

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 12th Floor, Albany, New York 12233-7011
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www.dec.ny.gov

June 29, 2022

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 **June 2, 2022** 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) utilizing EPA Method 533. Data received for the PFAS analysis has been attached.

During this event, sampling for PFAS was conducted at 29 locations.

- pre-treatment (combined raw untreated water), which has a "BH20220602PRE-GAC" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20220602-1N-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20220602-1N-50" identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 1), which has a "BH20220602-1N-75" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20220602-2N-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20220602-2N-50" identifier in the Client Sample ID;



Department of
Environmental
Conservation



- 75 % treatment (within the lead GAC canister in Pair Train No. 2), which has a "BH20220602-2N-75" identifier in the Client Sample ID;
- 25 % treatment (within the lead GAC canister in Pair Train No. 3), which has a "BH20220602-3N-25" identifier in the Client Sample ID;
- 50 % treatment (within the lead GAC canister in Pair Train No. 3), which has a "BH20220602-3N-50" identifier in the Client Sample ID;
- 75 % treatment (within the lead GAC canister in Pair Train No. 3), which has a "BH20220602-3N-75" identifier in the Client Sample ID;
- Butterhill Well No.1 raw untreated water; which has a "BH20220602-1RAW" identifier in the Client Sample ID;
- Butterhill Well No.2 raw untreated water; which has a "BH20220602-2RAW" identifier in the Client Sample ID;
- Butterhill Well No.3 raw untreated water; which has a "BH20220602-3RAW" identifier in the Client Sample ID;
- Post-treatment (treated water after all GAC trains), which has a "BH20220602POST-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 "BH20220602-1 MID" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a "BH20220602-1 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 "BH20220602-2 MID" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a "BH20220602-2 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 "BH20220602-3 MID" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a "BH20220602-3 POST" identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 1), which has a "BH20220602-1S-25" identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 1), which has a "BH20220602-1S-50" identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 1), which has a "BH20220602-1S-75" identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 2), which has a "BH20220602-2S-25" identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 2), which has a "BH20220602-2S-50" identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 2), which has a "BH20220602-2S-75" identifier in the Client Sample ID;
- 25 % treatment (within the lag GAC canister in Pair Train No. 3), which has a "BH20220602-3S-25" identifier in the Client Sample ID;
- 50 % treatment (within the lag GAC canister in Pair Train No. 3), which has a "BH20220602-3S-50" identifier in the Client Sample ID;
- 75 % treatment (within the lag GAC canister in Pair Train No. 3), which has a "BH20220602-3S-75" identifier in the Client Sample ID;

The 29 locations sampled (and their associated identifiers) are depicted in Figure 1.

Please note that the next GAC OM sampling event will be scheduled around September 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, 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,



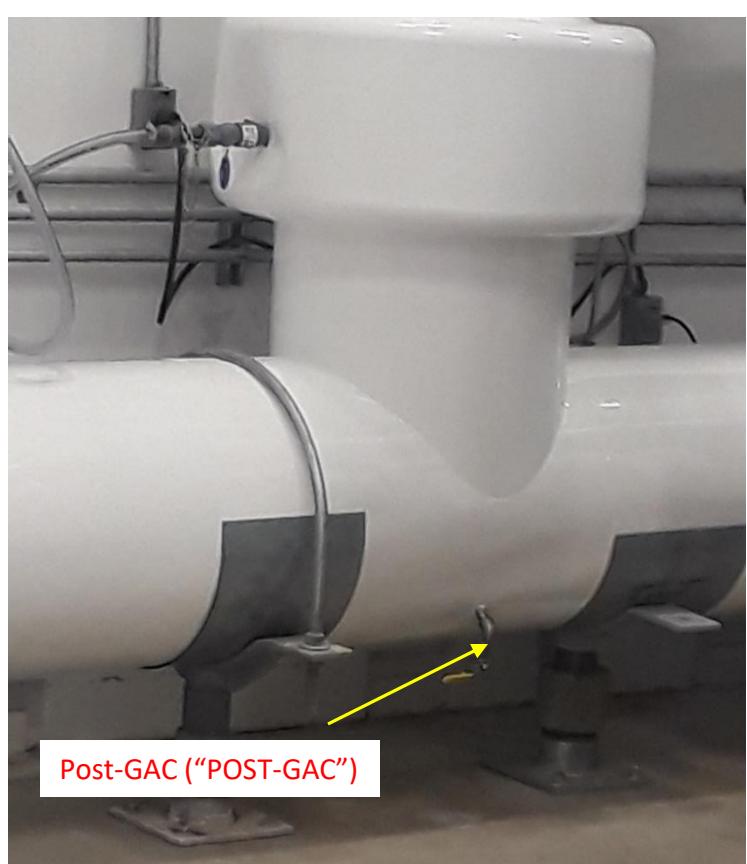
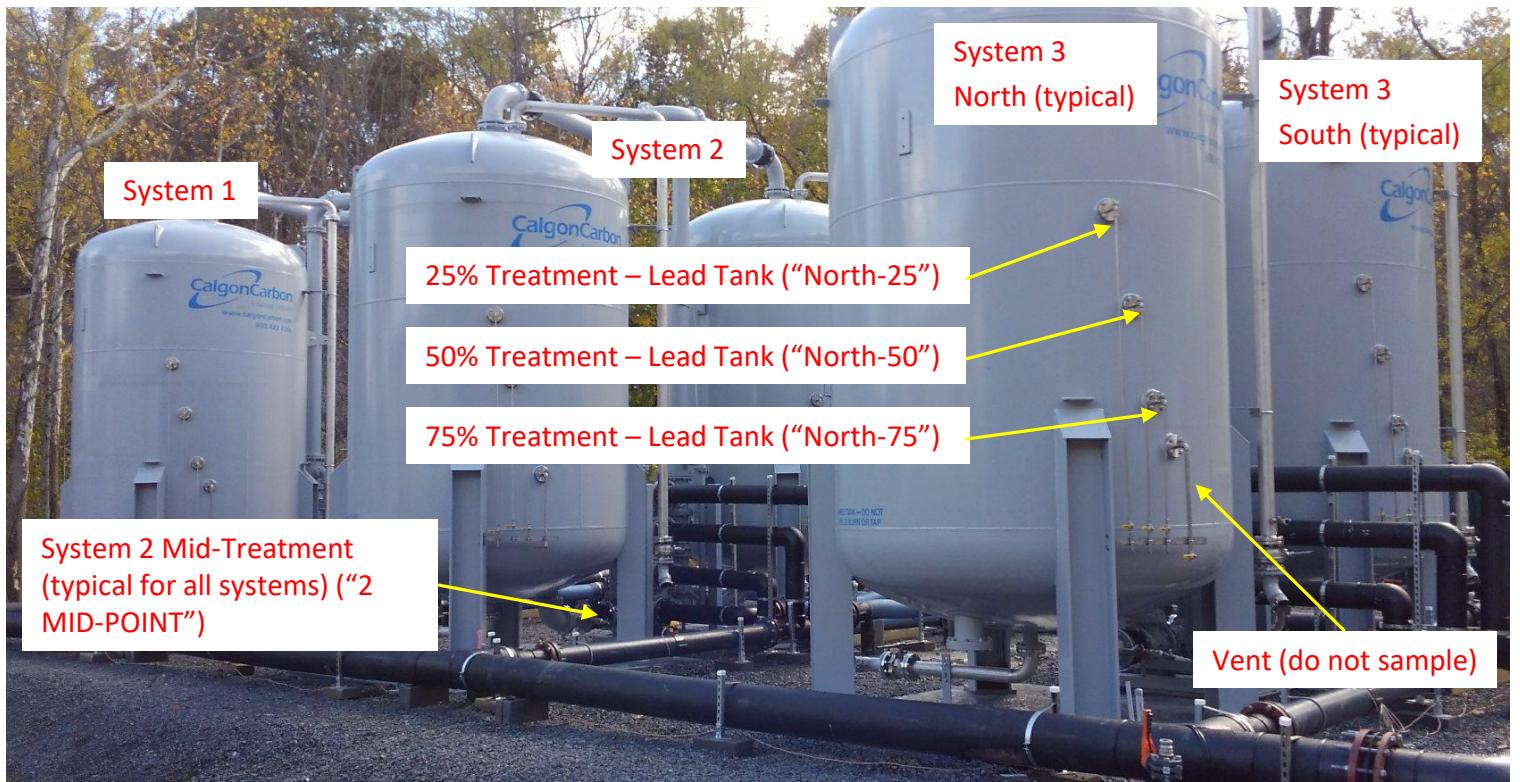
David J. Chiusano
Environmental Engineer/Project Manager
Remedial Section A, Remedial Bureau E
Division of Environmental Remediation

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
C. Bethoney, NYSDOH
S. Gagnon, OCDOH
M. Andersen, OCDOH
D. Bryant, Arcadis
F. Fina, Aztech
M. Cruden, NYSDEC-DER
B. Rung, NYSDEC-DER
D. Bendell, Region 3 RHWRE

Figure 1
Sampling Locations

Butterhill Plant Temporary GAC Treatment System



- 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
March 2022 (Well 2)	PFOA	2.7	3.5	3.6	3.2	2.9	2.7	2.2	3.2	2.8	2.1	3.1	2.6	2.1	ND	10 ⁴
	PFOS	2.9	3.3	4.2	2.9	2.7	2.1	ND	2.9	2.3	ND	2.6	2.3	ND	ND	10 ⁴
June 2022 (Well 2)**	PFOA	3.3	2.9	2.7	2.6	2.6	2.3	2.1	2.8	2.4	2.3	2.6	2.3	2.0	ND	10 ⁴
	PFOS	3.4	3.0	4.3	4.0	3.6	2.3	2.1	3.3	2.9	2.3	3.1	2.8	1.9	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	ND	2.1	ND	ND	ND	10 ³
March 2022 (Well 2)	PFOA	ND	ND	ND	ND	ND	1.9	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 2022 (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

Notes:

* Method 533 List Analysis

** At the time of sampling (06/02/2022), Production Well 2 was running to the plant.

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 if 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.



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

June 28, 2022

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

Project Location: Stewart ANG Base Butterhill
Client Job Number:
Project Number: 30058345
Laboratory Work Order Number: 22F0262

Enclosed are results of analyses for samples as received by the laboratory on June 3, 2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Raymond J. McCarthy".

Raymond J. McCarthy
Project Manager

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

REPORT DATE: 6/28/2022

PURCHASE ORDER NUMBER: 141586

PROJECT NUMBER: 30058345

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 22F0262

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 Base Butterhill

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
BH20220602 PRE-GAC	22F0262-01	Drinking Water		EPA 533	
BH20220602 POST-GAC	22F0262-02	Drinking Water		EPA 533	
BH20220602 POST-GAC DUP	22F0262-03	Drinking Water		EPA 533	
BH20220602-IN-25	22F0262-04	Drinking Water		EPA 533	
BH20220602-IN-50	22F0262-05	Drinking Water		EPA 533	
BH20220602-IN-75	22F0262-06	Drinking Water		EPA 533	
BH20220602-1 MIDPOINT	22F0262-07	Drinking Water		EPA 533	
BH20220602-1S-25	22F0262-08	Drinking Water		EPA 533	
BH20220602-1S-50	22F0262-09	Drinking Water		EPA 533	
BH20220602-1S-75	22F0262-10	Drinking Water		EPA 533	
BH20220602-1 POST	22F0262-11	Drinking Water		EPA 533	
BH20220602-2N-25	22F0262-12	Drinking Water		EPA 533	
BH20220602-2N-50	22F0262-13	Drinking Water		EPA 533	
BH20220602-2N-75	22F0262-14	Drinking Water		EPA 533	
BH20220602-2 MIDPOINT	22F0262-15	Drinking Water		EPA 533	
BH20220602-2S-25	22F0262-16	Drinking Water		EPA 533	
BH20220602-2S-50	22F0262-17	Drinking Water		EPA 533	
BH20220602-2S-75	22F0262-18	Drinking Water		EPA 533	
BH20220602-2 POST	22F0262-19	Drinking Water		EPA 533	
BH20220602-3N-25	22F0262-20	Drinking Water		EPA 533	
BH20220602-3N-50	22F0262-21	Drinking Water		EPA 533	
BH20220602-3N-75	22F0262-22	Drinking Water		EPA 533	
BH20220602-3 MIDPOINT	22F0262-23	Drinking Water		EPA 533	
BH20220602-3S-25	22F0262-24	Drinking Water		EPA 533	
BH20220602-3S-50	22F0262-25	Drinking Water		EPA 533	
BH20220602-3S-75	22F0262-26	Drinking Water		EPA 533	
BH20220602-3 POST	22F0262-27	Drinking Water		EPA 533	
BH20220602-1 RAW	22F0262-28	Drinking Water		EPA 533	
BH20220602-2 RAW	22F0262-29	Drinking Water		EPA 533	
BH20220602-3 RAW	22F0262-30	Drinking Water		EPA 533	



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.

EPA 533

Qualifications:

PF-02

Surrogate recovery is outside of control limits. Re-extraction yielded similar surrogate non-conformance. Both results reported.

Analyte & Samples(s) Qualified:

M2-6:2FTS

22F0262-15[BH20220602-2 MIDPOINT], 22F0262-15RE1[BH20220602-2 MIDPOINT]

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

8:2 Fluorotelomersulfonic acid (8:2)

B310308-BSD1

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.

A handwritten signature in black ink, appearing to read "Lisa A. Worthington".

Lisa A. Worthington
Technical Representative

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602 PRE-GAC

Sampled: 6/2/2022 09:01

Sample ID: 22F0262-01

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.6	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoropentanoic acid (PFPeA)	2.9	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorohexanoic acid (PFHxA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
11Cl-PF3OUDs (F53B Minor)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
9Cl-PF3ONS (F53B Major)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorodecanoic acid (PFDA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorododecanoic acid (PFDoA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.8	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoroundecanoic acid (PFUnA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluoroheptanoic acid (PFHpA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorooctanoic acid (PFOA)	2.6	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorooctanesulfonic acid (PFOS)	4.0	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Perfluorononanoic acid (PFNA)	ND	2.1		ng/L	1	EPA 533	6/9/22	6/11/22 14:24	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	60.0	50-200							
M2-8:2FTS	80.7	50-200							
MPFBA	96.3	50-200							
M3HFPO-DA	108	50-200							
M6PFDA	94.1	50-200							
M3PFBS	98.5	50-200							
M7PFUnA	88.4	50-200							
M2-6:2FTS	68.4	50-200							
M5PFPeA	106	50-200							
M5PFHxA	86.2	50-200							
M3PFHxS	100	50-200							
M4PFHpA	88.2	50-200							
M8PFOA	93.4	50-200							
M8PFOS	97.2	50-200							
M9PFNA	85.5	50-200							
MPFDoA	86.0	50-200							

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602 POST-GAC**Sample ID:** 22F0262-02

Start Date/Time: 6/2/2022 9:04:00AM

Sample Matrix: Drinking Water

Stop Date/Time: 6/2/2022 9:08:00AM

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)	3.6	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoropentanoic acid (PFPeA)	3.0	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:31	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual							
M2-4:2FTS	57.1	50-200								6/11/22 14:31
M2-8:2FTS	76.5	50-200								6/11/22 14:31
MPFBA	95.8	50-200								6/11/22 14:31
M3HFPO-DA	104	50-200								6/11/22 14:31
M6PFDA	83.3	50-200								6/11/22 14:31
M3PFBs	100	50-200								6/11/22 14:31
M7PFUnA	83.8	50-200								6/11/22 14:31
M2-6:2FTS	74.7	50-200								6/11/22 14:31
M5PFPeA	101	50-200								6/11/22 14:31
M5PFHxA	82.3	50-200								6/11/22 14:31
M3PFHxS	102	50-200								6/11/22 14:31
M4PFHpA	83.8	50-200								6/11/22 14:31
M8PFOA	84.2	50-200								6/11/22 14:31
M8PFOS	100	50-200								6/11/22 14:31
M9PFNA	74.3	50-200								6/11/22 14:31
MPFDoA	81.7	50-200								6/11/22 14:31



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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602 POST-GAC DUP

Sampled: 6/2/2022 09:05

Sample ID: 22F0262-03

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.8	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoropentanoic acid (PFPeA)	3.0	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:38	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	56.0	50-200							
M2-8:2FTS	73.8	50-200							
MPFBA	95.4	50-200							
M3HFPO-DA	98.9	50-200							
M6PFDA	90.6	50-200							
M3PFBs	96.4	50-200							
M7PFUnA	89.7	50-200							
M2-6:2FTS	73.7	50-200							
M5PFPeA	100	50-200							
M5PFHxA	86.2	50-200							
M3PFHxS	97.5	50-200							
M4PFHpA	88.9	50-200							
M8PFOA	90.4	50-200							
M8PFOS	94.7	50-200							
M9PFNA	82.4	50-200							
MPFDoA	84.7	50-200							

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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-IN-25

Sampled: 6/2/2022 09:25

Sample ID: 22F0262-04Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.6	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorohexanoic acid (PFHxA)	2.1	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.5	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorooctanoic acid (PFOA)	2.6	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorooctanesulfonic acid (PFOS)	3.6	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 14:45	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	66.1	50-200							
M2-8:2FTS	87.4	50-200							
MPFBA	109	50-200							
M3HFPO-DA	117	50-200							
M6PFDA	103	50-200							
M3PFBs	106	50-200							
M7PFUnA	104	50-200							
M2-6:2FTS	85.3	50-200							
M5PFPeA	122	50-200							
M5PFHxA	95.5	50-200							
M3PFHxS	110	50-200							
M4PFHpA	98.2	50-200							
M8PFOA	99.1	50-200							
M8PFOS	106	50-200							
M9PFNA	92.8	50-200							
MPFDoA	102	50-200							



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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-IN-50

Sampled: 6/2/2022 09:27

Sample ID: 22F0262-05

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.7	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoropentanoic acid (PFPeA)	3.1	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorohexanoic acid (PFHxA)	1.9	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.4	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorooctanoic acid (PFOA)	2.3	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorooctanesulfonic acid (PFOS)	2.3	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 14:53	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	72.0	50-200		6/11/22 14:53
M2-8:2FTS	89.7	50-200		6/11/22 14:53
MPFBA	114	50-200		6/11/22 14:53
M3HFPO-DA	116	50-200		6/11/22 14:53
M6PFDA	102	50-200		6/11/22 14:53
M3PFBs	116	50-200		6/11/22 14:53
M7PFUnA	102	50-200		6/11/22 14:53
M2-6:2FTS	90.0	50-200		6/11/22 14:53
M5PFPeA	130	50-200		6/11/22 14:53
M5PFHxA	104	50-200		6/11/22 14:53
M3PFHxS	115	50-200		6/11/22 14:53
M4PFHpA	102	50-200		6/11/22 14:53
M8PFOA	109	50-200		6/11/22 14:53
M8PFOS	118	50-200		6/11/22 14:53
M9PFNA	99.4	50-200		6/11/22 14:53
MPFDoA	94.4	50-200		6/11/22 14:53

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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-IN-75

Sampled: 6/2/2022 09:29

Sample ID: 22F0262-06

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.9	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoropentanoic acid (PFPeA)	3.3	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorohexanoic acid (PFHxA)	2.0	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorooctanoic acid (PFOA)	2.1	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorooctanesulfonic acid (PFOS)	2.1	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:00	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	75.9	50-200							
M2-8:2FTS	97.0	50-200							
MPFBA	117	50-200							
M3HFPO-DA	120	50-200							
M6PFDA	110	50-200							
M3PFBs	121	50-200							
M7PFUnA	109	50-200							
M2-6:2FTS	99.0	50-200							
M5PFPeA	129	50-200							
M5PFHxA	105	50-200							
M3PFHxS	127	50-200							
M4PFHpA	111	50-200							
M8PFOA	110	50-200							
M8PFOS	118	50-200							
M9PFNA	107	50-200							
MPFDoA	99.7	50-200							

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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1 MIDPOINT

Sampled: 6/2/2022 09:31

Sample ID: 22F0262-07

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.4	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoropentanoic acid (PFPeA)	3.2	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorohexanoic acid (PFHxA)	1.9	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 15:07	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	66.3	50-200							
M2-8:2FTS	86.2	50-200							
MPFBA	102	50-200							
M3HFPO-DA	99.7	50-200							
M6PFDA	81.4	50-200							
M3PFBs	108	50-200							
M7PFUnA	88.0	50-200							
M2-6:2FTS	100	50-200							
M5PFPeA	111	50-200							
M5PFHxA	89.1	50-200							
M3PFHxS	108	50-200							
M4PFHpA	89.2	50-200							
M8PFOA	89.9	50-200							
M8PFOS	106	50-200							
M9PFNA	77.9	50-200							
MPFDoA	91.7	50-200							



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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1S-25

Sampled: 6/2/2022 09:36

Sample ID: 22F0262-08

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.7	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoropentanoic acid (PFPeA)	3.4	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorohexanoic acid (PFHxA)	1.8	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:14	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual							
M2-4:2FTS	61.4	50-200								
M2-8:2FTS	75.5	50-200								
MPFBA	101	50-200								
M3HFPO-DA	114	50-200								
M6PFDA	97.4	50-200								
M3PFBS	104	50-200								
M7PFUnA	95.1	50-200								
M2-6:2FTS	85.3	50-200								
M5PFPeA	107	50-200								
M5PFHxA	92.1	50-200								
M3PFHxS	106	50-200								
M4PFHpA	92.3	50-200								
M8PFOA	95.1	50-200								
M8PFOS	99.6	50-200								
M9PFNA	87.0	50-200								
MPFDoA	88.5	50-200								



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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1S-50

Sampled: 6/2/2022 09:39

Sample ID: 22F0262-09

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.6	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 15:21	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual							
M2-4:2FTS	76.1	50-200								
M2-8:2FTS	95.5	50-200								
MPFBA	106	50-200								
M3HFPO-DA	95.3	50-200								
M6PFDA	98.2	50-200								
M3PFBS	109	50-200								
M7PFUnA	97.4	50-200								
M2-6:2FTS	102	50-200								
M5PFPeA	113	50-200								
M5PFHxA	93.0	50-200								
M3PFHxS	111	50-200								
M4PFHpA	96.2	50-200								
M8PFOA	93.5	50-200								
M8PFOS	112	50-200								
M9PFNA	87.4	50-200								
MPFDoA	95.4	50-200								



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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1S-75

Sampled: 6/2/2022 09:40

Sample ID: 22F0262-10

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	6.5	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:29	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	92.7	50-200		6/11/22 15:29
M2-8:2FTS	107	50-200		6/11/22 15:29
MPFBA	93.3	50-200		6/11/22 15:29
M3HFPO-DA	80.5	50-200		6/11/22 15:29
M6PFDA	79.1	50-200		6/11/22 15:29
M3PFBs	102	50-200		6/11/22 15:29
M7PFUnA	80.2	50-200		6/11/22 15:29
M2-6:2FTS	97.9	50-200		6/11/22 15:29
M5PFPeA	98.3	50-200		6/11/22 15:29
M5PFHxA	79.5	50-200		6/11/22 15:29
M3PFHxS	101	50-200		6/11/22 15:29
M4PFHpA	77.9	50-200		6/11/22 15:29
M8PFOA	76.7	50-200		6/11/22 15:29
M8PFOS	95.9	50-200		6/11/22 15:29
M9PFNA	67.9	50-200		6/11/22 15:29
MPFDaO	82.4	50-200		6/11/22 15:29



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1 POST

Sampled: 6/2/2022 09:44

Sample ID: 22F0262-11

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.6	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:43	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	67.4	50-200		6/11/22 15:43
M2-8:2FTS	87.2	50-200		6/11/22 15:43
MPFBA	103	50-200		6/11/22 15:43
M3HFPO-DA	107	50-200		6/11/22 15:43
M6PFDA	89.8	50-200		6/11/22 15:43
M3PFBs	113	50-200		6/11/22 15:43
M7PFUnA	90.3	50-200		6/11/22 15:43
M2-6:2FTS	92.6	50-200		6/11/22 15:43
M5PFPeA	105	50-200		6/11/22 15:43
M5PFHxA	91.3	50-200		6/11/22 15:43
M3PFHxS	111	50-200		6/11/22 15:43
M4PFHpA	86.5	50-200		6/11/22 15:43
M8PFOA	89.9	50-200		6/11/22 15:43
M8PFOS	107	50-200		6/11/22 15:43
M9PFNA	84.6	50-200		6/11/22 15:43
MPFDoA	88.5	50-200		6/11/22 15:43

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2N-25

Sampled: 6/2/2022 09:47

Sample ID: 22F0262-12Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.5	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorobutanesulfonic acid (PFBs)	1.9	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoropentanoic acid (PFPeA)	3.3	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorohexanoic acid (PFHxA)	2.1	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
9Cl-PF3ONS (F53B Major)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorodecanoic acid (PFDA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.9	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorooctanoic acid (PFOA)	2.8	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorooctanesulfonic acid (PFOS)	3.3	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Perfluorononanoic acid (PFNA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 15:50	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	72.1	50-200							
M2-8:2FTS	102	50-200							
MPFBA	104	50-200							
M3HFPO-DA	99.4	50-200							
M6PFDA	100	50-200							
M3PFBs	110	50-200							
M7PFUnA	100	50-200							
M2-6:2FTS	92.5	50-200							
M5PFPeA	117	50-200							
M5PFHxA	95.4	50-200							
M3PFHxS	110	50-200							
M4PFHpA	96.1	50-200							
M8PFOA	94.0	50-200							
M8PFOS	113	50-200							
M9PFNA	84.8	50-200							
MPFDoA	100	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2N-50

Sampled: 6/2/2022 09:50

Sample ID: 22F0262-13

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.8	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoropentanoic acid (PFPeA)	3.3	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorohexanoic acid (PFHxA)	2.1	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.2	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorooctanoic acid (PFOA)	2.4	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorooctanesulfonic acid (PFOS)	2.9	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/9/22	6/11/22 15:57	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual							
M2-4:2FTS	73.5	50-200								
M2-8:2FTS	101	50-200								
MPFBA	111	50-200								
M3HFPO-DA	118	50-200								
M6PFDA	110	50-200								
M3PFBS	117	50-200								
M7PFUnA	109	50-200								
M2-6:2FTS	101	50-200								
M5PFPeA	124	50-200								
M5PFHxA	102	50-200								
M3PFHxS	120	50-200								
M4PFHpA	103	50-200								
M8PFOA	107	50-200								
M8PFOS	113	50-200								
M9PFNA	101	50-200								
MPFDoA	105	50-200								

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Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2N-75

Sampled: 6/2/2022 09:52

Sample ID: 22F0262-14

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.7	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoropentanoic acid (PFPeA)	3.4	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorohexanoic acid (PFHxA)	2.0	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorooctanoic acid (PFOA)	2.3	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorooctanesulfonic acid (PFOS)	2.3	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:05	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	69.2	50-200							
M2-8:2FTS	91.3	50-200							
MPFBA	98.0	50-200							
M3HFPO-DA	104	50-200							
M6PFDA	98.3	50-200							
M3PFBs	104	50-200							
M7PFUnA	98.3	50-200							
M2-6:2FTS	89.0	50-200							
M5PFPeA	108	50-200							
M5PFHxA	89.2	50-200							
M3PFHxS	104	50-200							
M4PFHpA	90.0	50-200							
M8PFOA	91.2	50-200							
M8PFOS	102	50-200							
M9PFNA	87.0	50-200							
MPFDoA	92.3	50-200							

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2 MIDPOINT

Sampled: 6/2/2022 09:54

Sample ID: 22F0262-15Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.8	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorobutanoic acid (PFBA)	3.3	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorobutanesulfonic acid (PFBS)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoropentanoic acid (PFPeA)	3.4	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoropentanoic acid (PFPeA)	2.7	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorohexanoic acid (PFHxA)	2.1	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorohexamersulfonic acid (PFHxS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorohexamersulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	9.1	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	2.3	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:12	DRL



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2 MIDPOINT

Sampled: 6/2/2022 09:54

Sample ID: 22F0262-15Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 16:12	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1		EPA 533	6/9/22	6/11/22 16:12	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/20/22	6/27/22 15:54	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	87.5	50-200		6/11/22 16:12
M2-4:2FTS	96.6	50-200		6/27/22 15:54
M2-8:2FTS	162	50-200		6/11/22 16:12
M2-8:2FTS	117	50-200		6/27/22 15:54
MPFBa	112	50-200		6/11/22 16:12
MPFBa	104	50-200		6/27/22 15:54
M3HPPO-DA	118	50-200		6/11/22 16:12
M3HPPO-DA	95.2	50-200		6/27/22 15:54
M6PFDA	112	50-200		6/11/22 16:12
M6PFDA	101	50-200		6/27/22 15:54
M3PFBS	127	50-200		6/11/22 16:12
M3PFBS	125	50-200		6/27/22 15:54
M7PFUnA	112	50-200		6/11/22 16:12
M7PFUnA	93.1	50-200		6/27/22 15:54
M2-6:2FTS	215 *	50-200	PF-02	6/11/22 16:12
M2-6:2FTS	204 *	50-200	PF-02	6/27/22 15:54
M5PFPeA	124	50-200		6/11/22 16:12
M5PFPeA	144	50-200		6/27/22 15:54
M5PFHxA	107	50-200		6/11/22 16:12
M5PFHxA	98.6	50-200		6/27/22 15:54
M3PFHxS	124	50-200		6/11/22 16:12
M3PFHxS	125	50-200		6/27/22 15:54
M4PFHpA	107	50-200		6/11/22 16:12
M4PFHpA	99.1	50-200		6/27/22 15:54
M8PFOA	104	50-200		6/11/22 16:12
M8PFOA	97.5	50-200		6/27/22 15:54
M8PFOS	116	50-200		6/11/22 16:12
M8PFOS	111	50-200		6/27/22 15:54
M9PFNA	98.0	50-200		6/11/22 16:12
M9PFNA	97.6	50-200		6/27/22 15:54
MPFDoA	118	50-200		6/11/22 16:12
MPFDoA	95.8	50-200		6/27/22 15:54



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2S-25

Sampled: 6/2/2022 09:58

Sample ID: 22F0262-16Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time	
			MA ORSG	Units	DF			Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	3.5	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
9Cl-PF3ONS (F53B Major)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorodecanoic acid (PFDA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorooctanoic acid (PFOA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Perfluorononanoic acid (PFNA)	ND	1.7		ng/L	1	EPA 533	6/9/22	6/11/22 16:19	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	66.9	50-200							
M2-8:2FTS	88.3	50-200							
MPFBA	107	50-200							
M3HFPO-DA	98.8	50-200							
M6PFDA	89.7	50-200							
M3PFBs	108	50-200							
M7PFUnA	98.4	50-200							
M2-6:2FTS	79.2	50-200							
M5PFPeA	116	50-200							
M5PFHxA	97.5	50-200							
M3PFHxS	110	50-200							
M4PFHpA	96.4	50-200							
M8PFOA	93.0	50-200							
M8PFOS	103	50-200							
M9PFNA	81.6	50-200							
MPFDoA	96.3	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2S-50

Sampled: 6/2/2022 09:59

Sample ID: 22F0262-17

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.7	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoropentanoic acid (PFPeA)	2.8	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/9/22	6/11/22 16:26	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	72.0	50-200							
M2-8:2FTS	100	50-200							
MPFBA	110	50-200							
M3HFPO-DA	115	50-200							
M6PFDA	99.3	50-200							
M3PFBs	114	50-200							
M7PFUnA	99.7	50-200							
M2-6:2FTS	98.7	50-200							
M5PFPeA	119	50-200							
M5PFHxA	100	50-200							
M3PFHxS	118	50-200							
M4PFHpA	102	50-200							
M8PFOA	97.8	50-200							
M8PFOS	111	50-200							
M9PFNA	86.6	50-200							
MPFDoA	100	50-200							

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2S-75

Sampled: 6/2/2022 10:01

Sample ID: 22F0262-18Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.4	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoropentanoic acid (PFPeA)	2.4	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
11Cl-PF3OUDs (F53B Minor)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorododecanoic acid (PFDoA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:33	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	59.3	50-200							6/11/22 16:33
M2-8:2FTS	85.3	50-200							6/11/22 16:33
MPFBA	101	50-200							6/11/22 16:33
M3HFPO-DA	110	50-200							6/11/22 16:33
M6PFDA	95.6	50-200							6/11/22 16:33
M3PFBs	104	50-200							6/11/22 16:33
M7PFUnA	94.7	50-200							6/11/22 16:33
M2-6:2FTS	79.4	50-200							6/11/22 16:33
M5PFPeA	106	50-200							6/11/22 16:33
M5PFHxA	90.2	50-200							6/11/22 16:33
M3PFHxS	105	50-200							6/11/22 16:33
M4PFHpA	89.7	50-200							6/11/22 16:33
M8PFOA	91.1	50-200							6/11/22 16:33
M8PFOS	101	50-200							6/11/22 16:33
M9PFNA	87.0	50-200							6/11/22 16:33
MPFDoA	96.8	50-200							6/11/22 16:33

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2 POST

Sampled: 6/2/2022 10:03

Sample ID: 22F0262-19Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time	
			MA ORSG	Units	DF			Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	3.7	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoropentanoic acid (PFPeA)	2.8	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorohexanoic acid (PFHxA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
11Cl-PF3OUDs (F53B Minor)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
9Cl-PF3ONS (F53B Major)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorodecanoic acid (PFDA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorododecanoic acid (PFDaO)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	6.0	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoroundecanoic acid (PFUnA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluoroheptanoic acid (PFHpA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorooctanoic acid (PFOA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Perfluorononanoic acid (PFNA)	ND	2.0		ng/L	1	EPA 533	6/9/22	6/11/22 16:40	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	70.6	50-200							
M2-8:2FTS	101	50-200							
MPFBA	111	50-200							
M3HFPO-DA	113	50-200							
M6PFDA	90.6	50-200							
M3PFBs	120	50-200							
M7PFUnA	94.8	50-200							
M2-6:2FTS	112	50-200							
M5PFPeA	114	50-200							
M5PFHxA	95.7	50-200							
M3PFHxS	124	50-200							
M4PFHpA	94.5	50-200							
M8PFOA	94.8	50-200							
M8PFOS	117	50-200							
M9PFNA	83.6	50-200							
MPFDoA	101	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3N-25

Sampled: 6/2/2022 10:09

Sample ID: 22F0262-20

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.5	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorobutanesulfonic acid (PFBs)	1.8	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorohexanoic acid (PFHxA)	2.0	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.5	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorooctanoic acid (PFOA)	2.6	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorooctanesulfonic acid (PFOS)	3.1	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/9/22	6/11/22 16:48	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	77.5	50-200							
M2-8:2FTS	107	50-200							
MPFBA	120	50-200							
M3HFPO-DA	114	50-200							
M6PFDA	112	50-200							
M3PFBs	124	50-200							
M7PFUnA	105	50-200							
M2-6:2FTS	106	50-200							
M5PFPeA	135	50-200							
M5PFHxA	106	50-200							
M3PFHxS	129	50-200							
M4PFHpA	107	50-200							
M8PFOA	105	50-200							
M8PFOS	125	50-200							
M9PFNA	97.8	50-200							
MPFDoA	108	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3N-50

Sampled: 6/2/2022 10:11

Sample ID: 22F0262-21

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.6	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoropentanoic acid (PFPeA)	3.1	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorohexanoic acid (PFHxA)	1.9	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.0	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorooctanoic acid (PFOA)	2.3	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorooctanesulfonic acid (PFOS)	2.8	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:24	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	72.1	50-200		6/21/22 18:24
M2-8:2FTS	95.5	50-200		6/21/22 18:24
MPFBA	102	50-200		6/21/22 18:24
M3HFPO-DA	77.2	50-200		6/21/22 18:24
M6PFDA	87.5	50-200		6/21/22 18:24
M3PFBs	93.8	50-200		6/21/22 18:24
M7PFUnA	95.9	50-200		6/21/22 18:24
M2-6:2FTS	103	50-200		6/21/22 18:24
M5PFPeA	120	50-200		6/21/22 18:24
M5PFHxA	90.0	50-200		6/21/22 18:24
M3PFHxS	106	50-200		6/21/22 18:24
M4PFHpA	90.9	50-200		6/21/22 18:24
M8PFOA	90.4	50-200		6/21/22 18:24
M8PFOS	104	50-200		6/21/22 18:24
M9PFNA	89.1	50-200		6/21/22 18:24
MPFDoA	92.3	50-200		6/21/22 18:24

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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3N-75

Sampled: 6/2/2022 10:13

Sample ID: 22F0262-22

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.7	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoropentanoic acid (PFPeA)	2.9	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorohexanoic acid (PFHxA)	1.9	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorohexanesulfonic acid (PFHxS)	1.9	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorooctanoic acid (PFOA)	2.0	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorooctanesulfonic acid (PFOS)	1.9	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:31	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	79.5	50-200		6/21/22 18:31
M2-8:2FTS	110	50-200		6/21/22 18:31
MPFBA	115	50-200		6/21/22 18:31
M3HFPO-DA	84.1	50-200		6/21/22 18:31
M6PFDA	104	50-200		6/21/22 18:31
M3PFBs	107	50-200		6/21/22 18:31
M7PFUnA	98.9	50-200		6/21/22 18:31
M2-6:2FTS	127	50-200		6/21/22 18:31
M5PFPeA	134	50-200		6/21/22 18:31
M5PFHxA	100	50-200		6/21/22 18:31
M3PFHxS	121	50-200		6/21/22 18:31
M4PFHpA	101	50-200		6/21/22 18:31
M8PFOA	101	50-200		6/21/22 18:31
M8PFOS	107	50-200		6/21/22 18:31
M9PFNA	93.5	50-200		6/21/22 18:31
MPFDoA	97.9	50-200		6/21/22 18:31



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3 MIDPOINT

Sampled: 6/2/2022 10:16

Sample ID: 22F0262-23Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.4	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoropentanoic acid (PFPeA)	3.1	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorohexanoic acid (PFHxA)	2.2	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	9.1	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:38	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	88.4	50-200							
M2-8:2FTS	132	50-200							
MPFBA	109	50-200							
M3HFPO-DA	79.7	50-200							
M6PFDA	89.7	50-200							
M3PFBs	111	50-200							
M7PFUnA	95.4	50-200							
M2-6:2FTS	145	50-200							
M5PFPeA	122	50-200							
M5PFHxA	93.3	50-200							
M3PFHxS	118	50-200							
M4PFHpA	94.1	50-200							
M8PFOA	97.8	50-200							
M8PFOS	123	50-200							
M9PFNA	87.1	50-200							
MPFDoA	98.4	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3S-25

Sampled: 6/2/2022 10:22

Sample ID: 22F0262-24Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.2	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoropentanoic acid (PFPeA)	3.0	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1	EPA 533	6/13/22	6/21/22 18:46	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	87.7	50-200		6/21/22 18:46
M2-8:2FTS	124	50-200		6/21/22 18:46
MPFBA	115	50-200		6/21/22 18:46
M3HFPO-DA	89.9	50-200		6/21/22 18:46
M6PFDA	102	50-200		6/21/22 18:46
M3PFBs	108	50-200		6/21/22 18:46
M7PFUnA	103	50-200		6/21/22 18:46
M2-6:2FTS	125	50-200		6/21/22 18:46
M5PFPeA	129	50-200		6/21/22 18:46
M5PFHxA	101	50-200		6/21/22 18:46
M3PFHxS	114	50-200		6/21/22 18:46
M4PFHpA	101	50-200		6/21/22 18:46
M8PFOA	105	50-200		6/21/22 18:46
M8PFOS	111	50-200		6/21/22 18:46
M9PFNA	97.0	50-200		6/21/22 18:46
MPFDoA	102	50-200		6/21/22 18:46



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3S-50

Sampled: 6/2/2022 10:24

Sample ID: 22F0262-25

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.4	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoropentanoic acid (PFPeA)	2.8	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 18:53	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	73.7	50-200		6/21/22 18:53
M2-8:2FTS	99.6	50-200		6/21/22 18:53
MPFBA	96.1	50-200		6/21/22 18:53
M3HFPO-DA	72.3	50-200		6/21/22 18:53
M6PFDA	83.0	50-200		6/21/22 18:53
M3PFBs	102	50-200		6/21/22 18:53
M7PFUnA	86.7	50-200		6/21/22 18:53
M2-6:2FTS	97.1	50-200		6/21/22 18:53
M5PFPeA	106	50-200		6/21/22 18:53
M5PFHxA	86.1	50-200		6/21/22 18:53
M3PFHxS	108	50-200		6/21/22 18:53
M4PFHpA	86.2	50-200		6/21/22 18:53
M8PFOA	90.1	50-200		6/21/22 18:53
M8PFOS	111	50-200		6/21/22 18:53
M9PFNA	83.5	50-200		6/21/22 18:53
MPFDoA	85.1	50-200		6/21/22 18:53



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3S-75

Sampled: 6/2/2022 10:28

Sample ID: 22F0262-26

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL		DF	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units						
Perfluorobutanoic acid (PFBA)	3.4	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoropentanoic acid (PFPeA)	3.0	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
9Cl-PF3ONS (F53B Major)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorodecanoic acid (PFDA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorooctanoic acid (PFOA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL
Perfluorononanoic acid (PFNA)	ND	1.9		ng/L	1		EPA 533	6/13/22	6/21/22 19:00	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	73.0	50-200		6/21/22 19:00
M2-8:2FTS	110	50-200		6/21/22 19:00
MPFBA	109	50-200		6/21/22 19:00
M3HFPO-DA	84.3	50-200		6/21/22 19:00
M6PFDA	91.1	50-200		6/21/22 19:00
M3PFBs	106	50-200		6/21/22 19:00
M7PFUnA	92.5	50-200		6/21/22 19:00
M2-6:2FTS	95.2	50-200		6/21/22 19:00
M5PFPeA	115	50-200		6/21/22 19:00
M5PFHxA	96.9	50-200		6/21/22 19:00
M3PFHxS	119	50-200		6/21/22 19:00
M4PFHpA	96.0	50-200		6/21/22 19:00
M8PFOA	94.9	50-200		6/21/22 19:00
M8PFOS	113	50-200		6/21/22 19:00
M9PFNA	87.7	50-200		6/21/22 19:00
MPFDoA	88.7	50-200		6/21/22 19:00



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3 POST

Sampled: 6/2/2022 10:29

Sample ID: 22F0262-27

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.8	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoropentanoic acid (PFPeA)	3.3	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
9Cl-PF3ONS (F53B Major)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorodecanoic acid (PFDA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorohexanesulfonic acid (PFHxS)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	5.4	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorooctanoic acid (PFOA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorooctanesulfonic acid (PFOS)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL
Perfluorononanoic acid (PFNA)	ND	1.7		ng/L	1	EPA 533	6/13/22	6/21/22 19:07	DRL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
M2-4:2FTS	65.2	50-200		6/21/22 19:07
M2-8:2FTS	93.2	50-200		6/21/22 19:07
MPFBA	90.7	50-200		6/21/22 19:07
M3HFPO-DA	69.7	50-200		6/21/22 19:07
M6PFDA	71.7	50-200		6/21/22 19:07
M3PFBs	93.0	50-200		6/21/22 19:07
M7PFUnA	75.7	50-200		6/21/22 19:07
M2-6:2FTS	108	50-200		6/21/22 19:07
M5PFPeA	96.4	50-200		6/21/22 19:07
M5PFHxA	79.5	50-200		6/21/22 19:07
M3PFHxS	100	50-200		6/21/22 19:07
M4PFHpA	79.3	50-200		6/21/22 19:07
M8PFOA	76.2	50-200		6/21/22 19:07
M8PFOS	101	50-200		6/21/22 19:07
M9PFNA	68.6	50-200		6/21/22 19:07
MPFDoA	77.9	50-200		6/21/22 19:07



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-1 RAW

Sampled: 6/2/2022 11:15

Sample ID: 22F0262-28

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	7.2	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorobutanesulfonic acid (PFBs)	2.7	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoropentanoic acid (PFPeA)	2.4	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorododecanoic acid (PFDaO)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.6	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorooctanoic acid (PFOA)	3.3	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorooctanesulfonic acid (PFOS)	3.4	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:14	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	74.7	50-200							
M2-8:2FTS	115	50-200							
MPFBA	99.4	50-200							
M3HFPO-DA	74.9	50-200							
M6PFDA	74.4	50-200							
M3PFBs	95.1	50-200							
M7PFUnA	84.3	50-200							
M2-6:2FTS	96.9	50-200							
M5PFPeA	111	50-200							
M5PFHxA	87.7	50-200							
M3PFHxS	103	50-200							
M4PFHpA	83.9	50-200							
M8PFOA	81.4	50-200							
M8PFOS	99.3	50-200							
M9PFNA	68.1	50-200							
MPFDoA	87.9	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-2 RAW

Sampled: 6/2/2022 11:04

Sample ID: 22F0262-29Sample Matrix: Drinking Water**Semivolatile Organic Compounds by - LC/MS-MS**

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.6	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorobutanesulfonic acid (PFBS)	1.8	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoropentanoic acid (PFPeA)	2.7	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorohexanoic acid (PFHxA)	1.9	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
11Cl-PF3OUDS (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.8	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorooctanoic acid (PFOA)	2.9	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorooctanesulfonic acid (PFOS)	3.0	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:22	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	82.4	50-200							
M2-8:2FTS	108	50-200							
MPFBA	114	50-200							
M3HFPO-DA	101	50-200							
M6PFDA	94.2	50-200							
M3PFBS	107	50-200							
M7PFUnA	90.4	50-200							
M2-6:2FTS	105	50-200							
M5PFPeA	134	50-200							
M5PFHxA	100	50-200							
M3PFHxS	110	50-200							
M4PFHpA	102	50-200							
M8PFOA	104	50-200							
M8PFOS	123	50-200							
M9PFNA	93.1	50-200							
MPFDoA	93.8	50-200							



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

Project Location: Stewart ANG Base Butterhill

Sample Description:

Work Order: 22F0262

Date Received: 6/3/2022

Field Sample #: BH20220602-3 RAW

Sampled: 6/2/2022 11:33

Sample ID: 22F0262-30

Sample Matrix: Drinking Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	MCL/SMCL			Method	Date Prepared	Date/Time Analyzed	Analyst
			MA ORSG	Units	DF				
Perfluorobutanoic acid (PFBA)	3.6	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorobutanesulfonic acid (PFBs)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoropentanoic acid (PFPeA)	4.5	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorohexanoic acid (PFHxA)	3.2	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
11Cl-PF3OUDs (F53B Minor)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorohexanesulfonic acid (PFHxS)	2.9	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorooctanoic acid (PFOA)	2.7	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorooctanesulfonic acid (PFOS)	4.3	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L	1	EPA 533	6/13/22	6/21/22 19:29	DRL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
M2-4:2FTS	92.6	50-200							
M2-8:2FTS	133	50-200							
MPFBA	111	50-200							
M3HFPO-DA	81.0	50-200							
M6PFDA	78.1	50-200							
M3PFBs	106	50-200							
M7PFUnA	89.8	50-200							
M2-6:2FTS	127	50-200							
M5PFPeA	135	50-200							
M5PFHxA	98.5	50-200							
M3PFHxS	114	50-200							
M4PFHpA	96.5	50-200							
M8PFOA	94.2	50-200							
M8PFOS	117	50-200							
M9PFNA	74.7	50-200							
MPFDoA	96.1	50-200							



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

Sample Extraction Data

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22F0262-01 [BH20220602 PRE-GAC]	B310307	240	1.00	06/09/22
22F0262-02 [BH20220602 POST-GAC]	B310307	267	1.00	06/09/22
22F0262-03 [BH20220602 POST-GAC DUP]	B310307	264	1.00	06/09/22
22F0262-04 [BH20220602-IN-25]	B310307	264	1.00	06/09/22
22F0262-05 [BH20220602-IN-50]	B310307	262	1.00	06/09/22
22F0262-06 [BH20220602-IN-75]	B310307	278	1.00	06/09/22
22F0262-07 [BH20220602-1 MIDPOINT]	B310307	276	1.00	06/09/22
22F0262-08 [BH20220602-1S-25]	B310307	275	1.00	06/09/22
22F0262-09 [BH20220602-1S-50]	B310307	276	1.00	06/09/22
22F0262-10 [BH20220602-1S-75]	B310307	265	1.00	06/09/22
22F0262-11 [BH20220602-1 POST]	B310307	266	1.00	06/09/22
22F0262-12 [BH20220602-2N-25]	B310307	291	1.00	06/09/22
22F0262-13 [BH20220602-2N-50]	B310307	260	1.00	06/09/22
22F0262-14 [BH20220602-2N-75]	B310307	265	1.00	06/09/22
22F0262-15 [BH20220602-2 MIDPOINT]	B310307	274	1.00	06/09/22
22F0262-16 [BH20220602-2S-25]	B310307	298	1.00	06/09/22
22F0262-17 [BH20220602-2S-50]	B310307	259	1.00	06/09/22
22F0262-18 [BH20220602-2S-75]	B310307	253	1.00	06/09/22
22F0262-19 [BH20220602-2 POST]	B310307	245	1.00	06/09/22
22F0262-20 [BH20220602-3N-25]	B310307	271	1.00	06/09/22

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22F0262-21 [BH20220602-3N-50]	B310308	266	1.00	06/13/22
22F0262-22 [BH20220602-3N-75]	B310308	260	1.00	06/13/22
22F0262-23 [BH20220602-3 MIDPOINT]	B310308	257	1.00	06/13/22
22F0262-24 [BH20220602-3S-25]	B310308	260	1.00	06/13/22
22F0262-25 [BH20220602-3S-50]	B310308	265	1.00	06/13/22
22F0262-26 [BH20220602-3S-75]	B310308	268	1.00	06/13/22
22F0262-27 [BH20220602-3 POST]	B310308	295	1.00	06/13/22
22F0262-28 [BH20220602-1 RAW]	B310308	281	1.00	06/13/22
22F0262-29 [BH20220602-2 RAW]	B310308	285	1.00	06/13/22
22F0262-30 [BH20220602-3 RAW]	B310308	284	1.00	06/13/22

Prep Method: EPA 533-EPA 533

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
22F0262-15RE1 [BH20220602-2 MIDPOINT]	B310652	263	1.00	06/20/22

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

QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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Batch B310307 - EPA 533

Blank (B310307-BLK1)	Prepared: 06/09/22 Analyzed: 06/11/22								
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L					
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L					
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L					
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L					
11Cl-PF3OUDS (F53B Minor)	ND	1.8		ng/L					
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L					
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L					
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L					
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L					
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L					
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L					
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEsA)	ND	1.8		ng/L					
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L					
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L					
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L					
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L					
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L					
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L					
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L					
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L					
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L					
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L					
Perfluorooctanoic acid (PFOA)	ND	1.8		ng/L					
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L					
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L					
Surrogate: M2-4:2FTS	32.4			ng/L	34.3		94.5	50-200	
Surrogate: M2-8:2FTS	37.2			ng/L	35.1		106	50-200	
Surrogate: MPFBA	42.0			ng/L	36.6		115	50-200	
Surrogate: M3HFPO-DA	45.6			ng/L	36.6		125	50-200	
Surrogate: M6PFDA	41.8			ng/L	36.6		114	50-200	
Surrogate: M3PFBS	39.6			ng/L	34.1		116	50-200	
Surrogate: M7PFUnA	42.1			ng/L	36.6		115	50-200	
Surrogate: M2-6:2FTS	37.2			ng/L	34.8		107	50-200	
Surrogate: M5PFPeA	42.5			ng/L	36.6		116	50-200	
Surrogate: M5PFHxA	40.4			ng/L	36.6		110	50-200	
Surrogate: M3PFHxS	41.2			ng/L	34.7		119	50-200	
Surrogate: M4PFHpA	40.3			ng/L	36.6		110	50-200	
Surrogate: M8PFOA	42.4			ng/L	36.6		116	50-200	
Surrogate: M8PFOS	38.3			ng/L	35.1		109	50-200	
Surrogate: M9PFNA	38.7			ng/L	36.6		106	50-200	
Surrogate: MPFDoA	39.9			ng/L	36.6		109	50-200	

LCS (B310307-BS1)	Prepared: 06/09/22 Analyzed: 06/11/22								
Perfluorobutanoic acid (PFBA)	1.58	1.8		ng/L	1.81		87.2	50-150	
Perfluorobutanesulfonic acid (PFBS)	1.34	1.8		ng/L	1.60		83.8	50-150	
Perfluoropentanoic acid (PFPeA)	1.54	1.8		ng/L	1.81		85.1	50-150	
Perfluorohexanoic acid (PFHxA)	1.57	1.8		ng/L	1.81		86.8	50-150	
11Cl-PF3OUDS (F53B Minor)	1.59	1.8		ng/L	1.71		93.0	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	RPD Limit	Notes
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Batch B310307 - EPA 533

LCS (B310307-BS1)							Prepared: 06/09/22 Analyzed: 06/11/22			
9Cl-PF3ONS (F53B Major)	1.47	1.8		ng/L	1.69		87.3	50-150		
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.67	1.8		ng/L	1.71		97.8	50-150		
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.30	1.8		ng/L	1.81		71.9	50-150		
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.18	1.8		ng/L	1.74		67.7	50-150		
Perfluorodecanoic acid (PFDA)	1.26	1.8		ng/L	1.81		69.7	50-150		
Perfluorododecanoic acid (PFDoA)	1.58	1.8		ng/L	1.81		87.2	50-150		
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.40	1.8		ng/L	1.61		86.6	50-150		
Perfluoroheptanesulfonic acid (PFHpS)	1.57	1.8		ng/L	1.73		90.6	50-150		
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.34	1.8		ng/L	1.69		79.2	50-150		
Perfluorohexanesulfonic acid (PFHxS)	1.32	1.8		ng/L	1.66		79.3	50-150		
Perfluoro-4-oxapentanoic acid (PFMPA)	1.60	1.8		ng/L	1.81		88.5	50-150		
Perfluoro-5-oxahexanoic acid (PFMBA)	1.38	1.8		ng/L	1.81		76.3	50-150		
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.21	1.8		ng/L	1.72		70.1	50-150		
Perfluoropetanesulfonic acid (PPPeS)	1.38	1.8		ng/L	1.70		81.0	50-150		
Perfluoroundecanoic acid (PFUnA)	1.36	1.8		ng/L	1.81		74.9	50-150		
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	1.45	1.8		ng/L	1.81		79.9	50-150		
Perfluoroheptanoic acid (PFHpA)	1.63	1.8		ng/L	1.81		89.7	50-150		
Perfluoroctanoic acid (PFOA)	1.36	1.8		ng/L	1.81		74.9	50-150		
Perfluorooctanesulfonic acid (PFOS)	1.45	1.8		ng/L	1.68		86.5	50-150		
Perfluorononanoic acid (PFNA)	1.49	1.8		ng/L	1.81		82.0	50-150		
Surrogate: M2-4:2FTS	33.0			ng/L	34.0		97.2	50-200		
Surrogate: M2-8:2FTS	34.8			ng/L	34.8		100	50-200		
Surrogate: MPFBA	40.3			ng/L	36.2		111	50-200		
Surrogate: M3HFPO-DA	46.7			ng/L	36.2		129	50-200		
Surrogate: M6PFDA	39.0			ng/L	36.2		108	50-200		
Surrogate: M3PFBS	39.1			ng/L	33.8		116	50-200		
Surrogate: M7PFUnA	39.3			ng/L	36.2		108	50-200		
Surrogate: M2-6:2FTS	37.7			ng/L	34.5		109	50-200		
Surrogate: M5PFPeA	40.8			ng/L	36.2		113	50-200		
Surrogate: MSPFHxA	38.6			ng/L	36.2		107	50-200		
Surrogate: M3PFHxS	38.3			ng/L	34.3		111	50-200		
Surrogate: M4PFHpA	38.7			ng/L	36.2		107	50-200		
Surrogate: M8PFOA	39.9			ng/L	36.2		110	50-200		
Surrogate: M8PFOS	36.9			ng/L	34.7		106	50-200		
Surrogate: M9PFNA	36.8			ng/L	36.2		102	50-200		
Surrogate: MPFDoA	37.8			ng/L	36.2		104	50-200		

Matrix Spike (B310307-MS1)							Source: 22F0262-02 Prepared: 06/09/22 Analyzed: 06/11/22			
Perfluorobutanoic acid (PFBA)	5.58	2.0		ng/L	2.05		3.62	95.9	50-150	
Perfluorobutanesulfonic acid (PBFS)	2.14	2.0		ng/L	1.81		0.703	79.1	50-150	
Perfluoropentanoic acid (PFPeA)	4.78	2.0		ng/L	2.05		3.00	86.9	50-150	
Perfluorohexanoic acid (PFHxA)	3.12	2.0		ng/L	2.05		1.25	91.6	50-150	
11Cl-PF3OUDs (F53B Minor)	1.44	2.0		ng/L	1.93		ND	74.6	50-150	
9Cl-PF3ONS (F53B Major)	1.73	2.0		ng/L	1.91		ND	90.5	50-150	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.80	2.0		ng/L	1.93		ND	93.4	50-150	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.52	2.0		ng/L	2.05		ND	74.5	50-150	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.65	2.0		ng/L	1.96		ND	84.1	50-150	

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit	Notes
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Batch B310307 - EPA 533

Matrix Spike (B310307-MS1)	Source: 22F0262-02			Prepared: 06/09/22 Analyzed: 06/11/22							
Perfluorodecanoic acid (PFDA)	1.67	2.0	ng/L	2.05	ND	81.4	50-150				
Perfluorododecanoic acid (PFDoA)	1.81	2.0	ng/L	2.05	ND	88.6	50-150				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.77	2.0	ng/L	1.82	ND	97.4	50-150				
Perfluoroheptanesulfonic acid (PFHpS)	1.64	2.0	ng/L	1.95	ND	84.0	50-150				
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.77	2.0	ng/L	1.91	ND	92.6	50-150				
Perfluorohexanesulfonic acid (PFHxS)	1.94	2.0	ng/L	1.87	0.436	80.3	50-150				
Perfluoro-4-oxapentanoic acid (PFMPA)	1.98	2.0	ng/L	2.05	ND	96.6	50-150				
Perfluoro-5-oxahexanoic acid (PFMBA)	1.62	2.0	ng/L	2.05	ND	79.4	50-150				
6:2 Fluorotelomersulfonic acid (6:2FTS A)	2.10	2.0	ng/L	1.94	ND	108	50-150				
Perfluoropetanesulfonic acid (PPPeS)	1.73	2.0	ng/L	1.92	ND	89.9	50-150				
Perfluoroundecanoic acid (PFUnA)	1.78	2.0	ng/L	2.05	ND	87.1	50-150				
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.82	2.0	ng/L	2.05	ND	89.1	50-150				
Perfluoroheptanoic acid (PFHpA)	2.37	2.0	ng/L	2.05	0.421	95.3	50-150				
Perfluoroctanoic acid (PFOA)	2.49	2.0	ng/L	2.05	0.508	96.9	50-150				
Perfluoroctanesulfonic acid (PFOS)	2.02	2.0	ng/L	1.89	ND	107	50-150				
Perfluorononanoic acid (PFNA)	1.98	2.0	ng/L	2.05	ND	96.6	50-150				
Surrogate: M2-4:2FTS	26.4		ng/L	38.4		68.8	50-200				
Surrogate: M2-8:2FTS	36.1		ng/L	39.3		92.0	50-200				
Surrogate: MPFBA	44.7		ng/L	40.9		109	50-200				
Surrogate: M3HFPO-DA	46.9		ng/L	40.9		115	50-200				
Surrogate: M6PFDA	41.1		ng/L	40.9		100	50-200				
Surrogate: M3PFBS	44.7		ng/L	38.1		117	50-200				
Surrogate: M7PFUnA	39.7		ng/L	40.9		97.1	50-200				
Surrogate: M2-6:2FTS	35.3		ng/L	38.9		90.6	50-200				
Surrogate: M5PPeA	47.3		ng/L	40.9		116	50-200				
Surrogate: M5PFHxA	39.5		ng/L	40.9		96.4	50-200				
Surrogate: M3PFHxS	46.0		ng/L	38.8		119	50-200				
Surrogate: M4PFHpA	39.5		ng/L	40.9		96.6	50-200				
Surrogate: M8PFOA	40.6		ng/L	40.9		99.2	50-200				
Surrogate: M8PFOS	44.8		ng/L	39.2		114	50-200				
Surrogate: M9PFNA	37.2		ng/L	40.9		91.0	50-200				
Surrogate: MPFDoA	38.6		ng/L	40.9		94.3	50-200				

Matrix Spike Dup (B310307-MSD1)	Source: 22F0262-02			Prepared: 06/09/22 Analyzed: 06/11/22							
Perfluorobutanoic acid (PFBA)	5.55	2.0	ng/L	1.96	3.62	98.8	50-150	0.540	50		
Perfluorobutanesulfonic acid (PFBS)	2.04	2.0	ng/L	1.73	0.703	77.3	50-150	4.56	50		
Perfluoropentanoic acid (PPPeA)	4.54	2.0	ng/L	1.96	3.00	78.8	50-150	5.09	50		
Perfluorohexanoic acid (PFHxA)	2.79	2.0	ng/L	1.96	1.25	79.0	50-150	11.2	50		
11Cl-PF3OuDS (F53B Minor)	1.20	2.0	ng/L	1.84	ND	64.9	50-150	18.4	50		
9Cl-PF3ONS (F53B Major)	1.50	2.0	ng/L	1.82	ND	82.3	50-150	14.0	50		
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.56	2.0	ng/L	1.84	ND	84.9	50-150	14.1	50		
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.55	2.0	ng/L	1.96	ND	79.1	50-150	1.58	50		
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.18	2.0	ng/L	1.88	ND	63.1	50-150	33.0	50		
Perfluorodecanoic acid (PFDA)	1.27	2.0	ng/L	1.96	ND	64.8	50-150	27.2	50		
Perfluorododecanoic acid (PFDoA)	1.63	2.0	ng/L	1.96	ND	83.5	50-150	10.4	50		
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	1.50	2.0	ng/L	1.74	ND	85.9	50-150	17.0	50		
Perfluoroheptanesulfonic acid (PFHpS)	1.63	2.0	ng/L	1.87	ND	87.3	50-150	0.678	50		
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.53	2.0	ng/L	1.83	ND	83.5	50-150	14.9	50		

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit	Notes
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Batch B310307 - EPA 533

Matrix Spike Dup (B310307-MSD1)	Source: 22F0262-02		Prepared: 06/09/22 Analyzed: 06/11/22						
Perfluorohexanesulfonic acid (PFHxS)	2.03	2.0	ng/L	1.79	0.436	89.3	50-150	4.70	50
Perfluoro-4-oxapentanoic acid (PFMPA)	1.72	2.0	ng/L	1.96	ND	88.0	50-150	13.8	50
Perfluoro-5-oxahexanoic acid (PFMBA)	1.43	2.0	ng/L	1.96	ND	73.3	50-150	12.5	50
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.55	2.0	ng/L	1.86	ND	83.7	50-150	29.6	50
Perfluoropetanesulfonic acid (PPeS)	1.61	2.0	ng/L	1.84	ND	87.5	50-150	7.22	50
Perfluoroundecanoic acid (PFUnA)	1.49	2.0	ng/L	1.96	ND	76.0	50-150	18.0	50
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	1.52	2.0	ng/L	1.96	ND	77.8	50-150	18.1	50
Perfluoroheptanoic acid (PFHpA)	2.24	2.0	ng/L	1.96	0.421	92.9	50-150	5.76	50
Perfluoroctanoic acid (PFOA)	2.06	2.0	ng/L	1.96	0.508	79.6	50-150	18.7	50
Perfluorooctanesulfonic acid (PFOS)	1.56	2.0	ng/L	1.81	ND	86.4	50-150	25.5	50
Perfluorononanoic acid (PFNA)	1.47	2.0	ng/L	1.96	ND	75.3	50-150	29.2	50
Surrogate: M2-4:2FTS	21.1		ng/L	36.7		57.5	50-200		
Surrogate: M2-8:2FTS	31.6		ng/L	37.5		84.1	50-200		
Surrogate: MPFBA	37.5		ng/L	39.1		95.9	50-200		
Surrogate: M3HFPO-DA	35.4		ng/L	39.1		90.6	50-200		
Surrogate: M6PFDA	34.8		ng/L	39.1		89.0	50-200		
Surrogate: M3PFBS	37.1		ng/L	36.4		102	50-200		
Surrogate: M7PFUnA	37.7		ng/L	39.1		96.5	50-200		
Surrogate: M2-6:2FTS	27.9		ng/L	37.2		75.0	50-200		
Surrogate: M5PFPeA	39.2		ng/L	39.1		100	50-200		
Surrogate: MSPFHxA	34.4		ng/L	39.1		87.9	50-200		
Surrogate: M3PFHxS	37.3		ng/L	37.1		101	50-200		
Surrogate: M4PFHpA	34.3		ng/L	39.1		87.6	50-200		
Surrogate: M8PFOA	36.6		ng/L	39.1		93.6	50-200		
Surrogate: M8PFOS	38.6		ng/L	37.5		103	50-200		
Surrogate: M9PFNA	35.4		ng/L	39.1		90.6	50-200		
Surrogate: MPFDoA	34.7		ng/L	39.1		88.6	50-200		

Batch B310308 - EPA 533

Blank (B310308-BLK1)	Prepared: 06/13/22 Analyzed: 06/21/22						
Perfluorobutanoic acid (PFBA)	ND	1.8	ng/L				
Perfluorobutanesulfonic acid (PFBS)	ND	1.8	ng/L				
Perfluoropentanoic acid (PFPeA)	ND	1.8	ng/L				
Perfluorohexanoic acid (PFHxA)	ND	1.8	ng/L				
11Cl-PF3OUDS (F53B Minor)	ND	1.8	ng/L				
9Cl-PF3ONS (F53B Major)	ND	1.8	ng/L				
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8	ng/L				
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8	ng/L				
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8	ng/L				
Perfluorodecanoic acid (PFDA)	ND	1.8	ng/L				
Perfluorododecanoic acid (PFDoA)	ND	1.8	ng/L				
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8	ng/L				
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8	ng/L				
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8	ng/L				
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8	ng/L				
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8	ng/L				
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8	ng/L				
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8	ng/L				

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit	Notes
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Batch B310308 - EPA 533

Blank (B310308-BLK1)		Prepared: 06/13/22 Analyzed: 06/21/22					
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L			
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L			
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L			
Perfluoroctanoic acid (PFOA)	ND	1.8		ng/L			
Perfluorooctanesulfonic acid (PFOS)	ND	1.8		ng/L			
Perfluorononanoic acid (PFNA)	ND	1.8		ng/L			
Surrogate: M2-4:2FTS	35.3			ng/L	33.0	107	50-200
Surrogate: M2-8:2FTS	40.2			ng/L	33.8	119	50-200
Surrogate: MPFBA	41.3			ng/L	35.2	117	50-200
Surrogate: M3HFPO-DA	40.1			ng/L	35.2	114	50-200
Surrogate: M6PFDA	44.4			ng/L	35.2	126	50-200
Surrogate: M3PFBS	40.5			ng/L	32.8	123	50-200
Surrogate: M7PFUnA	44.5			ng/L	35.2	127	50-200
Surrogate: M2-6:2FTS	42.6			ng/L	33.5	127	50-200
Surrogate: M5PFPeA	41.1			ng/L	35.2	117	50-200
Surrogate: M5PFHxA	41.0			ng/L	35.2	116	50-200
Surrogate: M3PFHxS	42.2			ng/L	33.4	126	50-200
Surrogate: M4PFHpA	42.3			ng/L	35.2	120	50-200
Surrogate: M8PFOA	43.8			ng/L	35.2	125	50-200
Surrogate: M8PFOS	42.4			ng/L	33.7	126	50-200
Surrogate: M9PFNA	41.3			ng/L	35.2	117	50-200
Surrogate: MPFDoA	42.7			ng/L	35.2	121	50-200

LCS (B310308-BS1)		Prepared: 06/13/22 Analyzed: 06/21/22					
Perfluorobutanoic acid (PFBA)	7.52	1.7		ng/L	8.71	86.3	70-130
Perfluorobutanesulfonic acid (PFBS)	6.53	1.7		ng/L	7.71	84.7	70-130
Perfluoropentanoic acid (PFPeA)	7.41	1.7		ng/L	8.71	85.0	70-130
Perfluorohexanoic acid (PFHxA)	7.65	1.7		ng/L	8.71	87.8	70-130
11Cl-PF3OuDS (F53B Minor)	5.94	1.7		ng/L	8.21	72.3	70-130
9Cl-PF3ONS (F53B Major)	5.94	1.7		ng/L	8.12	73.1	70-130
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	7.19	1.7		ng/L	8.21	87.6	70-130
Hexafluoropropylene oxide dimer acid (HFPO-DA)	8.02	1.7		ng/L	8.71	92.0	70-130
8:2 Fluorotelomersulfonic acid (8:2FTS A)	7.52	1.7		ng/L	8.36	89.9	70-130
Perfluorodecanoic acid (PFDA)	7.55	1.7		ng/L	8.71	86.7	70-130
Perfluorododecanoic acid (PFDoA)	7.48	1.7		ng/L	8.71	85.8	70-130
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7.33	1.7		ng/L	7.75	94.5	70-130
Perfluoroheptanesulfonic acid (PFHpS)	7.76	1.7		ng/L	8.32	93.2	70-130
4:2 Fluorotelomersulfonic acid (4:2FTS A)	7.01	1.7		ng/L	8.15	86.1	70-130
Perfluorohexanesulfonic acid (PFHxS)	6.74	1.7		ng/L	7.97	84.5	70-130
Perfluoro-4-oxapentanoic acid (PFMPA)	8.19	1.7		ng/L	8.71	94.0	70-130
Perfluoro-5-oxahexanoic acid (PFMBA)	7.34	1.7		ng/L	8.71	84.2	70-130
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.76	1.7		ng/L	8.28	93.8	70-130
Perfluoropetanesulfonic acid (PFPeS)	6.77	1.7		ng/L	8.19	82.7	70-130
Perfluoroundecanoic acid (PFUnA)	7.08	1.7		ng/L	8.71	81.2	70-130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	7.70	1.7		ng/L	8.71	88.3	70-130
Perfluoroheptanoic acid (PFHpA)	7.83	1.7		ng/L	8.71	89.8	70-130
Perfluoroctanoic acid (PFOA)	7.54	1.7		ng/L	8.71	86.5	70-130

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit	Notes
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Batch B310308 - EPA 533

LCS (B310308-BS1) Prepared: 06/13/22 Analyzed: 06/21/22											
Perfluorooctanesulfonic acid (PFOS)	6.39	1.7		ng/L	8.06		79.2	70-130			
Perfluorononanoic acid (PFNA)	7.19	1.7		ng/L	8.71		82.6	70-130			
Surrogate: M2-4:2FTS	31.7			ng/L	32.7		96.8	50-200			
Surrogate: M2-8:2FTS	41.7			ng/L	33.5		125	50-200			
Surrogate: MPFBA	41.5			ng/L	34.8		119	50-200			
Surrogate: M3HFPO-DA	34.6			ng/L	34.8		99.3	50-200			
Surrogate: M6PFDA	40.1			ng/L	34.8		115	50-200			
Surrogate: M3PFBS	37.5			ng/L	32.5		116	50-200			
Surrogate: M7PFUnA	41.7			ng/L	34.8		120	50-200			
Surrogate: M2-6:2FTS	38.2			ng/L	33.1		115	50-200			
Surrogate: M5PFPeA	41.4			ng/L	34.8		119	50-200			
Surrogate: M5PFHxA	38.0			ng/L	34.8		109	50-200			
Surrogate: M3PFHxS	40.7			ng/L	33.0		123	50-200			
Surrogate: M4PFHpA	38.6			ng/L	34.8		111	50-200			
Surrogate: M8PFOA	40.0			ng/L	34.8		115	50-200			
Surrogate: M8PFOS	40.0			ng/L	33.4		120	50-200			
Surrogate: M9PFNA	40.6			ng/L	34.8		116	50-200			
Surrogate: MPFDaA	38.9			ng/L	34.8		112	50-200			
LCS Dup (B310308-BSD1) Prepared: 06/13/22 Analyzed: 06/21/22											
Perfluorobutanoic acid (PFBA)	8.40	1.9		ng/L	9.46		88.8	70-130	11.1	30	
Perfluorobutanesulfonic acid (PFBS)	7.25	1.9		ng/L	8.37		86.6	70-130	10.4	30	
Perfluoropentanoic acid (PFPeA)	8.33	1.9		ng/L	9.46		88.1	70-130	11.8	30	
Perfluorohexanoic acid (PFHxA)	8.23	1.9		ng/L	9.46		87.0	70-130	7.34	30	
11Cl-PF3OUDs (F53B Minor)	7.12	1.9		ng/L	8.91		79.8	70-130	18.1	30	
9Cl-PF3ONS (F53B Major)	6.66	1.9		ng/L	8.82		75.5	70-130	11.5	30	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	7.94	1.9		ng/L	8.91		89.1	70-130	9.95	30	
Hexafluoropropylene oxide dimer acid (HFPO-DA)	9.00	1.9		ng/L	9.46		95.1	70-130	11.5	30	
8:2 Fluorotelomersulfonic acid (8:2FTS A)	10.5	1.9		ng/L	9.08		116	70-130	33.1	*	30
Perfluorodecanoic acid (PFDA)	8.30	1.9		ng/L	9.46		87.7	70-130	9.47	30	
Perfluorododecanoic acid (PFDoA)	8.17	1.9		ng/L	9.46		86.4	70-130	8.86	30	
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	8.15	1.9		ng/L	8.42		96.8	70-130	10.6	30	
Perfluoroheptanesulfonic acid (PFHps)	7.76	1.9		ng/L	9.04		85.9	70-130	0.0562	30	
4:2 Fluorotelomersulfonic acid (4:2FTS A)	7.40	1.9		ng/L	8.85		83.6	70-130	5.36	30	
Perfluorohexanesulfonic acid (PFHxS)	7.00	1.9		ng/L	8.66		80.9	70-130	3.86	30	
Perfluoro-4-oxapentanoic acid (PFMPA)	9.29	1.9		ng/L	9.46		98.2	70-130	12.6	30	
Perfluoro-5-oxahexanoic acid (PFMBA)	8.18	1.9		ng/L	9.46		86.4	70-130	10.9	30	
6:2 Fluorotelomersulfonic acid (6:2FTS A)	7.85	1.9		ng/L	8.99		87.3	70-130	1.10	30	
Perfluoropetanesulfonic acid (PPeS)	7.68	1.9		ng/L	8.89		86.3	70-130	12.6	30	
Perfluoroundecanoic acid (PFUnA)	8.49	1.9		ng/L	9.46		89.7	70-130	18.1	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8.47	1.9		ng/L	9.46		89.6	70-130	9.63	30	
Perfluoroheptanoic acid (PFHpA)	8.14	1.9		ng/L	9.46		86.1	70-130	3.95	30	
Perfluorooctanoic acid (PFOA)	8.21	1.9		ng/L	9.46		86.8	70-130	8.61	30	
Perfluorooctanesulfonic acid (PFOS)	6.42	1.9		ng/L	8.75		73.4	70-130	0.588	30	
Perfluorononanoic acid (PFNA)	8.31	1.9		ng/L	9.46		87.8	70-130	14.4	30	
Surrogate: M2-4:2FTS	32.9			ng/L	35.5		92.8	50-200			
Surrogate: M2-8:2FTS	38.1			ng/L	36.3		105	50-200			
Surrogate: MPFBA	40.9			ng/L	37.8		108	50-200			

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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Batch B310308 - EPA 533

LCS Dup (B310308-BSD1)						Prepared: 06/13/22 Analyzed: 06/21/22				
Surrogate: M3HFPO-DA	35.1			ng/L	37.8		92.8	50-200		
Surrogate: M6PFDA	41.0			ng/L	37.8		108	50-200		
Surrogate: M3PFBS	38.0			ng/L	35.3		108	50-200		
Surrogate: M7PFUnA	39.4			ng/L	37.8		104	50-200		
Surrogate: M2-6:2FTS	38.8			ng/L	36.0		108	50-200		
Surrogate: M5PFPeA	40.8			ng/L	37.8		108	50-200		
Surrogate: M5PFHxA	38.6			ng/L	37.8		102	50-200		
Surrogate: M3PFHxS	41.0			ng/L	35.9		114	50-200		
Surrogate: M4PFHpA	39.5			ng/L	37.8		104	50-200		
Surrogate: M8PFOA	39.5			ng/L	37.8		104	50-200		
Surrogate: M8PFOS	41.4			ng/L	36.3		114	50-200		
Surrogate: M9PFNA	40.8			ng/L	37.8		108	50-200		
Surrogate: MPFDoA	40.3			ng/L	37.8		107	50-200		

Batch B310652 - EPA 533

Blank (B310652-BLK1)						Prepared: 06/20/22 Analyzed: 06/27/22				
Perfluorobutanoic acid (PFBA)	ND	1.8		ng/L						
Perfluorobutanesulfonic acid (PFBS)	ND	1.8		ng/L						
Perfluoropentanoic acid (PFPeA)	ND	1.8		ng/L						
Perfluorohexanoic acid (PFHxA)	ND	1.8		ng/L						
11Cl-PF3OUdS (F53B Minor)	ND	1.8		ng/L						
9Cl-PF3ONS (F53B Major)	ND	1.8		ng/L						
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	1.8		ng/L						
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	1.8		ng/L						
8:2 Fluorotelomersulfonic acid (8:2FTS A)	ND	1.8		ng/L						
Perfluorodecanoic acid (PFDA)	ND	1.8		ng/L						
Perfluorododecanoic acid (PFDoA)	ND	1.8		ng/L						
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.8		ng/L						
Perfluoroheptanesulfonic acid (PFHpS)	ND	1.8		ng/L						
4:2 Fluorotelomersulfonic acid (4:2FTS A)	ND	1.8		ng/L						
Perfluorohexanesulfonic acid (PFHxS)	ND	1.8		ng/L						
Perfluoro-4-oxapentanoic acid (PFMPA)	ND	1.8		ng/L						
Perfluoro-5-oxahexanoic acid (PFMBA)	ND	1.8		ng/L						
6:2 Fluorotelomersulfonic acid (6:2FTS A)	ND	1.8		ng/L						
Perfluoropetanesulfonic acid (PFPeS)	ND	1.8		ng/L						
Perfluoroundecanoic acid (PFUnA)	ND	1.8		ng/L						
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.8		ng/L						
Perfluoroheptanoic acid (PFHpA)	ND	1.8		ng/L						
Perfluoroctanoic acid (PFOA)	ND	1.8		ng/L						
Perfluoroctanesulfonic acid (PFOS)	ND	1.8		ng/L						
Perfluororononanoic acid (PFNA)	ND	1.8		ng/L						
Surrogate: M2-4:2FTS	28.1			ng/L	34.0		82.6	50-200		
Surrogate: M2-8:2FTS	31.3			ng/L	34.8		89.7	50-200		
Surrogate: MPFBA	36.9			ng/L	36.3		102	50-200		
Surrogate: M3HFPO-DA	43.7			ng/L	36.3		120	50-200		
Surrogate: M6PFDA	40.3			ng/L	36.3		111	50-200		
Surrogate: M3PFBS	34.5			ng/L	33.8		102	50-200		
Surrogate: M7PFUnA	36.1			ng/L	36.3		99.5	50-200		

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QUALITY CONTROL**Semivolatile Organic Compounds by - LC/MS-MS - Quality Control**

Analyte	Reporting Result	Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit	Notes
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Batch B310652 - EPA 533

Blank (B310652-BLK1)	Prepared: 06/20/22 Analyzed: 06/27/22					
Surrogate: M2-6:2FTS	29.2		ng/L	34.5	84.6	50-200
Surrogate: M5PFPeA	38.7		ng/L	36.3	107	50-200
Surrogate: M5PFHxA	38.3		ng/L	36.3	106	50-200
Surrogate: M3PFHxS	38.7		ng/L	34.4	112	50-200
Surrogate: M4PFHpA	39.3		ng/L	36.3	108	50-200
Surrogate: M8PFOA	37.9		ng/L	36.3	104	50-200
Surrogate: M8PFOS	32.6		ng/L	34.8	93.7	50-200
Surrogate: M9PFNA	38.9		ng/L	36.3	107	50-200
Surrogate: MPFDoA	40.9		ng/L	36.3	113	50-200
LCS (B310652-BS1)	Prepared: 06/20/22 Analyzed: 06/27/22					
Perfluorobutanoic acid (PFBA)	1.47	1.8	ng/L	1.82	80.7	50-150
Perfluorobutanesulfonic acid (PFBS)	1.38	1.8	ng/L	1.61	85.9	50-150
Perfluoropentanoic acid (PFPeA)	1.34	1.8	ng/L	1.82	73.4	50-150
Perfluorohexanoic acid (PFHxA)	1.42	1.8	ng/L	1.82	77.8	50-150
11Cl-PF3OUDS (F53B Minor)	1.41	1.8	ng/L	1.72	82.2	50-150
9Cl-PF3ONS (F53B Major)	1.24	1.8	ng/L	1.70	73.0	50-150
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	1.50	1.8	ng/L	1.72	87.3	50-150
Hexafluoropropylene oxide dimer acid (HFPO-DA)	1.47	1.8	ng/L	1.82	80.6	50-150
8:2 Fluorotelomersulfonic acid (8:2FTS A)	1.43	1.8	ng/L	1.75	81.6	50-150
Perfluorodecanoic acid (PFDA)	1.35	1.8	ng/L	1.82	74.2	50-150
Perfluorododecanoic acid (PFDoA)	1.43	1.8	ng/L	1.82	78.3	50-150
Perfluoro(2-ethoxyethane)sulfonic acid (PFESOA)	1.37	1.8	ng/L	1.62	84.6	50-150
Perfluoroheptanesulfonic acid (PFHPS)	1.88	1.8	ng/L	1.74	108	50-150
4:2 Fluorotelomersulfonic acid (4:2FTS A)	1.48	1.8	ng/L	1.70	87.2	50-150
Perfluorohexanesulfonic acid (PFHxS)	1.33	1.8	ng/L	1.67	79.9	50-150
Perfluoro-4-oxapentanoic acid (PFMPA)	1.59	1.8	ng/L	1.82	87.5	50-150
Perfluoro-5-oxahexanoic acid (PFMBA)	1.38	1.8	ng/L	1.82	75.9	50-150
6:2 Fluorotelomersulfonic acid (6:2FTS A)	1.19	1.8	ng/L	1.73	68.8	50-150
Perfluoropetanesulfonic acid (PFPeS)	1.40	1.8	ng/L	1.71	81.6	50-150
Perfluoroundecanoic acid (PFUnA)	1.75	1.8	ng/L	1.82	96.1	50-150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	1.56	1.8	ng/L	1.82	85.8	50-150
Perfluoroheptanoic acid (PFHpA)	1.60	1.8	ng/L	1.82	87.9	50-150
Perfluoroctanoic acid (PFOA)	1.49	1.8	ng/L	1.82	81.8	50-150
Perfluorooctanesulfonic acid (PFOS)	1.72	1.8	ng/L	1.68	102	50-150
Perfluorononanoic acid (PFNA)	1.48	1.8	ng/L	1.82	81.5	50-150
Surrogate: M2-4:2FTS	25.2		ng/L	34.2	73.7	50-200
Surrogate: M2-8:2FTS	33.5		ng/L	35.0	95.7	50-200
Surrogate: MPFBA	36.8		ng/L	36.4	101	50-200
Surrogate: M3HFPO-DA	38.3		ng/L	36.4	105	50-200
Surrogate: M6PFDA	38.4		ng/L	36.4	105	50-200
Surrogate: M3PFBS	34.3		ng/L	33.9	101	50-200
Surrogate: M7PFUnA	36.8		ng/L	36.4	101	50-200
Surrogate: M2-6:2FTS	32.9		ng/L	34.6	95.0	50-200
Surrogate: M5PFPeA	39.5		ng/L	36.4	108	50-200
Surrogate: M5PFHxA	35.6		ng/L	36.4	97.8	50-200
Surrogate: M3PFHxS	34.3		ng/L	34.5	99.2	50-200
Surrogate: M4PFHpA	36.9		ng/L	36.4	101	50-200



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QUALITY CONTROL

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

Analyte	Reporting Result	Reporting Limit	DL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B310652 - EPA 533

LCS (B310652-BS1)

Prepared: 06/20/22 Analyzed: 06/27/22

Surrogate: M8PFOA	36.7	ng/L	36.4	101	50-200
Surrogate: M8PFOS	33.6	ng/L	34.9	96.1	50-200
Surrogate: M9PFNA	37.2	ng/L	36.4	102	50-200
Surrogate: MPFDoA	41.4	ng/L	36.4	114	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.
PF-02	Surrogate recovery is outside of control limits. Re-extraction yielded similar surrogate non-conformance. Both results reported.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.



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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 (PPeA)	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 (PFDaA)	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
Perfluoroctanoic acid (PFOA)	NH,NY,VT-DW,ME,NJ
Perfluoroctanesulfonic 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	03/1/2024
MA	Massachusetts DEP	M-MA100	06/30/2023
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2023
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2023
RI	Rhode Island Department of Health	LAO00373	12/30/2022
NC	North Carolina Div. of Water Quality	652	12/31/2022
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2023
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	06/12/2023
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2023
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2022

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Page 1 of 4

Phone: 612-607-6400
Fax: 612-607-6344

CHAIN OF CUSTODY RECORD (New York)

		Requested Turnaround Time		Analysis Requested			
		7-Day	10-Day	✓	30		
		Due Date:		Rush Approval Required		# of Containers	
Company Name: <u>NYSDEC / Arcadis</u>				<input type="checkbox"/>		1	
Address: <u>(925 Broadway 12th floor, Albany NY 12233</u>				<input type="checkbox"/>		2 Preservation Code	
Phone: <u>(518) 402-9813</u>		1-Day		<input type="checkbox"/> 3-Day		<input type="checkbox"/>	
Project Name: <u>Stewarts ANG - Butterhill</u>		2-Day		<input type="checkbox"/> 4-Day		<input type="checkbox"/>	
Project Location: <u>New Windsor, NY</u>		Data Delivery		<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Project Number: <u>300SS8345</u>		Format: PDF		<input checked="" type="checkbox"/> EXCEL		<input type="checkbox"/>	
Project Manager: <u>David Chiussano, NYSDEC</u>		Other:		<input type="checkbox"/>		<input type="checkbox"/>	
Pace Analytical Quote Name/Number: <u>Cancut ID: 141586</u>		CLP Like Data Pkg Required:		<input type="checkbox"/>		<input type="checkbox"/>	
Invoice Recipient: <u>David Chiussano</u>		Email To:		<u>David Chiussano@sec.sec.gov</u>		<input type="checkbox"/>	
Sampled By: <u>Megan Fitzgerald / Casey Ruckenstein</u>		Fax To #:		<u>Sec. U.Y. GOV</u>		<input type="checkbox"/>	
Pace Analytical Work Order#		Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code
1	BH20220602 Pre-GAC	6/2	9:01	✓	DW	3	
2	BH20220602 Post-GAC		9:04	✓	DW	3	
3	BH20220602 Post-GAC DWP		9:05	✓	DW	3	
2	BH20220602 Post-GAC MSHMD		9:08	✓	DW	9	
4	BH20220602-1N-25		9:25	✓	DW	3	
5	BH20220602-1N-50		9:27	✓	DW	3	
6	BH20220602-1N-75		9:29	✓	DW	3	
7	BH20220602-1 midpoint		9:31	✓	DW	3	
8	BH20220602-1S-25		9:36	✓	DW	3	
9	BH20220602-1S-50	↓	9:39	✓	DW	3	
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							
Deliveries		Program & Regulatory Information					
Enhanced Data Package NYSPCC EQUIS EDD		<input checked="" type="checkbox"/> NY TOGS <input type="checkbox"/> NYC Sewer Discharge <input type="checkbox"/> Part 360 GW (Landfill) <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NY Part 375 <input type="checkbox"/> Other: <u>None</u>					
NYSPCC Standard EDD		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
NY Regulatory EDD		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
NY Regs Hits-Only EDD		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>					
Other:		<input type="checkbox"/> MWRA <input type="checkbox"/> WR TA <input type="checkbox"/> School <input type="checkbox"/> MBTA <input type="checkbox"/> Other <input type="checkbox"/> Chromatogram <input type="checkbox"/> Alpha-LAP, LLC					
Net Weight and Total Volume Collected		<input type="checkbox"/> PCB ONLY <input type="checkbox"/> Soxhlet <input type="checkbox"/> Non Soxhlet					
Refinishing by: (signature) <u>Laney Peckham</u> Received by: (signature) <u>Joe</u> Refinished by: (signature) <u>Joe</u> Received by: (signature) <u>Joe</u> Comments: Please email results to Dana.Bryant@arcadis.com							
Date/Time: <u>6/3/22 10:00</u> Date/Time: <u>6/2/22 16:05</u> Date/Time: <u>6/3/22 11:30</u> Date/Time: <u>6/2/22 11:30</u> Date/Time: <u>6/3/22 15:00</u> Date/Time: <u>6/3/22 15:00</u> Date/Time: <u>6/3/22 15:00</u> Date/Time: <u>6/3/22 15:00</u>							

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Doc # 380 Rev 1_03242017

CHAIN OF CUSTODY RECORD (New York)

		Requested Turnaround Time		ANALYSIS REQUESTED			
		7-Day	10-Day	P			
Due Date:		Right Approval Required				# of Containers	
Phone: (SIS) 402-9813		1-Day	<input type="checkbox"/>	3-Day	<input type="checkbox"/>	2 Preservation Code	
Project Name: Stewart ANC - Butterhill		2-Day	<input type="checkbox"/>	4-Day	<input type="checkbox"/>	3 Container Code	
Project Location: New Windsor, NY		Data Delivery				discrete & Matrix Samples	
Project Number: 300583345		Format: PDF	<input checked="" type="checkbox"/>	EXCEL	<input checked="" type="checkbox"/>	Field Filtered	
Project Manager: David Chiusano, NYSDEC		Other:	CLP Like Data Pkg Required:		<input type="checkbox"/> Lab to Filter		
Pace Analytical Quote Name/Number (Callout ID): 1415810		Email To: DavidChiusano@dec.ny.gov				Orion/Discrete Samples	
Invoice Recipient: David Chiusano		Fax To #: DEC.NY.GOV				<input type="checkbox"/> Field Filtered	
Sampled By: Meghan Fitzgerald (Casey Relengue)						<input type="checkbox"/> Lab to Filter	
Pace Analytical Work Order#		Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Mark Code
10	BH20220602-18-175	6/2	9:40		✓	DW	3
11	BH20220602-1 POST	1	9:44		✓	DW	3
12	BH20220602-2N-25		9:47		✓	DW	3
13	BH20220602-2N-50		9:50		✓	DW	3
14	BH20220602-2N-75		9:52		✓	DW	3
15	BH20220602-2MIDPOINT		9:54		✓	DW	3
16	BH20220602-2S-25		9:58		✓	DW	3
17	BH20220602-2S-50		9:59		✓	DW	3
18	BH20220602-2S-75		10:01		✓	DW	3
19	BH20220602-2 POST		10:03		✓	DW	3
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) <i>Lesley Relengue</i>		Date/Time: 6/2 16:05	Program & Regulatory Information		Deliverables		
Received by: (signature) <i>Alice E.</i>		Date/Time: 6/2/22 16:05	<input type="checkbox"/> AWQ STDs	<input type="checkbox"/> NY TOGS	<input checked="" type="checkbox"/> Enhanced Data Package		
Relinquished by: (signature) <i>P.S.C.</i>		Date/Time: 6/3/22 14:30	<input type="checkbox"/> NYC Sewer Discharge	<input type="checkbox"/> NY CP-51	<input checked="" type="checkbox"/> NYSDEC EQuIS EDD		
Relinquished by: (signature) <i>P.S.C.</i>		Date/Time: 6/3/22 14:30	<input type="checkbox"/> Part 360 GW (Landfill)	<input type="checkbox"/> NY Restricted Use	<input type="checkbox"/> EQuIS (Standard) EDD		
Relinquished by: (signature) <i>P.S.C.</i>		Date/Time: 6/3/22 14:30	<input type="checkbox"/> NY Unrestricted Use	<input type="checkbox"/> NY Regulatory EDD	<input type="checkbox"/> NY Regulatory EDD		
Relinquished by: (signature) <i>P.S.C.</i>		Date/Time: 6/3/22 14:30	<input type="checkbox"/> NY Part 375	<input type="checkbox"/> NY Part 375	<input type="checkbox"/> NY Regs Hits-Only EDD		
Inquired by: (signature) <i>Lesley Relengue</i>		Date/Time: 6/3/22 15:00	Project Entity		Other		
Inquired by: (signature) <i>Lesley Relengue</i>		Date/Time: 6/3/22 15:00	<input type="checkbox"/> Government	<input type="checkbox"/> WRTA	<input type="checkbox"/> NWRA	<input type="checkbox"/> Chromatogram	<input type="checkbox"/> AIHA-LAP, LLC
Inquired by: (signature) <i>Lesley Relengue</i>		Date/Time: 6/3/22 15:00	<input type="checkbox"/> Federal	<input type="checkbox"/> School	<input type="checkbox"/> 21 J	<input type="checkbox"/> MBTA	<input type="checkbox"/> Non Soxlet
Inquired by: (signature) <i>Lesley Relengue</i>		Date/Time: 6/3/22 15:00	<input type="checkbox"/> City	<input type="checkbox"/> Brownfield	<input type="checkbox"/> Other	<input type="checkbox"/> Chromatogram	<input type="checkbox"/> Soxlet

22FO262
<https://www.pacealabs.com/contact-us/contact-environmental-sciences/>
CHAIN OF CUSTODY RECORD (New York)

 Address: 1025 Broadway, 12th floor, Albany, NY 12233

NYS DEC / Arcadis

Phone: (518) 402-9813

Project Name: Stewart A&S - Butterhill

Project Location: New Windsor, NY

Project Number: 30058345

Project Manager: David Chiusano, NYSDEC

Pace Analytical Quote Number: Callout ID: 141586

Invoice Recipient: David Chiusano

Sampled By: Meghan Fitzgerald / Casey Radomski

Pace Analytical Work Order#

Client/Sample ID / Description

Requested Turnaround Time

Due Date:

Retaining Agent Required

P

ANALYSIS REQUESTED

7-Day

 10-Day

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Doc # 380 Rev 1_03242017

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Page 4 of 4

CHAIN OF CUSTODY RECORD (New York)

Contact: <https://www.pacelabs.com/contact-us/contact-environmental-sciences/>
 Company Name: NYSDEC JARodis
 Address: 605 Broadway 12th floor, Albany NY 12233
 Phone: (518) 402-9813

Request/return/round time
 7-Day 10-Day
 Due Date: P

Phone: (518) 402-9813
 Project Name: Stewart ANG - Butterhill

Project Location: New Windsor, NY
 Project Number: 30058345

Project Manager: David Chiussano, NYSDEC
 Pace Analytical Quote Name/Number (Callout ID: 141586

Invoice Recipient: David Chiussano
 Sampled By: Meghan Fitzgerald / Casey Radomski

Pace Analytical Work Order#

BH20220602-3QAN

Client Sample ID / Description

Beginning Date / Time

Date / Time

Composite

Grab

Matrix

Code

Conc.

Code

Comments:

Please email results to Danya.Bryant@arcadis.com

Please use the following codes to indicate possible sample concentration

H - High; M - Medium; L - Low; C - Clean; U - Unknown

Retired by: (signature)

Jeff Rehenske

Date/Time: 6/216:05

Received by: (signature)

Page

Date/Time: 6/12/22 16:35

Retired by: (signature)

Page

Date/Time: 6/13/22 14:30

Received by: (signature)

Other

Date/Time: 6/22/22 14:22

Retired by: (signature)

Page

Date/Time: 6/3/22 15:00

Received by: (signature)

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Date/Time: 6/3/22 15:00

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Date/Time: 6/13/22 14:30

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



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	<u>NYSDEC/Arcadis</u>		Date	<u>6/3/22</u>	Time	<u>1500</u>
Received By			No Ice	<u>T</u>	No Ice	<u></u>
How were the samples received?	In Cooler	<u>T</u>	On Ice	<u>T</u>	Ambient	<u></u>
	Direct from Sampling		Melted Ice			
Were samples within Temperature? 2-6°C	<u>T</u>	By Gun #	<u>S</u>	Actual Temp -	<u>4.1, 4.0</u>	
Was Custody Seal Intact?	<u>N/A</u>	By Blank #		Actual Temp -		
Was COC Relinquished?	<u>1</u>			Were Samples Tampered with?	<u>N/A</u>	
Are there broken/leaking/loose caps on any samples?				Does Chain Agree With Samples?	<u>T</u>	
Is COC in ink/ Legible?	<u>T</u>			Were samples received within holding time?	<u>T</u>	
Did COC include all pertinent information?	Client Project	<u>T</u>	Analysis ID's	<u>T</u>	Sampler Name	<u>T</u>
Are Sample labels filled out and legible?	<u>T</u>				Collection Dates/Times	<u>T</u>
Are there Lab to Filters?	<u>F</u>					
Are there Rushes?	<u>F</u>			Who was notified?		
Are there Short Holds?	<u>F</u>			Who was notified?		
Is there enough Volume?	<u>T</u>			Who was notified?		
Is there Headspace where applicable?	<u>N/A</u>			MS/MSD?	<u>T</u>	
Proper Media/Containers Used?	<u>T</u>			Is splitting samples required?	<u>F</u>	
Were trip blanks received?	<u>F</u>			On COC?	<u>F</u>	
Do all samples have the proper pH?			Acid	<u>N/A</u>	Base	<u>N/A</u>

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	<u>99</u>	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:

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