



## ANALYSIS REPORT

Prepared by:

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2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Merrimack Village District  
2 Greens Pond Road  
Merrimack NH 03054

Report Date: April 30, 2019 19:45

### Project: PFC Investigation

Account #: 38083  
Group Number: 2039941  
PO Number: 1531010  
State of Sample Origin: NH

Electronic Copy To Merrimack Village District

Attn: Jill Lavoie

Respectfully Submitted,



Lyssa M. Longenecker  
Specialist

(717) 556-7321

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### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
1531010_008 Grab Water	04/18/2019 10:53	1039203
1531010_003 Grab Water	04/18/2019 11:15	1039204
1531010_007 Grab Water	04/18/2019 10:15	1039205
1531010_009 Grab Water	04/18/2019 10:22	1039206
1531010_508 Grab Water	04/18/2019 10:30	1039207

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

**Sample Description:** 1531010\_008 Grab Water  
MVD-2(T)

**Merrimack Village District**  
**ELLE Sample #:** PW 1039203  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:53

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous		EPA 537 Version 1.1 Modified	ng/l	ng/l	ng/l	
14473	10:2-fluorotelomersulfonate	120226-60-0	N.D.	0.86	2.6	1
14473	4:2 fluorotelomersulfonate	757124-72-4	N.D.	0.86	2.6	1
14473	6:2 fluorotelomersulfonate	27619-97-2	N.D.	0.86	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	N.D.	1.7	5.2	1
14473	NEtFOSAA	2991-50-6	N.D.	0.86	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NEtPFOSA	4151-50-2	N.D.	2.6	7.8	1
	NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide					
14473	NEtPFOSAE	1691-99-2	N.D.	1.0	2.6	1
	NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol					
14473	NMeFOSAA	2355-31-9	N.D.	0.86	2.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMePFOSA	31506-32-8	N.D.	2.6	7.8	1
	NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide					
14473	NMePFOSAE	24448-09-7	N.D.	0.86	2.6	1
	NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol					
14473	Perfluorobutanesulfonate	375-73-5	2.3	0.26	0.86	1
14473	Perfluorobutanoic acid	375-22-4	1.8 J	1.7	5.2	1
14473	Perfluorodecanesulfonate	335-77-3	N.D.	0.52	1.7	1
14473	Perfluorodecanoic acid	335-76-2	N.D.	0.78	1.7	1
14473	Perfluorododecanesulfonate	79780-39-5	N.D.	0.26	0.86	1
14473	Perfluorododecanoic acid	307-55-1	N.D.	0.43	1.7	1
14473	Perfluoroheptanesulfonate	375-92-8	N.D.	0.34	1.7	1
14473	Perfluoroheptanoic acid	375-85-9	2.0	0.34	0.86	1
14473	Perfluorohexadecanoic acid	67905-19-5	N.D.	0.26	0.86	1
14473	Perfluorohexanesulfonate	355-46-4	0.84 J	0.34	1.7	1
14473	Perfluorohexanoic acid	307-24-4	2.1	0.34	1.7	1
14473	Perfluorononanesulfonate	68259-12-1	N.D.	0.52	1.7	1
14473	Perfluorononanoic acid	375-95-1	N.D.	0.34	1.7	1
14473	Perfluorooctadecanoic acid	16517-11-6	N.D.	0.43	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	N.D.	0.43	2.6	1
14473	Perfluoro-octanesulfonate	1763-23-1	1.9	0.34	1.7	1
14473	Perfluorooctanoic acid	335-67-1	9.9	0.26	0.86	1
14473	Perfluoropentanesulfonate	2706-91-4	N.D.	0.34	1.7	1
14473	Perfluoropentanoic acid	2706-90-3	N.D.	1.7	5.2	1
14473	Perfluorotetradecanoic acid	376-06-7	N.D.	0.26	0.86	1
14473	Perfluorotridecanoic acid	72629-94-8	N.D.	0.34	0.86	1
14473	Perfluoroundecanoic acid	2058-94-8	N.D.	0.34	1.7	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_008 Grab Water  
MVD-2(T)

Merrimack Village District  
**ELLE Sample #:** PW 1039203  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submittal Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:53

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS	EPA 537 Version 1.1 Modified	1	19117001	04/29/2019 13:02	Jason W Knight	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	2	19117001	04/28/2019 18:00	Anthony C Polaski	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_003 Grab Water  
MVD-3(R)

**Merrimack Village District**  
**ELLE Sample #:** PW 1039204  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous		EPA 537 Version 1.1 Modified	ng/l	ng/l	ng/l	
14473	10:2-fluorotelomersulfonate	120226-60-0	N.D.	0.89	2.7	1
14473	4:2 fluorotelomersulfonate	757124-72-4	N.D.	0.89	2.7	1
14473	6:2 fluorotelomersulfonate	27619-97-2	N.D.	0.89	1.8	1
14473	8:2 fluorotelomersulfonate	39108-34-4	N.D.	1.8	5.3	1
14473	NEtFOSAA	2991-50-6	N.D.	0.89	2.7	1
NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14473	NEtPFOSA	4151-50-2	N.D.	2.7	8.0	1
NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide						
14473	NEtPFOSAE	1691-99-2	N.D.	1.1	2.7	1
NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol						
14473	NMeFOSAA	2355-31-9	N.D.	0.89	2.7	1
NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14473	NMePFOSA	31506-32-8	N.D.	2.7	8.0	1
NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide						
14473	NMePFOSAE	24448-09-7	N.D.	0.89	2.7	1
NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol						
14473	Perfluorobutanesulfonate	375-73-5	4.5	0.27	0.89	1
14473	Perfluorobutanoic acid	375-22-4	5.6	1.8	5.3	1
14473	Perfluorodecanesulfonate	335-77-3	N.D.	0.53	1.8	1
14473	Perfluorodecanoic acid	335-76-2	N.D.	0.80	1.8	1
14473	Perfluorododecanesulfonate	79780-39-5	N.D.	0.27	0.89	1
14473	Perfluorododecanoic acid	307-55-1	N.D.	0.44	1.8	1
14473	Perfluoroheptanesulfonate	375-92-8	N.D.	0.35	1.8	1
14473	Perfluoroheptanoic acid	375-85-9	3.6	0.35	0.89	1
14473	Perfluorohexadecanoic acid	67905-19-5	N.D.	0.27	0.89	1
14473	Perfluorohexanesulfonate	355-46-4	0.60 J	0.35	1.8	1
14473	Perfluorohexanoic acid	307-24-4	3.3	0.35	1.8	1
14473	Perfluorononanesulfonate	68259-12-1	N.D.	0.53	1.8	1
14473	Perfluorononanoic acid	375-95-1	0.65 J	0.35	1.8	1
14473	Perfluorooctadecanoic acid	16517-11-6	N.D.	0.44	1.8	1
14473	Perfluorooctanesulfonamide	754-91-6	N.D.	0.44	2.7	1
14473	Perfluoro-octanesulfonate	1763-23-1	1.8 J	0.35	1.8	1
14473	Perfluorooctanoic acid	335-67-1	23	0.27	0.89	1
14473	Perfluoropentanesulfonate	2706-91-4	N.D.	0.35	1.8	1
14473	Perfluoropentanoic acid	2706-90-3	3.2 J	1.8	5.3	1
14473	Perfluorotetradecanoic acid	376-06-7	N.D.	0.27	0.89	1
14473	Perfluorotridecanoic acid	72629-94-8	N.D.	0.35	0.89	1
14473	Perfluoroundecanoic acid	2058-94-8	N.D.	0.35	1.8	1

The LCS/LCSD native(s) recovery is outside the QC acceptance limits as noted on the QC Summary. The following corrective action

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_003 Grab Water  
MVD-3(R)

Merrimack Village District  
**ELLE Sample #:** PW 1039204  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submittal Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 11:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	was taken: The sample was re-extracted within the method holding time and the LCS/LCSD native(s) recovery was within QC acceptance limits. However, the recovery for extraction standards was outside of QC limits was outside of QC acceptance limits in the re-extracted sample.					

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS	EPA 537 Version 1.1 Modified	1	19113006	04/24/2019 20:24	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19113006	04/23/2019 14:15	Isaac Phillips-Cary	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_007 Grab Water  
MVD-7(R)

**Merrimack Village District**  
**ELLE Sample #:** PW 1039205  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous		EPA 537 Version 1.1 Modified	ng/l	ng/l	ng/l	
14473	10:2-fluorotelomersulfonate	120226-60-0	N.D.	0.87	2.6	1
14473	4:2 fluorotelomersulfonate	757124-72-4	N.D.	0.87	2.6	1
14473	6:2 fluorotelomersulfonate	27619-97-2	N.D.	0.87	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	N.D.	1.7	5.2	1
14473	NEtFOSAA	2991-50-6	N.D.	0.87	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NEtPFOSA	4151-50-2	N.D.	2.6	7.9	1
	NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide					
14473	NEtPFOSAE	1691-99-2	N.D.	1.0	2.6	1
	NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol					
14473	NMeFOSAA	2355-31-9	N.D.	0.87	2.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMePFOSA	31506-32-8	N.D.	2.6	7.9	1
	NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide					
14473	NMePFOSAE	24448-09-7	N.D.	0.87	2.6	1
	NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol					
14473	Perfluorobutanesulfonate	375-73-5	1.7	0.26	0.87	1
14473	Perfluorobutanoic acid	375-22-4	2.4 J	1.7	5.2	1
14473	Perfluorodecanesulfonate	335-77-3	N.D.	0.52	1.7	1
14473	Perfluorodecanoic acid	335-76-2	N.D.	0.79	1.7	1
14473	Perfluorododecanesulfonate	79780-39-5	N.D.	0.26	0.87	1
14473	Perfluorododecanoic acid	307-55-1	N.D.	0.44	1.7	1
14473	Perfluoroheptanesulfonate	375-92-8	N.D.	0.35	1.7	1
14473	Perfluoroheptanoic acid	375-85-9	3.1	0.35	0.87	1
14473	Perfluorohexadecanoic acid	67905-19-5	N.D.	0.26	0.87	1
14473	Perfluorohexanesulfonate	355-46-4	1.6 J	0.35	1.7	1
14473	Perfluorohexanoic acid	307-24-4	2.4	0.35	1.7	1
14473	Perfluorononanesulfonate	68259-12-1	N.D.	0.52	1.7	1
14473	Perfluorononanoic acid	375-95-1	0.64 J	0.35	1.7	1
14473	Perfluorooctadecanoic acid	16517-11-6	N.D.	0.44	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	N.D.	0.44	2.6	1
14473	Perfluoro-octanesulfonate	1763-23-1	2.9	0.35	1.7	1
14473	Perfluorooctanoic acid	335-67-1	22	0.26	0.87	1
14473	Perfluoropentanesulfonate	2706-91-4	N.D.	0.35	1.7	1
14473	Perfluoropentanoic acid	2706-90-3	1.9 J	1.7	5.2	1
14473	Perfluorotetradecanoic acid	376-06-7	N.D.	0.26	0.87	1
14473	Perfluorotridecanoic acid	72629-94-8	N.D.	0.35	0.87	1
14473	Perfluoroundecanoic acid	2058-94-8	N.D.	0.35	1.7	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_007 Grab Water  
MVD-7(R)

Merrimack Village District  
**ELLE Sample #:** PW 1039205  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submittal Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:15

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS	EPA 537 Version 1.1 Modified	1	19117001	04/29/2019 13:20	Jason W Knight	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	2	19117001	04/28/2019 18:00	Anthony C Polaski	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** 1531010\_009 Grab Water  
MVD-8(R)

**Merrimack Village District**  
**ELLE Sample #:** PW 1039206  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:22

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	LC/MS/MS Miscellaneous	EPA 537 Version 1.1 Modified	ng/l	ng/l	ng/l	
14473	10:2-fluorotelomersulfonate	120226-60-0	N.D.	0.87	2.6	1
14473	4:2 fluorotelomersulfonate	757124-72-4	N.D.	0.87	2.6	1
14473	6:2 fluorotelomersulfonate	27619-97-2	N.D.	0.87	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	N.D.	1.7	5.2	1
14473	NEtFOSAA	2991-50-6	N.D.	0.87	2.6	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
14473	NEtPFOSA	4151-50-2	N.D.	2.6	7.8	1
	NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide					
14473	NEtPFOSAE	1691-99-2	N.D.	1.0	2.6	1
	NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol					
14473	NMeFOSAA	2355-31-9	N.D.	0.87	2.6	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
14473	NMePFOSA	31506-32-8	N.D.	2.6	7.8	1
	NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide					
14473	NMePFOSAE	24448-09-7	N.D.	0.87	2.6	1
	NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol					
14473	Perfluorobutanesulfonate	375-73-5	1.4	0.26	0.87	1
14473	Perfluorobutanoic acid	375-22-4	1.8 J	1.7	5.2	1
14473	Perfluorodecanesulfonate	335-77-3	N.D.	0.52	1.7	1
14473	Perfluorodecanoic acid	335-76-2	N.D.	0.78	1.7	1
14473	Perfluorododecanesulfonate	79780-39-5	N.D.	0.26	0.87	1
14473	Perfluorododecanoic acid	307-55-1	N.D.	0.43	1.7	1
14473	Perfluoroheptanesulfonate	375-92-8	N.D.	0.35	1.7	1
14473	Perfluoroheptanoic acid	375-85-9	2.7	0.35	0.87	1
14473	Perfluorohexadecanoic acid	67905-19-5	N.D.	0.26	0.87	1
14473	Perfluorohexanesulfonate	355-46-4	1.2 J	0.35	1.7	1
14473	Perfluorohexanoic acid	307-24-4	2.2	0.35	1.7	1
14473	Perfluorononanesulfonate	68259-12-1	N.D.	0.52	1.7	1
14473	Perfluorononanoic acid	375-95-1	N.D.	0.35	1.7	1
14473	Perfluorooctadecanoic acid	16517-11-6	N.D.	0.43	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	N.D.	0.43	2.6	1
14473	Perfluoro-octanesulfonate	1763-23-1	1.6 J	0.35	1.7	1
14473	Perfluorooctanoic acid	335-67-1	18	0.26	0.87	1
14473	Perfluoropentanesulfonate	2706-91-4	N.D.	0.35	1.7	1
14473	Perfluoropentanoic acid	2706-90-3	N.D.	1.7	5.2	1
14473	Perfluorotetradecanoic acid	376-06-7	N.D.	0.26	0.87	1
14473	Perfluorotridecanoic acid	72629-94-8	N.D.	0.35	0.87	1
14473	Perfluoroundecanoic acid	2058-94-8	N.D.	0.35	1.7	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_009 Grab Water  
MVD-8(R)

Merrimack Village District  
**ELLE Sample #:** PW 1039206  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submittal Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:22

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS	EPA 537 Version 1.1 Modified	1	19117001	04/29/2019 13:29	Jason W Knight	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	2	19117001	04/28/2019 18:00	Anthony C Polaski	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_508 Grab Water  
MVD-TP

**Merrimack Village District**  
**ELLE Sample #:** PW 1039207  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
LC/MS/MS Miscellaneous EPA 537 Version 1.1 Modified			ng/l	ng/l	ng/l	
14473	10:2-fluorotelomersulfonate	120226-60-0	N.D.	0.86	2.6	1
14473	4:2 fluorotelomersulfonate	757124-72-4	N.D.	0.86	2.6	1
14473	6:2 fluorotelomersulfonate	27619-97-2	N.D.	0.86	1.7	1
14473	8:2 fluorotelomersulfonate	39108-34-4	N.D.	1.7	5.2	1
14473	NEtFOSAA	2991-50-6	N.D.	0.86	2.6	1
NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14473	NEtPFOSA	4151-50-2	N.D.	2.6	7.8	1
NEtPFOSA is the acronym for N-ethylperfluoro-1-octanesulfonamide						
14473	NEtPFOSAE	1691-99-2	N.D.	1.0	2.6	1
NEtPFOSAE is the acronym for 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol						
14473	NMeFOSAA	2355-31-9	N.D.	0.86	2.6	1
NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14473	NMePFOSA	31506-32-8	N.D.	2.6	7.8	1
NMePFOSA is the acronym for N-methylperfluoro-1-octanesulfonamide						
14473	NMePFOSAE	24448-09-7	N.D.	0.86	2.6	1
NMePFOSAE is the acronym for 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol						
14473	Perfluorobutanesulfonate	375-73-5	1.4	0.26	0.86	1
14473	Perfluorobutanoic acid	375-22-4	N.D.	1.7	5.2	1
14473	Perfluorodecane sulfonate	335-77-3	N.D.	0.52	1.7	1
14473	Perfluorodecanoic acid	335-76-2	N.D.	0.78	1.7	1
14473	Perfluorododecane sulfonate	79780-39-5	N.D.	0.26	0.86	1
14473	Perfluorododecanoic acid	307-55-1	N.D.	0.43	1.7	1
14473	Perfluoroheptane sulfonate	375-92-8	N.D.	0.35	1.7	1
14473	Perfluoroheptanoic acid	375-85-9	2.1	0.35	0.86	1
14473	Perfluorohexadecanoic acid	67905-19-5	N.D.	0.26	0.86	1
14473	Perfluorohexane sulfonate	355-46-4	1.7 J	0.35	1.7	1
14473	Perfluorohexanoic acid	307-24-4	2.4	0.35	1.7	1
14473	Perfluorononane sulfonate	68259-12-1	N.D.	0.52	1.7	1
14473	Perfluorononanoic acid	375-95-1	0.43 J	0.35	1.7	1
14473	Perfluorooctadecanoic acid	16517-11-6	N.D.	0.43	1.7	1
14473	Perfluorooctanesulfonamide	754-91-6	N.D.	0.43	2.6	1
14473	Perfluoro-octane sulfonate	1763-23-1	2.3	0.35	1.7	1
14473	Perfluorooctanoic acid	335-67-1	17	0.26	0.86	1
14473	Perfluoropentane sulfonate	2706-91-4	0.42 J	0.35	1.7	1
14473	Perfluoropentanoic acid	2706-90-3	N.D.	1.7	5.2	1
14473	Perfluorotetradecanoic acid	376-06-7	N.D.	0.26	0.86	1
14473	Perfluorotridecanoic acid	72629-94-8	N.D.	0.35	0.86	1
14473	Perfluoroundecanoic acid	2058-94-8	N.D.	0.35	1.7	1

The LCS/LCSD native(s) recovery is outside the QC acceptance limits as noted on the QC Summary. The following corrective

\*=This limit was used in the evaluation of the final result

**Sample Description:** 1531010\_508 Grab Water  
MVD-TP

Merrimack Village District  
**ELLE Sample #:** PW 1039207  
**ELLE Group #:** 2039941  
**Matrix:** Water

**Project Name:** PFC Investigation

**Submission Date/Time:** 04/19/2019 12:20  
**Collection Date/Time:** 04/18/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
	action was taken: The sample was re-extracted within the method holding time and the LCS/LCSD native(s) recovery was within QC limits.  The recovery for several extraction standards is outside of QC acceptance limits. The following corrective action was taken: The sample was re-extracted within the method holding time and the recovery for several extraction standards is again outside of QC acceptance limits.					

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14473	32 PFAS	EPA 537 Version 1.1 Modified	1	19113006	04/24/2019 20:51	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Version 1.1 Modified	1	19113006	04/23/2019 14:15	Isaac Phillips-Cary	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

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	MDL**	LOQ
	ng/l	ng/l	ng/l
Batch number: 19113006	Sample number(s): 1039204,1039207		
10:2-fluorotelomersulfonate	N.D.	1.0	3.0
4:2 fluorotelomersulfonate	N.D.	1.0	3.0
6:2 fluorotelomersulfonate	N.D.	1.0	2.0
8:2 fluorotelomersulfonate	N.D.	2.0	6.0
NEtFOSAA	N.D.	1.0	3.0
NEtPFOSA	N.D.	3.0	9.0
NEtPFOSAE	N.D.	1.2	3.0
NMeFOSAA	N.D.	1.0	3.0
NMePFOSA	N.D.	3.0	9.0
NMePFOSAE	N.D.	1.0	3.0
Perfluorobutanesulfonate	N.D.	0.30	1.0
Perfluorobutanoic acid	N.D.	2.0	6.0
Perfluorodecanesulfonate	N.D.	0.60	2.0
Perfluorodecanoic acid	N.D.	0.90	2.0
Perfluorododecanesulfonate	N.D.	0.30	1.0
Perfluorododecanoic acid	N.D.	0.50	2.0
Perfluoroheptanesulfonate	N.D.	0.40	2.0
Perfluoroheptanoic acid	N.D.	0.40	1.0
Perfluorohexadecanoic acid	N.D.	0.30	1.0
Perfluorohexanesulfonate	N.D.	0.40	2.0
Perfluorohexanoic acid	N.D.	0.40	2.0
Perfluorononanesulfonate	N.D.	0.60	2.0
Perfluorononanoic acid	N.D.	0.40	2.0
Perfluorooctadecanoic acid	N.D.	0.50	2.0
Perfluorooctanesulfonamide	N.D.	0.50	3.0
Perfluoro-octanesulfonate	N.D.	0.40	2.0
Perfluorooctanoic acid	N.D.	0.30	1.0
Perfluoropentanesulfonate	N.D.	0.40	2.0
Perfluoropentanoic acid	N.D.	2.0	6.0
Perfluorotetradecanoic acid	N.D.	0.30	1.0
Perfluorotridecanoic acid	N.D.	0.40	1.0
Perfluoroundecanoic acid	N.D.	0.40	2.0
Batch number: 19117001	Sample number(s): 1039203,1039205-1039206		
10:2-fluorotelomersulfonate	N.D.	1.0	3.0
4:2 fluorotelomersulfonate	N.D.	1.0	3.0
6:2 fluorotelomersulfonate	N.D.	1.0	2.0
8:2 fluorotelomersulfonate	N.D.	2.0	6.0
NEtFOSAA	N.D.	1.0	3.0

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.

## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

### Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ng/l	ng/l	ng/l
NEtPFOSA	N.D.	3.0	9.0
NEtPFOSAE	N.D.	1.2	3.0
NMeFOSAA	N.D.	1.0	3.0
NMePFOSA	N.D.	3.0	9.0
NMePFOSAE	N.D.	1.0	3.0
Perfluorobutanesulfonate	N.D.	0.30	1.0
Perfluorobutanoic acid	N.D.	2.0	6.0
Perfluorodecanesulfonate	N.D.	0.60	2.0
Perfluorodecanoic acid	N.D.	0.90	2.0
Perfluorododecanesulfonate	N.D.	0.30	1.0
Perfluorododecanoic acid	N.D.	0.50	2.0
Perfluoroheptanesulfonate	N.D.	0.40	2.0
Perfluoroheptanoic acid	N.D.	0.40	1.0
Perfluorohexadecanoic acid	N.D.	0.30	1.0
Perfluorohexanesulfonate	N.D.	0.40	2.0
Perfluorohexanoic acid	N.D.	0.40	2.0
Perfluorononanesulfonate	N.D.	0.60	2.0
Perfluorononanoic acid	N.D.	0.40	2.0
Perfluorooctadecanoic acid	N.D.	0.50	2.0
Perfluorooctanesulfonamide	N.D.	0.50	3.0
Perfluoro-octanesulfonate	N.D.	0.40	2.0
Perfluorooctanoic acid	N.D.	0.30	1.0
Perfluoropentanesulfonate	N.D.	0.40	2.0
Perfluoropentanoic acid	N.D.	2.0	6.0
Perfluorotetradecanoic acid	N.D.	0.30	1.0
Perfluorotridecanoic acid	N.D.	0.40	1.0
Perfluoroundecanoic acid	N.D.	0.40	2.0

### LCS/LCSD

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
Batch number: 19113006	Sample number(s): 1039204,1039207								
10:2-fluorotelomersulfonate	15.42	14.86	15.42	14.4	96	93	49-186	3	30
4:2 fluorotelomersulfonate	14.94	13.21	14.94	12.97	88	87	82-152	2	30
6:2 fluorotelomersulfonate	15.17	14.15	15.17	14.97	93	99	66-155	6	30
8:2 fluorotelomersulfonate	15.33	16.09	15.33	14.68	105	96	66-148	9	30
NEtFOSAA	5.44	5.06	5.44	5.52	93	102	55-169	9	30
NEtPFOSA	5.44	5.17	5.44	5.54	95	102	70-130	7	30
NEtPFOSAE	5.44	4.42	5.44	4.73	81	87	70-130	7	30
NMeFOSAA	5.44	5.57	5.44	5.22	102	96	44-147	6	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.

## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

### 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
NMePFOSA	5.44	4.60	5.44	3.88	85	71	70-130	17	30
NMePFOSAE	5.44	5.98	5.44	5.26	110	97	70-130	13	30
Perfluorobutanesulfonate	4.81	4.80	4.81	4.81	100	100	73-128	0	30
Perfluorobutanoic acid	5.44	5.93	5.44	5.73	109	105	74-142	3	30
Perfluorodecanesulfonate	5.24	5.08	5.24	5.27	97	101	60-135	4	30
Perfluorodecanoic acid	5.44	5.28	5.44	5.04	97	93	69-148	5	30
Perfluorododecanesulfonate	5.28	4.16	5.28	4.80	79	91	70-130	14	30
Perfluorododecanoic acid	5.44	5.62	5.44	5.51	103	101	75-136	2	30
Perfluoroheptanesulfonate	5.18	5.09	5.18	4.94	98	95	64-135	3	30
Perfluoroheptanoic acid	5.44	5.77	5.44	5.60	106	103	76-140	3	30
Perfluorohexadecanoic acid	5.44	3.86	5.44	4.81	71	88	21-151	22	30
Perfluorohexanesulfonate	5.14	5.14	5.14	4.88	100	95	71-131	5	30
Perfluorohexanoic acid	5.44	5.45	5.44	5.26	100	97	75-135	3	30
Perfluorononanesulfonate	5.22	5.61	5.22	5.58	107	107	66-133	1	30
Perfluorononanoic acid	5.44	5.98	5.44	5.29	110	97	72-148	12	30
Perfluorooctadecanoic acid	5.44	1.61	5.44	3.08	30*	57*	70-130	62*	30
Perfluorooctanesulfonamide	5.44	5.38	5.44	4.93	99	91	65-164	9	30
Perfluoro-octanesulfonate	5.20	4.89	5.20	4.73	94	91	67-138	3	30
Perfluorooctanoic acid	5.44	5.45	5.44	5.21	100	96	72-138	5	30
Perfluoropentanesulfonate	5.10	5.08	5.10	4.86	99	95	76-127	4	30
Perfluoropentanoic acid	5.44	5.43	5.44	5.42	100	100	74-134	0	30
Perfluorotetradecanoic acid	5.44	5.22	5.44	5.26	96	97	74-135	1	30
Perfluorotridecanoic acid	5.44	5.40	5.44	5.17	99	95	61-145	4	30
Perfluoroundecanoic acid	5.44	5.39	5.44	5.55	99	102	75-146	3	30
Batch number: 19117001	Sample number(s): 1039203,1039205-1039206								
10:2-fluorotelomersulfonate	15.42	15.41			100		49-186		
4:2 fluorotelomersulfonate	14.94	14.08			94		82-152		
6:2 fluorotelomersulfonate	15.17	13.74			91		66-155		
8:2 fluorotelomersulfonate	15.33	15.4			100		66-148		
NEtFOSAA	5.44	6.02			111		55-169		
NEtPFOSA	5.44	4.13			76		70-130		
NEtPFOSAE	5.44	5.30			97		70-130		
NMeFOSAA	5.44	5.75			106		44-147		
NMePFOSA	5.44	4.15			76		70-130		
NMePFOSAE	5.44	4.85			89		70-130		
Perfluorobutanesulfonate	4.81	5.45			113		73-128		
Perfluorobutanoic acid	5.44	6.31			116		74-142		
Perfluorodecanesulfonate	5.24	6.34			121		60-135		
Perfluorodecanoic acid	5.44	5.68			104		69-148		
Perfluorododecanesulfonate	5.26	6.02			114		70-130		
Perfluorododecanoic acid	5.44	6.14			113		75-136		
Perfluoroheptanesulfonate	5.18	5.48			106		64-135		
Perfluoroheptanoic acid	5.44	5.98			110		76-140		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.

## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

### 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
Perfluorohexadecanoic acid	5.44	5.61			103		21-151		
Perfluorohexanesulfonate	5.14	5.65			110		71-131		
Perfluorohexanoic acid	5.44	6.23			114		75-135		
Perfluorononanesulfonate	5.22	6.06			116		66-133		
Perfluorononanoic acid	5.44	6.06			111		72-148		
Perfluorooctadecanoic acid	5.44	4.27			78		70-130		
Perfluorooctanesulfonamide	5.44	5.40			99		65-164		
Perfluoro-octanesulfonate	5.20	5.16			99		67-138		
Perfluorooctanoic acid	5.44	5.70			105		72-138		
Perfluoropentanesulfonate	5.10	5.38			105		76-127		
Perfluoropentanoic acid	5.44	5.97			110		74-134		
Perfluorotetradecanoic acid	5.44	6.22			114		74-135		
Perfluorotridecanoic acid	5.44	6.38			117		61-145		
Perfluoroundecanoic acid	5.44	6.45			119		75-146		

### Labeled Isotope Quality Control

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

Analysis Name: 32 PFAS  
Batch number: 19113006

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1039204	103	110	117	85	103	98
1039207	110	119	130	86	101	107
Blank	108	107	101	101	102	109
LCS	94	93	92	88	93	100
LCSD	101	99	102	98	96	104
Limits:	33-123	31-157	26-148	21-182	35-138	34-126
	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1039204	90	112	104	102	97	102
1039207	92	111	111	105	101	106
Blank	108	108	109	110	105	116
LCS	93	101	95	94	85	96
LCSD	96	100	100	104	96	106
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.



## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

### 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: 32 PFAS  
Batch number: 19113006

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEIFOSAA	13C2-PFDoDA	13C2-PFTeDA
1039204	114	90	100	90	99	80
1039207	114	86	99	79	96	58
Blank	114	113	115	120	116	99
LCS	109	93	99	95	95	81
LCSD	122	109	108	110	105	99
Limits:	27-164	30-127	30-128	30-142	39-130	26-119

	13C8-PFOSA	d7-NMePFOSAE	d3-NMePFOSA	d9-NEIPFOSAE	d5-NEIPFOSA
1039204	92	64	25	61	23
1039207	65	29	9*	28	7*
Blank	104	54	75	56	59
LCS	92	69	36	73	33
LCSD	101	62	26	64	24
Limits:	11-127	10-128	10-104	10-121	10-106

Analysis Name: 32 PFAS  
Batch number: 19117001

	13C4-PFBA	13C5-PFPeA	13C3-PFBS	13C2-4:2-FTS	13C5-PFHxA	13C3-PFHxS
1039203	92	102	117	113	91	88
1039205	98	110	136	116	91	86
1039206	99	112	135	117	91	93
Blank	99	94	104	121	95	88
LCS	91	86	92	110	89	85
Limits:	33-123	31-157	26-148	21-182	35-138	34-126

	13C4-PFHpA	13C2-6:2-FTS	13C8-PFOA	13C8-PFOS	13C9-PFNA	13C6-PFDA
1039203	74	123	101	89	92	91
1039205	74	126	95	75	94	90
1039206	77	132	99	88	96	100
Blank	100	139	100	99	104	105
LCS	98	132	96	89	98	99
Limits:	35-126	32-170	48-122	50-121	41-144	47-125

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEIFOSAA	13C2-PFDoDA	13C2-PFTeDA
1039203	117	104	88	105	89	85
1039205	128	99	85	111	92	91
1039206	123	126	97	117	104	92
Blank	136	127	108	140	105	109

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.

## Quality Control Summary

Client Name: Merrimack Village District  
Reported: 04/30/2019 19:45

Group Number: 2039941

### 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: 32 PFAS  
Batch number: 19117001

	13C2-8:2-FTS	d3-NMeFOSAA	13C7-PFUnDA	d5-NEiFOSAA	13C2-PFDoDA	13C2-PFTeDA
LCS	129	119	105	132	104	104
Limits:	27-164	30-127	30-128	30-142	39-130	26-119
	13C8-PFOSA	d7-NMePFOSAE	d3-NMePFOSA	d9-NEiPFOSAE	d5-NEiPFOSA	
1039203	74	58	15	58	16	
1039205	38	27	10	28	11	
1039206	52	33	13	39	16	
Blank	95	100	67	96	71	
LCS	91	104	58	97	57	
Limits:	11-127	10-128	10-104	10-121	10-106	

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(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.

# Environmental Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 38083 Group # 2039441 Sample # 1039203-07

Client: <u>Merrimack Village District</u>				Matrix			Analyses Requested								For Lab Use Only																																																																										
Project Name/#: <u>PFC Investigation</u>				Site ID #:			Preservation and Filtration Codes								SF #: _____																																																																										
Project Manager: <u>Jill Lavoie</u>				P.O. #:			32 Compounds PFAS by 150 tape collection								SCR #: _____																																																																										
Sampler: <u>Ronald Miner</u>				PWSID #: <u>1531010</u>											Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input checked="" type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Other: _____		Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> F = Field Filtered      O = Other																																																																								
Phone #: <u>(603) 424-9241 x103</u>				Quote #:			Total # of Containers		32 Compounds PFAS by 150 tape collection								Remarks																																																																								
State where samples were collected: <u>NH</u>				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			Soil <input type="checkbox"/> Sediment <input type="checkbox"/>																																																																																		
Sample Identification				Collection		Grab	Composite	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Sediment</th> <th>Potable</th> <th>Water</th> <th>NPDES</th> <th>Other</th> <th>Total # of Containers</th> </tr> </thead> <tbody> <tr> <td><u>MVD-2 (T) / 1531010-008</u></td> <td><u>4/18/19 1053</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td><u>2</u></td> </tr> <tr> <td><u>MVD-3 (R) / 1531010-003</u></td> <td><u>4/18/19 1115</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td><u>2</u></td> </tr> <tr> <td><u>MVD-7 (R) / 1531010-007</u></td> <td><u>4/18/19 1015</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td><u>2</u></td> </tr> <tr> <td><u>MVD-8 (R) / 1531010-009</u></td> <td><u>4/18/19 1022</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td><u>2</u></td> </tr> <tr> <td><u>MVD-TP / 1531010-508</u></td> <td><u>4/18/19 1030</u></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> <td></td> <td></td> <td><input checked="" type="checkbox"/></td> <td></td> <td></td> <td><u>2</u></td> </tr> </tbody> </table>									Date	Time	Grab	Composite	Soil	Sediment	Potable	Water	NPDES	Other	Total # of Containers	<u>MVD-2 (T) / 1531010-008</u>	<u>4/18/19 1053</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>			<u>2</u>	<u>MVD-3 (R) / 1531010-003</u>	<u>4/18/19 1115</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>			<u>2</u>	<u>MVD-7 (R) / 1531010-007</u>	<u>4/18/19 1015</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>			<u>2</u>	<u>MVD-8 (R) / 1531010-009</u>	<u>4/18/19 1022</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>			<u>2</u>	<u>MVD-TP / 1531010-508</u>	<u>4/18/19 1030</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>			<u>2</u>							
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Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <u>Ronald Miner</u>			Date	Time	Received by:			Date	Time																																																																												
(Rush TAT is subject to laboratory approval and surcharges.)							<u>4/18/19</u>	<u>11:37</u>																																																																																	
Date results are needed:				Relinquished by:			Date	Time	Received by:			Date	Time																																																																												
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EDD Required? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				Relinquished by Commercial Carrier:			UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other _____			Temperature upon receipt <u>1.4</u> °C																																																																															



Client: Merrimack Village District

**Delivery and Receipt Information**

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>04/19/2019 12:20</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>NH</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:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Brandy Barclay (2299) at 14:39 on 04/19/2019*

**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	DT42-03	1.4	DT	Wet	Y	Bagged	N

# Explanation of Symbols and Abbreviations

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

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	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.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.

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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.