS #: 02-05-564043**

Dear Mr. Lauridsen:

Georgia-Pacific LLC (GP) conducted groundwater sampling at the Ashview Terrace Apartments (BRRTS #: 02-05-564043) to confirm the groundwater analytical results obtained as part of the May 2021 PFAS investigation. The groundwater sampling was completed by Tetra Tech and in accordance with the November 17, 2020 Site Investigation Work Plan. Please see the attached laboratory analytical data from this sampling effort at the Ashview Terrace Apartments and the written notification submitted to the property owner.

On September 20, 2021, groundwater samples were collected from the three groundwater monitoring wells installed at the Ashview Terrace Apartments as part of the May 2021 PFAS investigation. The groundwater samples were submitted to Vista Analytical Laboratory and analyzed for the 33 PFAS on the Wisconsin DNR PFAS List 1.1.21 found in the Wisconsin DNR PFAS Updates, March 1, 2021, via a modified EPA Method 537 using isotope dilution. Analytical results from these samples were received on October 18, 2021.

PFAS was detected in all three groundwater samples collected. In groundwater sample MW-21-03-210920, PFOA, PFOS, and PFOSA were detected with a combined total of 26.95 nanograms per liter (ng/L), above the Wisconsin DHS recommended combined enforcement standard of 20 ng/L for these compounds. In the remaining two groundwater samples analyzed (sample IDs: MW-21-01-210920 and MW-21-02-210920), PFAS concentration were below the Wisconsin DHS recommended enforcement standards. Overall, these analytical results are consistent with the May 2021 results.

GP will provide a Groundwater Confirmation Sampling Summary Report that will include a summary of the groundwater sampling activities and analytical results.

If you have any questions or concerns about the groundwater results disclosed herein, please do not hesitate to contact me via email at michael.christopher@gapac.com or by phone at 281-947-0083.

Sincerely,

Michael Christopher

Michael Christopher

cc: Michael Hassett – GP
Greg Council – Tetra Tech
Michael Savale – Tetra Tech

# Georgia-Pacific LLC (GP) - Submission of Analytical Results

# Ashview Terrace Apartments, BRRTS #: 02-05-564043

## Attachment 1

## Vista Analytical Laboratory

October 18, 2021

**Vista Work Order No. 2109262**

Mr. Michael Savale
Tetra Tech
710 Avis Drive, Suite 100
Ann Arbor, MI 48108

Dear Mr. Savale,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on September 25, 2021 under your Project Name 'Ashview Terrace PFAS'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Jamie Fox
Laboratory Director

**Vista Work Order No. 2109262**
**Case Narrative**

**Sample Condition on Receipt:**

Three aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

**Analytical Notes:**

**PFAS Isotope Dilution Method**

The samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery for HFPO-DA was greater than 130% in one of the continuing calibration standards. This analyte was not detected in the associated samples. The recoveries of all other analytes were within the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

TABLE OF CONTENTS

# Sample Inventory Report

| Vista Sample ID | Client Sample ID | Sampled | Received | Components/Containers |
|---|---|---|---|---|
| 2109262-01 | MW-21-01-210920 | 20-Sep-21 11:30 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |
| 2109262-02 | MW-21-02-210920 | 20-Sep-21 12:10 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |
| 2109262-03 | MW-21-03-210920 | 20-Sep-21 10:10 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |

# ANALYTICAL RESULTS

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## Sample ID: Method Blank

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BLK1
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | <0.715 | 0.715 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFPeA | 2706-90-3 | <0.980 | 0.980 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFBS | 375-73-5 | <0.770 | 0.770 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 4:2 FTS | 757124-72-4 | <1.08 | 1.08 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHxA | 307-24-4 | <1.13 | 1.13 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFPeS | 2706-91-4 | <0.905 | 0.905 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| HFPO-DA | 13252-13-6 | <0.620 | 0.620 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:29 | 1 |
| PFHpA | 375-85-9 | <0.885 | 0.885 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| ADONA | 919005-14-4 | <0.850 | 0.850 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHxS | 355-46-4 | <1.08 | 1.08 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 6:2 FTS | 27619-97-2 | <0.965 | 0.965 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOA | 335-67-1 | <1.09 | 1.09 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHpS | 375-92-8 | <2.47 | 2.47 | 2.50 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFNA | 375-95-1 | <0.565 | 0.565 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOSA | 754-91-6 | <1.35 | 1.35 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOS | 1763-23-1 | <1.07 | 1.07 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.830 | 0.830 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDA | 335-76-2 | <0.900 | 0.900 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 8:2 FTS | 39108-34-4 | <2.24 | 2.24 | 2.25 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFNS | 68259-12-1 | <1.41 | 1.41 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSAA | 2355-31-9 | <0.945 | 0.945 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSAA | 2991-50-6 | <2.54 | 2.54 | 2.63 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFUnA | 2058-94-8 | <1.35 | 1.35 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDS | 335-77-3 | <2.71 | 2.71 | 2.75 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.427 | 0.427 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDoA | 307-55-1 | <0.785 | 0.785 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSA | 31506-32-8 | <6.85 | 6.85 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFTrDA | 72629-94-8 | <1.11 | 1.11 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDoS | 79780-39-5 | <1.59 | 1.59 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFTeDA | 376-06-7 | <0.815 | 0.815 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSA | 4151-50-2 | <7.30 | 7.30 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSE | 24448-09-7 | <8.00 | 8.00 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSE | 1691-99-2 | <5.55 | 5.55 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFPeA | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFBS | IS | 85.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-HFPO-DA | IS | 141 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:29 | 1 |

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## Sample ID: Method Blank

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BLK1
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C2-4:2 FTS | IS | 112 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFHxA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C4-PFHpA | IS | 93.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFHxS | IS | 94.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-6:2 FTS | IS | 100 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C5-PFNA | IS | 92.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C8-PFOSA | IS | 77.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFOA | IS | 95.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C8-PFOS | IS | 97.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFDA | IS | 93.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-8:2 FTS | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d3-MeFOSAA | IS | 112 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFUnA | IS | 88.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d5-EtFOSAA | IS | 98.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFDoA | IS | 87.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d3-MeFOSA | IS | 30.1 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFTeDA | IS | 85.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d5-EtFOSA | IS | 27.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d7-MeFOSE | IS | 37.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d9-EtFOSE | IS | 39.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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**Sample ID: OPR** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BS1
Column: BEH C18

| Analyte | CAS Number | Amt Found (ng/L) | Spike Amt | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 7.78 | 8.00 | 97.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFPeA | 2706-90-3 | 7.45 | 8.00 | 93.1 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFBS | 375-73-5 | 8.04 | 8.00 | 100 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 4:2 FTS | 757124-72-4 | 8.40 | 8.00 | 105 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHxA | 307-24-4 | 7.21 | 8.00 | 90.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFPeS | 2706-91-4 | 8.87 | 8.00 | 111 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| HFPO-DA | 13252-13-6 | 5.30 | 8.00 | 66.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:40 | 1 |
| PFHpA | 375-85-9 | 7.96 | 8.00 | 99.5 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| ADONA | 919005-14-4 | 9.22 | 8.00 | 115 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHxS | 355-46-4 | 7.46 | 8.00 | 93.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 6:2 FTS | 27619-97-2 | 7.48 | 8.00 | 93.5 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOA | 335-67-1 | 7.68 | 8.00 | 96.0 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHpS | 375-92-8 | 8.40 | 8.00 | 105 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFNA | 375-95-1 | 7.67 | 8.00 | 95.8 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOSA | 754-91-6 | 7.18 | 8.00 | 89.8 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOS | 1763-23-1 | 7.06 | 8.00 | 88.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | 7.35 | 8.00 | 91.9 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDA | 335-76-2 | 8.24 | 8.00 | 103 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 8:2 FTS | 39108-34-4 | 7.95 | 8.00 | 99.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFNS | 68259-12-1 | 7.55 | 8.00 | 94.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| MeFOSAA | 2355-31-9 | 8.65 | 8.00 | 108 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSAA | 2991-50-6 | 7.61 | 8.00 | 95.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFUnA | 2058-94-8 | 7.39 | 8.00 | 92.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDS | 335-77-3 | 7.22 | 8.00 | 90.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | 7.53 | 8.00 | 94.1 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDoA | 307-55-1 | 7.95 | 8.00 | 99.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| MeFOSA | 31506-32-8 | 6.92 | 8.00 | 86.5 | 60 - 135 | J, Q | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFTrDA | 72629-94-8 | 7.47 | 8.00 | 93.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDoS | 79780-39-5 | 8.17 | 8.00 | 102 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFTeDA | 376-06-7 | 7.97 | 8.00 | 99.6 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSA | 4151-50-2 | 8.26 | 8.00 | 103 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

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**Sample ID: OPR** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BS1
Column: BEH C18

| Analyte | CAS Number | Amt Found (ng/L) | Spike Amt | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MeFOSE | 24448-09-7 | 8.17 | 8.00 | 102 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSE | 1691-99-2 | 6.84 | 8.00 | 85.5 | 60 - 135 | J | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

| Labeled Standards | Type | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFPeA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFBS | IS | 90.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-HFPO-DA | IS | 119 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:40 | 1 |
| 13C2-4:2 FTS | IS | 111 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFHxA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C4-PFHpA | IS | 96.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFHxS | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-6:2 FTS | IS | 110 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C5-PFNA | IS | 97.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C8-PFOSA | IS | 74.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFOA | IS | 98.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C8-PFOS | IS | 97.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFDA | IS | 90.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-8:2 FTS | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d3-MeFOSAA | IS | 104 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFUnA | IS | 88.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d5-EtFOSAA | IS | 97.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFDoA | IS | 87.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d3-MeFOSA | IS | 29.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFTeDA | IS | 81.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d5-EtFOSA | IS | 27.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d7-MeFOSE | IS | 35.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d9-EtFOSE | IS | 37.5 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

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**Sample ID: MW-21-01-210920** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 11:30

**Laboratory Data**

Lab Sample: 2109262-01
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 20.6 | 0.725 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFPeA | 2706-90-3 | 36.8 | 0.994 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFBS | 375-73-5 | 110 | 0.781 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 4:2 FTS | 757124-72-4 | <1.10 | 1.10 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHxA | 307-24-4 | 21.5 | 1.15 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFPeS | 2706-91-4 | <0.918 | 0.918 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| HFPO-DA | 13252-13-6 | <0.629 | 0.629 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 14-Oct-21 21:17 | 1 |
| PFHpA | 375-85-9 | 10.6 | 0.898 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| ADONA | 919005-14-4 | <0.862 | 0.862 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHxS | 355-46-4 | <1.09 | 1.09 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 6:2 FTS | 27619-97-2 | <0.979 | 0.979 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOA | 335-67-1 | 14.1 | 1.11 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHpS | 375-92-8 | <2.51 | 2.51 | 2.54 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFNA | 375-95-1 | <0.573 | 0.573 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOSA | 754-91-6 | 5.20 | 1.37 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOS | 1763-23-1 | <1.08 | 1.08 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.842 | 0.842 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDA | 335-76-2 | <0.913 | 0.913 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 8:2 FTS | 39108-34-4 | <2.27 | 2.27 | 2.28 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFNS | 68259-12-1 | <1.43 | 1.43 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSAA | 2355-31-9 | <0.958 | 0.958 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSAA | 2991-50-6 | <2.57 | 2.57 | 2.66 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFUnA | 2058-94-8 | <1.36 | 1.36 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDS | 335-77-3 | <2.74 | 2.74 | 2.79 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.433 | 0.433 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDoA | 307-55-1 | <0.796 | 0.796 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSA | 31506-32-8 | <6.95 | 6.95 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFTrDA | 72629-94-8 | <1.12 | 1.12 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDoS | 79780-39-5 | <1.61 | 1.61 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFTeDA | 376-06-7 | <0.827 | 0.827 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSA | 4151-50-2 | <7.40 | 7.40 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSE | 24448-09-7 | <8.11 | 8.11 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSE | 1691-99-2 | <5.63 | 5.63 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFPeA | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFBS | IS | 93.2 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

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## Sample ID: MW-21-01-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 11:30

**Laboratory Data**

Lab Sample: 2109262-01
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 14-Oct-21 21:17 | 1 |
| 13C2-4:2 FTS | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFHxA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C4-PFHpA | IS | 90.2 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFHxS | IS | 93.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-6:2 FTS | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C5-PFNA | IS | 92.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C8-PFOSA | IS | 78.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFOA | IS | 91.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C8-PFOS | IS | 95.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFDA | IS | 90.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-8:2 FTS | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d3-MeFOSAA | IS | 116 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFUnA | IS | 90.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d5-EtFOSAA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFDoA | IS | 88.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d3-MeFOSA | IS | 43.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFTeDA | IS | 85.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d5-EtFOSA | IS | 40.9 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d7-MeFOSE | IS | 71.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d9-EtFOSE | IS | 75.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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## Sample ID: MW-21-02-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 12:10

**Laboratory Data**

Lab Sample: 2109262-02
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 3.59 | 0.700 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFPeA | 2706-90-3 | 2.27 | 0.960 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFBS | 375-73-5 | 10.6 | 0.754 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 4:2 FTS | 757124-72-4 | <1.06 | 1.06 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHxA | 307-24-4 | 1.90 | 1.11 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFPeS | 2706-91-4 | <0.886 | 0.886 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| HFPO-DA | 13252-13-6 | <0.607 | 0.607 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 14-Oct-21 21:28 | 1 |
| PFHpA | 375-85-9 | 1.03 | 0.867 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| ADONA | 919005-14-4 | <0.832 | 0.832 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHxS | 355-46-4 | <1.05 | 1.05 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 6:2 FTS | 27619-97-2 | <0.945 | 0.945 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOA | 335-67-1 | 1.88 | 1.07 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHpS | 375-92-8 | <2.42 | 2.42 | 2.45 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFNA | 375-95-1 | <0.553 | 0.553 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOSA | 754-91-6 | 2.79 | 1.32 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOS | 1763-23-1 | <1.04 | 1.04 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.813 | 0.813 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDA | 335-76-2 | <0.881 | 0.881 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 8:2 FTS | 39108-34-4 | <2.19 | 2.19 | 2.20 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFNS | 68259-12-1 | <1.38 | 1.38 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSAA | 2355-31-9 | <0.925 | 0.925 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSAA | 2991-50-6 | <2.48 | 2.48 | 2.57 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFUnA | 2058-94-8 | <1.32 | 1.32 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDS | 335-77-3 | <2.65 | 2.65 | 2.69 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.418 | 0.418 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDoA | 307-55-1 | <0.769 | 0.769 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSA | 31506-32-8 | <6.71 | 6.71 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFTrDA | 72629-94-8 | <1.08 | 1.08 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDoS | 79780-39-5 | <1.56 | 1.56 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFTeDA | 376-06-7 | <0.798 | 0.798 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSA | 4151-50-2 | <7.15 | 7.15 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSE | 24448-09-7 | <7.83 | 7.83 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSE | 1691-99-2 | <5.43 | 5.43 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFPeA | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFBS | IS | 93.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

**Sample ID: MW-21-02-210920** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 12:10

**Laboratory Data**

Lab Sample: 2109262-02
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 111 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 14-Oct-21 21:28 | 1 |
| 13C2-4:2 FTS | IS | 125 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFHxA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C4-PFHpA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFHxS | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-6:2 FTS | IS | 105 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C5-PFNA | IS | 99.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C8-PFOSA | IS | 85.3 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFOA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C8-PFOS | IS | 94.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFDA | IS | 94.4 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-8:2 FTS | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d3-MeFOSAA | IS | 118 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFUnA | IS | 95.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d5-EtFOSAA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFDoA | IS | 93.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d3-MeFOSA | IS | 40.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFTeDA | IS | 89.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d5-EtFOSA | IS | 38.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d7-MeFOSE | IS | 64.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d9-EtFOSE | IS | 68.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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## Sample ID: MW-21-03-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 10:10

**Laboratory Data**

Lab Sample: 2109262-03
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 15.6 | 0.721 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFPeA | 2706-90-3 | 2.73 | 0.988 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFBS | 375-73-5 | 237 | 0.776 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 4:2 FTS | 757124-72-4 | <1.09 | 1.09 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHxA | 307-24-4 | 1.50 | 1.14 | 2.02 | J | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFPeS | 2706-91-4 | <0.912 | 0.912 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| HFPO-DA | 13252-13-6 | <0.625 | 0.625 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 14-Oct-21 21:38 | 1 |
| PFHpA | 375-85-9 | <0.892 | 0.892 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| ADONA | 919005-14-4 | <0.857 | 0.857 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHxS | 355-46-4 | <1.08 | 1.08 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 6:2 FTS | 27619-97-2 | 46.9 | 0.973 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOA | 335-67-1 | 5.24 | 1.10 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHpS | 375-92-8 | <2.49 | 2.49 | 2.52 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFNA | 375-95-1 | <0.570 | 0.570 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOSA | 754-91-6 | 19.4 | 1.36 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOS | 1763-23-1 | 2.31 | 1.07 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.837 | 0.837 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDA | 335-76-2 | <0.907 | 0.907 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 8:2 FTS | 39108-34-4 | <2.26 | 2.26 | 2.27 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFNS | 68259-12-1 | <1.42 | 1.42 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSAA | 2355-31-9 | <0.953 | 0.953 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSAA | 2991-50-6 | <2.56 | 2.56 | 2.65 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFUnA | 2058-94-8 | <1.36 | 1.36 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDS | 335-77-3 | <2.73 | 2.73 | 2.77 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.430 | 0.430 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDoA | 307-55-1 | <0.791 | 0.791 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSA | 31506-32-8 | <6.91 | 6.91 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFTrDA | 72629-94-8 | <1.11 | 1.11 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDoS | 79780-39-5 | <1.60 | 1.60 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFTeDA | 376-06-7 | <0.822 | 0.822 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSA | 4151-50-2 | <7.36 | 7.36 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSE | 24448-09-7 | <8.06 | 8.06 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSE | 1691-99-2 | <5.59 | 5.59 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 120 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFPeA | IS | 116 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFBS | IS | 98.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

Vista
an Enthalpy Analytical Laboratory

## Sample ID: MW-21-03-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 10:10

**Laboratory Data**

Lab Sample: 2109262-03
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 14-Oct-21 21:38 | 1 |
| 13C2-4:2 FTS | IS | 134 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFHxA | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C4-PFHpA | IS | 105 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFHxS | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-6:2 FTS | IS | 118 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C5-PFNA | IS | 110 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C8-PFOSA | IS | 93.3 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFOA | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C8-PFOS | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFDA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-8:2 FTS | IS | 120 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d3-MeFOSAA | IS | 129 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFUnA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d5-EtFOSAA | IS | 119 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFDoA | IS | 99.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d3-MeFOSA | IS | 44.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFTeDA | IS | 94.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d5-EtFOSA | IS | 42.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d7-MeFOSE | IS | 72.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d9-EtFOSE | IS | 78.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

# DATA QUALIFIERS & ABBREVIATIONS

| | |
|---|---|
| B | This compound was also detected in the method blank |
| Conc. | Concentration |
| CRS | Cleanup Recovery Standard |
| D | Dilution |
| DL | Detection Limit |
| E | The associated compound concentration exceeded the calibration range of the instrument |
| H | Recovery and/or RPD was outside laboratory acceptance limits |
| I | Chemical Interference |
| IS | Internal Standard |
| J | The amount detected is below the Reporting Limit/LOQ |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| M | Estimated Maximum Possible Concentration (CA Region 2 projects only) |
| MDL | Method Detection Limit |
| NA | Not applicable |
| ND | Not Detected |
| OPR | Ongoing Precision and Recovery sample |
| P | The reported concentration may include contribution from chlorinated diphenyl ether(s). |
| Q | The ion transition ratio is outside of the acceptance criteria. |
| RL | Reporting Limit |
| RL | For 537.1, the reported RLs are the MRLs. |
| TEQ | Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations. |
| TEQMax | TEQ calculation that uses the detection limit as the concentration for non-detects |
| TEQMin | TEQ calculation that uses zero as the concentration for non-detects |
| TEQRisk | TEQ calculation that uses ½ the detection limit as the concentration for non-detects |
| U | Not Detected (specific projects only) |
| * | See Cover Letter |

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

**Vista Analytical Laboratory Certifications**

| Accrediting Authority | Certificate Number |
|---|---|
| Alaska Department of Environmental Conservation | 17-013 |
| Arkansas Department of Environmental Quality | 21-023-0 |
| California Department of Health – ELAP | 2892 |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005 | 3091.01 |
| Florida Department of Health | E87777-26 |
| Hawaii Department of Health | N/A |
| Louisiana Department of Environmental Quality | 01977 |
| Maine Department of Health | 2020018 |
| Massachusetts Department of Environmental Protection | M-CA413 |
| Michigan Department of Environmental Quality | 9932 |
| Minnesota Department of Health | 1980678 |
| New Hampshire Environmental Accreditation Program | 207720 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Ohio Environmental Protection Agency | 87778 |
| Oregon Laboratory Accreditation Program | 4042-016 |
| Pennsylvania Department of Environmental Protection | 017 |
| Texas Commission on Environmental Quality | T104704189-21-12 |
| Vermont Department of Health | VT-4042 |
| Virginia Department of General Services | 10769 |
| Washington Department of Ecology | C584 |
| Wisconsin Department of Natural Resources | 998036160 |

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

# NELAP Accredited Test Methods

| MATRIX: Air | |
|---|---|
| **Description of Test** | **Method** |
| Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans | EPA 23 |
| Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS | EPA TO-9A |

| MATRIX: Biological Tissue | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Drinking Water | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613/1613B |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537.1 |
| Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry | EPA 533 |
| Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry | ISO 25101 2009 |

| MATRIX: Non-Potable Water | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Dioxin by GC/HRMS | EPA 613 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Solids | |
|---|---|
| **Description of Test** | **Method** |
| Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613 |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

Vista Analytical Laboratory

# CHAIN OF CUSTODY

**For Laboratory Use Only**
Work Order #: 2109268 Temp: 2.2 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: Ashview Terrace PFAS PO#: 117-4129210 Sampler: A. Gordon (name)

TAT (check one): Standard: ☑ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

| Relinquished by (printed name and signature) | Date | Time | Received by (printed name and signature) | Date | Time |
|---|---|---|---|---|---|
| Andrew Gordon | 9-24-21 | 1700 | FedEx | 9-24-21 | 1700 |
| FedEX | 09/25/21 | 0938 | Justin Briseno | 09/25/21 | 0938 |

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
ATTN: Sample Custodian

Method of Shipment: FedEx
Tracking No.:

Add Analysis(es) Requested

| Sample ID | Date | Time | Location/ Sample Description | Container(s) Quantity | Type | Matrix | PFAS by Isotope Dilution: PFOA/ PFOS | UCMR3 PFAS List:6 | 537.1 List: 14 or 18 (Circle One) | EPA Draft List of 24 | OTHER: Please attach analyte list (537 PFAS) | EPA Method 537 (DW only): PFOA/ PFOS | UCMR3 PFAS List:6 | 537.1 List of 14 | 537.1 List of 18 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-21-01-210920 | 9-20-21 | 1130 | | 2 | P | AQ | | | | | √ | | | | | |
| MW-21-02-210920 | 9-20-21 | 1210 | | 2 | P | AQ | | | | | √ | | | | | |
| MW-21-03-210920 | 9-20-21 | 1010 | | 2 | P | AQ | | | | | √ | | | | | |

Special Instructions/Comment
Level IV data package and a Summary report for Samples

**SEND DOCUMENTATION AND RESULTS TO:**

Name: Mike Savale
Company: Tetra Tech
Address: 710 Avis Dr. Suite 100
City: Ann Arbor State: MI Zip: 48108
Phone: 810-423-4076
Email: michael.savale@tetratech.com

Container Types: P = HDPE, PJ = HDPE Jar, PY = Polypropylene, O= Other _____

Bottle Preservation Type: TZ= Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other _____

Vista Analytical Laboratory

# Sample Log-In Checklist



**Vista Work Order #:** 2109262 **TAT** Std

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Samples Arrival:** | **Date/Time** 09/25/21 0928 | | **Initials:** | | **Location:** WR-2 **Shelf/Rack:** N/A | | |
| **Delivered By:** | (FedEx) | UPS | On Trac | GLS | DHL | Hand Delivered | Other |
| **Preservation:** | (Ice) | | Blue Ice | | Techni Ice | Dry Ice | None |
| **Temp °C:** 2.3 (uncorrected) **Temp °C:** 2.2 (corrected) | | | **Probe used:** Y / (N) | | **Thermometer ID:** IR-3 | | |

| | YES | NO | NA |
|---|---|---|---|
| Shipping Container(s) Intact? | ✓ | | |
| Shipping Custody Seals Intact? | | ✓ | ✓ |
| Airbill —— Trk # 284157590024 | ✓ | | |
| Shipping Documentation Present? | ✓ | | |
| Shipping Container: (Vista) Client (Retain) Return | | Dispose | |
| Chain of Custody / Sample Documentation Present? | ✓ | | |
| Chain of Custody / Sample Documentation Complete? | ✓ | | |
| Holding Time Acceptable? | ✓ | | |

| | | | |
|---|---|---|---|
| **Logged In:** | **Date/Time** 09/27/21 13:41 | **Initials:** MA | **Location:** R-13, WR-2 **Shelf/Rack:** A-2, F-5 |
| COC Anomaly/Sample Acceptance Form completed? | | ✓ | ✓ |

*Comments:*

# CoC/Label Reconciliation Report WO# 2109262

| LabNumber | CoC Sample ID | | SampleAlias | Sample Date/Time | | Container | BaseMatrix | Sample Comments |
|---|---|---|---|---|---|---|---|---|
| 2109262-01 | A MW-21-01-210920 | ☑ | | 20-Sep-21 11:30 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-01 | B MW-21-01-210920 | ☑ | | 20-Sep-21 11:30 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-02 | A MW-21-02-210920 | ☑ | | 20-Sep-21 12:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-02 | B MW-21-02-210920 | ☑ | | 20-Sep-21 12:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-03 | A MW-21-03-210920 | ☑ | | 20-Sep-21 10:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-03 | B MW-21-03-210920 | ☑ | | 20-Sep-21 10:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

| | Yes | No | NA |
|---|---|---|---|
| Sample Container Intact? | ✓ | | |
| Sample Custody Seals Intact? | | | ✓ |
| Adequate Sample Volume? | ✓ | | |
| Container Type Appropriate for Analysis(es) | ✓ | | |

Comments:

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verifed by/Date: VA 09/29/21

# Georgia-Pacific LLC (GP) - Submission of Analytical Results

# Ashview Terrace Apartments, BRRTS #: 02-05-564043

## Attachment 2

## Property Owner Notification

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

# Site Investigation Sample Results Notification

Form 4400-249 (R 03/14) 

**Notice:** This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

**NOTE:** Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

## Notification of Property Owners and Occupants:

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

## Site Information

| Site Name | | | DNR ID # (BRRTS #) |
|---|---|---|---|
| Ashview Terrace Apartments | | | 02-05-564043 |
| **Address** | **City** | **State** | **ZIP Code** |
| 988-1020 Willard Drive | Ashwaubenon | WI | 54304 |

## Responsible Party

The person(s) responsible for completing this environmental investigation is:

Property Owner

Georgia-Pacific LLC (Responsible Party)

| Address | City | State | ZIP Code |
|---|---|---|---|
| 133 Peachtree Street NE | Atlanta | GA | 30303 |

| Contact Person | Phone Number (include area code) |
|---|---|
| Michael Christopher | (281) 947-0083 |

Person or company that collected samples

Tetra Tech Inc

## Sample Results (Results Attached)

Reason for Sampling: ○ Routine ◉ Other (define) Request by the Wisconsin Department of Natural Resources

The contaminants that have been identified at this time on property that you own or occupy include:

| Contaminant | In Soil? Yes | In Soil? No | In Groundwater? Yes | In Groundwater? No |
|---|---|---|---|---|
| Gasoline | ○ | ○ | ○ | ○ |
| Diesel or Fuel Oil | ○ | ○ | ○ | ○ |
| Solvents | ○ | ○ | ○ | ○ |
| Heavy Metals | ○ | ○ | ○ | ○ |
| Pesticides | ○ | ○ | ○ | ○ |
| Other: PFAS | ○ | ◉ | ◉ | ○ |

This sampling event included sampling of a drinking water well.
○ Yes ◉ No

If yes, the sampled drinking water well had detectable contaminants.
○ Yes ○ No

| Contaminants in Vapor | Yes | No |
|---|---|---|
| Indoor Air | ○ | ○ |
| Sub-slab | ○ | ○ |
| Exterior Soil Gas | ○ | ○ |

**Attached are:**

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

**You are not identified as the person that is responsible for this contamination.** However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

**Option for written exemption:** You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a $700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf.

## Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

**Environmental Consultant**

| Company Name | Contact Person Last Name | First Name |
|---|---|---|
| Tetra Tech | Savale | Michael |

| Address | City | State | ZIP Code |
|---|---|---|---|
| | | WI | |

| Phone # (inc. area code) | Email |
|---|---|
| (810) 923-8076 | michael.savale@tetratech.com |

Select which agency: (•) Natural Resources ( ) Agriculture, Trade and Consumer Protection

**State of Wisconsin Department of Natural Resources**

| Contact Person Last Name | First Name | Phone # (inc. area code) |
|---|---|---|
| Lauridsen | Keld | |

| Address | City | State | ZIP Code |
|---|---|---|---|
| 2984 Shawano Avenue | Green Bay | WI | 54313 |

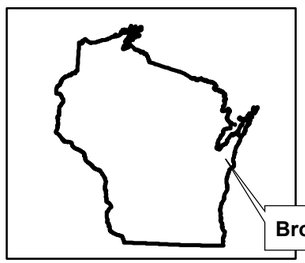
Email

Keld.Lauridsen@wisconsin.gov

**Figure 1**

**Monitoring Well Locations**


P:\Projects\Georgia-Pacific\Ashwaubenon, WI\GIS




Project Area

Monitoring Well Locations

N

0 50 100 Feet

| | |
|---|---|
| ORIGINAL BY: ARR | SITE PFAS EVALUATION<br>ASHVIEW TERRACE APARTMENTS<br>ASHWAUBENON, WISCONSIN<br>**MONITORING WELL LOCATIONS** |
| DATE: 11/5/2020 | |
| REVISED BY: ARR | |
| DATE: 10/26/2021 | |

FIGURE
1

# Table 1

## Groundwater Analytical Results

**Table 1**
**Groundwater Analytical Results**
Ashview Terrace Apartments PFAS Investigation
Georgia-Pacific LLC
Ashwaubenon, Wisconsin

| Parameter | CAS Number | Units | Recommended Enforcement Standard | Recommended Preventive Action Limit | Sample Location and Date | | |
|---|---|---|---|---|---|---|---|
| | | | | | MW-21-01 | MW-21-02 | MW-21-03 |
| | | | | | 9/20/21 | 9/20/21 | 9/20/21 |
| **Perfluoroalkyl Carboxylates/Carboxylic Acids (PFCA)** | | | | | | | |
| Perfluorobutanoic acid (**PFBA**) | 375-22-4 | ng/L | 10,000 | 2,000 | **20.60** | **3.59** | **15.6** |
| Perfluoropentanoic acid (**PFPeA**) | 2706-90-3 | ng/L | -- | -- | **36.8** | **2.27** | **2.73** |
| Perfluorohexanoic acid (**PFHxA**) | 307-24-4 | ng/L | 150,000 | 30,000 | **21.5** | **1.90** | **1.50** |
| Perfluoroheptanoic acid (**PFHpA**) | 375-85-9 | ng/L | -- | -- | **10.6** | **1.03** | <0.892 |
| Perfluorooctanoic acid (**PFOA**) | 335-67-1 | ng/L | 20 | 2 | **14.1** | **1.88** | **5.24** |
| Perfluorononanoic acid (**PFNA**) | 375-95-1 | ng/L | 30 | 3 | <0.573 | <0.553 | <0.570 |
| Perfluorodecanoic acid (**PFDA**) | 335-76-2 | ng/L | 300 | 60 | <0.913 | <0.881 | <0.907 |
| Perfluoroundecanoic acid (**PFUnDA/PFUdA**) | 2058-94-8 | ng/L | 3,000 | 600 | <1.36 | <1.32 | <1.36 |
| Perfluorododecanoic acid (**PFDoA**) | 307-55-1 | ng/L | 500 | 100 | <0.796 | <0.769 | <0.791 |
| Perfluorotridecanoic acid (**PFTrDA**) | 72629-94-8 | ng/L | -- | -- | <1.12 | <1.08 | <1.11 |
| Perfluorotetradecanoic acid (**PFTeDA**) | 376-06-7 | ng/L | 10,000 | 2,000 | <0.827 | <0.798 | <0.822 |
| **Perfluoroalkyl Sulfonates/Sulfonic Acids (PFSA)** | | | | | | | |
| Perfluorobutane sulfonic acid (**PFBS**) | 375-73-5 | ng/L | 450,000 | 90,000 | **110** | **10.6** | **237** |
| Perfluoropentane sulfonic acid (**PFPeS**) | 2706-91-4 | ng/L | -- | -- | <0.918 | <0.886 | <0.912 |
| Perfluorohexane sulfonic acid (**PFHxS**) | 355-46-4 | ng/L | 40 | 4 | <1.09 | <1.05 | <1.08 |
| Perfluoroheptane sulfonic acid (**PFHpS**) | 375-92-8 | ng/L | -- | -- | <2.51 | <2.42 | <2.49 |
| Perfluorooctane sulfonic acid (**PFOS**) | 1763-23-1 | ng/L | 20 | 2 | <1.08 | <1.04 | **2.31** |
| Perfluorononone sulfonic acid (**PFNS**) | 68259-12-1 | ng/L | -- | -- | <1.43 | <1.38 | <1.42 |
| Perfluorodecane sulfonic acid (**PFDS**) | 335-77-3 | ng/L | -- | -- | <2.74 | <2.65 | <2.73 |
| Perfluorododecanesulfonic acid (**PFDoS**) | 79780-39-5 | ng/L | -- | -- | <1.61 | <1.56 | <1.60 |
| **Perfluoroalkane Sulfonamides/Sufonamidoacetic Acids, Sulfonamidoethanols (FASA)** | | | | | | | |
| Perfluorooctane sulfonamide (**PFOSA**) | 754-91-6 | ng/L | 20 | 2 | **5.20** | **2.79** | **19.40** |
| N-methyl perfluorooctane sulfonamide (**NMeFOSA**) | 31506-32-8 | ng/L | -- | -- | <6.95 | <6.71 | <6.91 |
| N-ethyl perfluorooctane sulfonamide (**NEtFOSA**) | 4151-50-2 | ng/L | 20 | 2 | <7.40 | <7.15 | <7.36 |
| N-methyl perfluorooctane sulfonamidoacetic acid (**NMeFOSAA**) | 2355-31-9 | ng/L | -- | -- | <0.958 | <0.925 | <0.953 |
| N-ethyl perfluorooctane sulfonamidoacetic acid (**NEtFOSAA**) | 2991-50-6 | ng/L | 20 | 2 | <2.57 | <2.48 | <2.56 |
| N-methyl perfluorooctane sulfonamidoethanol (**NMeFOSE**) | 24448-09-7 | ng/L | -- | -- | <8.11 | <7.83 | <8.06 |
| N-ethyl perfluorooctane sulfonamidoethanol (**NEtFOSE**) | 1691-99-2 | ng/L | 20 | 2 | <5.63 | <5.43 | <5.59 |
| **Fluorotelomer Substances (FTS)** | | | | | | | |
| 4:2 Fluorotelomer sulfonic acid (**4:2FTS**) | 757124-72-4 | ng/L | -- | -- | <1.10 | <1.06 | <1.09 |
| 6:2 Fluorotelomer sulfonic acid (**6:2FTS**) | 27619-97-2 | ng/L | -- | -- | <0.979 | <0.945 | **46.9** |
| 8:2 Fluorotelomer sulfonic acid (**8:2FTS**) | 39108-34-4 | ng/L | -- | -- | <2.27 | <2.19 | <2.26 |
| **Replacement Chemicals** | | | | | | | |
| Hexafluoropropylene oxide dimer acid (**HFPO-DA**) | 13252-13-6 | ng/L | 300 | 30 | <0.629 | <0.607 | <0.625 |
| 4,8-Dioxa-3H-perfluorononanioc acid (**ADONA**) | 919005-14-4 | ng/L | 3,000 | 600 | <0.862 | <0.832 | <0.857 |
| 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (**9Cl-PF3ONS**) | 756426-58-1 | ng/L | -- | -- | <0.842 | <0.813 | <0.837 |
| 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (**11Cl-PF3OUdS**) | 763051-92-9 | ng/L | | | <0.433 | <0.418 | <0.430 |
| ***Total combined PFOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOA and PFOS** | | **ng/L** | 20 | 2 | **19.30** | **4.67** | **26.95** |

Notes:
PFAS laboratory analysis was completed using Modified USEPA Method 537.
ng/L = nanogram per liter
* The Wisconsin Department of Health Services (WDHS) recommends a combined enforcement standard of 20 ng/L and combined preventive action limit of 2 ng/L for PFOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA.
**Bold** = value exceeds the Method Detection Limit

# Laboratory Report

## Vista Analytical Laboratory

October 18, 2021

**Vista Work Order No. 2109262**

Mr. Michael Savale
Tetra Tech
710 Avis Drive, Suite 100
Ann Arbor, MI 48108

Dear Mr. Savale,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on September 25, 2021 under your Project Name 'Ashview Terrace PFAS'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Jamie Fox
Laboratory Director

**Vista Work Order No. 2109262**
**Case Narrative**

**Sample Condition on Receipt:**

Three aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

**Analytical Notes:**

**PFAS Isotope Dilution Method**

The samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery for HFPO-DA was greater than 130% in one of the continuing calibration standards. This analyte was not detected in the associated samples. The recoveries of all other analytes were within the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limit. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

TABLE OF CONTENTS

# Sample Inventory Report

| Vista Sample ID | Client Sample ID | Sampled | Received | Components/Containers |
|---|---|---|---|---|
| 2109262-01 | MW-21-01-210920 | 20-Sep-21 11:30 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |
| 2109262-02 | MW-21-02-210920 | 20-Sep-21 12:10 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |
| 2109262-03 | MW-21-03-210920 | 20-Sep-21 10:10 | 25-Sep-21 09:28 | HDPE Bottle, 250 mL |
| | | | | HDPE Bottle, 250 mL |

# ANALYTICAL RESULTS

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## Sample ID: Method Blank

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BLK1
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | <0.715 | 0.715 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFPeA | 2706-90-3 | <0.980 | 0.980 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFBS | 375-73-5 | <0.770 | 0.770 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 4:2 FTS | 757124-72-4 | <1.08 | 1.08 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHxA | 307-24-4 | <1.13 | 1.13 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFPeS | 2706-91-4 | <0.905 | 0.905 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| HFPO-DA | 13252-13-6 | <0.620 | 0.620 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:29 | 1 |
| PFHpA | 375-85-9 | <0.885 | 0.885 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| ADONA | 919005-14-4 | <0.850 | 0.850 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHxS | 355-46-4 | <1.08 | 1.08 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 6:2 FTS | 27619-97-2 | <0.965 | 0.965 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOA | 335-67-1 | <1.09 | 1.09 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFHpS | 375-92-8 | <2.47 | 2.47 | 2.50 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFNA | 375-95-1 | <0.565 | 0.565 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOSA | 754-91-6 | <1.35 | 1.35 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFOS | 1763-23-1 | <1.07 | 1.07 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.830 | 0.830 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDA | 335-76-2 | <0.900 | 0.900 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 8:2 FTS | 39108-34-4 | <2.24 | 2.24 | 2.25 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFNS | 68259-12-1 | <1.41 | 1.41 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSAA | 2355-31-9 | <0.945 | 0.945 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSAA | 2991-50-6 | <2.54 | 2.54 | 2.63 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFUnA | 2058-94-8 | <1.35 | 1.35 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDS | 335-77-3 | <2.71 | 2.71 | 2.75 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.427 | 0.427 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDoA | 307-55-1 | <0.785 | 0.785 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSA | 31506-32-8 | <6.85 | 6.85 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFTrDA | 72629-94-8 | <1.11 | 1.11 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFDoS | 79780-39-5 | <1.59 | 1.59 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| PFTeDA | 376-06-7 | <0.815 | 0.815 | 2.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSA | 4151-50-2 | <7.30 | 7.30 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| MeFOSE | 24448-09-7 | <8.00 | 8.00 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| EtFOSE | 1691-99-2 | <5.55 | 5.55 | 8.00 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFPeA | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFBS | IS | 85.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-HFPO-DA | IS | 141 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:29 | 1 |

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## Sample ID: Method Blank

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BLK1
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C2-4:2 FTS | IS | 112 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFHxA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C4-PFHpA | IS | 93.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C3-PFHxS | IS | 94.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-6:2 FTS | IS | 100 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C5-PFNA | IS | 92.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C8-PFOSA | IS | 77.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFOA | IS | 95.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C8-PFOS | IS | 97.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFDA | IS | 93.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-8:2 FTS | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d3-MeFOSAA | IS | 112 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFUnA | IS | 88.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d5-EtFOSAA | IS | 98.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFDoA | IS | 87.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d3-MeFOSA | IS | 30.1 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| 13C2-PFTeDA | IS | 85.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d5-EtFOSA | IS | 27.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d7-MeFOSE | IS | 37.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |
| d9-EtFOSE | IS | 39.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:40 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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**Sample ID: OPR** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BS1
Column: BEH C18

| Analyte | CAS Number | Amt Found (ng/L) | Spike Amt | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 7.78 | 8.00 | 97.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFPeA | 2706-90-3 | 7.45 | 8.00 | 93.1 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFBS | 375-73-5 | 8.04 | 8.00 | 100 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 4:2 FTS | 757124-72-4 | 8.40 | 8.00 | 105 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHxA | 307-24-4 | 7.21 | 8.00 | 90.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFPeS | 2706-91-4 | 8.87 | 8.00 | 111 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| HFPO-DA | 13252-13-6 | 5.30 | 8.00 | 66.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:40 | 1 |
| PFHpA | 375-85-9 | 7.96 | 8.00 | 99.5 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| ADONA | 919005-14-4 | 9.22 | 8.00 | 115 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHxS | 355-46-4 | 7.46 | 8.00 | 93.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 6:2 FTS | 27619-97-2 | 7.48 | 8.00 | 93.5 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOA | 335-67-1 | 7.68 | 8.00 | 96.0 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFHpS | 375-92-8 | 8.40 | 8.00 | 105 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFNA | 375-95-1 | 7.67 | 8.00 | 95.8 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOSA | 754-91-6 | 7.18 | 8.00 | 89.8 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFOS | 1763-23-1 | 7.06 | 8.00 | 88.3 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | 7.35 | 8.00 | 91.9 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDA | 335-76-2 | 8.24 | 8.00 | 103 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 8:2 FTS | 39108-34-4 | 7.95 | 8.00 | 99.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFNS | 68259-12-1 | 7.55 | 8.00 | 94.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| MeFOSAA | 2355-31-9 | 8.65 | 8.00 | 108 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSAA | 2991-50-6 | 7.61 | 8.00 | 95.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFUnA | 2058-94-8 | 7.39 | 8.00 | 92.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDS | 335-77-3 | 7.22 | 8.00 | 90.2 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | 7.53 | 8.00 | 94.1 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDoA | 307-55-1 | 7.95 | 8.00 | 99.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| MeFOSA | 31506-32-8 | 6.92 | 8.00 | 86.5 | 60 - 135 | J, Q | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFTrDA | 72629-94-8 | 7.47 | 8.00 | 93.4 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFDoS | 79780-39-5 | 8.17 | 8.00 | 102 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| PFTeDA | 376-06-7 | 7.97 | 8.00 | 99.6 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSA | 4151-50-2 | 8.26 | 8.00 | 103 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

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**Sample ID: OPR** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous

**Laboratory Data**

Lab Sample: B1I0176-BS1
Column: BEH C18

| Analyte | CAS Number | Amt Found (ng/L) | Spike Amt | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MeFOSE | 24448-09-7 | 8.17 | 8.00 | 102 | 60 - 135 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| EtFOSE | 1691-99-2 | 6.84 | 8.00 | 85.5 | 60 - 135 | J | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

| Labeled Standards | Type | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFPeA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFBS | IS | 90.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-HFPO-DA | IS | 119 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 14-Oct-21 18:40 | 1 |
| 13C2-4:2 FTS | IS | 111 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFHxA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C4-PFHpA | IS | 96.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C3-PFHxS | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-6:2 FTS | IS | 110 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C5-PFNA | IS | 97.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C8-PFOSA | IS | 74.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFOA | IS | 98.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C8-PFOS | IS | 97.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFDA | IS | 90.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-8:2 FTS | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d3-MeFOSAA | IS | 104 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFUnA | IS | 88.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d5-EtFOSAA | IS | 97.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFDoA | IS | 87.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d3-MeFOSA | IS | 29.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| 13C2-PFTeDA | IS | 81.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d5-EtFOSA | IS | 27.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d7-MeFOSE | IS | 35.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |
| d9-EtFOSE | IS | 37.5 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.250 L | 08-Oct-21 05:51 | 1 |

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**Sample ID: MW-21-01-210920** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 11:30

**Laboratory Data**

Lab Sample: 2109262-01
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 20.6 | 0.725 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFPeA | 2706-90-3 | 36.8 | 0.994 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFBS | 375-73-5 | 110 | 0.781 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 4:2 FTS | 757124-72-4 | <1.10 | 1.10 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHxA | 307-24-4 | 21.5 | 1.15 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFPeS | 2706-91-4 | <0.918 | 0.918 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| HFPO-DA | 13252-13-6 | <0.629 | 0.629 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 14-Oct-21 21:17 | 1 |
| PFHpA | 375-85-9 | 10.6 | 0.898 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| ADONA | 919005-14-4 | <0.862 | 0.862 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHxS | 355-46-4 | <1.09 | 1.09 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 6:2 FTS | 27619-97-2 | <0.979 | 0.979 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOA | 335-67-1 | 14.1 | 1.11 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFHpS | 375-92-8 | <2.51 | 2.51 | 2.54 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFNA | 375-95-1 | <0.573 | 0.573 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOSA | 754-91-6 | 5.20 | 1.37 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFOS | 1763-23-1 | <1.08 | 1.08 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.842 | 0.842 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDA | 335-76-2 | <0.913 | 0.913 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 8:2 FTS | 39108-34-4 | <2.27 | 2.27 | 2.28 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFNS | 68259-12-1 | <1.43 | 1.43 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSAA | 2355-31-9 | <0.958 | 0.958 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSAA | 2991-50-6 | <2.57 | 2.57 | 2.66 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFUnA | 2058-94-8 | <1.36 | 1.36 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDS | 335-77-3 | <2.74 | 2.74 | 2.79 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.433 | 0.433 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDoA | 307-55-1 | <0.796 | 0.796 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSA | 31506-32-8 | <6.95 | 6.95 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFTrDA | 72629-94-8 | <1.12 | 1.12 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFDoS | 79780-39-5 | <1.61 | 1.61 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| PFTeDA | 376-06-7 | <0.827 | 0.827 | 2.03 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSA | 4151-50-2 | <7.40 | 7.40 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| MeFOSE | 24448-09-7 | <8.11 | 8.11 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| EtFOSE | 1691-99-2 | <5.63 | 5.63 | 8.11 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFPeA | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFBS | IS | 93.2 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

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## Sample ID: MW-21-01-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 11:30

**Laboratory Data**

Lab Sample: 2109262-01
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 14-Oct-21 21:17 | 1 |
| 13C2-4:2 FTS | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFHxA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C4-PFHpA | IS | 90.2 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C3-PFHxS | IS | 93.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-6:2 FTS | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C5-PFNA | IS | 92.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C8-PFOSA | IS | 78.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFOA | IS | 91.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C8-PFOS | IS | 95.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFDA | IS | 90.1 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-8:2 FTS | IS | 103 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d3-MeFOSAA | IS | 116 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFUnA | IS | 90.0 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d5-EtFOSAA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFDoA | IS | 88.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d3-MeFOSA | IS | 43.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| 13C2-PFTeDA | IS | 85.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d5-EtFOSA | IS | 40.9 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d7-MeFOSE | IS | 71.0 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |
| d9-EtFOSE | IS | 75.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.246 L | 08-Oct-21 08:29 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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## Sample ID: MW-21-02-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 12:10

**Laboratory Data**

Lab Sample: 2109262-02
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 3.59 | 0.700 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFPeA | 2706-90-3 | 2.27 | 0.960 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFBS | 375-73-5 | 10.6 | 0.754 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 4:2 FTS | 757124-72-4 | <1.06 | 1.06 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHxA | 307-24-4 | 1.90 | 1.11 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFPeS | 2706-91-4 | <0.886 | 0.886 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| HFPO-DA | 13252-13-6 | <0.607 | 0.607 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 14-Oct-21 21:28 | 1 |
| PFHpA | 375-85-9 | 1.03 | 0.867 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| ADONA | 919005-14-4 | <0.832 | 0.832 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHxS | 355-46-4 | <1.05 | 1.05 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 6:2 FTS | 27619-97-2 | <0.945 | 0.945 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOA | 335-67-1 | 1.88 | 1.07 | 1.96 | J | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFHpS | 375-92-8 | <2.42 | 2.42 | 2.45 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFNA | 375-95-1 | <0.553 | 0.553 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOSA | 754-91-6 | 2.79 | 1.32 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFOS | 1763-23-1 | <1.04 | 1.04 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.813 | 0.813 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDA | 335-76-2 | <0.881 | 0.881 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 8:2 FTS | 39108-34-4 | <2.19 | 2.19 | 2.20 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFNS | 68259-12-1 | <1.38 | 1.38 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSAA | 2355-31-9 | <0.925 | 0.925 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSAA | 2991-50-6 | <2.48 | 2.48 | 2.57 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFUnA | 2058-94-8 | <1.32 | 1.32 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDS | 335-77-3 | <2.65 | 2.65 | 2.69 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.418 | 0.418 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDoA | 307-55-1 | <0.769 | 0.769 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSA | 31506-32-8 | <6.71 | 6.71 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFTrDA | 72629-94-8 | <1.08 | 1.08 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFDoS | 79780-39-5 | <1.56 | 1.56 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| PFTeDA | 376-06-7 | <0.798 | 0.798 | 1.96 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSA | 4151-50-2 | <7.15 | 7.15 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| MeFOSE | 24448-09-7 | <7.83 | 7.83 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| EtFOSE | 1691-99-2 | <5.43 | 5.43 | 7.83 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFPeA | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFBS | IS | 93.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

**Sample ID: MW-21-02-210920** **PFAS Isotope Dilution Method**

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 12:10

**Laboratory Data**

Lab Sample: 2109262-02
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 111 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 14-Oct-21 21:28 | 1 |
| 13C2-4:2 FTS | IS | 125 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFHxA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C4-PFHpA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C3-PFHxS | IS | 101 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-6:2 FTS | IS | 105 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C5-PFNA | IS | 99.6 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C8-PFOSA | IS | 85.3 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFOA | IS | 98.9 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C8-PFOS | IS | 94.7 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFDA | IS | 94.4 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-8:2 FTS | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d3-MeFOSAA | IS | 118 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFUnA | IS | 95.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d5-EtFOSAA | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFDoA | IS | 93.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d3-MeFOSA | IS | 40.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| 13C2-PFTeDA | IS | 89.8 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d5-EtFOSA | IS | 38.2 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d7-MeFOSE | IS | 64.4 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |
| d9-EtFOSE | IS | 68.8 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.255 L | 08-Oct-21 08:39 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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## Sample ID: MW-21-03-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 10:10

**Laboratory Data**

Lab Sample: 2109262-03
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Analyte | CAS Number | Conc. (ng/L) | MDL | RL | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|---|
| PFBA | 375-22-4 | 15.6 | 0.721 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFPeA | 2706-90-3 | 2.73 | 0.988 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFBS | 375-73-5 | 237 | 0.776 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 4:2 FTS | 757124-72-4 | <1.09 | 1.09 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHxA | 307-24-4 | 1.50 | 1.14 | 2.02 | J | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFPeS | 2706-91-4 | <0.912 | 0.912 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| HFPO-DA | 13252-13-6 | <0.625 | 0.625 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 14-Oct-21 21:38 | 1 |
| PFHpA | 375-85-9 | <0.892 | 0.892 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| ADONA | 919005-14-4 | <0.857 | 0.857 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHxS | 355-46-4 | <1.08 | 1.08 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 6:2 FTS | 27619-97-2 | 46.9 | 0.973 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOA | 335-67-1 | 5.24 | 1.10 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFHpS | 375-92-8 | <2.49 | 2.49 | 2.52 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFNA | 375-95-1 | <0.570 | 0.570 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOSA | 754-91-6 | 19.4 | 1.36 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFOS | 1763-23-1 | 2.31 | 1.07 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 9Cl-PF3ONS | 756426-58-1 | <0.837 | 0.837 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDA | 335-76-2 | <0.907 | 0.907 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 8:2 FTS | 39108-34-4 | <2.26 | 2.26 | 2.27 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFNS | 68259-12-1 | <1.42 | 1.42 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSAA | 2355-31-9 | <0.953 | 0.953 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSAA | 2991-50-6 | <2.56 | 2.56 | 2.65 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFUnA | 2058-94-8 | <1.36 | 1.36 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDS | 335-77-3 | <2.73 | 2.73 | 2.77 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 11Cl-PF3OUdS | 763051-92-9 | <0.430 | 0.430 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDoA | 307-55-1 | <0.791 | 0.791 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSA | 31506-32-8 | <6.91 | 6.91 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFTrDA | 72629-94-8 | <1.11 | 1.11 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFDoS | 79780-39-5 | <1.60 | 1.60 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| PFTeDA | 376-06-7 | <0.822 | 0.822 | 2.02 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSA | 4151-50-2 | <7.36 | 7.36 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| MeFOSE | 24448-09-7 | <8.06 | 8.06 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| EtFOSE | 1691-99-2 | <5.59 | 5.59 | 8.06 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-PFBA | IS | 120 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFPeA | IS | 116 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFBS | IS | 98.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

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## Sample ID: MW-21-03-210920

## PFAS Isotope Dilution Method

**Client Data**

Name: Tetra Tech
Project: Ashview Terrace PFAS
Matrix: Aqueous
Date Collected: 20-Sep-21 10:10

**Laboratory Data**

Lab Sample: 2109262-03
Date Received: 25-Sep-21 09:28
Column: BEH C18

| Labeled Standards | Type | % Recovery | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|---|---|---|---|---|---|---|---|---|
| 13C3-HFPO-DA | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 14-Oct-21 21:38 | 1 |
| 13C2-4:2 FTS | IS | 134 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFHxA | IS | 113 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C4-PFHpA | IS | 105 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C3-PFHxS | IS | 108 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-6:2 FTS | IS | 118 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C5-PFNA | IS | 110 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C8-PFOSA | IS | 93.3 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFOA | IS | 107 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C8-PFOS | IS | 109 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFDA | IS | 102 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-8:2 FTS | IS | 120 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d3-MeFOSAA | IS | 129 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFUnA | IS | 106 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d5-EtFOSAA | IS | 119 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFDoA | IS | 99.3 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d3-MeFOSA | IS | 44.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| 13C2-PFTeDA | IS | 94.5 | 25 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d5-EtFOSA | IS | 42.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d7-MeFOSE | IS | 72.7 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |
| d9-EtFOSE | IS | 78.6 | 10 - 150 | | B1I0176 | 01-Oct-21 | 0.248 L | 08-Oct-21 08:50 | 1 |

MDL - Method Detection Limit RL - Reporting limit Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

# DATA QUALIFIERS & ABBREVIATIONS

| | |
|---|---|
| B | This compound was also detected in the method blank |
| Conc. | Concentration |
| CRS | Cleanup Recovery Standard |
| D | Dilution |
| DL | Detection Limit |
| E | The associated compound concentration exceeded the calibration range of the instrument |
| H | Recovery and/or RPD was outside laboratory acceptance limits |
| I | Chemical Interference |
| IS | Internal Standard |
| J | The amount detected is below the Reporting Limit/LOQ |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| M | Estimated Maximum Possible Concentration (CA Region 2 projects only) |
| MDL | Method Detection Limit |
| NA | Not applicable |
| ND | Not Detected |
| OPR | Ongoing Precision and Recovery sample |
| P | The reported concentration may include contribution from chlorinated diphenyl ether(s). |
| Q | The ion transition ratio is outside of the acceptance criteria. |
| RL | Reporting Limit |
| RL | For 537.1, the reported RLs are the MRLs. |
| TEQ | Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations. |
| TEQMax | TEQ calculation that uses the detection limit as the concentration for non-detects |
| TEQMin | TEQ calculation that uses zero as the concentration for non-detects |
| TEQRisk | TEQ calculation that uses ½ the detection limit as the concentration for non-detects |
| U | Not Detected (specific projects only) |
| * | See Cover Letter |

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

**Vista Analytical Laboratory Certifications**

| Accrediting Authority | Certificate Number |
|---|---|
| Alaska Department of Environmental Conservation | 17-013 |
| Arkansas Department of Environmental Quality | 21-023-0 |
| California Department of Health – ELAP | 2892 |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005 | 3091.01 |
| Florida Department of Health | E87777-26 |
| Hawaii Department of Health | N/A |
| Louisiana Department of Environmental Quality | 01977 |
| Maine Department of Health | 2020018 |
| Massachusetts Department of Environmental Protection | M-CA413 |
| Michigan Department of Environmental Quality | 9932 |
| Minnesota Department of Health | 1980678 |
| New Hampshire Environmental Accreditation Program | 207720 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Ohio Environmental Protection Agency | 87778 |
| Oregon Laboratory Accreditation Program | 4042-016 |
| Pennsylvania Department of Environmental Protection | 017 |
| Texas Commission on Environmental Quality | T104704189-21-12 |
| Vermont Department of Health | VT-4042 |
| Virginia Department of General Services | 10769 |
| Washington Department of Ecology | C584 |
| Wisconsin Department of Natural Resources | 998036160 |

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

# NELAP Accredited Test Methods

| MATRIX: Air | |
|---|---|
| **Description of Test** | **Method** |
| Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans | EPA 23 |
| Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS | EPA TO-9A |

| MATRIX: Biological Tissue | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Drinking Water | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613/1613B |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537.1 |
| Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry | EPA 533 |
| Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry | ISO 25101 2009 |

| MATRIX: Non-Potable Water | |
|---|---|
| **Description of Test** | **Method** |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Dioxin by GC/HRMS | EPA 613 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Solids | |
|---|---|
| **Description of Test** | **Method** |
| Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613 |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS | EPA 1613B |
| Brominated Diphenyl Ethers by HRGC/HRMS | EPA 1614A |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS | EPA 1668A/C |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS | EPA 1699 |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537 |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS | EPA 8280A/B |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

Vista Analytical Laboratory

# CHAIN OF CUSTODY

**For Laboratory Use Only**
Work Order #: 2109268 Temp: 2.2 °C
Storage ID: R-13, WR-2 Storage Secured: Yes ☑ No ☐

Project ID: Ashview Terrace PFAS PO#: 117-4129210 Sampler: A. Gordon (name)

TAT (check one): Standard: ☑ 21 days; Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: _____

| Relinquished by (printed name and signature) | Date | Time | Received by (printed name and signature) | Date | Time |
|---|---|---|---|---|---|
| Andrew Gordon | 9-24-21 | 1700 | FedEx | 9-24-21 | 1700 |
| FedEX | 09/25/21 | 0938 | Justin Briseno | 09/25/21 | 0938 |

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
ATTN: Sample Custodian

Method of Shipment: FedEx
Tracking No.:

Add Analysis(es) Requested

| Sample ID | Date | Time | Location/ Sample Description | Container(s) Quantity | Type | Matrix | PFAS by Isotope Dilution: PFOA/ PFOS | UCMR3 PFAS List:6 | 537.1 List: 14 or 18 (Circle One) | EPA Draft List of 24 | OTHER: Please attach analyte list (537 PFAS) | EPA Method 537 (DW only): PFOA/ PFOS | UCMR3 PFAS List:6 | 537.1 List of 14 | 537.1 List of 18 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-21-01-210920 | 9-20-21 | 1130 | | 2 | P | AQ | | | | | √ | | | | | |
| MW-21-02-210920 | 9-20-21 | 1210 | | 2 | P | AQ | | | | | √ | | | | | |
| MW-21-03-210920 | 9-20-21 | 1010 | | 2 | P | AQ | | | | | √ | | | | | |

Special Instructions/Comment
Level IV data package and a Summary report for Samples

**SEND DOCUMENTATION AND RESULTS TO:**

Name: Mike Savale
Company: Tetra Tech
Address: 710 Avis Dr. Suite 100
City: Ann Arbor State: MI Zip: 48108
Phone: 810-423-4076
Email: michael.savale@tetratech.com

Container Types: P = HDPE, PJ = HDPE Jar, PY = Polypropylene, O= Other _____

Bottle Preservation Type: TZ= Trizma: _____

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other _____

Vista Analytical Laboratory

# Sample Log-In Checklist



**Vista Work Order #:** 2109262 **TAT** Std

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Samples Arrival:** | **Date/Time** 09/25/21 0928 | | **Initials:** | | **Location:** WR-2 **Shelf/Rack:** N/A | | |
| **Delivered By:** | (FedEx) | UPS | On Trac | GLS | DHL | Hand Delivered | Other |
| **Preservation:** | (Ice) | | Blue Ice | | Techni Ice | Dry Ice | None |
| **Temp °C:** 2.3 (uncorrected) **Temp °C:** 2.2 (corrected) | | | **Probe used:** Y / (N) | | **Thermometer ID:** IR-3 | | |

| | YES | NO | NA |
|---|---|---|---|
| Shipping Container(s) Intact? | ✓ | | |
| Shipping Custody Seals Intact? | | ✓ | ✓ |
| Airbill —— Trk # 284157590024 | ✓ | | |
| Shipping Documentation Present? | ✓ | | |
| Shipping Container: (Vista) Client (Retain) Return | | Dispose | |
| Chain of Custody / Sample Documentation Present? | ✓ | | |
| Chain of Custody / Sample Documentation Complete? | ✓ | | |
| Holding Time Acceptable? | ✓ | | |

| | | | |
|---|---|---|---|
| **Logged In:** | **Date/Time** 09/27/21 13:41 | **Initials:** MA | **Location:** R-13, WR-2 **Shelf/Rack:** A-2, F-5 |
| COC Anomaly/Sample Acceptance Form completed? | | ✓ | ✓ |

*Comments:*

# CoC/Label Reconciliation Report WO# 2109262

| LabNumber | CoC Sample ID | | SampleAlias | Sample Date/Time | | Container | BaseMatrix | Sample Comments |
|---|---|---|---|---|---|---|---|---|
| 2109262-01 | A MW-21-01-210920 | ☑ | | 20-Sep-21 11:30 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-01 | B MW-21-01-210920 | ☑ | | 20-Sep-21 11:30 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-02 | A MW-21-02-210920 | ☑ | | 20-Sep-21 12:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-02 | B MW-21-02-210920 | ☑ | | 20-Sep-21 12:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-03 | A MW-21-03-210920 | ☑ | | 20-Sep-21 10:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |
| 2109262-03 | B MW-21-03-210920 | ☑ | | 20-Sep-21 10:10 | ☑ | HDPE Bottle, 250 mL | Aqueous | |

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

| | Yes | No | NA |
|---|---|---|---|
| Sample Container Intact? | ✓ | | |
| Sample Custody Seals Intact? | | | ✓ |
| Adequate Sample Volume? | ✓ | | |
| Container Type Appropriate for Analysis(es) | ✓ | | |

Comments:

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verifed by/Date: VA 09/29/21