



ANALYSIS REPORT

Prepared by:

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2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

C. T. Male Associates
50 Century Hill Drive
Latham NY 12110

Report Date: February 19, 2019 12:14

Project: Hoosick Falls WTP

Account #: 37191
Group Number: 2028772
SDG: HOO25
PO Number: 14.4756
State of Sample Origin: NY

Electronic Copy To	C. T. Male Associates	Attn: Kirk Moline
Electronic Copy To	C. T. Male Associates	Attn: Dan Reilly
Electronic Copy To	C. T. Male Associates	Attn: Jeff Marx
Electronic Copy To	Barr Engineering Company	Attn: Lauren Brady
Electronic Copy To	Environmental Standards	Attn: St. Gobain
Electronic Copy To	Barr Engineering Company	Attn: Data Mgt

Respectfully Submitted,



Nancy Jean Bornholm
Principal Specialist

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To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
GAC Influent Grab Drinking Water	02/07/2019 09:30	9983748
GAC Midfluent Grab Drinking Water	02/07/2019 09:34	9983749
GAC Effluent Grab Drinking Water	02/07/2019 09:38	9983750
FTB01-190207 Grab Blank Water	02/07/2019 09:42	9983751
LTB01-190207 Blank Water	02/07/2019	9983752

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Project Name: Hoosick Falls WTP
ELLE Group #: 2028772

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: GAC Influent Grab Drinking Water
Hoosick Falls Water Treatment Plant

C. T. Male Associates
ELLE Sample #: PW 9983748
ELLE Group #: 2028772
Matrix: Drinking Water

Project Name: Hoosick Falls WTP

Submittal Date/Time: 02/08/2019 10:10
Collection Date/Time: 02/07/2019 09:30
SDG#: HOO25-01

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1			ng/l	ng/l	
14070	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.8 U	1.8	1
14070	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.8 U	1.8	1
14070	Perfluorobutanesulfonate	375-73-5	1.9	1.8	1
14070	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14070	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14070	Perfluoroheptanoic acid	375-85-9	15	1.8	1
14070	Perfluorohexanesulfonate	355-46-4	1.8 U	1.8	1
14070	Perfluorohexanoic acid	307-24-4	14	1.8	1
14070	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14070	Perfluoro-octanesulfonate	1763-23-1	3.5	1.8	1
14070	Perfluorooctanoic acid	335-67-1	570	18	10
14070	Perfluorotetradecanoic acid	376-06-7	1.8 U	1.8	1
14070	Perfluorotridecanoic acid	72629-94-8	1.8 U	1.8	1
14070	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified					ng/l	ng/l	
14473	6:2 fluorotelomersulfonate	27619-97-2	1.8 U		1.8		1
14473	8:2 fluorotelomersulfonate	39108-34-4	5.4 U		5.4		1
14473	Perfluorobutanoic acid	375-22-4	6.3 U		6.3		1
14473	Perfluorodecanesulfonate	335-77-3	1.8 U		1.8		1
14473	Perfluoroheptanesulfonate	375-92-8	1.8 U		1.8		1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U		2.7		1
14473	Perfluoropentanoic acid	2706-90-3	5.4 U		5.4		1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/13/2019 20:56	Marissa C Drexinger	1
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/15/2019 18:28	Marissa C Drexinger	10
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	19043004	02/14/2019 17:27	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	19042001	02/11/2019 16:00	Anthony C Polaski	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19043004	02/12/2019 08:05	Courtney J Fatta	1

Sample Description: GAC Midfluent Grab Drinking Water
Hoosick Falls Water Treatment Plant

C. T. Male Associates
ELLE Sample #: PW 9983749
ELLE Group #: 2028772
Matrix: Drinking Water

Project Name: Hoosick Falls WTP

Submission Date/Time: 02/08/2019 10:10
Collection Date/Time: 02/07/2019 09:34
SDG#: HOO25-02

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1			ng/l	ng/l	
14070	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.8 U	1.8	1
14070	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.8 U	1.8	1
14070	Perfluorobutanesulfonate	375-73-5	1.8 U	1.8	1
14070	Perfluorodecanoic acid	335-76-2	1.8 U	1.8	1
14070	Perfluorododecanoic acid	307-55-1	1.8 U	1.8	1
14070	Perfluoroheptanoic acid	375-85-9	1.8 U	1.8	1
14070	Perfluorohexanesulfonate	355-46-4	1.8 U	1.8	1
14070	Perfluorohexanoic acid	307-24-4	1.8 U	1.8	1
14070	Perfluorononanoic acid	375-95-1	1.8 U	1.8	1
14070	Perfluoro-octanesulfonate	1763-23-1	1.8 U	1.8	1
14070	Perfluorooctanoic acid	335-67-1	1.8 U	1.8	1
14070	Perfluorotetradecanoic acid	376-06-7	1.8 U	1.8	1
14070	Perfluorotridecanoic acid	72629-94-8	1.8 U	1.8	1
14070	Perfluoroundecanoic acid	2058-94-8	1.8 U	1.8	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified			ng/l	ng/l	
14473	6:2 fluorotelomersulfonate	27619-97-2	1.8 U	1.8	1
14473	8:2 fluorotelomersulfonate	39108-34-4	5.3 U	5.3	1
14473	Perfluorobutanoic acid	375-22-4	6.2 U	6.2	1
14473	Perfluorodecanesulfonate	335-77-3	1.8 U	1.8	1
14473	Perfluoroheptanesulfonate	375-92-8	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.6 U	2.6	1
14473	Perfluoropentanoic acid	2706-90-3	5.3 U	5.3	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/13/2019 21:08	Marissa C Drexinger	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	19043004	02/14/2019 17:37	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	19042001	02/11/2019 16:00	Anthony C Polaski	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19043004	02/12/2019 08:05	Courtney J Fatta	1

Sample Description: GAC Effluent Grab Drinking Water
Hoosick Falls Water Treatment Plant

C. T. Male Associates
ELLE Sample #: PW 9983750
ELLE Group #: 2028772
Matrix: Drinking Water

Project Name: Hoosick Falls WTP

Submission Date/Time: 02/08/2019 10:10
Collection Date/Time: 02/07/2019 09:38
SDG#: HOO25-03

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1			ng/l	ng/l	
14070	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.7 U	1.7	1
14070	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.7 U	1.7	1
14070	Perfluorobutanesulfonate	375-73-5	1.7 U	1.7	1
14070	Perfluorodecanoic acid	335-76-2	1.7 U	1.7	1
14070	Perfluorododecanoic acid	307-55-1	1.7 U	1.7	1
14070	Perfluoroheptanoic acid	375-85-9	1.7 U	1.7	1
14070	Perfluorohexanesulfonate	355-46-4	1.7 U	1.7	1
14070	Perfluorohexanoic acid	307-24-4	1.7 U	1.7	1
14070	Perfluorononanoic acid	375-95-1	1.7 U	1.7	1
14070	Perfluoro-octanesulfonate	1763-23-1	1.7 U	1.7	1
14070	Perfluorooctanoic acid	335-67-1	1.7 U	1.7	1
14070	Perfluorotetradecanoic acid	376-06-7	1.7 U	1.7	1
14070	Perfluorotridecanoic acid	72629-94-8	1.7 U	1.7	1
14070	Perfluoroundecanoic acid	2058-94-8	1.7 U	1.7	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified			ng/l	ng/l	
14473	6:2 fluorotelomersulfonate	27619-97-2	1.7 U	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	5.2 U	5.2	1
14473	Perfluorobutanoic acid	375-22-4	6.0 U	6.0	1
14473	Perfluorodecanesulfonate	335-77-3	1.7 U	1.7	1
14473	Perfluoroheptanesulfonate	375-92-8	1.7 U	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	2.6 U	2.6	1
14473	Perfluoropentanoic acid	2706-90-3	5.2 U	5.2	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/13/2019 21:19	Marissa C Drexinger	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	19043004	02/14/2019 17:46	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	19042001	02/11/2019 16:00	Anthony C Polaski	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19043004	02/12/2019 08:05	Courtney J Fatta	1

Sample Description: FTB01-190207 Grab Blank Water
Hoosick Falls Water Treatment Plant

C. T. Male Associates
ELLE Sample #: WW 9983751
ELLE Group #: 2028772
Matrix: Blank Water

Project Name: Hoosick Falls WTP

Submittal Date/Time: 02/08/2019 10:10
Collection Date/Time: 02/07/2019 09:42
SDG#: HOO25-04FB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1			ng/l	ng/l	
14070	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.7 U	1.7	1
14070	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.7 U	1.7	1
14070	Perfluorobutanesulfonate	375-73-5	1.7 U	1.7	1
14070	Perfluorodecanoic acid	335-76-2	1.7 U	1.7	1
14070	Perfluorododecanoic acid	307-55-1	1.7 U	1.7	1
14070	Perfluoroheptanoic acid	375-85-9	1.7 U	1.7	1
14070	Perfluorohexanesulfonate	355-46-4	1.7 U	1.7	1
14070	Perfluorohexanoic acid	307-24-4	1.7 U	1.7	1
14070	Perfluorononanoic acid	375-95-1	1.7 U	1.7	1
14070	Perfluoro-octanesulfonate	1763-23-1	1.7 U	1.7	1
14070	Perfluorooctanoic acid	335-67-1	1.7 U	1.7	1
14070	Perfluorotetradecanoic acid	376-06-7	1.7 U	1.7	1
14070	Perfluorotridecanoic acid	72629-94-8	1.7 U	1.7	1
14070	Perfluoroundecanoic acid	2058-94-8	1.7 U	1.7	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified			ng/l	ng/l	
14473	6:2 fluorotelomersulfonate	27619-97-2	1.8 U	1.8	1
14473	8:2 fluorotelomersulfonate	39108-34-4	5.3 U	5.3	1
14473	Perfluorobutanoic acid	375-22-4	6.2 U	6.2	1
14473	Perfluorodecanesulfonate	335-77-3	1.8 U	1.8	1
14473	Perfluoroheptanesulfonate	375-92-8	1.8 U	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	2.7 U	2.7	1
14473	Perfluoropentanoic acid	2706-90-3	5.3 U	5.3	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/13/2019 21:31	Marissa C Drexinger	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	19043004	02/14/2019 17:55	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	19042001	02/11/2019 16:00	Anthony C Polaski	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19043004	02/12/2019 08:05	Courtney J Fatta	1

Sample Description: LTB01-190207 Blank Water
Hoosick Falls Water Treatment Plant

C. T. Male Associates
ELLE Sample #: WW 9983752
ELLE Group #: 2028772
Matrix: Blank Water

Project Name: Hoosick Falls WTP

Submission Date/Time: 02/08/2019 10:10
Collection Date/Time: 02/07/2019
SDG#: HOO25-05TB

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1			ng/l	ng/l	
14070	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	1.7 U	1.7	1
14070	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	1.7 U	1.7	1
14070	Perfluorobutanesulfonate	375-73-5	1.7 U	1.7	1
14070	Perfluorodecanoic acid	335-76-2	1.7 U	1.7	1
14070	Perfluorododecanoic acid	307-55-1	1.7 U	1.7	1
14070	Perfluoroheptanoic acid	375-85-9	1.7 U	1.7	1
14070	Perfluorohexanesulfonate	355-46-4	1.7 U	1.7	1
14070	Perfluorohexanoic acid	307-24-4	1.7 U	1.7	1
14070	Perfluorononanoic acid	375-95-1	1.7 U	1.7	1
14070	Perfluoro-octanesulfonate	1763-23-1	1.7 U	1.7	1
14070	Perfluorooctanoic acid	335-67-1	1.7 U	1.7	1
14070	Perfluorotetradecanoic acid	376-06-7	1.7 U	1.7	1
14070	Perfluorotridecanoic acid	72629-94-8	1.7 U	1.7	1
14070	Perfluoroundecanoic acid	2058-94-8	1.7 U	1.7	1

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified			ng/l	ng/l	
14473	6:2 fluorotelomersulfonate	27619-97-2	1.7 U	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	5.2 U	5.2	1
14473	Perfluorobutanoic acid	375-22-4	6.1 U	6.1	1
14473	Perfluorodecanesulfonate	335-77-3	1.7 U	1.7	1
14473	Perfluoroheptanesulfonate	375-92-8	1.7 U	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	2.6 U	2.6	1
14473	Perfluoropentanoic acid	2706-90-3	5.2 U	5.2	1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	14 PFAS Drinking Water List	EPA 537 Version 1.1	1	19042001	02/13/2019 21:42	Marissa C Drexinger	1
14473	7 PFAS Compounds	EPA 537 Version 1.1 Modified	1	19043004	02/14/2019 18:04	Jason W Knight	1
14381	DW PFAS Prep	EPA 537 Version 1.1	1	19042001	02/11/2019 16:00	Anthony C Polaski	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19043004	02/12/2019 08:05	Courtney J Fatta	1

Quality Control Summary

Client Name: C. T. Male Associates
Reported: 02/19/2019 12:14

Group Number: 2028772

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ng/l	ng/l
Batch number: 19042001	Sample number(s): 9983748-9983752	
NEtFOSAA	2.0 U	2.0
NMeFOSAA	2.0 U	2.0
Perfluorobutanesulfonate	2.0 U	2.0
Perfluorodecanoic acid	2.0 U	2.0
Perfluorododecanoic acid	2.0 U	2.0
Perfluoroheptanoic acid	2.0 U	2.0
Perfluorohexanesulfonate	2.0 U	2.0
Perfluorohexanoic acid	2.0 U	2.0
Perfluorononanoic acid	2.0 U	2.0
Perfluoro-octanesulfonate	2.0 U	2.0
Perfluorooctanoic acid	2.0 U	2.0
Perfluorotetradecanoic acid	2.0 U	2.0
Perfluorotridecanoic acid	2.0 U	2.0
Perfluoroundecanoic acid	2.0 U	2.0
Batch number: 19043004	Sample number(s): 9983748-9983752	
6:2 fluorotelomersulfonate	2.0 U	2.0
8:2 fluorotelomersulfonate	6.0 U	6.0
Perfluorobutanoic acid	6.0 U	6.0
Perfluorodecanesulfonate	2.0 U	2.0
Perfluoroheptanesulfonate	2.0 U	2.0
Perfluorooctanesulfonamide	3.0 U	3.0
Perfluoropentanoic acid	6.0 U	6.0

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ng/l	ng/l	ng/l	ng/l					
Batch number: 19042001	Sample number(s): 9983748-9983752								
NEtFOSAA	4.00	4.79	4.00	4.55	120	114	70-130	5	30
NMeFOSAA	4.00	5.19	4.00	4.76	130	119	70-130	9	30
Perfluorobutanesulfonate	3.54	4.12	3.54	4.13	116	117	70-130	0	30
Perfluorodecanoic acid	4.00	4.52	4.00	4.54	113	113	70-130	0	30
Perfluorododecanoic acid	4.00	4.23	4.00	4.13	106	103	70-130	3	30
Perfluoroheptanoic acid	4.00	4.98	4.00	4.89	125	122	70-130	2	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: C. T. Male Associates
Reported: 02/19/2019 12:14

Group Number: 2028772

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/l	LCS Conc ng/l	LCSD Spike Added ng/l	LCSD Conc ng/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluorohexanesulfonate	3.78	4.31	3.78	4.23	114	112	70-130	2	30
Perfluorohexanoic acid	4.00	4.84	4.00	4.59	121	115	70-130	5	30
Perfluorononanoic acid	4.00	4.86	4.00	4.73	122	118	70-130	3	30
Perfluoro-octanesulfonate	3.82	4.26	3.82	3.95	111	103	70-130	8	30
Perfluorooctanoic acid	4.00	4.70	4.00	4.39	118	110	70-130	7	30
Perfluorotetradecanoic acid	4.00	4.40	4.00	4.49	110	112	70-130	2	30
Perfluorotridecanoic acid	4.00	4.31	4.00	4.25	108	106	70-130	2	30
Perfluoroundecanoic acid	4.00	4.65	4.00	4.45	116	111	70-130	4	30
Batch number: 19043004 Sample number(s): 9983748-9983752									
6:2 fluorotelomersulfonate	15.17	12.83	15.17	12.54	85	83	66-155	2	30
8:2 fluorotelomersulfonate	15.33	12.45	15.33	13.63	81	89	66-148	9	30
Perfluorobutanoic acid	5.44	5.43	5.44	5.41	100	99	74-142	0	30
Perfluorodecanesulfonate	5.24	4.79	5.24	5.09	91	97	60-135	6	30
Perfluoroheptanesulfonate	5.18	5.00	5.18	5.05	97	98	64-135	1	30
Perfluorooctanesulfonamide	5.44	4.84	5.44	5.22	89	96	65-164	8	30
Perfluoropentanoic acid	5.44	5.56	5.44	5.49	102	101	74-134	1	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 14 PFAS Drinking Water List
Batch number: 19042001

	13C2-PFHxA	13C2-PFDA	D5-NetFOSAA
9983748	90	102	93
9983749	88	88	87
9983750	90	99	93
9983751	85	89	83
9983752	93	97	89
Blank	94	99	84
LCS	95	99	85
LCSD	98	100	91
Limits:	70-130	70-130	70-130

Analysis Name: 7 PFAS Compounds
Batch number: 19043004

	13C4-PFBA	13C5-PFPeA	13C3-PFHxS	13C2-6:2-FTS	13C8-PFOS	13C2-8:2-FTS
9983748	89	109	123	100	91	122
9983749	97	94	98	117	97	114

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: C. T. Male Associates
Reported: 02/19/2019 12:14

Group Number: 2028772

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: 7 PFAS Compounds
Batch number: 19043004

	13C4-PFBA	13C5-PFPeA	13C3-PFHxS	13C2-6:2-FTS	13C8-PFOS	13C2-8:2-FTS
9983750	91	89	87	99	95	97
9983751	87	87	98	110	85	109
9983752	94	92	105	116	96	95
Blank	90	88	90	109	89	95
LCS	82	83	90	102	89	99
LCSD	91	88	99	110	97	113
Limits:	33-123	31-157	34-126	32-170	50-121	27-164

	13C8-PFOA
9983748	64
9983749	66
9983750	82
9983751	76
9983752	85
Blank	78
LCS	61
LCSD	86
Limits:	11-127

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Services Analysis Request/Chain of Custody

Acct #: 37191

Group #: 2028772

Sample #: 9983748-52

COC#: 20347

Client: C.T. Male Associates				Matrix <input type="checkbox"/> Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> NPDES Other: <i>Resident water</i> Total # of Containers				Analyses Requested										For Lab Use Only SF#: 303216 SCR#: 233811 Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ P = H ₃ PO ₄ O = Other Z = Trizma					
Project Name#: Hoosick Falls WTP		Site ID:						Preservation Codes															
Project Manager: Kirk Moline		P.O. #: 14.4756																					
Sampler: <i>Chris Ormsby</i>																							
Phone #: <i>(518) 786-7400</i>		Quote #: 219169																					
State where sample(s) were collected: NY																							
Sample Identification		Collection		Grab	Composite	Soil	Water	Other	Total # of Containers	7 PFCs (EPA 537 mod.)	14 PFCs (EPA 537 ver. 1.1)											Remarks	
		Date	Time																				
<i>G.A.C. Influent</i>		<i>2/7/19</i>	<i>0930</i>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<i>4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											<i>2 Trizma 4ml 2 non-Trizma</i>	
<i>G.A.C. Midfluent</i>		↓	<i>0934</i>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<i>4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											↓	
<i>G.A.C. Effluent</i>		↓	<i>0938</i>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<i>4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											↓	
<i>FTB 01 - 190207</i>		↓	<i>0942</i>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<i>4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											↓	
<i>LTB 01 - 190207</i>		↓						<input checked="" type="checkbox"/>	<i>4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											↓	
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/>				Relinquished by: <i>Chris Ormsby</i>				Date: <i>2/7/19</i>		Time: <i>1130</i>		Received by:		Date:		Time:							
(RUSH TAT is subject to Eurofins Lancaster Laboratories approval and surcharges.)				Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
Date results are needed:				Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
E-mail address to send RUSH results:				Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
Data Package Options (please check if required)				Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
Type I (Validation/non-CLP) <input type="checkbox"/>		MA MCP <input type="checkbox"/>		TX TRRP - 13 <input type="checkbox"/>		Relinquished by:				Date:		Time:		Received by:		Date:		Time:					
Type III (Reduced non-CLP) <input type="checkbox"/>		CT RCP <input type="checkbox"/>		Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
Type IV (CLP SOW) <input type="checkbox"/>		ASP Type A <input type="checkbox"/>		Relinquished by:				Date:		Time:		Received by:		Date:		Time:							
Type VI (Raw Data Only) <input type="checkbox"/>		ASP Type B <input checked="" type="checkbox"/>		Relinquished by:				Date:		Time:		Received by: <i>Burroughs</i>		Date: <i>2-8-19</i>		Time: <i>1010</i>							
EDD Format: EQUS				Airbill No.:				Relinquished by Commercial Carrier:		UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>		Temperature upon receipt: <i>0.8</i> °C											
If site-specific QC (MS/MSD/Dup) required, indicate QC samples and submit triplicate volume.																							



Client: C.T.Male

Delivery and Receipt Information

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>02/08/2019 10:10</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>NY</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): 2 unpre,2 trizma

Unpacked by Brandy Barclay (2299) at 12:48 on 02/08/2019

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT42-02	0.8	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mL	milliliter(s)
C	degrees Celsius	MPN	Most Probable Number
cfu	colony forming units	N.D.	non-detect
CP Units	cobalt-chloroplatinate units	ng	nanogram(s)
F	degrees Fahrenheit	NTU	nephelometric turbidity units
g	gram(s)	pg/L	picogram/liter
IU	International Units	RL	Reporting Limit
kg	kilogram(s)	TNTC	Too Numerous To Count
L	liter(s)	µg	microgram(s)
lb.	pound(s)	µL	microliter(s)
m3	cubic meter(s)	umhos/cm	micromhos/cm
meq	milliequivalents	MCL	Maximum Contamination Limit
mg	milligram(s)		
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.