Regional Water Authority

90 Sargent Drive • New Haven, Connecticut 06511-5966
203-401-6743 or 877-894-5773 (Telephone) • Website: 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, for certified analyte list.

Client:

Paul Hennessy
Randolph-Holbrook Joint Water

275 Pond St
Randolph, MA 02368

781-964-9292
phennessy@holbrookmassachusetts.us

ANALYTICAL REPORT

Project: FEE-RANDOLPHHOLBROOK-25-000008

Report Date: 9/3/2025

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.

Richard Sibley
Laboratory Manager
Technical Representative

Regional Water Authority
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SAMPLE SUMMARY

Sample ID	Customer ID	Collection Date/Time	Receipt Date
300738875	RAW	8/13/2025 1400	8/14/25
300738876	Field Blank - RAW	8/13/2025 1400	8/14/25
300738877	FINISHED	8/13/2025 1400	8/14/25
300738878	Field Blank - FINISHED	8/13/2025 1400	8/14/25

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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 or EPA537.1.

Method EPA537 or EPA537.1 Analyte Results, MDL and RL are adjusted to reflect the actual Final (mL) volume used.

Method	CAS#	PFAS Analyte (Acronymn)
537, 537.1	1763-23-1	Perfluorooctanesulfonic acid (PFOS)
537, 537.1	335-67-1	Perfluorooctanoic acid (PFOA)
537, 537.1	355-46-4	Perfluorohexanesulfonic acid (PFHxS)
537, 537.1	375-95-1	Perfluorononanoic acid (PFNA)
537, 537.1	375-85-9	Perfluorohepatanoic acid (PFHpA)
537, 537.1	335-76-2	Perfluorodecanoic acid (PFDA)
537, 537.1	375-73-5	Perfluorobutanesulfonic acid (PFBS)
537, 537.1	307-55-1	Perfluorododecanoic acid (PFDoA)
537, 537.1	307-24-4	Perfluorohexanoic acid (PFHxA)
537, 537.1	376-06-7	Perfluorotetradecanoic acid (PFTA)
537, 537.1	72629-94-8	Perfluorotridecanoic acid (PFTrDA)
537, 537.1	2058-94-8	Perfluoroundecanoic acid (PFUnA)
537, 537.1	2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537, 537.1	2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537.1	763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537.1	756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)
537.1	919005-14-4	4,8-dioxa-3H-perfluorononanoic acid (ADONA)
537.1	13252-13-6	Hexafluoropropylene oxide dimer acid (HFPO-DA)

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.

FINISHED WATER SAMPLE PWS ID# / LOC ID#: 4244001/10296 PFAS6 is 20.47 ng/L

Regional Water Authority
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Sample ID: 300738875
Collection Date: 08/13/2025 14:00

Customer ID: RAW
PWS ID# / LOC ID#: RAW
Project: FEE-RANDOLPHHOLBROOK-25-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.44	0.95	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFHxA	307-24-4	3.65	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFHpA	375-85-9	2.01	0.70	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFHxS	355-46-4	2.56	0.83	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFOA	335-67-1	5.19	0.76	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFOS	1763-23-1	9.80	1.01	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFNA	375-95-1	1.21	0.72	2.0	ng/L	1.0	J	EPA 537.1	8/20/25 1859	DSA
9Cl-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
11Cl-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1859	DSA
PFAS6 (MassDEP)		19.56	2.00	2.0	ng/L	1.0				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	91.10	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	108.30	70 - 130	Pass
13C-PFDA (SUR) % Recovery	94.00	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	84.00	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300738875	PFAS_537	537_EXT-250818-1	250	08/18/2025

Regional Water Authority
90 Sargent Drive • New Haven, Connecticut 06511-5966
203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300738876
Collection Date: 08/13/2025 14:00

Customer ID: Field Blank - RAW
PWS ID# / LOC ID#: FIELD BLANK
Project: FEE-RANDOLPHHOLBROOK-25-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.95	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFHxA	307-24-4	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFHpA	375-85-9	ND	0.70	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFHxS	355-46-4	ND	0.83	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFOA	335-67-1	ND	0.76	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFOS	1763-23-1	ND	1.01	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFNA	375-95-1	ND	0.72	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
9Cl-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
11Cl-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1915	DSA
PFAS6 (MassDEP)		ND	2.00	2.0	ng/L	1.0				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	100.70	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	104.90	70 - 130	Pass
13C-PFDA (SUR) % Recovery	101.30	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	100.10	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300738876	PFAS_537	537_EXT-250818-1	250	08/18/2025

Regional Water Authority
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203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300738877
Collection Date: 08/13/2025 14:00

Customer ID: FINISHED
PWS ID# / LOC ID#: 4244001/10296
Project: FEE-RANDOLPHHOLBROOK-25-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.75	0.95	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFHxA	307-24-4	4.37	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFHpA	375-85-9	2.35	0.70	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFHxS	355-46-4	2.68	0.83	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFOA	335-67-1	5.77	0.76	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFOS	1763-23-1	9.67	1.01	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFNA	375-95-1	1.21	0.72	2.0	ng/L	1.0	J	EPA 537.1	8/20/25 1621	DSA
9Cl-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
11Cl-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1621	DSA
PFAS6 (MassDEP)		**20.47**	2.00	2.0	ng/L	1.0				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	98.80	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	102.60	70 - 130	Pass
13C-PFDA (SUR) % Recovery	101.70	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	90.80	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300738877	PFAS_537	537_EXT-250818-1	250	08/18/2025

Regional Water Authority
90 Sargent Drive • New Haven, Connecticut 06511-5966
203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300738878
Collection Date: 08/13/2025 14:00

Customer ID: Field Blank - FINISHED
PWS ID# / LOC ID#: FIELD BLANK
Project: FEE-RANDOLPHHOLBROOK-25-000008

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.95	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFHxA	307-24-4	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFHpA	375-85-9	ND	0.70	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFHxS	355-46-4	ND	0.83	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFOA	335-67-1	ND	0.76	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFOS	1763-23-1	ND	1.01	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFNA	375-95-1	ND	0.72	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
9Cl-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
11Cl-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	8/20/25 1637	DSA
PFAS6 (MassDEP)		ND	2.00	2.0	ng/L	1.0				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	104.30	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	104.20	70 - 130	Pass
13C-PFDA (SUR) % Recovery	107.00	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	102.20	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300738878	PFAS_537	537_EXT-250818-1	250	08/18/2025

Regional Water Authority
90 Sargent Dr, New Haven, CT 06511
Phone: 203-401-2700
Fax: 203-401-6799

Chain of Custody Form

Company Name: RANDOLPH / HOLBROOK JOINT WATER

Company Address: 275 POND ST: RANDOLPH, MA 02368

Sampler: PAUL HENNESSY

PO Number:

Test Requested, Container, & Preservative

State Sample Collected: CT___ NY___ Other(specify)___

Thermometer ID:

Evidence of Cooling (Circle): (Y) or N

Cooler Temp °C: 3.2

Container & Preservative Meet Criteria (Circle): (Yes) No

RWA LIMS Number	Date Collected	Time Collected	Sample ID / Sample Location	Number of Bottles	EPA 537.1 PFAS 14 250mL Plastic w/Trizma & Tris (Hydroxymethyl) Aminomethane	EPA 537.1 - Poured Field Blank 250mL Plastic w/Trizma & Tris (Hydroxymethyl) Aminomethane	Field Blank #				Remarks
30073887S	8/13/25	2PM	(1) RAW	5	4	1	30073887				NOT FOR COMPLIANCE
877	8/13/25	2PM	(2) FINISHED	5	4	1			878		MA DEP COMPLIANCE

Relinquished By (Signature): PAUL HENNESSY
Date & Time: 8/13/25 215PM

Relinquished by (Signature): Fed Ex
Date & Time:

Received By (Signature):
Date & Time:

Received By (Signature):
Date & Time: 8/14/25 1445

Comments:
Lot # 350955
Lot # 361330
PFAS 14
Fee Randolph/Holbrook-25-000008

South Central Connecticut Regional Water Authority PFAS QA/QC Summary

Extraction Batch QC for: EPA 537.1 **MA Lab Cert.#:** M-CT004

Extraction Batch Date: 8/18/2025 **Sample ID for LFSM/LFSMD:** 300739292

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	98.3	97.1	1.0	ND	[Y]	104.1
PFHxA	95.9	94.8	0.9	ND	[Y]	104.2
HFPO-DA	91.4	90.0	1.6	ND	[Y]	106.7
PFHpA	94.6	93.5	1.0	ND	[Y]	96.8
PFHxS	99.5	99.3	0.1	ND	[Y]	109.2
ADONA	99.5	99.7	0.2	ND	[Y]	104.5
PFOA	98.1	97.8	0.2	ND	[Y]	105.8
PFOS	100.8	97.6	2.5	ND	[Y]	116.6
PFNA	98.5	99.0	0.4	ND	[Y]	108.0
9Cl-PF3ONS	99.7	99.8	0.0	ND	[Y]	104.6
PFDA	96.2	95.6	0.6	ND	[Y]	99.5
PFUnA	90.8	89.0	2.0	ND	[Y]	93.5
11Cl-PF3OUdS	93.5	93.7	0.1	ND	[Y]	100.8
NMeFOSAA	94.1	95.1	1.0	ND	[Y]	102.3
NEtFOSAA	87.8	93.4	6.2	ND	[Y]	100.4
PFDoA	94.6	94.2	0.4	ND	[Y]	102.0
PFTrDA	94.4	92.3	2.3	ND	[Y]	106.2
PFTA	93.5	93.8	0.4	ND	[Y]	110.3

Surrogate %Recovery

$^{13}C_2$-PFHxA	$^{13}C_3$-HFPO-DA	$^{13}C_2$-PFDA	$^{d}_5$-NEtFOSAA	
105.80	103.60	108.40	100.00	LFSM
96.70	99.00	96.60	95.60	LFSMD
99.10	98.60	99.30	93.20	LRB
92.00	93.60	91.30	87.60	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 in this upload batch.

LRB = Laboratory Reagent Blank

LFB = Laboratory Fortified Blank

LFSM = Laboratory Fortified Sample Matrix

LFSMD = Laboratory Fortified Sample Matrix Duplicate

RPD = relative percent difference

MRL = Method Reporting Level

FB = Field Blank

ND = Non-Detect

Results are ng/L (ppt)

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

Surrogate Acceptance Limit is 70 - 130% Recovery