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

February 20, 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 **February 14, 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 "BH20191205PRE-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 "BH20191205-1 MID POINT" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 1), which has a "BH20191205-1 POST" identifier in the Client Sample ID;



Supervisor Meyers Page 2

 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 "BH20191205-2 MID POINT" identifier in the Client Sample ID;

- post-treatment (after the GAC Pair Train 2), which has a "BH20191205-2 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 "BH20191205-3 MID POINT" identifier in the Client Sample ID;
- post-treatment (after the GAC Pair Train 3), which has a BH20191205-3 POST" identifier in the Client Sample ID; and
- post-GAC treatment (treated water after all GAC Trains), which has a "BH20191205POST-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

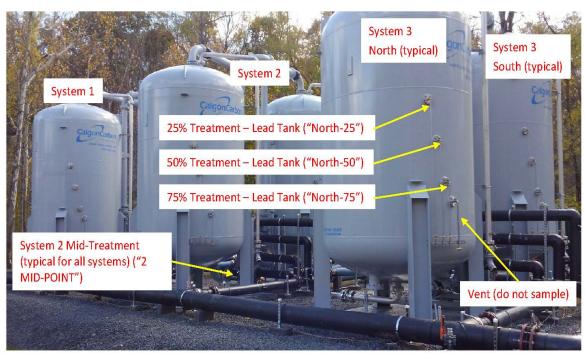
ec: w/enclosures

- 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



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 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	PFOA	2.4	ND^2	ND	ND	ND	ND	ND	ND	70³	10⁴
(PW-3)	PFOS	2.9	ND	ND	ND	ND	ND	ND	ND	70³	10 ⁴
January 2020	PFOA	3.6	ND ²	ND	ND	ND	ND	ND	ND	70³	10⁴
(PW-2)	PFOS	2.3	ND	ND	ND	ND	ND	ND	ND	70³	10⁴
February 2020	PFOA	3.0	ND ²	ND	ND	ND	ND	ND	ND	70 ³	10⁴
(PW-2)	PFOS	ND	ND	ND	ND	ND	ND	ND	ND	70³	10⁴

Notes:

- ** 6 PFAS List Analysis.
- ** At the time of the February 14, 2020 sampling event Production Well (PW) No. 2 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.
- <u>Conc. (ng/l)</u> 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.

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

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

Inorganic Results:

- Parameter is the same as "analyte" above it is the chemical being tested.
- Result is the concentration of that chemical detected.
- <u>RL/PQL</u> is the lowest level at which the specific laboratory test can reliably quantify the concentration. Below that number, the result is considered unreliable.
- <u>DIL</u> is the number of times the sample was diluted (necessary because the test has a certain range that it is accurate for).
- <u>Units</u>: mg/l is milligrams per liter or parts per million; ug/l is micrograms per liter or parts per billion.
- <u>DW MCL</u> 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.

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

ANALYTICAL REPORT

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

Laboratory Job ID: 320-58643-1

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

Judy Stone

Authorized for release by: 2/19/2020 3:42:31 PM

Judy Stone, Senior Project Manager (484)685-0868

judy.stone@testamericainc.com

..... Links

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Total Access

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.

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Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Isotope Dilution Summary	10
QC Sample Results	11
QC Association Summary	13
Lab Chronicle	14
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

3

4

6

Q

9

11

12

11

Definitions/Glossary

Client: New York State D.E.C. Job ID: 320-58643-1

Project/Site: Stewart ANGB - Butterhill #336089

Glossary

DL

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDI	Fatimated Detection Limit (Dioxin)

Detection Limit (DoD/DOE)

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)

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Case Narrative

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-58643-1

Laboratory: Eurofins TestAmerica, Sacramento

Narrative

Job Narrative 320-58643-1

Receipt

The samples were received on 2/15/2020 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.2° C and 0.5° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): BH20200214-PRE-GAC (320-58643-1), BH20200214-1MID-POINT (320-58643-2) and BH20200214-2MID-POINT (320-58643-4). The 1 of 2 container labels list BH20200206, while COC lists BH20200214. The sample was logged in and labeled according to COC and the client confirmed that the sample ID on the COC was correct.

LCMS

No analytical or quality issues were noted, other than those described 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 320-358267.

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

Job ID: 320-58643-1

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Detection Summary

Client: New York State D.E.C. Job ID: 320-58643-1

Project/Site: Stewart ANGB - Butterhill #336089

Client Sample ID: BH202002	14-PRE-GAC				Lab Sa	mple ID: 32	20-58643-		
 Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type		
Perfluorohexanesulfonic acid (PFHxS)	2.8	2.0		ng/L		WS-LC-0025	Total/NA		
Perfluorooctanoic acid (PFOA)	3.0	2.0		ng/L	1	Att1 WS-LC-0025 Att1	Total/NA		
Client Sample ID: BH202002	14-1MID-POINT				Lab Sample ID: 320-58643-				
No Detections.									
Client Sample ID: BH202002	lient Sample ID: BH20200214-1POST								
No Detections.									
Client Sample ID: BH202002		Lab Sa	mple ID: 32	20-58643-					
No Detections.									
Client Sample ID: BH202002	14-2POST				Lab Sa	mple ID: 32	20-58643-		
No Detections.									
Client Sample ID: BH202002	14-3MID-POINT				Lab Sa	mple ID: 32	20-58643-		
No Detections.									
Client Sample ID: BH202002	14-3POST				Lab Sa	mple ID: 32	20-58643-		
No Detections.									
Client Sample ID: BH202002	14POST-GAC				Lab Sa	mple ID: 32	20-58643-		
No Detections.									
Client Sample ID: BH202002	14POST-GACDUP)			Lab Sa	mple ID: 32	20-58643-		

No Detections.

This Detection Summary does not include radiochemical test results.

2/19/2020

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Client Sample ID: BH20200214-PRE-GAC

Date Collected: 02/14/20 09:49 Date Received: 02/15/20 09:20 Lab Sample ID: 320-58643-1

Matrix: Water

Job ID: 320-58643-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Perfluorooctanoic acid (PFOA)	3.0		2.0		ng/L		02/18/20 11:50	02/18/20 16:52	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	115		25 - 150				02/18/20 11:50	02/18/20 16:52	1
13C5 PFNA	117		25 - 150				02/18/20 11:50	02/18/20 16:52	1
13C4 PFOA	113		70 - 130				02/18/20 11:50	02/18/20 16:52	1
13C4 PFOS	119		70 - 130				02/18/20 11:50	02/18/20 16:52	1
1802 PFHxS	118		25 - 150				02/18/20 11:50	02/18/20 16:52	1
13C3 PFBS	115		25 - 150				02/18/20 11:50	02/18/20 16:52	1

Client Sample ID: BH20200214-1MID-POINT

Date Collected: 02/14/20 10:14

Date Received: 02/15/20 09:20

Lab Sample	ID: 320-58643-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:11	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	117		25 - 150				02/18/20 11:50	02/18/20 17:11	1
13C5 PFNA	119		25 - 150				02/18/20 11:50	02/18/20 17:11	1
13C4 PFOA	116		70 - 130				02/18/20 11:50	02/18/20 17:11	1
13C4 PFOS	116		70 - 130				02/18/20 11:50	02/18/20 17:11	1
1802 PFHxS	126		25 - 150				02/18/20 11:50	02/18/20 17:11	1
13C3 PFBS	116		25 - 150				00/40/00 44.50	02/18/20 17:11	1

Client Sample ID: BH20200214-1POST

Date Collected: 02/14/20 10:23 Date Received: 02/15/20 09:20

Lab Sample ID: 320-58643-3 **Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	108		25 - 150				02/18/20 11:50	02/18/20 17:29	1
13C5 PFNA	114		25 - 150				02/18/20 11:50	02/18/20 17:29	1

Eurofins TestAmerica, Sacramento

Page 6 of 20 2/19/2020 Client Sample ID: BH20200214-1POST

Date Collected: 02/14/20 10:23 Date Received: 02/15/20 09:20

118

117

112

Lab Sample ID: 320-58643-3 **Matrix: Water**

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

Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	109	70 - 130	02/18/20 11:50	02/18/20 17:29	1
13C4 PFOS	109	70 - 130	02/18/20 11:50	02/18/20 17:29	1
1802 PFHxS	113	25 - 150	02/18/20 11:50	02/18/20 17:29	1
13C3 PFBS	109	25 - 150	02/18/20 11:50	02/18/20 17:29	1

Lab Sample ID: 320-58643-4 Client Sample ID: BH20200214-2MID-POINT

Date Collected: 02/14/20 10:47 Date Received: 02/15/20 09:20

02/18/20 11:50 02/18/20 17:47

02/18/20 11:50 02/18/20 17:47

02/18/20 11:50 02/18/20 17:47

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		02/18/20 11:50	02/18/20 17:47	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:47	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:47	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 17:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	113		25 - 150				02/18/20 11:50	02/18/20 17:47	1
13C5 PFNA	118		25 - 150				02/18/20 11:50	02/18/20 17:47	1
13C4 PFOA	118		70 - 130				02/18/20 11:50	02/18/20 17:47	1

Client Sample ID: BH20200214-2POST

Lab Sample ID: 320-58643-5 Date Collected: 02/14/20 10:54 **Matrix: Water**

70 - 130

25 - 150

25 - 150

Date Received: 02/15/20 09:20

13C4 PFOS

1802 PFHxS

13C3 PFBS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	117		25 - 150				02/18/20 11:50	02/18/20 18:06	1
13C5 PFNA	120		25 - 150				02/18/20 11:50	02/18/20 18:06	1
13C4 PFOA	122		70 - 130				02/18/20 11:50	02/18/20 18:06	1
13C4 PFOS	125		70 - 130				02/18/20 11:50	02/18/20 18:06	1
			05 450				00/40/00 44:50	00/40/00 40:00	
18O2 PFHxS	126		25 - 150				02/18/20 11:50	02/18/20 18:06	7

2/19/2020

Client: New York State D.E.C. Job ID: 320-58643-1

Project/Site: Stewart ANGB - Butterhill #336089

Client Sample ID: BH20200214-3MID-POINT

Lab Sample ID: 320-58643-6 Date Collected: 02/14/20 11:22 **Matrix: Water**

Date Received: 02/15/20 09:20

Method: WS-LC-0025 Att1 - Flu Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:24	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	119		25 - 150				02/18/20 11:50	02/18/20 18:24	1
13C5 PFNA	115		25 - 150				02/18/20 11:50	02/18/20 18:24	1
13C4 PFOA	113		70 - 130				02/18/20 11:50	02/18/20 18:24	1
13C4 PFOS	123		70 - 130				02/18/20 11:50	02/18/20 18:24	1
1802 PFHxS	118		25 - 150				02/18/20 11:50	02/18/20 18:24	1
13C3 PFBS	116		25 - 150				02/10/20 11:50	02/18/20 18:24	1

Client Sample ID: BH20200214-3POST

Date Collected: 02/14/20 11:38

Date Received: 02/15/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 18:43	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	120		25 - 150				02/18/20 11:50	02/18/20 18:43	1
13C5 PFNA	119		25 - 150				02/18/20 11:50	02/18/20 18:43	1
13C4 PFOA	121		70 - 130				02/18/20 11:50	02/18/20 18:43	1
13C4 PFOS	122		70 - 130				02/18/20 11:50	02/18/20 18:43	1
1802 PFHxS	122		25 - 150				02/18/20 11:50	02/18/20 18:43	1
13C3 PFBS	117		25 - 150					02/18/20 18:43	

Client Sample ID: BH20200214POST-GAC

Date Collected: 02/14/20 09:45

Date Received: 02/15/20 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:20	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	94		25 - 150				02/18/20 11:50	02/18/20 19:20	1
13C5 PFNA	87		25 - 150				02/18/20 11:50	02/18/20 19:20	1
13C4 PFOA	89		70 - 130				02/18/20 11:50	02/18/20 19:20	1

Eurofins TestAmerica, Sacramento

Lab Sample ID: 320-58643-8

Lab Sample ID: 320-58643-7

Matrix: Water

Matrix: Water

Page 8 of 20 2/19/2020

Client Sample Results

Client: New York State D.E.C. Job ID: 320-58643-1

Project/Site: Stewart ANGB - Butterhill #336089

Client Sample ID: BH20200214POST-GAC

Lab Sample ID: 320-58643-8 **Matrix: Water**

Date Collected: 02/14/20 09:45 Date Received: 02/15/20 09:20

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

116

119

112

Isotope Dilution	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	94	70 - 130	02/18/20 11:50	02/18/20 19:20	1
1802 PFHxS	99	25 - 150	02/18/20 11:50	02/18/20 19:20	1
13C3 PFBS	89	25 - 150	02/18/20 11:50	02/18/20 19:20	1

Client Sample ID: BH20200214POST-GACDUP

Date Collected: 02/14/20 09:38

Date Received: 02/15/20 09:20

13C4 PFOS

1802 PFHxS

13C3 PFBS

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		02/18/20 11:50	02/18/20 19:38	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:38	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:38	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:38	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:38	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 19:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	115		25 - 150				02/18/20 11:50	02/18/20 19:38	1
13C5 PFNA	116		25 - 150				02/18/20 11:50	02/18/20 19:38	1
13C4 PFOA	116		70 - 130				02/18/20 11:50	02/18/20 19:38	1

70 - 130

25 - 150

25 - 150

Matrix: Water

Lab Sample ID: 320-58643-9

02/18/20 11:50 02/18/20 19:38

02/18/20 11:50 02/18/20 19:38

02/18/20 11:50 02/18/20 19:38

Isotope Dilution Summary

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

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

Matrix: Water Prep Type: Total/NA

			Perce	ent Isotope	Dilution Re	covery (Ac	ceptance L
		PFHpA	PFNA	PFOA	PFOS	PFHxS	3C3-PFB
ab Sample ID	Client Sample ID	(25-150)	(25-150)	(70-130)	(70-130)	(25-150)	(25-150)
-58643-1	BH20200214-PRE-GAC	115	117	113	119	118	115
58643-2	BH20200214-1MID-POINT	117	119	116	116	126	116
58643-3	BH20200214-1POST	108	114	109	109	113	109
-58643-4	BH20200214-2MID-POINT	113	118	118	118	117	112
58643-5	BH20200214-2POST	117	120	122	125	126	116
-58643-6	BH20200214-3MID-POINT	119	115	113	123	118	116
58643-7	BH20200214-3POST	120	119	121	122	122	117
58643-8	BH20200214POST-GAC	94	87	89	94	99	89
58643-9	BH20200214POST-GACDUP	115	116	116	116	119	112
320-358267/2-A	Lab Control Sample	126	130	122	125	128	127
SD 320-358267/3-A	Lab Control Sample Dup	119	121	120	111	114	112
320-358267/1-A	Method Blank	114	117	114	112	120	112

Surrogate Legend

PFHpA = 13C4 PFHpA

PFNA = 13C5 PFNA

PFOA = 13C4 PFOA

PFOS = 13C4 PFOS

PFHxS = 18O2 PFHxS

13C3-PFBS = 13C3 PFBS

Job ID: 320-58643-1

3

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0

9

11

12

14

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Job ID: 320-58643-1

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

112

120

112

LCS LCS

Lab Sample ID: MB 320-358267/1-A

Matrix: Water

Analysis Batch: 358137

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 358267

-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		02/18/20 11:50	02/18/20 15:57	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFHpA	114		25 - 150				02/18/20 11:50	02/18/20 15:57	1
13C5 PFNA	117		25 - 150				02/18/20 11:50	02/18/20 15:57	1
13C4 PFOA	114		70 - 130				02/18/20 11:50	02/18/20 15:57	1

70 - 130

25 - 150

25 - 150

Spike

Added

17.7

20.0

18.2

20.0

18.6

20.0

LCS LCS

13.1

15.8

14.0

16.1

13.6

16.8

Result Qualifier

Unit

ng/L

ng/L

ng/L

ng/L

ng/L

ng/L

Lab Sample ID: LCS 320-358267/2-A

Matrix: Water

13C4 PFOS

1802 PFHxS

13C3 PFBS

Analyte

(PFBS)

(PFHxS)

Analysis Batch: 358137

Perfluorobutanesulfonic acid

Perfluorohexanesulfonic acid

Perfluorooctanesulfonic acid

Perfluorononanoic acid (PFNA)

Perfluoroheptanoic acid (PFHpA)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

02/18/20 11:50 02/18/20 15:57

02/18/20 11:50 02/18/20 15:57

02/18/20 11:50 02/18/20 15:57

Prep Batch: 358267

%Rec. D %Rec Limits 74 72 - 151 79 71 - 138 77 73 - 157 81 73 - 147

70 - 130

70 - 130

(PFOS) Perfluorooctanoic acid (PFOA)

Isotope Dilution	%Recovery	Qualifier	Limits
13C4 PFHpA	126		25 - 150
13C5 PFNA	130		25 - 150
13C4 PFOA	122		70 - 130
13C4 PFOS	125		70 - 130
1802 PFHxS	128		25 - 150
13C3 PFBS	127		25 - 150

Lab Sample ID: LCSD 320-358267/3-A

Matrix: Water

Analysis Batch: 358137

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 358267

73

	Spike	LCSD LCSD			%Rec.		RPD
Analyte	Added	Result Qualific	er Unit	D %Rec	Limits	RPD	Limit
Perfluorobutanesulfonic acid	17.7	14.7	ng/L	83	72 - 151	11	30
(PFBS) Perfluoroheptanoic acid (PFHpA)	20.0	16.8	ng/L	84	71 - 138	6	30
Perfluorohexanesulfonic acid (PFHxS)	18.2	15.5	ng/L	85	73 - 157	10	30
Perfluorononanoic acid (PFNA)	20.0	16.1	ng/L	81	73 - 147	0	30

Eurofins TestAmerica, Sacramento

Page 11 of 20

QC Sample Results

Client: New York State D.E.C. Job ID: 320-58643-1

Project/Site: Stewart ANGB - Butterhill #336089

13C3 PFBS

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

112

Lab Sample ID: LCSD 320 Matrix: Water	D-358267/3-A	L			(Client Sa	ample	ID: Lat	Control Prep Ty		
Analysis Batch: 358137									Prep Ba	atch: 35	58267
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Perfluorooctanesulfonic acid (PFOS)			18.6	13.7		ng/L		74	70 - 130	0	20
Perfluorooctanoic acid (PFOA)			20.0	16.6		ng/L		83	70 - 130	1	20
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C4 PFHpA	119		25 - 150								
13C5 PFNA	121		25 - 150								
13C4 PFOA	120		70 - 130								
13C4 PFOS	111		70 - 130								
1802 PFHxS	114		25 - 150								

25 - 150

QC Association Summary

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

LCMS

Analysis Batch: 358137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58643-1	BH20200214-PRE-GAC	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-2	BH20200214-1MID-POINT	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-3	BH20200214-1POST	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-4	BH20200214-2MID-POINT	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-5	BH20200214-2POST	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-6	BH20200214-3MID-POINT	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-7	BH20200214-3POST	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-8	BH20200214POST-GAC	Total/NA	Water	WS-LC-0025 Att1	358267
320-58643-9	BH20200214POST-GACDUP	Total/NA	Water	WS-LC-0025 Att1	358267
MB 320-358267/1-A	Method Blank	Total/NA	Water	WS-LC-0025 Att1	358267
LCS 320-358267/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025 Att1	358267
LCSD 320-358267/3-A	Lab Control Sample Dup	Total/NA	Water	WS-LC-0025 Att1	358267

Prep Batch: 358267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-58643-1	BH20200214-PRE-GAC	Total/NA	Water	PFAS Prep	
320-58643-2	BH20200214-1MID-POINT	Total/NA	Water	PFAS Prep	
320-58643-3	BH20200214-1POST	Total/NA	Water	PFAS Prep	
320-58643-4	BH20200214-2MID-POINT	Total/NA	Water	PFAS Prep	
320-58643-5	BH20200214-2POST	Total/NA	Water	PFAS Prep	
320-58643-6	BH20200214-3MID-POINT	Total/NA	Water	PFAS Prep	
320-58643-7	BH20200214-3POST	Total/NA	Water	PFAS Prep	
320-58643-8	BH20200214POST-GAC	Total/NA	Water	PFAS Prep	
320-58643-9	BH20200214POST-GACDUP	Total/NA	Water	PFAS Prep	
MB 320-358267/1-A	Method Blank	Total/NA	Water	PFAS Prep	
LCS 320-358267/2-A	Lab Control Sample	Total/NA	Water	PFAS Prep	
LCSD 320-358267/3-A	Lab Control Sample Dup	Total/NA	Water	PFAS Prep	

Job ID: 320-58643-1

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Lab Sample ID: 320-58643-1

Client Sample ID: BH20200214-PRE-GAC Date Collected: 02/14/20 09:49

Matrix: Water

Job ID: 320-58643-1

Date Received: 02/15/20 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 16:52	P1N	TAL SAC

Client Sample ID: BH20200214-1MID-POINT

Lab Sample ID: 320-58643-2

Matrix: Water

Date Collected: 02/14/20 10:14 Date Received: 02/15/20 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 17:11	P1N	TAL SAC

Client Sample ID: BH20200214-1POST

Lab Sample ID: 320-58643-3

Matrix: Water

Date Collected: 02/14/20 10:23 Date Received: 02/15/20 09:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 17:29	P1N	TAL SAC

Client Sample ID: BH20200214-2MID-POINT

Lab Sample ID: 320-58643-4

Matrix: Water

Date Collected: 02/14/20 10:47 Date Received: 02/15/20 09:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 17:47	P1N	TAL SAC

Client Sample ID: BH20200214-2POST

Lab Sample ID: 320-58643-5 Date Collected: 02/14/20 10:54 **Matrix: Water**

Date Received: 02/15/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analvst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 18:06	P1N	TAL SAC

Client Sample ID: BH20200214-3MID-POINT

Lab Sample ID: 320-58643-6 Date Collected: 02/14/20 11:22 **Matrix: Water**

Date Received: 02/15/20 09:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 18:24	P1N	TAL SAC

Eurofins TestAmerica, Sacramento

Page 14 of 20

2/19/2020

Lab Chronicle

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Lab Sample ID: 320-58643-7 Client Sample ID: BH20200214-3POST

Date Collected: 02/14/20 11:38 Date Received: 02/15/20 09:20 **Matrix: Water**

Job ID: 320-58643-1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 18:43	P1N	TAL SAC

Client Sample ID: BH20200214POST-GAC Lab Sample ID: 320-58643-8

Date Collected: 02/14/20 09:45 Date Received: 02/15/20 09:20

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 19:20	P1N	TAL SAC

Lab Sample ID: 320-58643-9 Client Sample ID: BH20200214POST-GACDUP

Date Collected: 02/14/20 09:38 **Matrix: Water**

Date Received: 02/15/20 09:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	PFAS Prep			1.00 mL	1.66 mL	358267	02/18/20 11:50	LN	TAL SAC
Total/NA	Analysis	WS-LC-0025 Att1		1			358137	02/18/20 19:38	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: 320-58643-1

Laboratory: Eurofins TestAmerica, Sacramento

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

Authority	P	rogram	Identification Number	Expiration Date
New York	N	ELAP	11666	04-01-20
The following analytes the agency does not o	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
WS-LC-0025 Att1	PFAS Prep	Water	Perfluorobutanesulfonic acid	(PFBS)
WS-LC-0025 Att1 WS-LC-0025 Att1	PFAS Prep PFAS Prep	Water Water	Perfluorobutanesulfonic acid Perfluoroheptanoic acid (PFI	,
	•			HpA)

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 *

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Sacramento

Method Summary

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

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

Job ID: 320-58643-1

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Sample Summary

Client: New York State D.E.C.

Project/Site: Stewart ANGB - Butterhill #336089

Lab Oamala ID	Olland Canada ID	DI - 4-2-	0 - 1141	D	
Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset II
320-58643-1	BH20200214-PRE-GAC	Water	02/14/20 09:49	02/15/20 09:20	
320-58643-2	BH20200214-1MID-POINT	Water	02/14/20 10:14	02/15/20 09:20	
320-58643-3	BH20200214-1POST	Water	02/14/20 10:23	02/15/20 09:20	
320-58643-4	BH20200214-2MID-POINT	Water	02/14/20 10:47	02/15/20 09:20	
320-58643-5	BH20200214-2POST	Water	02/14/20 10:54	02/15/20 09:20	
320-58643-6	BH20200214-3MID-POINT	Water	02/14/20 11:22	02/15/20 09:20	
320-58643-7	BH20200214-3POST	Water	02/14/20 11:38	02/15/20 09:20	
320-58643-8	BH20200214POST-GAC	Water	02/14/20 09:45	02/15/20 09:20	
320-58643-9	BH20200214POST-GACDUP	Water	02/14/20 09:38	02/15/20 09:20	

Job ID: 320-58643-1

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Chain of Custody Record

Eurofins TestAmerica, Sacramento

West Sacramento, CA 95605

880 Riverside Parkway

- TSP Dodecahydrate Special Instructions/Note: other (specify) . Na2S2O3 O - AsNaO2 P - Na2O4S Q - Na2SO3 U - Acetone V - MCAA W - pH 4-5 Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Retum To Client — Disposal By Lab — Archive For Mont 480-141748-31696. Preservation Codes 6250 1410 H - Ascorbic Acid C - Zn Acetate D - Nitric Acid E - NaHSO4 Page 1 of 4 F - MeOH G - Amchlor - Ice J - DI Water K-EDTA -- EDA 115/2020 0,20 2 U Total Number of contain 222222 2/14/20 Method of Shipment 0.01S.0 320-58643 Chain of Custody Analysis Requested Cooler Temperature(s) °C and Other Remarks Special Instructions/QC Requirements judy.stone@testamericainc.com 1,1.1 Owned for it is 1514 20000214-1-1-1010021 N PEAS_DI_DW - (MOD) PEAS IICAND ! ---PFC_IDA - PFAS, Standard List (21 analytes) Lab PM: Stone, Judy I 22 22 Company 22 Perform MS/MSD (Yes or No) BH TO TOPOLOGY - SOCOOLOGHE (W=water, S=solid, O=waste/oil, Preservation Code: Water Matrix Water Radiological 12020 1610 1200 (C=comp, G=grab) Sample Type 8-315) 412-3479 TAT Requested (days): Th 01 02/1/2 Date/Time: 1/14 20 2/14/20 1054 214/20/1123 2/14/200945 Sample 2949 St 11 02/11/2 Date Time 120 Date: Unknown 1 PO#: Callout ID: 137349 Due Date Requested: 2/11/20 2/14/20 02/11/2 Sample Date Date/Time: Project #: 48020960 :#MOS Poison B BH20200214-3MID-POINT BH 20200214 POST- GAC DUP BH20200214-2MID-POINT 3420200214-1MID-POINT West Sacramento, Conscious 916-3721059 Phone: 916-373-5600 Fax: 916-3721059 BHZOZOOZIH POST - GAC Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify RHZOZOOZ 14 - 3 POST Sante Sottle losel is BHZOZOOZIU PRE-GAC BHZOZOZIY- Z POST BH2020 02 14- 1POST Custody Seal No. Bung Korle Flammable Stewart ANGB - Butterhill #336089 Possible Hazard Identification jeffrey.redfield@arcadis.com Empty Kit Relinquished by 855 Route 146 Suite 210 Custody Seals Intact: Client Information Sample Identification ARCADIS U.S. Inc 518-402-9813(Tel) Non-Hazard uighed by: Jeffrey Redfield 8 Clifton Park State, Zip: NY, 12065

Client: New York State D.E.C. Job Number: 320-58643-1

Login Number: 58643 List Source: Eurofins TestAmerica, Sacramento

List Number: 1

Creator: Her, David A

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	1138264/1138285				
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.	False	Refer to job narrative for details				
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					