

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 12th Floor, Albany, New York 12233-7011

P: (518) 402-9706 | F: (518) 402-9020

www.dec.ny.gov

March 17, 2020

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

Re: New Windsor Public Water Supply Well 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 **March 6, 2020** 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. The U.S. Environmental Protection Agency (EPA) lifetime health advisory level (HAL) is 70 parts per trillion (ppt) for PFOA, PFOS, or the combination of PFOA and PFOS. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

Specifically, the samples were analyzed for a total of six and twenty-one per- and polyfluoroalkyl substances (PFAS), including Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). Data received for the 6 PFAS list analysis has been attached. However, sampling data associated with the 21 PFAS list are still pending from the lab, and will be provided to the Town under separate letter after receipt and review by DEC and the New York State Department of Health (DOH).

During this event, sampling was conducted at eight locations:

- pre-treatment (raw untreated water), which has a "BH20200306PRE-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 "BH2020306-1MID POINT" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a "BH2020306-1 POST" identifier in the Client Sample ID;



Department of
Environmental
Conservation




- 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 "BH20200306-2MID POINT" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 2), which has a "BH20200306-2 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 "BH20200306-3MID POINT" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a "BH2020306-3 POST" identifier in the Client Sample ID; and
- post-GAC treatment (treated water after all GAC Trains), which has a "BH2020306POST-GAC" identifier in the Client Sample ID.

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

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

Sincerely,



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

Enclosures

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

Town of New Windsor
Butterhill Wellfield Temporary GAC Operation and Maintenance Sampling Results ** (Parts Per Trillion (PPT))

Date (PW** sampled)	Analyte	Result ¹ Raw Water	GAC Pair 1 MID	GAC Pair 1 POST	GAC Pair 2 MID	GAC Pair 2 POST	GAC Pair 3 MID	GAC Pair 3 POST	Treated Effluent	USEPA Drinking Water Health Advisory Guidance Value ³	Proposed NYS MCLs ⁴
December 2019 (PW-3)	PFOA	2.4	ND ²	ND	ND	ND	ND	ND	ND	70³	10⁴
	PFOS	2.9	ND	ND	ND	ND	ND	ND	ND	70³	10⁴
January 2020 (PW-2)	PFOA	3.6	ND ²	ND	ND	ND	ND	ND	ND	70³	10⁴
	PFOS	2.3	ND	ND	ND	ND	ND	ND	ND	70³	10⁴
February 2020 (PW-2)	PFOA	3.0	ND ²	ND	ND	ND	ND	ND	ND	70³	10⁴
	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	70³	10⁴
March 2020 (PW-1)	PFOA	2.7	ND ²	ND	ND	ND	ND	ND	ND	70³	10⁴
	PFOS	2.9	ND	ND	ND	ND	ND	ND	ND	70³	10⁴

Notes:

** 6 PFAS List Analysis.

** At the time of the March 6, 2020 sampling event Production Well (PW) No. 1 was in operation.

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. Guidance: USEPA Drinking Water Health Advisory guidance value is currently 70 ppt.
4. The proposed NYS maximum contaminant levels (MCLs) are 10 ppt for PFOS and 10 ppt for PFOA.

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).

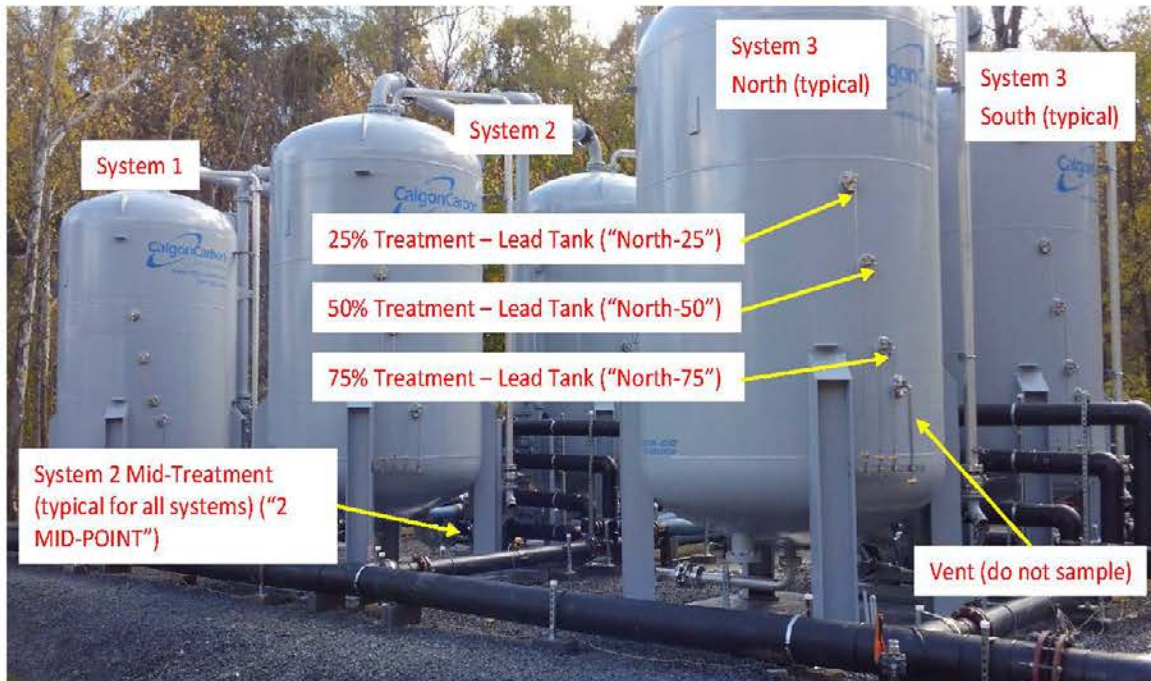
Inorganic Results:

- Parameter is the same as “analyte” above – it is the chemical being tested.
- Result is the concentration of that chemical detected.
- RL/PQL is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- DIL is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- Units: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- DW MCL stands for drinking water (DW) and “maximum contaminant level” (MCL). All chemicals that have a “maximum contaminant level” (MCL) established for drinking water (DW) have a level reported in this column.

- 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.

Figure 1
Sampling Locations

Butterhill Plant Temporary GAC Treatment System



ANALYTICAL REPORT

Eurofins TestAmerica, Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

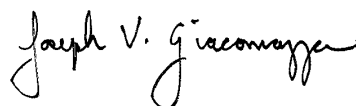
Laboratory Job ID: 320-59286-1

Client Project/Site: Stewart ANGB - Butterhill #336089

For:

New York State D.E.C.
625 Broadway
12th Floor
Albany, New York 12233-7017

Attn: Mr. Dave Chiusano



Authorized for release by:

3/12/2020 1:43:23 PM

Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

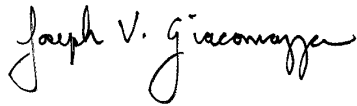
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
3/12/2020 1:43:23 PM



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Isotope Dilution Summary	11
QC Sample Results	12
QC Association Summary	14
Lab Chronicle	15
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Qualifiers

LCMS

Qualifier	Qualifier Description
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Job ID: 320-59286-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative
320-59286-1

Comments

No additional comments.

Receipt

The samples were received on 3/7/2020 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.3° C and 0.4° C.

LCMS

Method WS-LC-0025 Att1: The following sample exhibited matrix interferences for Perfluorooctanesulfonic acid (PFOS) causing elevation of the reporting limit (RL): BH20200306-2MID POINT (320-59286-4) . The reporting limit (RL) for the affected analyte has been raised to be equal to the matrix, and a "G" qualifier applied.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method PFAS Prep: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-363163.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306PRE-GAC

Lab Sample ID: 320-59286-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.1		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA
Perfluorooctanoic acid (PFOA)	2.7		2.0		ng/L	1		WS-LC-0025 Att1	Total/NA

Client Sample ID: BH20200306-1MID POINT

Lab Sample ID: 320-59286-2

No Detections.

Client Sample ID: BH20200306-1 POST

Lab Sample ID: 320-59286-3

No Detections.

Client Sample ID: BH20200306-2MID POINT

Lab Sample ID: 320-59286-4

No Detections.

Client Sample ID: BH20200306-2 POST

Lab Sample ID: 320-59286-5

No Detections.

Client Sample ID: BH20200306-3MID POINT

Lab Sample ID: 320-59286-6

No Detections.

Client Sample ID: BH20200306-3 POST

Lab Sample ID: 320-59286-7

No Detections.

Client Sample ID: BH20200306 POST-GAC

Lab Sample ID: 320-59286-8

No Detections.

Client Sample ID: BH20200306 POST-GACDUP

Lab Sample ID: 320-59286-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306PRE-GAC

Lab Sample ID: 320-59286-1

Date Collected: 03/06/20 09:46

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	2.1		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Perfluorooctanesulfonic acid (PFOS)	2.9		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Perfluorooctanoic acid (PFOA)	2.7		2.0		ng/L		03/09/20 16:16	03/11/20 16:14	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	118		25 - 150				03/09/20 16:16	03/11/20 16:14	1
13C5 PFNA	114		25 - 150				03/09/20 16:16	03/11/20 16:14	1
13C4 PFOA	117		70 - 130				03/09/20 16:16	03/11/20 16:14	1
13C4 PFOS	108		70 - 130				03/09/20 16:16	03/11/20 16:14	1
18O2 PFHxS	113		25 - 150				03/09/20 16:16	03/11/20 16:14	1
13C3 PFBS	112		25 - 150				03/09/20 16:16	03/11/20 16:14	1

Client Sample ID: BH20200306-1MID POINT

Lab Sample ID: 320-59286-2

Date Collected: 03/06/20 10:08

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:33	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	109		25 - 150				03/09/20 16:16	03/11/20 16:33	1
13C5 PFNA	104		25 - 150				03/09/20 16:16	03/11/20 16:33	1
13C4 PFOA	108		70 - 130				03/09/20 16:16	03/11/20 16:33	1
13C4 PFOS	114		70 - 130				03/09/20 16:16	03/11/20 16:33	1
18O2 PFHxS	118		25 - 150				03/09/20 16:16	03/11/20 16:33	1
13C3 PFBS	107		25 - 150				03/09/20 16:16	03/11/20 16:33	1

Client Sample ID: BH20200306-1 POST

Lab Sample ID: 320-59286-3

Date Collected: 03/06/20 10:16

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 16:51	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306-1 POST

Date Collected: 03/06/20 10:16

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-3

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	126		25 - 150	03/09/20 16:16	03/11/20 16:51	1
13C5 PFNA	120		25 - 150	03/09/20 16:16	03/11/20 16:51	1
13C4 PFOA	124		70 - 130	03/09/20 16:16	03/11/20 16:51	1
13C4 PFOS	119		70 - 130	03/09/20 16:16	03/11/20 16:51	1
18O2 PFHxS	121		25 - 150	03/09/20 16:16	03/11/20 16:51	1
13C3 PFBS	119		25 - 150	03/09/20 16:16	03/11/20 16:51	1

Client Sample ID: BH20200306-2MID POINT

Date Collected: 03/06/20 10:40

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-4

Matrix: Water

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:10	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:10	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:10	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:10	1
Perfluorooctanesulfonic acid (PFOS)	ND	G	10		ng/L		03/09/20 16:16	03/11/20 17:10	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	112		25 - 150				03/09/20 16:16	03/11/20 17:10	1
13C5 PFNA	109		25 - 150				03/09/20 16:16	03/11/20 17:10	1
13C4 PFOA	118		70 - 130				03/09/20 16:16	03/11/20 17:10	1
13C4 PFOS	114		70 - 130				03/09/20 16:16	03/11/20 17:10	1
18O2 PFHxS	118		25 - 150				03/09/20 16:16	03/11/20 17:10	1
13C3 PFBS	112		25 - 150				03/09/20 16:16	03/11/20 17:10	1

Client Sample ID: BH20200306-2 POST

Date Collected: 03/06/20 10:56

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-5

Matrix: Water

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:28	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	121		25 - 150				03/09/20 16:16	03/11/20 17:28	1
13C5 PFNA	111		25 - 150				03/09/20 16:16	03/11/20 17:28	1
13C4 PFOA	114		70 - 130				03/09/20 16:16	03/11/20 17:28	1
13C4 PFOS	112		70 - 130				03/09/20 16:16	03/11/20 17:28	1
18O2 PFHxS	120		25 - 150				03/09/20 16:16	03/11/20 17:28	1
13C3 PFBS	111		25 - 150				03/09/20 16:16	03/11/20 17:28	1

Client Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306-3MID POINT

Lab Sample ID: 320-59286-6

Date Collected: 03/06/20 11:10

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 17:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	124		25 - 150				03/09/20 16:16	03/11/20 17:47	1
13C5 PFNA	114		25 - 150				03/09/20 16:16	03/11/20 17:47	1
13C4 PFOA	120		70 - 130				03/09/20 16:16	03/11/20 17:47	1
13C4 PFOS	116		70 - 130				03/09/20 16:16	03/11/20 17:47	1
18O2 PFHxS	120		25 - 150				03/09/20 16:16	03/11/20 17:47	1
13C3 PFBS	116		25 - 150				03/09/20 16:16	03/11/20 17:47	1

Client Sample ID: BH20200306-3 POST

Lab Sample ID: 320-59286-7

Date Collected: 03/06/20 11:22

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:05	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	126		25 - 150				03/09/20 16:16	03/11/20 18:05	1
13C5 PFNA	113		25 - 150				03/09/20 16:16	03/11/20 18:05	1
13C4 PFOA	113		70 - 130				03/09/20 16:16	03/11/20 18:05	1
13C4 PFOS	121		70 - 130				03/09/20 16:16	03/11/20 18:05	1
18O2 PFHxS	121		25 - 150				03/09/20 16:16	03/11/20 18:05	1
13C3 PFBS	118		25 - 150				03/09/20 16:16	03/11/20 18:05	1

Client Sample ID: BH20200306 POST-GAC

Lab Sample ID: 320-59286-8

Date Collected: 03/06/20 09:31

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 18:42	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	111		25 - 150				03/09/20 16:16	03/11/20 18:42	1
13C5 PFNA	109		25 - 150				03/09/20 16:16	03/11/20 18:42	1
13C4 PFOA	110		70 - 130				03/09/20 16:16	03/11/20 18:42	1

Eurofins TestAmerica, Sacramento

Client Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306 POST-GAC

Lab Sample ID: 320-59286-8

Date Collected: 03/06/20 09:31

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	109		70 - 130	03/09/20 16:16	03/11/20 18:42	1
18O2 PFHxS	112		25 - 150	03/09/20 16:16	03/11/20 18:42	1
13C3 PFBS	105		25 - 150	03/09/20 16:16	03/11/20 18:42	1

Client Sample ID: BH20200306 POST-GACDUP

Lab Sample ID: 320-59286-9

Date Collected: 03/06/20 09:30

Matrix: Water

Date Received: 03/07/20 09:25

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 19:00	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	114		25 - 150				03/09/20 16:16	03/11/20 19:00	1
13C5 PFNA	112		25 - 150				03/09/20 16:16	03/11/20 19:00	1
13C4 PFOA	115		70 - 130				03/09/20 16:16	03/11/20 19:00	1
13C4 PFOS	115		70 - 130				03/09/20 16:16	03/11/20 19:00	1
18O2 PFHxS	123		25 - 150				03/09/20 16:16	03/11/20 19:00	1
13C3 PFBS	112		25 - 150				03/09/20 16:16	03/11/20 19:00	1

Isotope Dilution Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)					
		PFHpA (25-150)	PFNA (25-150)	PFOA (70-130)	PFOS (70-130)	PFHxS (25-150)	3C3-PFBs (25-150)
320-59286-1	BH20200306PRE-GAC	118	114	117	108	113	112
320-59286-2	BH20200306-1MID POINT	109	104	108	114	118	107
320-59286-3	BH20200306-1 POST	126	120	124	119	121	119
320-59286-4	BH20200306-2MID POINT	112	109	118	114	118	112
320-59286-5	BH20200306-2 POST	121	111	114	112	120	111
320-59286-6	BH20200306-3MID POINT	124	114	120	116	120	116
320-59286-7	BH20200306-3 POST	126	113	113	121	121	118
320-59286-8	BH20200306 POST-GAC	111	109	110	109	112	105
320-59286-9	BH20200306 POST-GACDUP	114	112	115	115	123	112
LCS 320-363163/2-A	Lab Control Sample	120	110	112	115	119	111
LCSD 320-363163/3-A	Lab Control Sample Dup	114	103	111	114	111	109
MB 320-363163/1-A	Method Blank	110	110	107	107	112	106

Surrogate Legend

PFHpA = 13C4 PFHpA
PFNA = 13C5 PFNA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFHxS = 18O2 PFHxS
13C3-PFBS = 13C3 PFBS

QC Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-363163/1-A

Matrix: Water

Analysis Batch: 363773

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 363163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		03/09/20 16:16	03/11/20 15:00	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	110		25 - 150	03/09/20 16:16	03/11/20 15:00	1
13C5 PFNA	110		25 - 150	03/09/20 16:16	03/11/20 15:00	1
13C4 PFOA	107		70 - 130	03/09/20 16:16	03/11/20 15:00	1
13C4 PFOS	107		70 - 130	03/09/20 16:16	03/11/20 15:00	1
18O2 PFHxS	112		25 - 150	03/09/20 16:16	03/11/20 15:00	1
13C3 PFBS	106		25 - 150	03/09/20 16:16	03/11/20 15:00	1

Lab Sample ID: LCS 320-363163/2-A

Matrix: Water

Analysis Batch: 363773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 363163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanesulfonic acid (PFBS)	17.7	15.2		ng/L		86	72 - 151
Perfluoroheptanoic acid (PFHpA)	20.0	18.0		ng/L		90	71 - 138
Perfluorohexanesulfonic acid (PFHxS)	18.2	16.3		ng/L		90	73 - 157
Perfluorononanoic acid (PFNA)	20.0	20.1		ng/L		101	73 - 147
Perfluorooctanesulfonic acid (PFOS)	18.6	14.1		ng/L		76	70 - 130
Perfluorooctanoic acid (PFOA)	20.0	18.1		ng/L		90	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFHpA	120		25 - 150
13C5 PFNA	110		25 - 150
13C4 PFOA	112		70 - 130
13C4 PFOS	115		70 - 130
18O2 PFHxS	119		25 - 150
13C3 PFBS	111		25 - 150

Lab Sample ID: LCSD 320-363163/3-A

Matrix: Water

Analysis Batch: 363773

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 363163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorobutanesulfonic acid (PFBS)	17.7	15.4		ng/L		87	72 - 151	1	30
Perfluoroheptanoic acid (PFHpA)	20.0	18.3		ng/L		91	71 - 138	2	30
Perfluorohexanesulfonic acid (PFHxS)	18.2	15.4		ng/L		84	73 - 157	6	30
Perfluorononanoic acid (PFNA)	20.0	19.5		ng/L		98	73 - 147	3	30

Eurofins TestAmerica, Sacramento

QC Sample Results

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Method: WS-LC-0025 Att1 - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCSD 320-363163/3-A

Matrix: Water

Analysis Batch: 363773

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 363163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	18.6	13.3		ng/L		72	70 - 130	6	20
Perfluorooctanoic acid (PFOA)	20.0	17.3		ng/L		87	70 - 130	4	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
13C4 PFHpA	114		25 - 150
13C5 PFNA	103		25 - 150
13C4 PFOA	111		70 - 130
13C4 PFOS	114		70 - 130
18O2 PFHxS	111		25 - 150
13C3 PFBS	109		25 - 150

QC Association Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

LCMS

Prep Batch: 363163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59286-1	BH20200306PRE-GAC	Total/NA	Water	PFAS Prep	
320-59286-2	BH20200306-1MID POINT	Total/NA	Water	PFAS Prep	
320-59286-3	BH20200306-1 POST	Total/NA	Water	PFAS Prep	
320-59286-4	BH20200306-2MID POINT	Total/NA	Water	PFAS Prep	
320-59286-5	BH20200306-2 POST	Total/NA	Water	PFAS Prep	
320-59286-6	BH20200306-3MID POINT	Total/NA	Water	PFAS Prep	
320-59286-7	BH20200306-3 POST	Total/NA	Water	PFAS Prep	
320-59286-8	BH20200306 POST-GAC	Total/NA	Water	PFAS Prep	
320-59286-9	BH20200306 POST-GACDUP	Total/NA	Water	PFAS Prep	
MB 320-363163/1-A	Method Blank	Total/NA	Water	PFAS Prep	
LCS 320-363163/2-A	Lab Control Sample	Total/NA	Water	PFAS Prep	
LCSD 320-363163/3-A	Lab Control Sample Dup	Total/NA	Water	PFAS Prep	

Analysis Batch: 363773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-59286-1	BH20200306PRE-GAC	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-2	BH20200306-1MID POINT	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-3	BH20200306-1 POST	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-4	BH20200306-2MID POINT	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-5	BH20200306-2 POST	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-6	BH20200306-3MID POINT	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-7	BH20200306-3 POST	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-8	BH20200306 POST-GAC	Total/NA	Water	WS-LC-0025 Att1	363163
320-59286-9	BH20200306 POST-GACDUP	Total/NA	Water	WS-LC-0025 Att1	363163
MB 320-363163/1-A	Method Blank	Total/NA	Water	WS-LC-0025 Att1	363163
LCS 320-363163/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025 Att1	363163
LCSD 320-363163/3-A	Lab Control Sample Dup	Total/NA	Water	WS-LC-0025 Att1	363163

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306PRE-GAC

Lab Sample ID: 320-59286-1

Date Collected: 03/06/20 09:46

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 16:14	P1N	TAL SAC

Client Sample ID: BH20200306-1MID POINT

Lab Sample ID: 320-59286-2

Date Collected: 03/06/20 10:08

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 16:33	P1N	TAL SAC

Client Sample ID: BH20200306-1 POST

Lab Sample ID: 320-59286-3

Date Collected: 03/06/20 10:16

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 16:51	P1N	TAL SAC

Client Sample ID: BH20200306-2MID POINT

Lab Sample ID: 320-59286-4

Date Collected: 03/06/20 10:40

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 17:10	P1N	TAL SAC

Client Sample ID: BH20200306-2 POST

Lab Sample ID: 320-59286-5

Date Collected: 03/06/20 10:56

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 17:28	P1N	TAL SAC

Client Sample ID: BH20200306-3MID POINT

Lab Sample ID: 320-59286-6

Date Collected: 03/06/20 11:10

Matrix: Water

Date Received: 03/07/20 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 17:47	P1N	TAL SAC

Eurofins TestAmerica, Sacramento

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Client Sample ID: BH20200306-3 POST

Date Collected: 03/06/20 11:22

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 18:05	P1N	TAL SAC

Client Sample ID: BH20200306 POST-GAC

Date Collected: 03/06/20 09:31

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 18:42	P1N	TAL SAC

Client Sample ID: BH20200306 POST-GACDUP

Date Collected: 03/06/20 09:30

Date Received: 03/07/20 09:25

Lab Sample ID: 320-59286-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	363163	03/09/20 16:16	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			363773	03/11/20 19:00	P1N	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11666	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorobutanesulfonic acid (PFBS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluoroheptanoic acid (PFHpA)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorohexanesulfonic acid (PFHxS)
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorononanoic acid (PFNA)

Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-20

Method Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Method	Method Description	Protocol	Laboratory
WS-LC-0025 Att1	Fluorinated Alkyl Substances	TAL-SAC	TAL SAC
PFAS Prep	Preparation, Direct Inject PFAS	TAL-SAC	TAL SAC

Protocol References:

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: New York State D.E.C.
Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-59286-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
320-59286-1	BH20200306PRE-GAC	Water	03/06/20 09:46	03/07/20 09:25	
320-59286-2	BH20200306-1MID POINT	Water	03/06/20 10:08	03/07/20 09:25	
320-59286-3	BH20200306-1 POST	Water	03/06/20 10:16	03/07/20 09:25	
320-59286-4	BH20200306-2MID POINT	Water	03/06/20 10:40	03/07/20 09:25	
320-59286-5	BH20200306-2 POST	Water	03/06/20 10:56	03/07/20 09:25	
320-59286-6	BH20200306-3MID POINT	Water	03/06/20 11:10	03/07/20 09:25	
320-59286-7	BH20200306-3 POST	Water	03/06/20 11:22	03/07/20 09:25	
320-59286-8	BH20200306 POST-GAC	Water	03/06/20 09:31	03/07/20 09:25	
320-59286-9	BH20200306 POST-GACDUP	Water	03/06/20 09:30	03/07/20 09:25	

Client Information		Sampler: B. Powers		Lab PM: Stone, Judy L		Carrier Tracking No(s):		COC No: 480-143043-31696.1	
Client Contact: Jeffrey Redfield		Phone: (315) 412-3479		E-Mail: judy.stone@testamericainc.com				Page: Page 1 of 4	
Company: ARCADIS U.S. Inc								Job #:	
Address: 855 Route 146 Suite 210		Due Date Requested:							
City: Clifton Park		TAT Requested (days): 3 day TAT							
State, Zip: NY, 12065									
Phone: 518-402-9813(Tel)		PO #:							
Email: jeffrey.redfield@arcadis.com		Callout ID: 137349							
Project Name: Stewart ANGB - Butterhill #336089		Project #: 48020960							
Site:		SSOW#:							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - PFAS, Standard List (21 analytes)	PFAS_DI_DW - (MOD) PFAS, UCMR List	Total Number of containers	Special Instructions/Note:
BH20200306PRE-GAC	3/6/20	09:46	G	Water				2	2	
BH20200306-1MID POINT	3/6/20	10:08	G	Water				2	2	
BH20200306-1 POST	3/6/20	10:16	G	Water				2	2	
BH20200306-2MID POINT	3/6/20	10:40	G	Water				2	2	
BH20200306-2 POST	3/6/20	10:56	G	Water				2	2	
BH20200306-3MID POINT	3/6/20	11:10	G	Water				2	2	
BH20200306-3 POST	3/6/20	11:22	G	Water				2	2	
BH20200306 POST-GAC	3/6/20	09:31	G	Water				2	2	
BH20200306 POST-GAC DUP	3/6/20	09:30	G	Water				2	2	
				Water						
				Water						

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Jeffrey Redfield</i>		Date/Time: <i>3/6/20 1450</i>		Company: <i>Arcadis</i>		Received by: <i>Kal Zocher</i>	
Relinquished by: <i>Kal Zocher</i>		Date/Time: <i>3/4/20 1700</i>		Company: <i>Eurofins</i>		Received by: <i>Jeffrey Redfield</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>0.1°C, 0.3°C</i>			

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 320-59286-1

Login Number: 59286

List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Oropeza, Salvador

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	1138389, 1138388
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	