



90 Sargent Drive • New Haven, Connecticut 06511-5966  
203-401-6743 or 877-894-5773 (Telephone) • Website: [www.rwater.com](http://www.rwater.com)

Laboratory Certification IDs

CT: PH-0411, NH: 2239, NY: 11867, PA: 68-05519, RI: LAO00339, MA: M-CT004  
See website, [www.rwalab.com/rwa-lab-certifications](http://www.rwalab.com/rwa-lab-certifications), for certified analyte list.

**Client:** Paul Hennessy  
Randolph-Holbrook Joint Water  
  
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**ANALYTICAL REPORT**

**Project: FEE-RANDOLPHHOLBROOK-23-000008**

**Report Date: 7/8/2023**

This Laboratory is in compliance with the NELAP requirements of procedures used except where indicated. This report contains results for the analysis tested, under the sampling conditions described on the Chain Of Custody (COC), as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

The COC form has been scanned to accompany the analytical report and is an exact copy of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact RWA Client Services at (203) 401-6743 or (877) 894-5773. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Gary M. Alexander, Team Lead  
Technical Representative

**SAMPLE SUMMARY**

<b>Sample ID</b>	<b>Customer ID</b>	<b>Collection Date/Time</b>	<b>Receipt Date</b>
300359414	RAW	6/5/2023 1000	6/6/23
300359415	FB - RAW	6/5/2023 1000	6/6/23
300359416	FINISHED	6/5/2023 1000	6/6/23
300359417	FB - FINISHED	6/5/2023 1000	6/6/23

**Case Narrative and Comments**

All QC passes criteria unless noted in a Comment below.

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

E = Exceeds calibration range                      ND = Non Detect                      FB = Field Blank

RL = Minimum Reporting Level                      MDL = Method Detection Limit

J = The reported result is below RL but greater than the MDL. The reported result is an estimate.

Massachusetts samples for required water quality sampling are included.

Samples and FBs were received in bottles with preservatives Trizma HCL & Trizma base per method requirements.

"FB" added at beginning/end designates "Field Blank" (Field Reagent Blank) for associated Customer ID sample. Field Blank analytes (unless noted) were shown to be less than 1/3 of the RL as per EPA537.

Method EPA537 Analyte Results, MDL and RL are adjusted to reflect the actual Final (mL) volume used.

<u>Method</u>	<u>CAS#</u>	<u>PFAS Analyte (Acronym)</u>
537	1763-23-1	Perfluorooctanesulfonic acid (PFOS)
537	335-67-1	Perfluorooctanoic acid (PFOA)
537	355-46-4	Perfluorohexanesulfonic acid (PFHxS)
537	375-95-1	Perfluorononanoic acid (PFNA)
537	375-85-9	Perfluorohepatanoic acid (PFHpA)
537	335-76-2	Perfluorodecanoic acid (PFDA)
537	375-73-5	Perfluorobutanesulfonic acid (PFBS)
537	307-55-1	Perfluorododecanoic acid (PFDoA)
537	307-24-4	Perfluorohexanoic acid (PFHxA)
537	376-06-7	Perfluorotetradecanoic acid (PFTA)
537	72629-94-8	Perfluorotridecanoic acid (PFTrDA)
537	2058-94-8	Perfluoroundecanoic acid (PFUnA)
537	2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537	2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)

PFAS6 (MassDEP) = sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA (only include Results at or above the RL)

MassDEP has established a maximum contaminant level (MCL) of 20 ng/L for PFAS6.

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Sample ID: 300359414

Customer ID: RAW

Collection Date: 06/05/2023 10:00

PWS ID# / LOC ID#:

Project: FEE-RANDOLPHHOLBROOK-23-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.18	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFHxA	307-24-4	3.27	0.68	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFHpA	375-85-9	1.89	0.62	2.0	ng/L	1.0	J	EPA537	6/13/23 1612	CSS/GMA
PFHxS	355-46-4	2.71	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFOA	335-67-1	5.73	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFOS	1763-23-1	8.74	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFNA	375-95-1	1.04	0.63	2.0	ng/L	1.0	J	EPA537	6/13/23 1612	CSS/GMA
PFDA	335-76-2	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFUnA	2058-94-8	ND	0.91	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
NMeFOSAA	2355-31-9	ND	1.19	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
NEtFOSAA	2991-50-6	ND	1.03	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFD <sub>o</sub> A	307-55-1	ND	0.83	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFT <sub>r</sub> DA	72629-94-8	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFTA	376-06-7	ND	0.97	2.0	ng/L	1.0		EPA537	6/13/23 1612	CSS/GMA
PFAS6 (MassDEP)		17.18	2.00	2.00	ng/L	1.0				
Surrogates		Results				Recovery Limits				Pass/Fail
13C-PFHxA (SUR) % Recovery		89.10				70 - 130				Pass
13C-PFDA (SUR) % Recovery		95.60				70 - 130				Pass
d5-NEtFOSAA (SUR) % Recovery		85.80				70 - 130				Pass

**Sample Extraction Data:**

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300359414	PFAS_537	537_EXT-230609-1	250	06/09/2023

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Sample ID: 300359415

Customer ID: FB - RAW

Collection Date: 06/05/2023 10:00

PWS ID# / LOC ID#:

Project: FEE-RANDOLPHHOLBROOK-23-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFHxA	307-24-4	ND	0.68	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFHpA	375-85-9	ND	0.62	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFHxS	355-46-4	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFOA	335-67-1	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFOS	1763-23-1	ND	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFNA	375-95-1	ND	0.63	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFDA	335-76-2	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFUnA	2058-94-8	ND	0.91	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
NMeFOSAA	2355-31-9	ND	1.19	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
NEtFOSAA	2991-50-6	ND	1.03	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFDoA	307-55-1	ND	0.83	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFTTrDA	72629-94-8	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFTA	376-06-7	ND	0.97	2.0	ng/L	1.0		EPA537	6/13/23 1627	CSS/GMA
PFAS6 (MassDEP)		ND	2.00	2.00	ng/L	1.0				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		101.00	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		96.40	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		81.30	70 - 130		Pass					

**Sample Extraction Data:**

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300359415	PFAS_537	537_EXT-230609-1	250	06/09/2023

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Sample ID: 300359416

Customer ID: FINISHED

Collection Date: 06/05/2023 10:00

PWS ID# / LOC ID#: 4244001 / 10296

Project: FEE-RANDOLPHHOLBROOK-23-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.31	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFHxA	307-24-4	3.23	0.68	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFHpA	375-85-9	2.01	0.62	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFHxS	355-46-4	2.51	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFOA	335-67-1	5.38	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFOS	1763-23-1	7.92	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFNA	375-95-1	0.89	0.63	2.0	ng/L	1.0	J	EPA537	6/13/23 1641	CSS/GMA
PFDA	335-76-2	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFUnA	2058-94-8	ND	0.91	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
NMeFOSAA	2355-31-9	ND	1.19	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
NEtFOSAA	2991-50-6	ND	1.03	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFDoA	307-55-1	ND	0.83	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFTTrDA	72629-94-8	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFTA	376-06-7	ND	0.97	2.0	ng/L	1.0		EPA537	6/13/23 1641	CSS/GMA
PFAS6 (MassDEP)		17.82	2.00	2.00	ng/L	1.0				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		92.90	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		98.30	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		87.70	70 - 130		Pass					

**Sample Extraction Data:**

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300359416	PFAS_537	537_EXT-230609-1	250	06/09/2023

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Sample ID: 300359417

Customer ID: FB - FINISHED

Collection Date: 06/05/2023 10:00

PWS ID# / LOC ID#:

Project: FEE-RANDOLPHHOLBROOK-23-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFHxA	307-24-4	ND	0.68	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFHpA	375-85-9	ND	0.62	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFHxS	355-46-4	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFOA	335-67-1	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFOS	1763-23-1	ND	0.89	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFNA	375-95-1	ND	0.63	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFDA	335-76-2	ND	0.72	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFUnA	2058-94-8	ND	0.91	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
NMeFOSAA	2355-31-9	ND	1.19	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
NEtFOSAA	2991-50-6	ND	1.03	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFDoA	307-55-1	ND	0.83	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFTrDA	72629-94-8	ND	0.90	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFTA	376-06-7	ND	0.97	2.0	ng/L	1.0		EPA537	6/13/23 1656	CSS/GMA
PFAS6 (MassDEP)		ND	2.00	2.00	ng/L	1.0				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		93.70	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		91.80	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		83.20	70 - 130		Pass					

**Sample Extraction Data:**

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300359417	PFAS_537	537_EXT-230609-1	250	06/09/2023



# South Central Connecticut Regional Water Authority PFAS QA/QC Summary

Extraction Batch QC for: EPA 537

MA Lab Cert.#: M-CT004

Extraction Batch Date: 6/9/2023

Sample ID for LFSM/LFSMD: 300359764

Analyte	LFSM %Recovery	LFSMD %Recovery	RPD of LFSM/LFSMD	LRB (MRL is 2)		LFB 10 ng/L %Recovery
	Acceptance Range 70-130%	Acceptance Range 70-130%	Acceptance Limit <30%	Result, ng/L	Meets < 1/3 of MRL criteria?	Acceptance Range 70-130%
PFBS	98.0	100.7	1.9	ND	[ Y ]	96.8
PFHxA	101.1	106.2	3.4	ND	[ Y ]	96.8
PFHpA	100.2	104.6	3.7	ND	[ Y ]	97.8
PFHxS	111.5	113.6	1.7	ND	[ Y ]	104.4
PFOA	109.0	112.3	2.2	ND	[ Y ]	108.0
PFOS	107.7	103.9	3.0	ND	[ Y ]	101.8
PFNA	105.1	109.1	3.7	ND	[ Y ]	100.5
PFDA	102.6	102.9	0.2	ND	[ Y ]	104.4
PFUnA	101.8	102.9	1.1	ND	[ Y ]	98.9
NMeFOSAA	92.9	96.3	3.6	ND	[ Y ]	93.5
NEtFOSAA	89.3	89.5	0.2	ND	[ Y ]	87.5
PFDoA	102.1	103.8	1.7	ND	[ Y ]	101.1
PFTTrDA	96.2	99.1	2.9	ND	[ Y ]	98.3
PFTA	99.8	98.3	1.5	ND	[ Y ]	98.3

### Surrogate %Recovery

<sup>13</sup> C <sub>2</sub> -PFHxA	<sup>13</sup> C <sub>2</sub> -PFDA	d <sub>5</sub> -NEtFOSAA	
97.10	95.20	89.50	LFSM
100.50	99.00	89.80	LFSMD
97.00	97.60	93.70	LRB
101.80	98.80	92.80	LFB

Note: The Surrogate %Recovery for Samples and Poured Field Blanks is included on Final Reports.

All Batch QC passes method criteria unless noted in "Comments" section below

Comments: The matrix spike data *is not* from a sample submitted on this Chain of Custody.

LRB = Laboratory Reagent Blank

RPD = relative percent difference

FB = Field Blank

ND = Non-Detect

LFB = Laboratory Fortified Blank

MRL = Method Reporting Level

Results are ng/L (ppt)

LFSM = Laboratory Fortified Sample Matrix

LFSM/LFSMD spike concentration is 20 ng/L, unless noted otherwise

LFSMD = Laboratory Fortified Sample Matrix Duplicate

Surrogate Acceptance Limit is 70 - 130 %Recovery