NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 | F: (518) 402-9020
www.dec.ny.gov

December 29, 2021

Mr. George Meyers, Supervisor
Town of New Windsor
555 Union Avenue
New Windsor, New York 12553

Re: New Windsor Public Water Supply Well PFAS Sample Results
Butterhill Wellfield, New Windsor (T), Orange County

Dear Supervisor Meyers:

The New York State Department of Environmental Conservation (DEC) is providing you with a copy of analytical results derived from the **December 7, 2021** sampling of the temporary granular activated carbon (GAC) water treatment system by DEC representatives that was installed at the Town of New Windsor (Town) Butterhill Wellfield located at 181 Forge Hill Road.

No PFOS or PFOA was detected in the Butterhill temporary GAC-treated water. Effective August 26, 2021, the NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

The samples were analyzed for polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the PFAS analysis has been attached.

During this event, sampling for PFAS was conducted at 27 locations.

- pre-treatment (combined raw untreated water), which has a “BH20211207PRE-GAC” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20211207-1N-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20211207-1N-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 1), which has a “BH20211207-1N-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20211207-2N-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20211207-2N-50” identifier in the Client Sample ID;

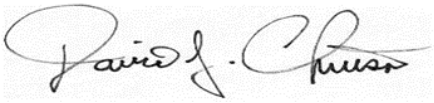
- 75 % treatment (within the lead GAC canister in Pair Train No. 2), which has a “BH20211207-2N-75” identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20211207-3N-25” identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20211207-3N-50” identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 3), which has a “BH20211207-3N-75” identifier in the Client Sample ID;
- Butterhill Well No.3 raw untreated water; which has a “BH20211207-3RAW” identifier in the Client Sample ID;
- Post-treatment (treated water after all GAC trains), which has a “BH20211207POST-GAC” identifier in the Client Sample ID.
- mid-treatment (after the first GAC canister in Pair Train No. 1 and prior to the second GAC canister in Pair Train No.1), which has a “BH20211207-1 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a “BH20211207-1 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 2 and prior to the second GAC canister in Pair Train No.2), which has a “BH20211207-2 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a “BH20211207-2 POST” identifier in the Client Sample ID;
- mid-treatment (after the first GAC canister in Pair Train No. 3 and prior to the second GAC canister in Pair Train No.3), which has a “BH20211207-3 MID” identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a “BH20211207-3 POST” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20211207-1S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20211207-1S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 1), which has a “BH20211207-1S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20211207-2S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20211207-2S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 2), which has a “BH20211207-2S-75” identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20211207-3S-25” identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20211207-3S-50” identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 3), which has a “BH20211207-3S-75” identifier in the Client Sample ID;

The 27 locations sampled (and their associated identifiers) are depicted in Figure 1.

Please note that the next sampling event will be scheduled around March 2022.

If you have any technical questions regarding the analytical results or on the operation and performance of the GAC treatment system, please feel free to contact me or Dana Bryant, P.E., Arcadis (DEC's Project Engineer) at (518) 250-7347 or dana.bryant@arcadis.com . For weekday or off hour / weekend emergency repair issues, please call DEC's contractor, Carl Aldrich of Aztech Environmental Services at (518) 470-3052 or Todd Rollend at (518) 365-3333. For questions regarding site-related health concerns, please contact Steve Gagnon of the Orange County DOH at (845) 291-2331 or Steve Gladding, P.E., Ph.D of the NYSDOH Bureau of Water Supply Protection at (518) 402-7650; email: steven.gladding@health.ny.gov .

Sincerely,



David J. Chiusano
Environmental Engineer/Project Manager
Remedial Section A, Remedial Bureau E
Division of Environmental Remediation

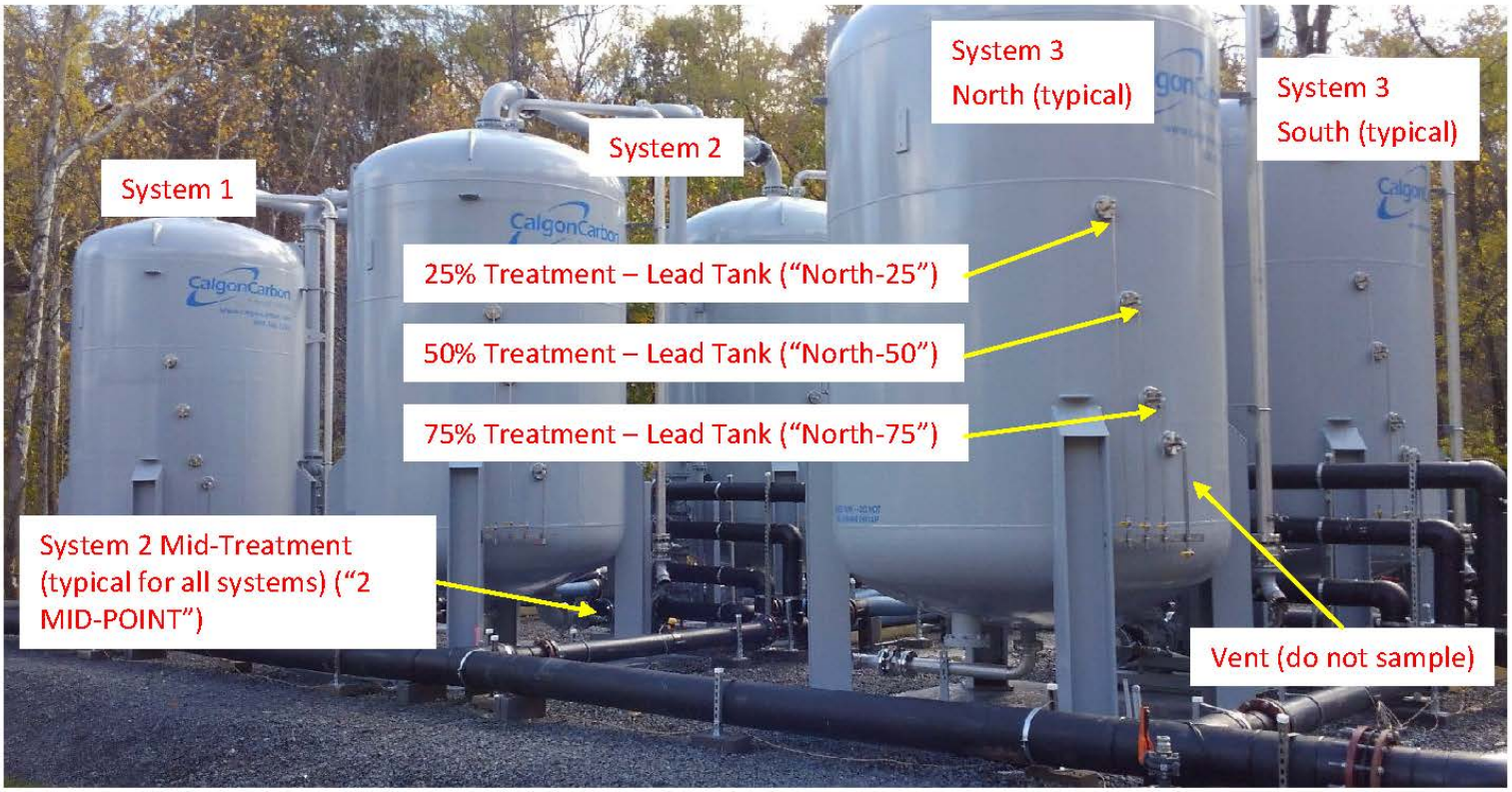
Enclosures

ec: w/enclosures
D. Zagon, Town of New Windsor
J. Egitto, Town of New Windsor
M. Weeks, MHE
Dr. Kim, NYSDOH
S. Gladding, NYSDOH
S. Gagnon, OCDOH
M. Andersen, OCDOH
D. Bryant, Arcadis
F. Fina, Aztech
M. Cruden, NYSDEC-DER
D. Bendell, Region 3 RHWRE

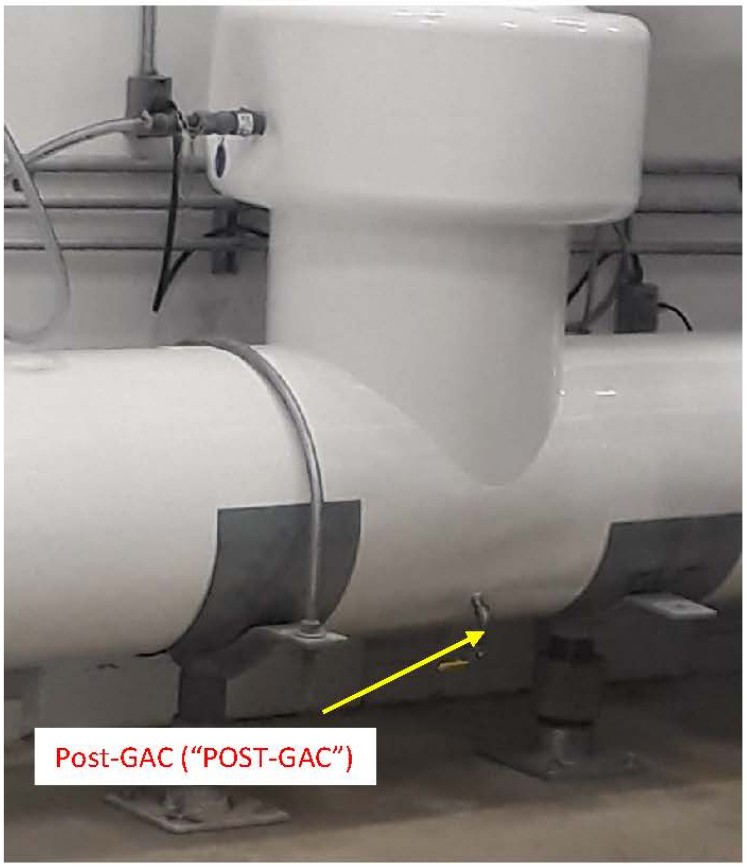
ARCADIS Design & Consultancy for natural and built assets

Figure 1
Sampling Locations

Butterhill Plant Temporary GAC Treatment System



Post-Filters, Pre-GAC ("PRE-GAC")



- 25%, 50%, 75% Treatment sample locations repeated on the current Lag "South" Tanks.
- Post-treatment samples for each individual System can be collected after each Lag Tank, mirrored sample location to MID-POINT sample location on Lead Tanks.

Town of New Windsor

Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results * (Parts Per Trillion (PPT))[1]

Date	Analyte	Well 1 Raw Water	Well 2 Raw Water	Well 3 Raw Water	Pre GAC Raw Water (Combined)	GAC Pair 1 Lead 25%(North)	GAC Pair 1 Lead 50%(North)	GAC Pair 1 Lead 75%(North)	GAC Pair 2 Lead 25% (North)	GAC Pair 2 Lead 50%(North)	GAC Pair 2 Lead 75%(North)	GAC Pair 3 Lead 25%(North)	GAC Pair 3 Lead 50%(North)	GAC Pair 3 Lead 75%(North)	Post GAC Treated Effluent	NYS MCLs[4]
December 2019 (Well 3)	PFOA	2.6	3.5	5.0	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10^4
	PFOS	3.7	2.4	8.9	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10^4
January 2020 (Well 2)	PFOA	2.4	3.5	3.9	3.3	ND	ND	ND	2.2	ND	ND	1.8	ND	ND	ND	10^4
	PFOS	3.3	2.4	7.7	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10^4
February 2020 (Well 2)	PFOA	3.1	3.9	3.6	3.3	ND	ND	ND	2.7	ND	ND	2.3	ND	ND	ND	10^4
	PFOS	3.6	2.7	6.0	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10^4
March 2020 (Well 1)	PFOA	2.5	2.9	2.9	2.5	ND	ND	ND	1.9	ND	ND	ND	ND	ND	ND	10^4
	PFOS	3.6	2.8	5.4	3.3	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	10^4
April 2020 (Well 1)	PFOA	3.0	3.1	2.8	2.8	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	10^4
	PFOS	3.4	2.2	4.5	3.0	ND	ND	ND	2.0	ND	ND	ND	ND	ND	ND	10^4
May 2020 (Well 3)	PFOA	3.3	NS	3.7	3.1	2.3	ND	ND	2.7	1.8	ND	2.4	ND	ND	ND	10^4
	PFOS	3.8	NS	5.9	5.0	2.9	ND	ND	3.5	1.9	ND	3.0	ND	ND	ND	10^4
August 2020 (Well 3)	PFOA	2.5	2.7	4.3	4.4	4.1	2.8	ND	3.9	3.1	1.8	4.1	2.6	ND	ND	10^4
	PFOS	3.2	2.2	8.1	8.5	6.1	3.0	ND	6.2	3.5	ND	6.6	2.7	ND	ND	10^4
December 2020 (Well 3)	PFOA	NS[4]	3.2	4.5	4.4	ND[2]	ND	ND	1.8	ND	ND	2.0	ND	ND	ND	10^4
	PFOS	NS[4]	2.5	8.5	7.5	ND[2]	ND	ND	1.8	ND	ND	2.1	ND	ND	ND	10^4
March 2021 (Well 3)	PFOA	NS[4]	NS[4]	2.9	3.1	5.6	ND	ND	3.6	2.1	ND	2.5	ND	ND	ND	10^4
	PFOS	NS[4]	NS[4]	5.3	5.0	12.0	ND	ND	6.6	2.2	ND	4.3	2.1	ND	ND	10^4
June 2021 (Well 3)	PFOA	NS[4]	NS[4]	3.1	2.6	2.4	1.9	ND	2.5	2.0	ND	2.4	1.9	ND	ND	10^4
	PFOS	NS[4]	NS[4]	5.3	3.8	3.5	2.2	ND	4.4	2.5	ND	4.9	2.6	ND	ND	10^4
September 2021 (Well 1)	PFOA	ND	NS[4]	3.1	2.3	2.1	ND	ND	2.1	2.0	ND	2.1	ND	ND	ND	10^4
	PFOS	2.1	NS[4]	5.5	2.9	2.7	ND	ND	3.0	2.0	ND	3.0	1.9	ND	ND	10^4
December 2021 (Well 3**)[5]	PFOA	NS[4]	NS[4]	4.1	3.8	3.7	3.1	2.4	3.4	2.9	2.0	3.7	3.1	2.7	ND	10^4
	PFOS	NS[4]	NS[4]	7.8	6.6	5.8	3.7	2.3	5.9	4.3	2.3	5.4	4.5	3.1	ND	10^4

Town of New Windsor

Butterhill Wellfield Temporary GAC Operation and Maintenance PFOA and PFOS Sampling Results * (Parts Per Trillion (PPT))Continued

Date	Analyte	GAC Pair 1 Mid-Point	GAC Pair 1 Post	GAC Pair 1 Lag 25%(South)	GAC Pair 1 Lag 50% (South)	GAC Pair 1 Lag 75%(South)	GAC Pair 2 Mid-Point	GAC Pair 2 Post	GAC Pair 2 Lag 25% (South)	GAC Pair 2 Lag 50%(South)	GAC Pair 2 Lag 75%(South)	GAC Pair 3 Mid-Point	GAC Pair 3 Post	GAC Pair 3 Lag 25%(South)	GAC Pair 3 Lag 50%(South)	GAC Pair 3 Lag 75%(South)	NYS MCLs[3]
February 2020 (Well 2)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
March 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
April 2020 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
May 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
August 2020 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
December 2020 (Well 3)	PFOA	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	**10[3]**
	PFOS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	ND	ND	NS	NS	NS	**10[3]**
March 2021 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
June 2021 (Well 3)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
September 2021 (Well 1)	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
December 2021 (Well 3)[5]**	PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10[3]**
	PFOS	ND	ND	**2.2**	ND	ND	**2.1**	ND	ND	ND	ND	**2.1**	ND	ND	ND	ND	**10[3]**

Notes:

* Method 533 List Analysis

** At the time of sampling (12/07/2021), Production Well 3 was running to the plant. Well 2 remains offline. Requested that Production Well 1 run to waste for sampling, but was not allowed by plant the operator.

1. PFOS and PFOA results and comparison values are reported in parts per trillion (ppt, nanograms per liter, ng/l).
2. “ND” means non-detect. The analyte was not detected in the sample.
3. The NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.
4. NS: Not Sampled
5. Con-Test (a Pace Laboratory)began analyzing drinking water samples starting with December 2021 sampling event.

How to Read Your Laboratory Reports

PFOA and PFOS Results:

- Analyte is the term used to describe what the laboratory was testing for, in this case PFOS and PFOA.
- Conc. (ng/l) is your result for PFOS and PFOA. In your case, no PFOS and PFOA were detected, thus ND or "non-detect" or <2.0 ng/l was reported. (ng/l = ppt)
- RL = reporting limit or RDL = reportable detection limit is the lowest level at which this specific testing protocol and laboratory has confidence in measuring the given analyte.
- Qualifiers are added information to help understand the quality of the data. Often, if something about the results or the calibration of the testing equipment was irregular, it would be reported here.

All other columns represent laboratory quality control information. The laboratory calibrates its equipment against a precise quantity of the chemical in order to ensure that the equipment is functioning properly. Some laboratory reports may not have all this information.

- Labeled Standard or Surrogate is the lab's specific name for an individual control sample.
- %R is the percent of the control sample that was detected by the equipment. A 100% reading represents perfect equipment alignment.
- LCL-UCL is the lower concentration limit (LCL) and upper concentration limit (UCL). The LCL represents the lowest acceptable %R value and the UCL represent the highest acceptable %R value required to ensure your result is accurate.
- Qualifiers: If a result quality control variance is noted or I the %R value of any of the control samples were outside the allowable range that would have been noted in this last column. This gives the analyst less confidence in the measured value.

The analysis for PFOS and PFOA is performed using modified EPA Method 537. The laboratory may report a detection of PFOS and PFOA down to approximately 2.0 nanograms per liter (ng/l) or parts per trillion (ppt).

Sec Goal is the EPA nomenclature for all contaminants that have regulatory levels set based on aesthetics (for example, taste or color). DOH recognizes these EPA secondary goals as primary standards and enforces its drinking water quality program accordingly.

- Date/Time represents the date and time of the analysis at the lab.
- By refers to the technician who ran the test.
- Reference indicates the EPA method used in the test.

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 22, 2021

David Chiusano
NYDEC_Arcadis US, Inc. - Clifton Park-NY
855 Route 146, Suite 210
Clifton Park, NY 12065

Project Location: Stewart ANG-Butterhill, New Windsor, NY
Client Job Number:
Project Number: 30058345
Laboratory Work Order Number: 21L0559

Enclosed are results of analyses for samples as received by the laboratory on December 8, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

NYDEC_Arcadis US, Inc. - Clifton Park-NY
855 Route 146, Suite 210
Clifton Park, NY 12065
ATTN: David Chiusano

REPORT DATE: 12/22/2021

PURCHASE ORDER NUMBER: 141586

PROJECT NUMBER: 30058345

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21L0559

The results of analyses performed on the following samples submitted to Con-Test, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Stewart ANG-Butterhill, New Windsor, NY

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BH20211207PRE-GAC	21L0559-01	Drinking Water		EPA 533	
BH20211207POST-GAC	21L0559-02	Drinking Water		EPA 533	
BH20211207POST-GACDUP	21L0559-03	Drinking Water		EPA 533	
BH20211207-1N-25	21L0559-06	Drinking Water		EPA 533	
BH20211207-1N-50	21L0559-07	Drinking Water		EPA 533	
BH20211207-1N-75	21L0559-08	Drinking Water		EPA 533	
BH20211207-1MIDPOINT	21L0559-09	Drinking Water		EPA 533	
BH20211207-1S-25	21L0559-10	Drinking Water		EPA 533	
BH20211207-1S-50	21L0559-11	Drinking Water		EPA 533	
BH20211207-1S-75	21L0559-12	Drinking Water		EPA 533	
BH20211207-1POST	21L0559-13	Drinking Water		EPA 533	
BH20211207-2N-25	21L0559-14	Drinking Water		EPA 533	
BH20211207-2N-50	21L0559-15	Drinking Water		EPA 533	
BH20211207-2N-75	21L0559-16	Drinking Water		EPA 533	
BH20211207-2MIDPOINT	21L0559-17	Drinking Water		EPA 533	
BH20211207-2S-25	21L0559-18	Drinking Water		EPA 533	
BH20211207-2S-50	21L0559-19	Drinking Water		EPA 533	
BH20211207-2S-75	21L0559-20	Drinking Water		EPA 533	
BH20211207-2POST	21L0559-21	Drinking Water		EPA 533	
BH20211207-3N-25	21L0559-22	Drinking Water		EPA 533	
BH20211207-3N-50	21L0559-23	Drinking Water		EPA 533	
BH20211207-3N-75	21L0559-24	Drinking Water		EPA 533	
BH20211207-3MIDPOINT	21L0559-25	Drinking Water		EPA 533	
BH20211207-3S-25	21L0559-26	Drinking Water		EPA 533	
BH20211207-3S-50	21L0559-27	Drinking Water		EPA 533	
BH20211207-3S-75	21L0559-28	Drinking Water		EPA 533	
BH20211207-3POST	21L0559-29	Drinking Water		EPA 533	
BH20211207-3RAW	21L0559-30	Drinking Water		EPA 533	
BH2021POSTGACMS/MSD	21L0559-31	Drinking Water		EPA 533	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207PRE-GAC Sampled: 12/7/2021 10:08

Sample ID: 21L0559-01

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.9	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorobutanesulfonic acid (PFBS)	2.1	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoropentanoic acid (PFPeA)	5.1	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorohexanoic acid (PFHxA)	3.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorohexanesulfonic acid (PFHxS)	3.8	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluoroheptanoic acid (PFHpA)	2.3	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorooctanoic acid (PFOA)	3.8	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorooctanesulfonic acid (PFOS)	6.6	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:21	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	55.9	50-200		12/18/21 13:21
M2-8:2FTS	121	50-200		12/18/21 13:21
MPFBA	102	50-200		12/18/21 13:21
M3HFPO-DA	82.7	50-200		12/18/21 13:21
M6PFDA	103	50-200		12/18/21 13:21
M3PFBS	101	50-200		12/18/21 13:21
M7PFUnA	109	50-200		12/18/21 13:21
M2-6:2FTS	81.8	50-200		12/18/21 13:21
M5PFPeA	138	50-200		12/18/21 13:21
M5PFHxA	99.7	50-200		12/18/21 13:21
M3PFHxS	104	50-200		12/18/21 13:21
M4PFHpA	102	50-200		12/18/21 13:21
M8PFOA	103	50-200		12/18/21 13:21
M8PFOS	101	50-200		12/18/21 13:21
M9PFNA	108	50-200		12/18/21 13:21
MPFDoA	100	50-200		12/18/21 13:21

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207POST-GAC Sampled: 12/7/2021 10:10

Sample ID: 21L0559-02

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoropentanoic acid (PFPeA)	3.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:29	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	65.2	50-200		12/18/21 13:29
M2-8:2FTS	117	50-200		12/18/21 13:29
MPFBA	103	50-200		12/18/21 13:29
M3HFPO-DA	85.1	50-200		12/18/21 13:29
M6PFDA	103	50-200		12/18/21 13:29
M3PFBS	101	50-200		12/18/21 13:29
M7PFUnA	104	50-200		12/18/21 13:29
M2-6:2FTS	88.5	50-200		12/18/21 13:29
M5PFPeA	117	50-200		12/18/21 13:29
M5PFHxA	99.5	50-200		12/18/21 13:29
M3PFHxS	105	50-200		12/18/21 13:29
M4PFHpA	102	50-200		12/18/21 13:29
M8PFOA	104	50-200		12/18/21 13:29
M8PFOS	104	50-200		12/18/21 13:29
M9PFNA	104	50-200		12/18/21 13:29
MPFDoA	92.5	50-200		12/18/21 13:29

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207POST-GACDUP Sampled: 12/7/2021 10:12

Sample ID: 21L0559-03

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoropentanoic acid (PFPeA)	4.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:36	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	62.9	50-200		12/18/21 13:36
M2-8:2FTS	109	50-200		12/18/21 13:36
MPFBA	96.8	50-200		12/18/21 13:36
M3HFPO-DA	74.3	50-200		12/18/21 13:36
M6PFDA	97.6	50-200		12/18/21 13:36
M3PFBS	96.7	50-200		12/18/21 13:36
M7PFUnA	98.9	50-200		12/18/21 13:36
M2-6:2FTS	92.9	50-200		12/18/21 13:36
M5PFPeA	108	50-200		12/18/21 13:36
M5PFHxA	93.0	50-200		12/18/21 13:36
M3PFHxS	97.2	50-200		12/18/21 13:36
M4PFHpA	94.3	50-200		12/18/21 13:36
M8PFOA	97.9	50-200		12/18/21 13:36
M8PFOS	96.4	50-200		12/18/21 13:36
M9PFNA	96.0	50-200		12/18/21 13:36
MPFDoA	94.1	50-200		12/18/21 13:36

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1N-25 Sampled: 12/7/2021 10:36

Sample ID: 21L0559-06

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.8	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorobutanesulfonic acid (PFBS)	2.1	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoropentanoic acid (PFPeA)	5.5	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorohexanoic acid (PFHxA)	3.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorohexanesulfonic acid (PFHxS)	4.0	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluoroheptanoic acid (PFHpA)	2.3	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorooctanoic acid (PFOA)	3.7	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorooctanesulfonic acid (PFOS)	5.8	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:43	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	52.3	50-200		12/18/21 13:43
M2-8:2FTS	109	50-200		12/18/21 13:43
MPFBA	99.6	50-200		12/18/21 13:43
M3HFPO-DA	76.9	50-200		12/18/21 13:43
M6PFDA	99.5	50-200		12/18/21 13:43
M3PFBS	95.5	50-200		12/18/21 13:43
M7PFUnA	104	50-200		12/18/21 13:43
M2-6:2FTS	79.3	50-200		12/18/21 13:43
M5PFPeA	132	50-200		12/18/21 13:43
M5PFHxA	96.5	50-200		12/18/21 13:43
M3PFHxS	96.5	50-200		12/18/21 13:43
M4PFHpA	95.7	50-200		12/18/21 13:43
M8PFOA	99.1	50-200		12/18/21 13:43
M8PFOS	97.3	50-200		12/18/21 13:43
M9PFNA	103	50-200		12/18/21 13:43
MPFDoA	93.9	50-200		12/18/21 13:43

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1N-50 Sampled: 12/7/2021 10:38

Sample ID: 21L0559-07

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	6.1	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorobutanesulfonic acid (PFBS)	1.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoropentanoic acid (PFPeA)	5.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorohexanoic acid (PFHxA)	3.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorohexanesulfonic acid (PFHxS)	2.8	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluoroheptanoic acid (PFHpA)	2.0	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorooctanoic acid (PFOA)	3.1	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorooctanesulfonic acid (PFOS)	3.7	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 13:50	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	61.3	50-200		12/18/21 13:50
M2-8:2FTS	122	50-200		12/18/21 13:50
MPFBA	107	50-200		12/18/21 13:50
M3HFPO-DA	80.6	50-200		12/18/21 13:50
M6PFDA	108	50-200		12/18/21 13:50
M3PFBS	105	50-200		12/18/21 13:50
M7PFUnA	111	50-200		12/18/21 13:50
M2-6:2FTS	86.5	50-200		12/18/21 13:50
M5PFPeA	140	50-200		12/18/21 13:50
M5PFHxA	105	50-200		12/18/21 13:50
M3PFHxS	108	50-200		12/18/21 13:50
M4PFHpA	106	50-200		12/18/21 13:50
M8PFOA	107	50-200		12/18/21 13:50
M8PFOS	107	50-200		12/18/21 13:50
M9PFNA	113	50-200		12/18/21 13:50
MPFDoA	101	50-200		12/18/21 13:50

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1N-75 Sampled: 12/7/2021 10:40

Sample ID: 21L0559-08

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoropentanoic acid (PFPeA)	5.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorohexanoic acid (PFHxA)	3.1	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorooctanoic acid (PFOA)	2.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorooctanesulfonic acid (PFOS)	2.3	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 13:57	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	59.1	50-200		12/18/21 13:57
M2-8:2FTS	119	50-200		12/18/21 13:57
MPFBA	96.9	50-200		12/18/21 13:57
M3HFPO-DA	71.2	50-200		12/18/21 13:57
M6PFDA	95.1	50-200		12/18/21 13:57
M3PFBS	98.5	50-200		12/18/21 13:57
M7PFUnA	96.8	50-200		12/18/21 13:57
M2-6:2FTS	89.2	50-200		12/18/21 13:57
M5PFPeA	119	50-200		12/18/21 13:57
M5PFHxA	91.9	50-200		12/18/21 13:57
M3PFHxS	101	50-200		12/18/21 13:57
M4PFHpA	91.8	50-200		12/18/21 13:57
M8PFOA	95.3	50-200		12/18/21 13:57
M8PFOS	101	50-200		12/18/21 13:57
M9PFNA	96.5	50-200		12/18/21 13:57
MPFDoA	90.7	50-200		12/18/21 13:57

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1MIDPOINT Sampled: 12/7/2021 10:42

Sample ID: 21L0559-09

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.5	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoropentanoic acid (PFPeA)	5.2	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorohexanoic acid (PFHxA)	2.7	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:05	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	69.2	50-200		12/18/21 14:05
M2-8:2FTS	142	50-200		12/18/21 14:05
MPFBA	115	50-200		12/18/21 14:05
M3HFPO-DA	87.2	50-200		12/18/21 14:05
M6PFDA	109	50-200		12/18/21 14:05
M3PFBS	115	50-200		12/18/21 14:05
M7PFUnA	117	50-200		12/18/21 14:05
M2-6:2FTS	102	50-200		12/18/21 14:05
M5PFPeA	142	50-200		12/18/21 14:05
M5PFHxA	111	50-200		12/18/21 14:05
M3PFHxS	118	50-200		12/18/21 14:05
M4PFHpA	111	50-200		12/18/21 14:05
M8PFOA	113	50-200		12/18/21 14:05
M8PFOS	111	50-200		12/18/21 14:05
M9PFNA	115	50-200		12/18/21 14:05
MPFDoA	111	50-200		12/18/21 14:05

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1S-25 Sampled: 12/7/2021 10:44

Sample ID: 21L0559-10

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.6	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoropentanoic acid (PFPeA)	5.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorohexanoic acid (PFHxA)	2.4	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorooctanesulfonic acid (PFOS)	2.2	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:12	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	66.6	50-200		12/18/21 14:12
M2-8:2FTS	124	50-200		12/18/21 14:12
MPFBA	106	50-200		12/18/21 14:12
M3HFPO-DA	77.6	50-200		12/18/21 14:12
M6PFDA	103	50-200		12/18/21 14:12
M3PFBS	106	50-200		12/18/21 14:12
M7PFUnA	107	50-200		12/18/21 14:12
M2-6:2FTS	92.4	50-200		12/18/21 14:12
M5PFPeA	123	50-200		12/18/21 14:12
M5PFHxA	101	50-200		12/18/21 14:12
M3PFHxS	106	50-200		12/18/21 14:12
M4PFHpA	101	50-200		12/18/21 14:12
M8PFOA	103	50-200		12/18/21 14:12
M8PFOS	107	50-200		12/18/21 14:12
M9PFNA	106	50-200		12/18/21 14:12
MPFDoA	102	50-200		12/18/21 14:12

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1S-50 Sampled: 12/7/2021 10:47

Sample ID: 21L0559-11

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoropentanoic acid (PFPeA)	5.0	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorohexanoic acid (PFHxA)	2.0	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:19	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	71.2	50-200		12/18/21 14:19
M2-8:2FTS	121	50-200		12/18/21 14:19
MPFBA	105	50-200		12/18/21 14:19
M3HFPO-DA	78.4	50-200		12/18/21 14:19
M6PFDA	100	50-200		12/18/21 14:19
M3PFBS	106	50-200		12/18/21 14:19
M7PFUnA	103	50-200		12/18/21 14:19
M2-6:2FTS	99.3	50-200		12/18/21 14:19
M5PFPeA	120	50-200		12/18/21 14:19
M5PFHxA	100	50-200		12/18/21 14:19
M3PFHxS	111	50-200		12/18/21 14:19
M4PFHpA	101	50-200		12/18/21 14:19
M8PFOA	103	50-200		12/18/21 14:19
M8PFOS	107	50-200		12/18/21 14:19
M9PFNA	104	50-200		12/18/21 14:19
MPFDoA	91.2	50-200		12/18/21 14:19

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1S-75 Sampled: 12/7/2021 10:49

Sample ID: 21L0559-12

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	8.7	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoropentanoic acid (PFPeA)	4.5	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:26	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	72.4	50-200		12/18/21 14:26
M2-8:2FTS	116	50-200		12/18/21 14:26
MPFBA	89.2	50-200		12/18/21 14:26
M3HFPO-DA	65.2	50-200		12/18/21 14:26
M6PFDA	93.7	50-200		12/18/21 14:26
M3PFBS	93.1	50-200		12/18/21 14:26
M7PFUnA	96.4	50-200		12/18/21 14:26
M2-6:2FTS	95.7	50-200		12/18/21 14:26
M5PFPeA	98.9	50-200		12/18/21 14:26
M5PFHxA	84.2	50-200		12/18/21 14:26
M3PFHxS	97.3	50-200		12/18/21 14:26
M4PFHpA	84.2	50-200		12/18/21 14:26
M8PFOA	89.4	50-200		12/18/21 14:26
M8PFOS	98.6	50-200		12/18/21 14:26
M9PFNA	95.4	50-200		12/18/21 14:26
MPFDoA	91.4	50-200		12/18/21 14:26

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-1POST Sampled: 12/7/2021 10:50

Sample ID: 21L0559-13

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.7	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoropentanoic acid (PFPeA)	4.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:40	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	78.4	50-200		12/18/21 14:40
M2-8:2FTS	123	50-200		12/18/21 14:40
MPFBA	110	50-200		12/18/21 14:40
M3HFPO-DA	81.2	50-200		12/18/21 14:40
M6PFDA	105	50-200		12/18/21 14:40
M3PFBS	112	50-200		12/18/21 14:40
M7PFUnA	104	50-200		12/18/21 14:40
M2-6:2FTS	102	50-200		12/18/21 14:40
M5PFPeA	121	50-200		12/18/21 14:40
M5PFHxA	104	50-200		12/18/21 14:40
M3PFHxS	112	50-200		12/18/21 14:40
M4PFHpA	105	50-200		12/18/21 14:40
M8PFOA	105	50-200		12/18/21 14:40
M8PFOS	106	50-200		12/18/21 14:40
M9PFNA	105	50-200		12/18/21 14:40
MPFDoA	99.3	50-200		12/18/21 14:40

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2N-25 Sampled: 12/7/2021 10:56

Sample ID: 21L0559-14

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	6.0	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorobutanesulfonic acid (PFBS)	2.2	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoropentanoic acid (PFPeA)	5.5	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorohexanoic acid (PFHxA)	3.4	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorohexanesulfonic acid (PFHxS)	3.5	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluoroheptanoic acid (PFHpA)	2.2	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorooctanoic acid (PFOA)	3.4	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorooctanesulfonic acid (PFOS)	5.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 14:48	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	57.0	50-200		12/18/21 14:48
M2-8:2FTS	124	50-200		12/18/21 14:48
MPFBA	95.3	50-200		12/18/21 14:48
M3HFPO-DA	73.9	50-200		12/18/21 14:48
M6PFDA	98.0	50-200		12/18/21 14:48
M3PFBS	97.5	50-200		12/18/21 14:48
M7PFUnA	104	50-200		12/18/21 14:48
M2-6:2FTS	86.4	50-200		12/18/21 14:48
M5PFPeA	124	50-200		12/18/21 14:48
M5PFHxA	91.1	50-200		12/18/21 14:48
M3PFHxS	101	50-200		12/18/21 14:48
M4PFHpA	93.8	50-200		12/18/21 14:48
M8PFOA	96.1	50-200		12/18/21 14:48
M8PFOS	101	50-200		12/18/21 14:48
M9PFNA	101	50-200		12/18/21 14:48
MPFDoA	95.3	50-200		12/18/21 14:48

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2N-50 Sampled: 12/7/2021 10:58

Sample ID: 21L0559-15

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.9	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoropentanoic acid (PFPeA)	5.4	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorohexanoic acid (PFHxA)	3.2	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorohexanesulfonic acid (PFHxS)	2.6	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluoroheptanoic acid (PFHpA)	2.0	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorooctanoic acid (PFOA)	2.9	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorooctanesulfonic acid (PFOS)	4.3	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 14:55	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	56.1	50-200		12/18/21 14:55
M2-8:2FTS	119	50-200		12/18/21 14:55
MPFBA	97.7	50-200		12/18/21 14:55
M3HFPO-DA	71.0	50-200		12/18/21 14:55
M6PFDA	98.3	50-200		12/18/21 14:55
M3PFBS	96.6	50-200		12/18/21 14:55
M7PFUnA	102	50-200		12/18/21 14:55
M2-6:2FTS	85.9	50-200		12/18/21 14:55
M5PFPeA	125	50-200		12/18/21 14:55
M5PFHxA	91.8	50-200		12/18/21 14:55
M3PFHxS	101	50-200		12/18/21 14:55
M4PFHpA	93.8	50-200		12/18/21 14:55
M8PFOA	96.9	50-200		12/18/21 14:55
M8PFOS	98.3	50-200		12/18/21 14:55
M9PFNA	102	50-200		12/18/21 14:55
MPFDoA	97.3	50-200		12/18/21 14:55

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2N-75 Sampled: 12/7/2021 11:00

Sample ID: 21L0559-16

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoropentanoic acid (PFPeA)	5.1	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorohexanoic acid (PFHxA)	2.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorohexanesulfonic acid (PFHxS)	1.9	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorooctanoic acid (PFOA)	2.0	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorooctanesulfonic acid (PFOS)	2.3	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:02	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	61.0	50-200		12/18/21 15:02
M2-8:2FTS	128	50-200		12/18/21 15:02
MPFBA	105	50-200		12/18/21 15:02
M3HFPO-DA	83.8	50-200		12/18/21 15:02
M6PFDA	105	50-200		12/18/21 15:02
M3PFBS	103	50-200		12/18/21 15:02
M7PFUnA	105	50-200		12/18/21 15:02
M2-6:2FTS	87.5	50-200		12/18/21 15:02
M5PFPeA	129	50-200		12/18/21 15:02
M5PFHxA	101	50-200		12/18/21 15:02
M3PFHxS	103	50-200		12/18/21 15:02
M4PFHpA	102	50-200		12/18/21 15:02
M8PFOA	106	50-200		12/18/21 15:02
M8PFOS	107	50-200		12/18/21 15:02
M9PFNA	111	50-200		12/18/21 15:02
MPFDoA	99.6	50-200		12/18/21 15:02

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2MIDPOINT Sampled: 12/7/2021 11:02

Sample ID: 21L0559-17

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.1	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoropentanoic acid (PFPeA)	4.8	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorohexanoic acid (PFHxA)	2.8	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	26	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorooctanesulfonic acid (PFOS)	2.1	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	12/17/21	12/18/21 15:09	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	65.3	50-200		12/18/21 15:09
M2-8:2FTS	128	50-200		12/18/21 15:09
MPFBA	111	50-200		12/18/21 15:09
M3HFPO-DA	89.8	50-200		12/18/21 15:09
M6PFDA	108	50-200		12/18/21 15:09
M3PFBS	109	50-200		12/18/21 15:09
M7PFUnA	113	50-200		12/18/21 15:09
M2-6:2FTS	101	50-200		12/18/21 15:09
M5PFPeA	138	50-200		12/18/21 15:09
M5PFHxA	106	50-200		12/18/21 15:09
M3PFHxS	111	50-200		12/18/21 15:09
M4PFHpA	106	50-200		12/18/21 15:09
M8PFOA	110	50-200		12/18/21 15:09
M8PFOS	108	50-200		12/18/21 15:09
M9PFNA	113	50-200		12/18/21 15:09
MPFDoA	105	50-200		12/18/21 15:09

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2S-25 Sampled: 12/7/2021 11:04

Sample ID: 21L0559-18

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.3	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoropentanoic acid (PFPeA)	4.8	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorohexanoic acid (PFHxA)	2.1	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/17/21	12/18/21 15:16	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	64.5	50-200		12/18/21 15:16
M2-8:2FTS	130	50-200		12/18/21 15:16
MPFBA	102	50-200		12/18/21 15:16
M3HFPO-DA	72.4	50-200		12/18/21 15:16
M6PFDA	105	50-200		12/18/21 15:16
M3PFBS	103	50-200		12/18/21 15:16
M7PFUnA	106	50-200		12/18/21 15:16
M2-6:2FTS	91.9	50-200		12/18/21 15:16
M5PFPeA	119	50-200		12/18/21 15:16
M5PFHxA	96.7	50-200		12/18/21 15:16
M3PFHxS	104	50-200		12/18/21 15:16
M4PFHpA	97.8	50-200		12/18/21 15:16
M8PFOA	102	50-200		12/18/21 15:16
M8PFOS	102	50-200		12/18/21 15:16
M9PFNA	107	50-200		12/18/21 15:16
MPFDoA	99.8	50-200		12/18/21 15:16

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2S-50 Sampled: 12/7/2021 11:06

Sample ID: 21L0559-19

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.3	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoropentanoic acid (PFPeA)	4.2	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorohexanoic acid (PFHxA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
9Cl-PF3ONS (F53B Major)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorodecanoic acid (PFDA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorooctanoic acid (PFOA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH
Perfluorononanoic acid (PFNA)	ND	2.1		ng/L	1		EPA 533	12/17/21	12/18/21 15:24	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	74.0	50-200		12/18/21 15:24
M2-8:2FTS	138	50-200		12/18/21 15:24
MPFBA	110	50-200		12/18/21 15:24
M3HFPO-DA	80.2	50-200		12/18/21 15:24
M6PFDA	108	50-200		12/18/21 15:24
M3PFBS	111	50-200		12/18/21 15:24
M7PFUnA	113	50-200		12/18/21 15:24
M2-6:2FTS	108	50-200		12/18/21 15:24
M5PFPeA	125	50-200		12/18/21 15:24
M5PFHxA	105	50-200		12/18/21 15:24
M3PFHxS	113	50-200		12/18/21 15:24
M4PFHpA	105	50-200		12/18/21 15:24
M8PFOA	108	50-200		12/18/21 15:24
M8PFOS	114	50-200		12/18/21 15:24
M9PFNA	109	50-200		12/18/21 15:24
MPFDoA	108	50-200		12/18/21 15:24

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2S-75 Sampled: 12/7/2021 11:08

Sample ID: 21L0559-20

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.4	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoropentanoic acid (PFPeA)	4.2	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/17/21	12/18/21 15:31	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	57.5	50-200		12/18/21 15:31
M2-8:2FTS	137	50-200		12/18/21 15:31
MPFBA	103	50-200		12/18/21 15:31
M3HFPO-DA	76.0	50-200		12/18/21 15:31
M6PFDA	105	50-200		12/18/21 15:31
M3PFBS	103	50-200		12/18/21 15:31
M7PFUnA	107	50-200		12/18/21 15:31
M2-6:2FTS	98.8	50-200		12/18/21 15:31
M5PFPeA	119	50-200		12/18/21 15:31
M5PFHxA	96.6	50-200		12/18/21 15:31
M3PFHxS	105	50-200		12/18/21 15:31
M4PFHpA	99.7	50-200		12/18/21 15:31
M8PFOA	104	50-200		12/18/21 15:31
M8PFOS	106	50-200		12/18/21 15:31
M9PFNA	111	50-200		12/18/21 15:31
MPFDoA	102	50-200		12/18/21 15:31

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-2POST Sampled: 12/7/2021 11:09

Sample ID: 21L0559-21

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.7	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoropentanoic acid (PFPeA)	4.0	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 11:56	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	62.6	50-200		12/21/21 11:56
M2-8:2FTS	97.2	50-200		12/21/21 11:56
MPFBA	89.7	50-200		12/21/21 11:56
M3HFPO-DA	80.3	50-200		12/21/21 11:56
M6PFDA	88.4	50-200		12/21/21 11:56
M3PFBS	92.4	50-200		12/21/21 11:56
M7PFUnA	94.2	50-200		12/21/21 11:56
M2-6:2FTS	84.7	50-200		12/21/21 11:56
M5PFPeA	102	50-200		12/21/21 11:56
M5PFHxA	87.4	50-200		12/21/21 11:56
M3PFHxS	91.8	50-200		12/21/21 11:56
M4PFHpA	88.5	50-200		12/21/21 11:56
M8PFOA	89.2	50-200		12/21/21 11:56
M8PFOS	88.9	50-200		12/21/21 11:56
M9PFNA	90.4	50-200		12/21/21 11:56
MPFDoA	86.5	50-200		12/21/21 11:56

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3N-25 Sampled: 12/7/2021 11:13

Sample ID: 21L0559-22

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.7	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorobutanesulfonic acid (PFBS)	1.9	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoropentanoic acid (PFPeA)	5.1	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorohexanoic acid (PFHxA)	3.2	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorohexanesulfonic acid (PFHxS)	3.5	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluoroheptanoic acid (PFHpA)	2.0	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorooctanoic acid (PFOA)	3.7	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorooctanesulfonic acid (PFOS)	5.4	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:30	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	55.3	50-200		12/22/21 13:30
M2-8:2FTS	125	50-200		12/22/21 13:30
MPFBA	96.5	50-200		12/22/21 13:30
M3HFPO-DA	83.7	50-200		12/22/21 13:30
M6PFDA	99.1	50-200		12/22/21 13:30
M3PFBS	97.4	50-200		12/22/21 13:30
M7PFUnA	102	50-200		12/22/21 13:30
M2-6:2FTS	82.9	50-200		12/22/21 13:30
M5PFPeA	126	50-200		12/22/21 13:30
M5PFHxA	93.4	50-200		12/22/21 13:30
M3PFHxS	101	50-200		12/22/21 13:30
M4PFHpA	94.6	50-200		12/22/21 13:30
M8PFOA	97.0	50-200		12/22/21 13:30
M8PFOS	99.9	50-200		12/22/21 13:30
M9PFNA	100	50-200		12/22/21 13:30
MPFDoA	94.6	50-200		12/22/21 13:30

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3N-50 Sampled: 12/7/2021 11:14

Sample ID: 21L0559-23

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.8	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoropentanoic acid (PFPeA)	5.1	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorohexanoic acid (PFHxA)	3.1	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorohexanesulfonic acid (PFHxS)	3.0	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluoroheptanoic acid (PFHpA)	2.0	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorooctanoic acid (PFOA)	3.1	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorooctanesulfonic acid (PFOS)	4.5	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/22/21 13:37	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	59.2	50-200		12/22/21 13:37
M2-8:2FTS	135	50-200		12/22/21 13:37
MPFBA	103	50-200		12/22/21 13:37
M3HFPO-DA	83.7	50-200		12/22/21 13:37
M6PFDA	98.8	50-200		12/22/21 13:37
M3PFBS	103	50-200		12/22/21 13:37
M7PFUnA	103	50-200		12/22/21 13:37
M2-6:2FTS	84.4	50-200		12/22/21 13:37
M5PFPeA	133	50-200		12/22/21 13:37
M5PFHxA	98.5	50-200		12/22/21 13:37
M3PFHxS	106	50-200		12/22/21 13:37
M4PFHpA	96.4	50-200		12/22/21 13:37
M8PFOA	98.3	50-200		12/22/21 13:37
M8PFOS	100	50-200		12/22/21 13:37
M9PFNA	103	50-200		12/22/21 13:37
MPFDoA	94.6	50-200		12/22/21 13:37

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3N-75 Sampled: 12/7/2021 11:15

Sample ID: 21L0559-24

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.4	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoropentanoic acid (PFPeA)	4.9	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorohexanoic acid (PFHxA)	2.9	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorohexanesulfonic acid (PFHxS)	2.5	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorooctanoic acid (PFOA)	2.7	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorooctanesulfonic acid (PFOS)	3.1	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:17	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	55.8	50-200		12/21/21 12:17
M2-8:2FTS	104	50-200		12/21/21 12:17
MPFBA	99.4	50-200		12/21/21 12:17
M3HFPO-DA	84.5	50-200		12/21/21 12:17
M6PFDA	91.9	50-200		12/21/21 12:17
M3PFBS	101	50-200		12/21/21 12:17
M7PFUnA	100	50-200		12/21/21 12:17
M2-6:2FTS	80.8	50-200		12/21/21 12:17
M5PFPeA	131	50-200		12/21/21 12:17
M5PFHxA	97.3	50-200		12/21/21 12:17
M3PFHxS	101	50-200		12/21/21 12:17
M4PFHpA	97.3	50-200		12/21/21 12:17
M8PFOA	97.9	50-200		12/21/21 12:17
M8PFOS	95.3	50-200		12/21/21 12:17
M9PFNA	99.2	50-200		12/21/21 12:17
MPFDoA	88.7	50-200		12/21/21 12:17

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3MIDPOINT Sampled: 12/7/2021 11:19

Sample ID: 21L0559-25

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.9	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoropentanoic acid (PFPeA)	5.2	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorohexanoic acid (PFHxA)	2.8	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorooctanesulfonic acid (PFOS)	2.1	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:24	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	56.4	50-200		12/21/21 12:24
M2-8:2FTS	96.8	50-200		12/21/21 12:24
MPFBA	93.7	50-200		12/21/21 12:24
M3HFPO-DA	75.1	50-200		12/21/21 12:24
M6PFDA	89.3	50-200		12/21/21 12:24
M3PFBS	96.4	50-200		12/21/21 12:24
M7PFUnA	96.8	50-200		12/21/21 12:24
M2-6:2FTS	77.8	50-200		12/21/21 12:24
M5PFPeA	118	50-200		12/21/21 12:24
M5PFHxA	92.9	50-200		12/21/21 12:24
M3PFHxS	95.4	50-200		12/21/21 12:24
M4PFHpA	92.6	50-200		12/21/21 12:24
M8PFOA	94.2	50-200		12/21/21 12:24
M8PFOS	91.8	50-200		12/21/21 12:24
M9PFNA	90.1	50-200		12/21/21 12:24
MPFDoA	87.0	50-200		12/21/21 12:24

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3S-25 Sampled: 12/7/2021 11:24

Sample ID: 21L0559-26

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	6.2	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoropentanoic acid (PFPeA)	5.4	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorohexanoic acid (PFHxA)	2.5	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:32	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	61.1	50-200		12/21/21 12:32
M2-8:2FTS	97.7	50-200		12/21/21 12:32
MPFBA	92.4	50-200		12/21/21 12:32
M3HFPO-DA	78.2	50-200		12/21/21 12:32
M6PFDA	87.4	50-200		12/21/21 12:32
M3PFBS	94.0	50-200		12/21/21 12:32
M7PFUnA	92.6	50-200		12/21/21 12:32
M2-6:2FTS	84.0	50-200		12/21/21 12:32
M5PFPeA	110	50-200		12/21/21 12:32
M5PFHxA	88.3	50-200		12/21/21 12:32
M3PFHxS	93.6	50-200		12/21/21 12:32
M4PFHpA	89.2	50-200		12/21/21 12:32
M8PFOA	92.3	50-200		12/21/21 12:32
M8PFOS	94.4	50-200		12/21/21 12:32
M9PFNA	93.6	50-200		12/21/21 12:32
MPFDoA	84.9	50-200		12/21/21 12:32

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3S-50 Sampled: 12/7/2021 11:25

Sample ID: 21L0559-27

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.8	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoropentanoic acid (PFPeA)	5.4	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:39	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	63.0	50-200		12/21/21 12:39
M2-8:2FTS	95.4	50-200		12/21/21 12:39
MPFBA	90.4	50-200		12/21/21 12:39
M3HFPO-DA	78.7	50-200		12/21/21 12:39
M6PFDA	86.7	50-200		12/21/21 12:39
M3PFBS	90.2	50-200		12/21/21 12:39
M7PFUnA	94.9	50-200		12/21/21 12:39
M2-6:2FTS	80.3	50-200		12/21/21 12:39
M5PFPeA	101	50-200		12/21/21 12:39
M5PFHxA	87.3	50-200		12/21/21 12:39
M3PFHxS	92.2	50-200		12/21/21 12:39
M4PFHpA	89.9	50-200		12/21/21 12:39
M8PFOA	91.0	50-200		12/21/21 12:39
M8PFOS	90.4	50-200		12/21/21 12:39
M9PFNA	96.0	50-200		12/21/21 12:39
MPFDoA	87.9	50-200		12/21/21 12:39

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3S-75 Sampled: 12/7/2021 11:26

Sample ID: 21L0559-28

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.8	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoropentanoic acid (PFPeA)	5.4	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:46	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	69.7	50-200		12/21/21 12:46
M2-8:2FTS	101	50-200		12/21/21 12:46
MPFBA	93.0	50-200		12/21/21 12:46
M3HFPO-DA	76.1	50-200		12/21/21 12:46
M6PFDA	89.3	50-200		12/21/21 12:46
M3PFBS	95.5	50-200		12/21/21 12:46
M7PFUnA	92.6	50-200		12/21/21 12:46
M2-6:2FTS	87.0	50-200		12/21/21 12:46
M5PFPeA	101	50-200		12/21/21 12:46
M5PFHxA	87.3	50-200		12/21/21 12:46
M3PFHxS	95.4	50-200		12/21/21 12:46
M4PFHpA	87.2	50-200		12/21/21 12:46
M8PFOA	87.3	50-200		12/21/21 12:46
M8PFOS	92.7	50-200		12/21/21 12:46
M9PFNA	89.6	50-200		12/21/21 12:46
MPFDoA	85.3	50-200		12/21/21 12:46

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3POST Sampled: 12/7/2021 11:28

Sample ID: 21L0559-29

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.2	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoropentanoic acid (PFPeA)	4.9	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
11Cl-PF3OUdS (F53B Minor)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1		EPA 533	12/20/21	12/21/21 12:53	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	70.9	50-200		12/21/21 12:53
M2-8:2FTS	111	50-200		12/21/21 12:53
MPFBA	101	50-200		12/21/21 12:53
M3HFPO-DA	89.2	50-200		12/21/21 12:53
M6PFDA	98.4	50-200		12/21/21 12:53
M3PFBS	104	50-200		12/21/21 12:53
M7PFUnA	105	50-200		12/21/21 12:53
M2-6:2FTS	98.0	50-200		12/21/21 12:53
M5PFPeA	112	50-200		12/21/21 12:53
M5PFHxA	98.5	50-200		12/21/21 12:53
M3PFHxS	106	50-200		12/21/21 12:53
M4PFHpA	100	50-200		12/21/21 12:53
M8PFOA	101	50-200		12/21/21 12:53
M8PFOS	105	50-200		12/21/21 12:53
M9PFNA	103	50-200		12/21/21 12:53
MPFDoA	99.5	50-200		12/21/21 12:53

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH20211207-3RAW Sampled: 12/7/2021 11:59

Sample ID: 21L0559-30

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	4.9	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorobutanesulfonic acid (PFBS)	2.2	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoropentanoic acid (PFPeA)	5.3	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorohexanoic acid (PFHxA)	3.5	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorohexanesulfonic acid (PFHxS)	4.1	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluoroheptanoic acid (PFHpA)	2.5	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorooctanoic acid (PFOA)	4.1	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorooctanesulfonic acid (PFOS)	7.8	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:00	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	50.2	50-200		12/21/21 13:00
M2-8:2FTS	109	50-200		12/21/21 13:00
MPFBA	106	50-200		12/21/21 13:00
M3HFPO-DA	88.0	50-200		12/21/21 13:00
M6PFDA	102	50-200		12/21/21 13:00
M3PFBS	106	50-200		12/21/21 13:00
M7PFUnA	108	50-200		12/21/21 13:00
M2-6:2FTS	82.4	50-200		12/21/21 13:00
M5PFPeA	146	50-200		12/21/21 13:00
M5PFHxA	102	50-200		12/21/21 13:00
M3PFHxS	106	50-200		12/21/21 13:00
M4PFHpA	103	50-200		12/21/21 13:00
M8PFOA	104	50-200		12/21/21 13:00
M8PFOS	97.2	50-200		12/21/21 13:00
M9PFNA	109	50-200		12/21/21 13:00
MPFDoA	104	50-200		12/21/21 13:00

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Project Location: Stewart ANG-Butterhill, New Win Sample Description: Work Order: 21L0559

Date Received: 12/8/2021

Field Sample #: BH2021POSTGACMS/MSD Sampled: 12/7/2021 10:20

Sample ID: 21L0559-31

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL MA ORSG	Units	DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	5.8	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoropentanoic acid (PFPeA)	4.2	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
8:2 Fluorotelomersulfonic acid (8:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
4:2 Fluorotelomersulfonic acid (4:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
6:2 Fluorotelomersulfonic acid (6:2FTSA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	12/20/21	12/21/21 13:15	BLH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	67.3	50-200		12/21/21 13:15
M2-8:2FTS	104	50-200		12/21/21 13:15
MPFBA	101	50-200		12/21/21 13:15
M3HFPO-DA	88.2	50-200		12/21/21 13:15
M6PFDA	88.0	50-200		12/21/21 13:15
M3PFBS	99.3	50-200		12/21/21 13:15
M7PFUnA	91.9	50-200		12/21/21 13:15
M2-6:2FTS	89.7	50-200		12/21/21 13:15
M5PFPeA	112	50-200		12/21/21 13:15
M5PFHxA	96.6	50-200		12/21/21 13:15
M3PFHxS	100	50-200		12/21/21 13:15
M4PFHpA	96.9	50-200		12/21/21 13:15
M8PFOA	93.5	50-200		12/21/21 13:15
M8PFOS	95.8	50-200		12/21/21 13:15
M9PFNA	91.3	50-200		12/21/21 13:15
MPFDoA	81.9	50-200		12/21/21 13:15

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Sample Extraction Data

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21L0559-21 [BH20211207-2POST]	B296740	252	1.00	12/20/21
21L0559-24 [BH20211207-3N-75]	B296740	253	1.00	12/20/21
21L0559-25 [BH20211207-3MIDPOINT]	B296740	253	1.00	12/20/21
21L0559-26 [BH20211207-3S-25]	B296740	249	1.00	12/20/21
21L0559-27 [BH20211207-3S-50]	B296740	251	1.00	12/20/21
21L0559-28 [BH20211207-3S-75]	B296740	250	1.00	12/20/21
21L0559-29 [BH20211207-3POST]	B296740	250	1.00	12/20/21
21L0559-30 [BH20211207-3RAW]	B296740	259	1.00	12/20/21
21L0559-31 [BH2021POSTGACMS/MSD]	B296740	258	1.00	12/20/21

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21L0559-01 [BH20211207PRE-GAC]	B296741	255	1.00	12/17/21
21L0559-02 [BH20211207POST-GAC]	B296741	265	1.00	12/17/21
21L0559-03 [BH20211207POST-GACDUP]	B296741	258	1.00	12/17/21
21L0559-06 [BH20211207-1N-25]	B296741	254	1.00	12/17/21
21L0559-07 [BH20211207-1N-50]	B296741	270	1.00	12/17/21
21L0559-08 [BH20211207-1N-75]	B296741	253	1.00	12/17/21
21L0559-09 [BH20211207-1MIDPOINT]	B296741	266	1.00	12/17/21
21L0559-10 [BH20211207-1S-25]	B296741	259	1.00	12/17/21
21L0559-11 [BH20211207-1S-50]	B296741	256	1.00	12/17/21
21L0559-12 [BH20211207-1S-75]	B296741	260	1.00	12/17/21
21L0559-13 [BH20211207-1POST]	B296741	260	1.00	12/17/21
21L0559-14 [BH20211207-2N-25]	B296741	264	1.00	12/17/21
21L0559-15 [BH20211207-2N-50]	B296741	254	1.00	12/17/21
21L0559-16 [BH20211207-2N-75]	B296741	258	1.00	12/17/21
21L0559-17 [BH20211207-2MIDPOINT]	B296741	276	1.00	12/17/21
21L0559-18 [BH20211207-2S-25]	B296741	248	1.00	12/17/21
21L0559-19 [BH20211207-2S-50]	B296741	238	1.00	12/17/21
21L0559-20 [BH20211207-2S-75]	B296741	263	1.00	12/17/21

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21L0559-22RE1 [BH20211207-3N-25]	B297456	262	1.00	12/20/21
21L0559-23RE1 [BH20211207-3N-50]	B297456	263	1.00	12/20/21

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296740 - EPA 533											
Blank (B296740-BLK1)					Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L							
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L							
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L							
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L							
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L							
Surrogate: M2-4:2FTS	*32.2*			ng/L	35.7		90.1	50-200			
Surrogate: M2-8:2FTS	*36.9*			ng/L	36.5		101	50-200			
Surrogate: MPFBA	*38.0*			ng/L	38.0		99.9	50-200			
Surrogate: M3HFPO-DA	*34.3*			ng/L	38.0		90.2	50-200			
Surrogate: M6PFDA	*35.9*			ng/L	38.0		94.3	50-200			
Surrogate: M3PFBS	*37.2*			ng/L	35.5		105	50-200			
Surrogate: M7PFUnA	*39.6*			ng/L	38.0		104	50-200			
Surrogate: M2-6:2FTS	*34.6*			ng/L	36.2		95.7	50-200			
Surrogate: M5PFPeA	*39.2*			ng/L	38.0		103	50-200			
Surrogate: M5PFHxA	*37.6*			ng/L	38.0		98.8	50-200			
Surrogate: M3PFHxS	*37.6*			ng/L	36.1		104	50-200			
Surrogate: M4PFHpA	*38.2*			ng/L	38.0		101	50-200			
Surrogate: M8PFOA	*37.1*			ng/L	38.0		97.6	50-200			
Surrogate: M8PFOS	*36.8*			ng/L	36.5		101	50-200			
Surrogate: M9PFNA	*38.3*			ng/L	38.0		101	50-200			
Surrogate: MPFDoA	*36.5*			ng/L	38.0		96.0	50-200			
LCS (B296740-BS1)					Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorobutanoic acid (PFBA)	21.1	1.9		ng/L	18.9		112	70-130			
Perfluorobutanesulfonic acid (PFBS)	18.5	1.9		ng/L	16.8		110	70-130			
Perfluoropentanoic acid (PFPeA)	20.4	1.9		ng/L	18.9		108	70-130			
Perfluorohexanoic acid (PFHxA)	20.9	1.9		ng/L	18.9		110	70-130			
11Cl-PF3OUdS (F53B Minor)	18.8	1.9		ng/L	17.8		106	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296740 - EPA 533											
LCS (B296740-BS1)					Prepared: 12/20/21 Analyzed: 12/21/21						
9Cl-PF3ONS (F53B Major)	20.5	1.9		ng/L	17.6		116	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	20.5	1.9		ng/L	17.8		115	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	20.9	1.9		ng/L	18.9		110	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	21.9	1.9		ng/L	18.2		120	70-130			
Perfluorodecanoic acid (PFDA)	21.2	1.9		ng/L	18.9		112	70-130			
Perfluorododecanoic acid (PFDoA)	20.4	1.9		ng/L	18.9		108	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	19.6	1.9		ng/L	16.8		116	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	20.3	1.9		ng/L	18.1		112	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	20.9	1.9		ng/L	17.7		118	70-130			
Perfluorohexanesulfonic acid (PFHxS)	20.0	1.9		ng/L	17.3		115	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	23.0	1.9		ng/L	18.9		122	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	19.2	1.9		ng/L	18.9		101	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	22.2	1.9		ng/L	18.0		124	70-130			
Perfluoropetanesulfonic acid (PFPeS)	20.3	1.9		ng/L	17.8		114	70-130			
Perfluoroundecanoic acid (PFUnA)	21.4	1.9		ng/L	18.9		113	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	19.6	1.9		ng/L	18.9		104	70-130			
Perfluoroheptanoic acid (PFHpA)	21.5	1.9		ng/L	18.9		113	70-130			
Perfluorooctanoic acid (PFOA)	21.0	1.9		ng/L	18.9		111	70-130			
Perfluorooctanesulfonic acid (PFOS)	19.3	1.9		ng/L	17.5		110	70-130			
Perfluorononanoic acid (PFNA)	21.4	1.9		ng/L	18.9		113	70-130			
Surrogate: M2-4:2FTS	*27.7*			ng/L	35.5		78.1	50-200			
Surrogate: M2-8:2FTS	*35.1*			ng/L	36.3		96.7	50-200			
Surrogate: MPFBA	*33.9*			ng/L	37.9		89.5	50-200			
Surrogate: M3HFPO-DA	*31.1*			ng/L	37.9		82.2	50-200			
Surrogate: M6PFDA	*33.3*			ng/L	37.9		87.9	50-200			
Surrogate: M3PFBS	*32.2*			ng/L	35.3		91.3	50-200			
Surrogate: M7PFUnA	*35.6*			ng/L	37.9		94.0	50-200			
Surrogate: M2-6:2FTS	*31.3*			ng/L	36.0		87.1	50-200			
Surrogate: M5PFPeA	*34.6*			ng/L	37.9		91.4	50-200			
Surrogate: M5PFHxA	*34.1*			ng/L	37.9		90.2	50-200			
Surrogate: M3PFHxS	*32.0*			ng/L	35.9		89.1	50-200			
Surrogate: M4PFHpA	*34.2*			ng/L	37.9		90.2	50-200			
Surrogate: M8PFOA	*35.4*			ng/L	37.9		93.5	50-200			
Surrogate: M8PFOS	*32.4*			ng/L	36.3		89.3	50-200			
Surrogate: M9PFNA	*34.9*			ng/L	37.9		92.3	50-200			
Surrogate: MPFDoA	*32.5*			ng/L	37.9		85.7	50-200			
Matrix Spike (B296740-MS1)		**Source: 21L0559-31**			Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorobutanoic acid (PFBA)	24.6	1.9		ng/L	19.4	5.78	96.8	70-130			
Perfluorobutanesulfonic acid (PFBS)	17.4	1.9		ng/L	17.2	0.620	97.3	70-130			
Perfluoropentanoic acid (PFPeA)	22.8	1.9		ng/L	19.4	4.23	95.3	70-130			
Perfluorohexanoic acid (PFHxA)	20.4	1.9		ng/L	19.4	1.40	97.6	70-130			
11Cl-PF3OUdS (F53B Minor)	16.8	1.9		ng/L	18.3	ND	91.5	70-130			
9Cl-PF3ONS (F53B Major)	18.6	1.9		ng/L	18.1	ND	103	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	17.9	1.9		ng/L	18.3	ND	97.4	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	17.6	1.9		ng/L	19.4	ND	90.3	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	18.3	1.9		ng/L	18.7	ND	97.9	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296740 - EPA 533											
Matrix Spike (B296740-MS1)	**Source: 21L0559-31**				Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorodecanoic acid (PFDA)	19.2	1.9		ng/L	19.4	ND	98.9	70-130			
Perfluorododecanoic acid (PFDoA)	17.9	1.9		ng/L	19.4	ND	92.2	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	17.5	1.9		ng/L	17.3	ND	101	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	19.1	1.9		ng/L	18.6	ND	103	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	19.1	1.9		ng/L	18.2	ND	105	70-130			
Perfluorohexanesulfonic acid (PFHxS)	17.3	1.9		ng/L	17.8	ND	97.2	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	22.8	1.9		ng/L	19.4	ND	117	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	17.3	1.9		ng/L	19.4	ND	89.0	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	21.9	1.9		ng/L	18.5	ND	119	70-130			
Perfluoropetanesulfonic acid (PFPeS)	18.2	1.9		ng/L	18.3	ND	99.6	70-130			
Perfluoroundecanoic acid (PFUnA)	18.2	1.9		ng/L	19.4	ND	93.8	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	17.4	1.9		ng/L	19.4	ND	89.2	70-130			
Perfluoroheptanoic acid (PFHpA)	20.2	1.9		ng/L	19.4	0.521	101	70-130			
Perfluorooctanoic acid (PFOA)	19.4	1.9		ng/L	19.4	ND	99.8	70-130			
Perfluorooctanesulfonic acid (PFOS)	17.6	1.9		ng/L	18.0	ND	97.9	70-130			
Perfluorononanoic acid (PFNA)	19.8	1.9		ng/L	19.4	ND	102	70-130			
Surrogate: M2-4:2FTS	*25.2*			ng/L	36.5		69.2	50-200			
Surrogate: M2-8:2FTS	*36.4*			ng/L	37.3		97.4	50-200			
Surrogate: MPFBA	*35.8*			ng/L	38.9		92.0	50-200			
Surrogate: M3HFPO-DA	*32.8*			ng/L	38.9		84.2	50-200			
Surrogate: M6PFDA	*33.9*			ng/L	38.9		87.1	50-200			
Surrogate: M3PFBS	*35.0*			ng/L	36.3		96.6	50-200			
Surrogate: M7PFUnA	*36.3*			ng/L	38.9		93.3	50-200			
Surrogate: M2-6:2FTS	*30.5*			ng/L	37.0		82.3	50-200			
Surrogate: M5PFPeA	*41.4*			ng/L	38.9		106	50-200			
Surrogate: M5PFHxA	*36.5*			ng/L	38.9		93.8	50-200			
Surrogate: M3PFHxS	*35.3*			ng/L	36.9		95.8	50-200			
Surrogate: M4PFHpA	*36.4*			ng/L	38.9		93.6	50-200			
Surrogate: M8PFOA	*36.8*			ng/L	38.9		94.6	50-200			
Surrogate: M8PFOS	*34.9*			ng/L	37.3		93.6	50-200			
Surrogate: M9PFNA	*36.6*			ng/L	38.9		94.0	50-200			
Surrogate: MPFDoA	*33.8*			ng/L	38.9		87.0	50-200			
Matrix Spike Dup (B296740-MSD1)	**Source: 21L0559-31**				Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorobutanoic acid (PFBA)	25.9	2.0		ng/L	20.2	5.78	99.7	70-130	5.27	30	
Perfluorobutanesulfonic acid (PFBS)	18.9	2.0		ng/L	17.9	0.620	102	70-130	8.34	30	
Perfluoropentanoic acid (PFPeA)	24.1	2.0		ng/L	20.2	4.23	98.2	70-130	5.60	30	
Perfluorohexanoic acid (PFHxA)	22.1	2.0		ng/L	20.2	1.40	102	70-130	8.00	30	
11Cl-PF3OUdS (F53B Minor)	17.9	2.0		ng/L	19.0	ND	93.9	70-130	6.46	30	
9Cl-PF3ONS (F53B Major)	19.3	2.0		ng/L	18.8	ND	103	70-130	3.91	30	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	19.6	2.0		ng/L	19.0	ND	103	70-130	9.15	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	19.6	2.0		ng/L	20.2	ND	97.2	70-130	11.1	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	19.7	2.0		ng/L	19.4	ND	102	70-130	7.62	30	
Perfluorodecanoic acid (PFDA)	20.2	2.0		ng/L	20.2	ND	100	70-130	5.06	30	
Perfluorododecanoic acid (PFDoA)	19.9	2.0		ng/L	20.2	ND	98.4	70-130	10.3	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	18.6	2.0		ng/L	18.0	ND	103	70-130	5.97	30	
Perfluoroheptanesulfonic acid (PFHpS)	18.6	2.0		ng/L	19.3	ND	96.3	70-130	2.93	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	20.1	2.0		ng/L	18.9	ND	107	70-130	5.09	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296740 - EPA 533											
Matrix Spike Dup (B296740-MSD1)	**Source: 21L0559-31**				Prepared: 12/20/21 Analyzed: 12/21/21						
Perfluorohexanesulfonic acid (PFHxS)	18.7	2.0		ng/L	18.5	ND	101	70-130	7.62	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	24.2	2.0		ng/L	20.2	ND	120	70-130	5.99	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	18.8	2.0		ng/L	20.2	ND	92.8	70-130	7.97	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	22.3	2.0		ng/L	19.2	ND	116	70-130	1.78	30	
Perfluoropetanesulfonic acid (PFPeS)	19.4	2.0		ng/L	19.0	ND	102	70-130	6.29	30	
Perfluoroundecanoic acid (PFUnA)	20.2	2.0		ng/L	20.2	ND	99.8	70-130	9.92	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	18.8	2.0		ng/L	20.2	ND	93.3	70-130	8.24	30	
Perfluoroheptanoic acid (PFHpA)	21.4	2.0		ng/L	20.2	0.521	103	70-130	5.56	30	
Perfluorooctanoic acid (PFOA)	20.6	2.0		ng/L	20.2	ND	102	70-130	6.14	30	
Perfluorooctanesulfonic acid (PFOS)	19.2	2.0		ng/L	18.7	ND	103	70-130	8.62	30	
Perfluorononanoic acid (PFNA)	19.7	2.0		ng/L	20.2	ND	97.3	70-130	0.523	30	
Surrogate: M2-4:2FTS	*24.2*			ng/L	37.9		63.9	50-200			
Surrogate: M2-8:2FTS	*38.1*			ng/L	38.8		98.2	50-200			
Surrogate: MPFBA	*36.7*			ng/L	40.4		90.9	50-200			
Surrogate: M3HFPO-DA	*35.2*			ng/L	40.4		87.1	50-200			
Surrogate: M6PFDA	*37.9*			ng/L	40.4		93.8	50-200			
Surrogate: M3PFBS	*35.7*			ng/L	37.7		94.7	50-200			
Surrogate: M7PFUnA	*40.3*			ng/L	40.4		99.8	50-200			
Surrogate: M2-6:2FTS	*32.2*			ng/L	38.4		83.9	50-200			
Surrogate: M5PFPeA	*41.8*			ng/L	40.4		103	50-200			
Surrogate: M5PFHxA	*37.5*			ng/L	40.4		92.7	50-200			
Surrogate: M3PFHxS	*36.5*			ng/L	38.3		95.3	50-200			
Surrogate: M4PFHpA	*37.6*			ng/L	40.4		93.1	50-200			
Surrogate: M8PFOA	*38.1*			ng/L	40.4		94.2	50-200			
Surrogate: M8PFOS	*37.3*			ng/L	38.8		96.3	50-200			
Surrogate: M9PFNA	*38.4*			ng/L	40.4		94.9	50-200			
Surrogate: MPFDoA	*36.8*			ng/L	40.4		91.0	50-200			
Batch B296741 - EPA 533											
Blank (B296741-BLK1)					Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L							
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L							
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L							
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296741 - EPA 533											
Blank (B296741-BLK1)					Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L							
Surrogate: M2-4:2FTS	*36.5*			ng/L	36.3		101	50-200			
Surrogate: M2-8:2FTS	*46.0*			ng/L	37.1		124	50-200			
Surrogate: MPFBA	*44.1*			ng/L	38.6		114	50-200			
Surrogate: M3HFPO-DA	*36.0*			ng/L	38.6		93.1	50-200			
Surrogate: M6PFDA	*43.7*			ng/L	38.6		113	50-200			
Surrogate: M3PFBS	*40.9*			ng/L	36.0		114	50-200			
Surrogate: M7PFUnA	*44.4*			ng/L	38.6		115	50-200			
Surrogate: M2-6:2FTS	*44.0*			ng/L	36.8		120	50-200			
Surrogate: M5PFPeA	*45.0*			ng/L	38.6		116	50-200			
Surrogate: M5PFHxA	*42.9*			ng/L	38.6		111	50-200			
Surrogate: M3PFHxS	*42.8*			ng/L	36.6		117	50-200			
Surrogate: M4PFHpA	*43.7*			ng/L	38.6		113	50-200			
Surrogate: M8PFOA	*45.1*			ng/L	38.6		117	50-200			
Surrogate: M8PFOS	*41.4*			ng/L	37.1		112	50-200			
Surrogate: M9PFNA	*45.7*			ng/L	38.6		118	50-200			
Surrogate: MPFDoA	*41.9*			ng/L	38.6		108	50-200			
LCS (B296741-BS1)					Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluorobutanoic acid (PFBA)	1.78	1.9		ng/L	1.94		92.0	50-150			
Perfluorobutanesulfonic acid (PFBS)	1.44	1.9		ng/L	1.71		84.3	50-150			
Perfluoropentanoic acid (PFPeA)	1.54	1.9		ng/L	1.94		79.7	50-150			
Perfluorohexanoic acid (PFHxA)	1.68	1.9		ng/L	1.94		86.8	50-150			
11Cl-PF3OUdS (F53B Minor)	1.15	1.9		ng/L	1.82		62.8	50-150			
9Cl-PF3ONS (F53B Major)	1.54	1.9		ng/L	1.81		85.6	50-150			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.59	1.9		ng/L	1.82		87.3	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.18	1.9		ng/L	1.94		113	50-150			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.75	1.9		ng/L	1.86		94.0	50-150			
Perfluorodecanoic acid (PFDA)	1.56	1.9		ng/L	1.94		80.5	50-150			
Perfluorododecanoic acid (PFDoA)	1.63	1.9		ng/L	1.94		84.4	50-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.53	1.9		ng/L	1.72		88.6	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.66	1.9		ng/L	1.85		89.6	50-150			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.63	1.9		ng/L	1.81		90.0	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.52	1.9		ng/L	1.77		85.6	50-150			
Perfluoro-4-oxapentanoic acid (PFMPA)	1.75	1.9		ng/L	1.94		90.4	50-150			
Perfluoro-5-oxahexanoic acid (PFMBA)	1.41	1.9		ng/L	1.94		73.0	50-150			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.82	1.9		ng/L	1.84		99.0	50-150			
Perfluoropetanesulfonic acid (PFPeS)	1.55	1.9		ng/L	1.82		85.0	50-150			
Perfluoroundecanoic acid (PFUnA)	1.72	1.9		ng/L	1.94		88.7	50-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.46	1.9		ng/L	1.94		75.3	50-150			
Perfluoroheptanoic acid (PFHpA)	1.71	1.9		ng/L	1.94		88.3	50-150			
Perfluorooctanoic acid (PFOA)	1.49	1.9		ng/L	1.94		76.7	50-150			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296741 - EPA 533											
LCS (B296741-BS1)					Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluorooctanesulfonic acid (PFOS)	1.42	1.9		ng/L	1.79		79.4	50-150			
Perfluorononanoic acid (PFNA)	1.60	1.9		ng/L	1.94		82.5	50-150			
Surrogate: M2-4:2FTS	*33.1*			ng/L	36.3		91.1	50-200			
Surrogate: M2-8:2FTS	*38.9*			ng/L	37.2		105	50-200			
Surrogate: MPFBA	*38.4*			ng/L	38.7		99.1	50-200			
Surrogate: M3HFPO-DA	*28.4*			ng/L	38.7		73.4	50-200			
Surrogate: M6PFDA	*37.9*			ng/L	38.7		97.9	50-200			
Surrogate: M3PFBS	*36.5*			ng/L	36.1		101	50-200			
Surrogate: M7PFUnA	*39.6*			ng/L	38.7		102	50-200			
Surrogate: M2-6:2FTS	*36.9*			ng/L	36.8		100	50-200			
Surrogate: M5PFPeA	*39.4*			ng/L	38.7		102	50-200			
Surrogate: M5PFHxA	*37.4*			ng/L	38.7		96.6	50-200			
Surrogate: M3PFHxS	*37.7*			ng/L	36.7		103	50-200			
Surrogate: M4PFHpA	*37.7*			ng/L	38.7		97.4	50-200			
Surrogate: M8PFOA	*38.5*			ng/L	38.7		99.4	50-200			
Surrogate: M8PFOS	*38.5*			ng/L	37.1		104	50-200			
Surrogate: M9PFNA	*39.1*			ng/L	38.7		101	50-200			
Surrogate: MPFDoA	*37.7*			ng/L	38.7		97.4	50-200			
Matrix Spike (B296741-MS1)		**Source: 21L0559-02**			Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluorobutanoic acid (PFBA)	7.13	1.9		ng/L	1.91	5.35	93.4	50-150			
Perfluorobutanesulfonic acid (PFBS)	2.16	1.9		ng/L	1.69	0.583	93.2	50-150			
Perfluoropentanoic acid (PFPeA)	5.99	1.9		ng/L	1.91	3.85	112	50-150			
Perfluorohexanoic acid (PFHxA)	3.21	1.9		ng/L	1.91	1.62	83.2	50-150			
11Cl-PF3OUdS (F53B Minor)	1.48	1.9		ng/L	1.80	ND	82.0	50-150			
9Cl-PF3ONS (F53B Major)	1.77	1.9		ng/L	1.78	ND	99.4	50-150			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.75	1.9		ng/L	1.80	ND	96.8	50-150			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	2.10	1.9		ng/L	1.91	ND	110	50-150			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.54	1.9		ng/L	1.84	ND	83.9	50-150			
Perfluorodecanoic acid (PFDA)	1.83	1.9		ng/L	1.91	ND	95.8	50-150			
Perfluorododecanoic acid (PFDoA)	1.96	1.9		ng/L	1.91	ND	103	50-150			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.65	1.9		ng/L	1.70	ND	96.8	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.50	1.9		ng/L	1.83	ND	82.0	50-150			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.63	1.9		ng/L	1.79	ND	90.9	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.97	1.9		ng/L	1.75	0.362	91.9	50-150			
Perfluoro-4-oxapentanoic acid (PFMPA)	2.03	1.9		ng/L	1.91	ND	106	50-150			
Perfluoro-5-oxahexanoic acid (PFMBA)	1.55	1.9		ng/L	1.91	ND	80.7	50-150			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.68	1.9		ng/L	1.82	ND	92.6	50-150			
Perfluoropetanesulfonic acid (PFPeS)	1.72	1.9		ng/L	1.80	ND	95.8	50-150			
Perfluoroundecanoic acid (PFUnA)	1.75	1.9		ng/L	1.91	ND	91.3	50-150			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.57	1.9		ng/L	1.91	ND	81.9	50-150			
Perfluoroheptanoic acid (PFHpA)	2.32	1.9		ng/L	1.91	0.600	89.9	50-150			
Perfluorooctanoic acid (PFOA)	2.13	1.9		ng/L	1.91	0.467	86.7	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.59	1.9		ng/L	1.77	0.212	78.0	50-150			
Perfluorononanoic acid (PFNA)	2.12	1.9		ng/L	1.91	ND	111	50-150			
Surrogate: M2-4:2FTS	*24.1*			ng/L	35.9		67.2	50-200			
Surrogate: M2-8:2FTS	*41.8*			ng/L	36.7		114	50-200			
Surrogate: MPFBA	*38.7*			ng/L	38.3		101	50-200			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296741 - EPA 533											
Matrix Spike (B296741-MS1)	**Source: 21L0559-02**				Prepared: 12/17/21 Analyzed: 12/18/21						
Surrogate: M3HFPO-DA	*31.0*			ng/L	38.3		81.0	50-200			
Surrogate: M6PFDA	*38.4*			ng/L	38.3		100	50-200			
Surrogate: M3PFBS	*36.6*			ng/L	35.7		103	50-200			
Surrogate: M7PFUnA	*39.5*			ng/L	38.3		103	50-200			
Surrogate: M2-6:2FTS	*35.6*			ng/L	36.4		97.7	50-200			
Surrogate: M5PFPeA	*43.9*			ng/L	38.3		115	50-200			
Surrogate: M5PFHxA	*38.2*			ng/L	38.3		99.9	50-200			
Surrogate: M3PFHxS	*37.6*			ng/L	36.3		104	50-200			
Surrogate: M4PFHpA	*38.2*			ng/L	38.3		99.9	50-200			
Surrogate: M8PFOA	*38.5*			ng/L	38.3		101	50-200			
Surrogate: M8PFOS	*38.2*			ng/L	36.7		104	50-200			
Surrogate: M9PFNA	*39.5*			ng/L	38.3		103	50-200			
Surrogate: MPFDoA	*38.3*			ng/L	38.3		100	50-200			
Matrix Spike Dup (B296741-MSD1)	**Source: 21L0559-02**				Prepared: 12/17/21 Analyzed: 12/18/21						
Perfluorobutanoic acid (PFBA)	7.82	1.9		ng/L	1.93	5.35	128	70-130	9.24	30	
Perfluorobutanesulfonic acid (PFBS)	2.17	1.9		ng/L	1.71	0.583	92.9	70-130	0.429	30	
Perfluoropentanoic acid (PFPeA)	5.86	1.9		ng/L	1.93	3.85	104	70-130	2.10	30	
Perfluorohexanoic acid (PFHxA)	3.16	1.9		ng/L	1.93	1.62	80.1	70-130	1.48	30	
11Cl-PF3OUdS (F53B Minor)	1.45	1.9		ng/L	1.82	ND	79.8	70-130	1.75	30	
9Cl-PF3ONS (F53B Major)	1.84	1.9		ng/L	1.80	ND	102	70-130	3.87	30	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.69	1.9		ng/L	1.82	ND	93.1	70-130	3.08	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.71	1.9		ng/L	1.93	ND	88.5	70-130	20.4	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.72	1.9		ng/L	1.85	ND	93.0	70-130	11.1	30	
Perfluorodecanoic acid (PFDA)	1.62	1.9		ng/L	1.93	ND	83.9	70-130	12.4	30	
Perfluorododecanoic acid (PFDoA)	1.71	1.9		ng/L	1.93	ND	88.7	70-130	13.7	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.61	1.9		ng/L	1.72	ND	93.9	70-130	2.06	30	
Perfluoroheptanesulfonic acid (PFHpS)	1.62	1.9		ng/L	1.84	ND	87.7	70-130		30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.62	1.9		ng/L	1.81	ND	90.0	70-130	0.134	30	
Perfluorohexanesulfonic acid (PFHxS)	1.98	1.9		ng/L	1.77	0.362	91.7	70-130	0.596	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	1.96	1.9		ng/L	1.93	ND	101	70-130	3.74	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	1.47	1.9		ng/L	1.93	ND	76.2	70-130	4.92	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.66	1.9		ng/L	1.83	ND	90.3	70-130	1.60	30	
Perfluoropetanesulfonic acid (PFPeS)	1.62	1.9		ng/L	1.81	ND	89.1	70-130	6.29	30	
Perfluoroundecanoic acid (PFUnA)	1.95	1.9		ng/L	1.93	ND	101	70-130	11.2	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.46	1.9		ng/L	1.93	ND	75.8	70-130	6.91	30	
Perfluoroheptanoic acid (PFHpA)	2.30	1.9		ng/L	1.93	0.600	88.1	70-130	0.842	30	
Perfluorooctanoic acid (PFOA)	2.00	1.9		ng/L	1.93	0.467	79.3	70-130	6.21	30	
Perfluorooctanesulfonic acid (PFOS)	1.99	1.9		ng/L	1.79	0.212	99.6	70-130	22.2	30	
Perfluorononanoic acid (PFNA)	2.00	1.9		ng/L	1.93	ND	104	70-130	5.85	30	
Surrogate: M2-4:2FTS	*23.7*			ng/L	36.2		65.3	50-200			
Surrogate: M2-8:2FTS	*37.8*			ng/L	37.1		102	50-200			
Surrogate: MPFBA	*38.2*			ng/L	38.6		99.0	50-200			
Surrogate: M3HFPO-DA	*31.7*			ng/L	38.6		82.2	50-200			
Surrogate: M6PFDA	*38.0*			ng/L	38.6		98.4	50-200			
Surrogate: M3PFBS	*34.5*			ng/L	36.0		96.0	50-200			
Surrogate: M7PFUnA	*37.5*			ng/L	38.6		97.1	50-200			
Surrogate: M2-6:2FTS	*32.7*			ng/L	36.7		89.2	50-200			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B296741 - EPA 533											
Matrix Spike Dup (B296741-MSD1)	**Source: 21L0559-02**				Prepared: 12/17/21 Analyzed: 12/18/21						
Surrogate: M5PFPeA	*43.0*			ng/L	38.6		111	50-200			
Surrogate: M5PFHxA	*36.6*			ng/L	38.6		94.7	50-200			
Surrogate: M3PFHxS	*34.4*			ng/L	36.6		93.9	50-200			
Surrogate: M4PFHpA	*36.9*			ng/L	38.6		95.4	50-200			
Surrogate: M8PFOA	*37.2*			ng/L	38.6		96.3	50-200			
Surrogate: M8PFOS	*36.2*			ng/L	37.0		97.7	50-200			
Surrogate: M9PFNA	*38.9*			ng/L	38.6		101	50-200			
Surrogate: MPFDoA	*36.0*			ng/L	38.6		93.1	50-200			
Batch B297456 - EPA 533											
Blank (B297456-BLK1)					Prepared: 12/21/21 Analyzed: 12/22/21						
Perfluorobutanoic acid (PFBA)	ND	1.9		ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L							
Perfluoropentanoic acid (PFPeA)	ND	1.9		ng/L							
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L							
11Cl-PF3OUdS (F53B Minor)	ND	1.9		ng/L							
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L							
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L							
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L							
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L							
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L							
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L							
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L							
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L							
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L							
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L							
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L							
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L							
Surrogate: M2-4:2FTS	*32.7*			ng/L	35.2		92.8	50-200			
Surrogate: M2-8:2FTS	*43.1*			ng/L	36.1		120	50-200			
Surrogate: MPFBA	*37.5*			ng/L	37.6		99.9	50-200			
Surrogate: M3HFPO-DA	*33.0*			ng/L	37.6		87.9	50-200			
Surrogate: M6PFDA	*38.0*			ng/L	37.6		101	50-200			
Surrogate: M3PFBS	*35.4*			ng/L	35.0		101	50-200			
Surrogate: M7PFUnA	*37.6*			ng/L	37.6		100	50-200			
Surrogate: M2-6:2FTS	*37.9*			ng/L	35.7		106	50-200			
Surrogate: M5PFPeA	*35.8*			ng/L	37.6		95.3	50-200			
Surrogate: M5PFHxA	*36.4*			ng/L	37.6		96.9	50-200			
Surrogate: M3PFHxS	*37.3*			ng/L	35.6		105	50-200			
Surrogate: M4PFHpA	*37.5*			ng/L	37.6		99.7	50-200			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B297456 - EPA 533											
Blank (B297456-BLK1)					Prepared: 12/21/21 Analyzed: 12/22/21						
Surrogate: M8PFOA	*37.9*			ng/L	37.6		101	50-200			
Surrogate: M8PFOS	*36.4*			ng/L	36.0		101	50-200			
Surrogate: M9PFNA	*37.8*			ng/L	37.6		101	50-200			
Surrogate: MPFDoA	*34.7*			ng/L	37.6		92.3	50-200			
LCS (B297456-BS1)					Prepared: 12/21/21 Analyzed: 12/22/21						
Perfluorobutanoic acid (PFBA)	9.10	1.9		ng/L	9.48		96.0	70-130			
Perfluorobutanesulfonic acid (PFBS)	7.92	1.9		ng/L	8.39		94.4	70-130			
Perfluoropentanoic acid (PFPeA)	9.20	1.9		ng/L	9.48		97.0	70-130			
Perfluorohexanoic acid (PFHxA)	9.20	1.9		ng/L	9.48		97.0	70-130			
11Cl-PF3OUdS (F53B Minor)	8.06	1.9		ng/L	8.93		90.2	70-130			
9Cl-PF3ONS (F53B Major)	8.88	1.9		ng/L	8.84		101	70-130			
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	9.01	1.9		ng/L	8.93		101	70-130			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.00	1.9		ng/L	9.48		95.0	70-130			
8:2 Fluorotelomersulfonic acid (8:2FTS A)	9.57	1.9		ng/L	9.10		105	70-130			
Perfluorodecanoic acid (PFDA)	9.69	1.9		ng/L	9.48		102	70-130			
Perfluorododecanoic acid (PFDoA)	8.89	1.9		ng/L	9.48		93.8	70-130			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8.47	1.9		ng/L	8.44		100	70-130			
Perfluoroheptanesulfonic acid (PFHpS)	8.70	1.9		ng/L	9.05		96.1	70-130			
4:2 Fluorotelomersulfonic acid (4:2FTS A)	8.99	1.9		ng/L	8.86		101	70-130			
Perfluorohexanesulfonic acid (PFHxS)	7.64	1.9		ng/L	8.67		88.0	70-130			
Perfluoro-4-oxapentanoic acid (PFMPA)	9.79	1.9		ng/L	9.48		103	70-130			
Perfluoro-5-oxahexanoic acid (PFMBA)	8.08	1.9		ng/L	9.48		85.2	70-130			
6:2 Fluorotelomersulfonic acid (6:2FTS A)	9.71	1.9		ng/L	9.01		108	70-130			
Perfluoropetanesulfonic acid (PFPeS)	8.33	1.9		ng/L	8.91		93.5	70-130			
Perfluoroundecanoic acid (PFUnA)	10.3	1.9		ng/L	9.48		109	70-130			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8.03	1.9		ng/L	9.48		84.7	70-130			
Perfluoroheptanoic acid (PFHpA)	9.21	1.9		ng/L	9.48		97.1	70-130			
Perfluorooctanoic acid (PFOA)	9.32	1.9		ng/L	9.48		98.3	70-130			
Perfluorooctanesulfonic acid (PFOS)	7.79	1.9		ng/L	8.77		88.9	70-130			
Perfluorononanoic acid (PFNA)	8.71	1.9		ng/L	9.48		91.8	70-130			
Surrogate: M2-4:2FTS	*32.9*			ng/L	35.6		92.4	50-200			
Surrogate: M2-8:2FTS	*47.8*			ng/L	36.4		131	50-200			
Surrogate: MPFBA	*38.2*			ng/L	37.9		101	50-200			
Surrogate: M3HFPO-DA	*33.7*			ng/L	37.9		88.8	50-200			
Surrogate: M6PFDA	*38.6*			ng/L	37.9		102	50-200			
Surrogate: M3PFBS	*37.1*			ng/L	35.3		105	50-200			
Surrogate: M7PFUnA	*38.9*			ng/L	37.9		103	50-200			
Surrogate: M2-6:2FTS	*36.8*			ng/L	36.1		102	50-200			
Surrogate: M5PFPeA	*38.2*			ng/L	37.9		101	50-200			
Surrogate: M5PFHxA	*37.9*			ng/L	37.9		99.8	50-200			
Surrogate: M3PFHxS	*38.1*			ng/L	35.9		106	50-200			
Surrogate: M4PFHpA	*37.6*			ng/L	37.9		99.2	50-200			
Surrogate: M8PFOA	*38.5*			ng/L	37.9		102	50-200			
Surrogate: M8PFOS	*37.4*			ng/L	36.4		103	50-200			
Surrogate: M9PFNA	*38.5*			ng/L	37.9		101	50-200			
Surrogate: MPFDoA	*35.6*			ng/L	37.9		93.8	50-200			

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B297456 - EPA 533											
LCS Dup (B297456-BSD1)					Prepared: 12/21/21 Analyzed: 12/22/21						
Perfluorobutanoic acid (PFBA)	9.88	1.8		ng/L	9.24		107	70-130	8.16	30	
Perfluorobutanesulfonic acid (PFBS)	8.46	1.8		ng/L	8.18		104	70-130	6.66	30	
Perfluoropentanoic acid (PFPeA)	9.72	1.8		ng/L	9.24		105	70-130	5.52	30	
Perfluorohexanoic acid (PFHxA)	9.57	1.8		ng/L	9.24		104	70-130	4.03	30	
11Cl-PF3OUdS (F53B Minor)	8.73	1.8		ng/L	8.70		100	70-130	7.98	30	
9Cl-PF3ONS (F53B Major)	9.93	1.8		ng/L	8.61		115	70-130	11.2	30	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	9.18	1.8		ng/L	8.70		105	70-130	1.81	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	10.3	1.8		ng/L	9.24		111	70-130	13.1	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	9.62	1.8		ng/L	8.87		108	70-130	0.462	30	
Perfluorodecanoic acid (PFDA)	10.0	1.8		ng/L	9.24		109	70-130	3.55	30	
Perfluorododecanoic acid (PFDoA)	11.2	1.8		ng/L	9.24		121	70-130	22.9	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8.99	1.8		ng/L	8.22		109	70-130	6.02	30	
Perfluoroheptanesulfonic acid (PFHpS)	9.21	1.8		ng/L	8.82		104	70-130	5.70	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	9.64	1.8		ng/L	8.64		112	70-130	7.02	30	
Perfluorohexanesulfonic acid (PFHxS)	8.70	1.8		ng/L	8.45		103	70-130	13.0	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	10.8	1.8		ng/L	9.24		117	70-130	9.89	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	8.70	1.8		ng/L	9.24		94.2	70-130	7.45	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	10.3	1.8		ng/L	8.78		117	70-130	5.57	30	
Perfluoropetanesulfonic acid (PFPeS)	9.04	1.8		ng/L	8.68		104	70-130	8.13	30	
Perfluoroundecanoic acid (PFUnA)	11.2	1.8		ng/L	9.24		121	70-130	8.08	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8.66	1.8		ng/L	9.24		93.8	70-130	7.58	30	
Perfluoroheptanoic acid (PFHpA)	9.85	1.8		ng/L	9.24		107	70-130	6.74	30	
Perfluorooctanoic acid (PFOA)	9.73	1.8		ng/L	9.24		105	70-130	4.36	30	
Perfluorooctanesulfonic acid (PFOS)	8.71	1.8		ng/L	8.55		102	70-130	11.0	30	
Perfluorononanoic acid (PFNA)	10.6	1.8		ng/L	9.24		114	70-130	19.3	30	
Surrogate: M2-4:2FTS	*31.6*			ng/L	34.7		91.3	50-200			
Surrogate: M2-8:2FTS	*45.0*			ng/L	35.5		127	50-200			
Surrogate: MPFBA	*39.1*			ng/L	37.0		106	50-200			
Surrogate: M3HFPO-DA	*34.2*			ng/L	37.0		92.7	50-200			
Surrogate: M6PFDA	*38.1*			ng/L	37.0		103	50-200			
Surrogate: M3PFBS	*36.8*			ng/L	34.4		107	50-200			
Surrogate: M7PFUnA	*39.1*			ng/L	37.0		106	50-200			
Surrogate: M2-6:2FTS	*35.4*			ng/L	35.1		101	50-200			
Surrogate: M5PFPeA	*41.1*			ng/L	37.0		111	50-200			
Surrogate: M5PFHxA	*38.9*			ng/L	37.0		105	50-200			
Surrogate: M3PFHxS	*36.6*			ng/L	35.0		104	50-200			
Surrogate: M4PFHpA	*39.2*			ng/L	37.0		106	50-200			
Surrogate: M8PFOA	*39.7*			ng/L	37.0		107	50-200			
Surrogate: M8PFOS	*35.1*			ng/L	35.4		99.0	50-200			
Surrogate: M9PFNA	*39.8*			ng/L	37.0		108	50-200			
Surrogate: MPFDoA	*35.2*			ng/L	37.0		95.2	50-200			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 533 in Drinking Water	
Perfluorobutanoic acid (PFBA)	VT-DW,ME,NJ,NH-P
Perfluorobutanesulfonic acid (PFBS)	VT-DW,ME,NJ,NH-P
Perfluoropentanoic acid (PFPeA)	VT-DW,ME,NJ,NH-P
Perfluorohexanoic acid (PFHxA)	VT-DW,ME,NJ,NH-P
11Cl-PF3OUdS (F53B Minor)	VT-DW,ME,NJ,NH-P
9Cl-PF3ONS (F53B Major)	VT-DW,ME,NJ,NH-P
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	VT-DW,ME,NJ,NH-P
Hexafluoropropylene oxide dimer acid (HFPO-DA)	VT-DW,ME,NJ,NH-P
8:2 Fluorotelomersulfonic acid (8:2FTS A)	VT-DW,ME,NJ,NH-P
Perfluorodecanoic acid (PFDA)	VT-DW,ME,NJ,NH-P
Perfluorododecanoic acid (PFDoA)	VT-DW,ME,NJ,NH-P
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	VT-DW,ME,NJ,NH-P
Perfluoroheptanesulfonic acid (PFHpS)	VT-DW,ME,NJ,NH-P
4:2 Fluorotelomersulfonic acid (4:2FTS A)	VT-DW,ME,NJ,NH-P
Perfluorohexanesulfonic acid (PFHxS)	VT-DW,ME,NJ,NH-P
Perfluoro-4-oxapentanoic acid (PFMPA)	VT-DW,ME,NJ,NH-P
Perfluoro-5-oxahexanoic acid (PFMBA)	VT-DW,ME,NJ,NH-P
6:2 Fluorotelomersulfonic acid (6:2FTS A)	VT-DW,ME,NJ,NH-P
Perfluoropetanesulfonic acid (PFPeS)	VT-DW,ME,NJ,NH-P
Perfluoroundecanoic acid (PFUnA)	VT-DW,ME,NJ,NH-P
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	VT-DW,ME,NJ,NH-P
Perfluoroheptanoic acid (PFHpA)	VT-DW,ME,NJ,NH-P
Perfluorooctanoic acid (PFOA)	NH,NY,VT-DW,ME,NJ
Perfluorooctanesulfonic acid (PFOS)	NH,NY,VT-DW,ME,NJ
Perfluorononanoic acid (PFNA)	VT-DW,ME,NJ,NH-P

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2022
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

21L0559

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http://www.contestlabs.com Doc # 380 Rev 1_03242017

CHAIN OF CUSTODY RECORD (New York)

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 4

Company Name:	NYSDEC/Arcadis
Address:	625 Broadway, 12th Floor, Albany, NY 12233
Phone:	(518) 402-9813
Project Name:	Stewart ANG-Butterhill
Project Location:	New Windsor, NY
Project Number:	30058345
Project Manager:	David Chiusano, NYSDEC
Con-Test Quote Name/Number:	CallOut ID: 141586
Invoice Recipient:	David Chiusano
Sampled By:	Meghan Fitzgerald/Casey Radomski

Requested Turnaround Time
7-Day ☐ 10-Day ☑
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To: David.Chiusano@DEC.NY.GOV
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	# of Containers	Preservation Code	Container Code	EPA 537
1	BH20211207PRE-GAC	12/7	1008		✓	DW		2	1	P	
2	BH20211207POST-GAC		1010		✓	DW		2			
3	BH20211207POST-GACDUP		1012		✓	DW		2			
4	BH20211207POST-GACMS		1015		✓	DW		2			
5	BH20211207POST-GACMSD		1018		✓	DW		2			
6	BH20211207-1N-25		1036		✓	DW		2			
7	BH20211207-1N-50		1038		✓	DW		2			
8	BH20211207-1N-75		1040		✓	DW		2			
9	BH20211207-1MIDPOINT		1042		✓	DW		2			
10	BH20211207-1S-25		1044		✓	DW		2			

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:
Please email results to Dana.Bryant@Arcadis.com

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Casey Radomski	Date/Time: 12/7/21 1518
Received by: (signature)	PACE	Date/Time: 12/7/21 1518
Relinquished by: (signature)	PACE	Date/Time: 12/8/21 1400
Received by: (signature)	PACE	Date/Time: 12-8-21 1400
Relinquished by: (signature)	PACE	Date/Time: 12-8-21 1530
Received by: (signature)		Date/Time: 12/8/21 1530

Program & Regulatory Information
☐ AWQ STDS ☐ NY TOGS
☐ NYC Sewer Discharge ☐ NY CP-51
☐ Part 360 GW (Landfill)
☐ NY Restricted Use
☐ NY Unrestricted Use
☐ NY Part 375
Other:

Deliverables
☑ Enhanced Data Package
☑ NYSDEC EQuIS EDD
☐ EQuIS (Standard) EDD
☐ NY Regulatory EDD
☐ NY Regs Hits-Only EDD
Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Eurofins 2.0 12/8/21 1713

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CHAIN OF CUSTODY RECORD (New York)

39 Spruce Street
East Longmeadow, MA 01028

Page 2 of 4

Company Name:	NYSDEC/Arcadis
Address:	625 Broadway, 12th floor, Albany, NY 12233
Phone:	(518)402-9813
Project Name:	Stewart ANG-Butterhill
Project Location:	New Windsor, NY
Project Number:	30058345
Project Manager:	David Chiusano
Con-Test Quote Name/Number:	CallOut ID: 141586
Invoice Recipient:	David Chiusano
Sampled By:	Meg Fitzgerald / Casey Radomski

Requested Turnaround Time
7-Day ☐ 10-Day ☑
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To: David.Chiusano@dec.ny.gov
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	EPA 533												# of Containers	Preservation Code	Container Code
11	BH20211207-1S-50	12/7	1047		✓	DW		2												20		
12	BH20211207-1S-75		1049		✓	DW		2												1		
13	BH20211207-1POST		1050		✓	DW		2												P		
14	BH20211207-2N-25		1056		✓	DW		2														
15	BH20211207-2N-50		1058		✓	DW		2														
16	BH20211207-2N-75		1100		✓	DW		2														
17	BH20211207-2MIDPOINT		1102		✓	DW		2														
18	BH20211207-2S-25		1104		✓	DW		2														
19	BH20211207-2S-50		1106		✓	DW		2														
20	BH20211207-2S-75	↓	1108		✓	PW		2														

Dissolved Metals Samples
☐ Field Filtered
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Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

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SL = Sludge
SOL = Solid
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I = Iced
H = HCL
M = Methanol
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S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
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O = Other (please define)

Comments:
Please email results to Dana.Bryant@arcadis.com

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)		Date/Time: 12/7/21 1518
Received by: (signature)	PACE	Date/Time: 12/7/21 1518
Relinquished by: (signature)	PACE	Date/Time: 12/8/21 1400
Received by: (signature)	PACE	Date/Time: 12-8-21 1700
Relinquished by: (signature)	PACE	Date/Time: 12-8-21 1530
Received by: (signature)		Date/Time: 12/8/21 1530

Program & Regulatory Information
☐ AWQ STDS ☐ NY TOGS
☐ NYC Sewer Discharge ☐ NY CP-51
☐ Part 360 GW (Landfill)
☐ NY Restricted Use
☐ NY Unrestricted Use
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Other:

Deliverables
☑ Enhanced Data Package
☑ NYSDEC EQuIS EDD
☐ EQuIS (Standard) EDD
☐ NY Regulatory EDD
☐ NY Regs Hits-Only EDD
Other:
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
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PACE 2.0 12/8/21, 1713

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39 Spruce Street
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Company Name:	NYSDEC/Arcadis
Address:	625 Broadway, 12th floor, Albany, NY 12233
Phone:	(518) 402-9813
Project Name:	Stewart ANPG-Butterhill
Project Location:	New Windsor, NY
Project Number:	30058345
Project Manager:	David Chiusano@NYSDEC
Con-Test Quote Name/Number:	Callout ID: 141586
Invoice Recipient:	David Chiusano
Sampled By:	Meg Fitzgerald / Casey Radomski

Requested Turnaround Time
7-Day ☐ 10-Day ☑
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
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CLP Like Data Pkg Required: ☐
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Fax To #:

ANALYSIS REQUESTED

Dissolved Metals Samples
☐ Field Filtered
☐ Lab to Filter

Orthophosphate Samples
☐ Field Filtered
☐ Lab to Filter

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	3da S33	# of Containers	[2] Preservation Code	[3] Container Code
21	BH20211207-2POST	12/7	1109		✓	DW		2			
22	BH20211207-3N-25		1113		✓	DW		2			
23	BH20211207-3N-50		1114		✓	DW		2			
24	BH20211207-3N-75		1115		✓	DW		2			
25	BH20211207-3MID-POINT		1119		✓	DW		2			
26	BH20211207-3S-25		1124		✓	DW		2			
27	BH20211207-3S-50		1125		✓	DW		2			
28	BH20211207-3S-75		1126		✓	DW		2			
29	BH20211207-3POST		1128		✓	DW		2			
JMT	~~BH20211207-1RAW~~				✓	DW		2			

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3	PACE	12-8-21 1520		12/8/21 1530
4			2.0	12/8/21 1710

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Email To: David.Chiusano@
Fax To #: dec.ny.gov

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	# of Containers	[2] Preservation Code	[3] Container Code	ANALYSIS REQUESTED: EPA 533
MS	BH2021207MS-2RAW	12/7			✓	DW		2	1	P	
30	BH2021207MSD-3RAW	↓	1159		✓	DW		2	1	P	
31	BH2021POSTGACMS/MSD		1020		✓	DW		6	1	P	

Dissolved Metals Samples: ☐ Field Filtered ☐ Lab to Filter

Orthophosphate Samples: ☐ Field Filtered ☐ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:
Please email results to Dana.Bryant@arcadis.com

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

	Date/Time
Relinquished by: (signature) Casey Radomski	12/7/21 1518
Received by: (signature) PACE	12/7/21 1518
Relinquished by: (signature) PACE	12/8/21 1700
Received by: (signature) PACE	12.8.21 1700
Relinquished by: (signature) PACE	12-8-21 1530
Received by: (signature)	12/8/21 1530

20 1218/21 1713

Program & Regulatory Information
☐ AWQ STDS ☐ NY TOGS
☐ NYC Sewer Discharge ☐ NY CP-51
☐ Part 360 GW (Landfill)
☐ NY Restricted Use
☐ NY Unrestricted Use
☐ NY Part 375
Other:

Deliverables
☑ Enhanced Data Package
☑ NYSDEC EQuIS EDD
☐ EQuIS (Standard) EDD
☐ NY Regulatory EDD
☐ NY Regs Hits-Only EDD
Other:

NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Arcadis

Received By CM Date 12/8/21 Time 1713

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 2 Actual Temp - 20

Were samples within Temperature? 2-6°C T By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? T

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	66	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments: