

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-25-000011

Report Date: 12/3/2025

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

SAMPLE SUMMARY

Sample ID	Customer ID	Collection Date/Time	Receipt Date
300767735	RAW	11/13/2025 1500	11/14/25
300767736	FIELD BLANK - RAW	11/13/2025 1500	11/14/25
300767737	FINISHED	11/13/2025 1500	11/14/25
300767738	FIELD BLANK - FINISHED	11/13/2025 1500	11/14/25

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 (Acronym)
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-chloroeicosafuoro-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.

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

Sample ID: 300767735

Customer ID: RAW

Collection Date: 11/13/2025 15:00

PWS ID# / LOC ID#: RAW

Project: FEE-RANDOLPHHOLBROOK-25-000011

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.36	0.93	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFHxA	307-24-4	3.26	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
HFPO-DA	13252-13-6	ND	1.12	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFHpA	375-85-9	1.86	0.69	1.96	ng/L	0.98	J	EPA 537.1	11/22/25 0419	CSS
PFHxS	355-46-4	2.17	0.81	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
ADONA	919005-14-4	ND	0.62	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFOA	335-67-1	4.87	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFOS	1763-23-1	8.09	0.99	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFNA	375-95-1	0.93	0.71	1.96	ng/L	0.98	J	EPA 537.1	11/22/25 0419	CSS
9CI-PF3ONS	756426-58-1	ND	0.82	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFDA	335-76-2	ND	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFUnA	2058-94-8	ND	0.92	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
11CI-PF3OUdS	763051-92-9	ND	1.02	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
NMeFOSAA	2355-31-9	ND	1.13	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
NEtFOSAA	2991-50-6	ND	1.13	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFDoA	307-55-1	ND	0.88	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFTrDA	72629-94-8	ND	0.91	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFTA	376-06-7	ND	1.02	1.96	ng/L	0.98		EPA 537.1	11/22/25 0419	CSS
PFAS6 (MassDEP)		19.52	1.96	1.96	ng/L	0.98				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		90.80	70 - 130		Pass					
13C3-HFPO-DA (SUR) % Recovery		86.80	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		86.80	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		87.60	70 - 130		Pass					

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300767735	PFAS_537	537_EXT-251120-1	254	11/19/2025

Sample ID: 300767736

Customer ID: FIELD BLANK - RAW

Collection Date: 11/13/2025 15:00

PWS ID# / LOC ID#: FIELD BLANK - RAW

Project: FEE-RANDOLPHHOLBROOK-25-000011

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.93	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFHxA	307-24-4	ND	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
HFPO-DA	13252-13-6	ND	1.12	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFHpA	375-85-9	ND	0.69	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFHxS	355-46-4	ND	0.81	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
ADONA	919005-14-4	ND	0.62	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFOA	335-67-1	ND	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFOS	1763-23-1	ND	0.99	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFNA	375-95-1	ND	0.71	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
9CI-PF3ONS	756426-58-1	ND	0.82	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFDA	335-76-2	ND	0.74	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFUnA	2058-94-8	ND	0.92	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
11CI-PF3OUdS	763051-92-9	ND	1.02	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
NMeFOSAA	2355-31-9	ND	1.13	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
NEtFOSAA	2991-50-6	ND	1.13	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFDoA	307-55-1	ND	0.88	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFTrDA	72629-94-8	ND	0.91	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFTA	376-06-7	ND	1.02	1.96	ng/L	0.98		EPA 537.1	11/22/25 0435	CSS
PFAS6 (MassDEP)		ND	1.96	1.96	ng/L	0.98				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		93.10	70 - 130		Pass					
13C3-HFPO-DA (SUR) % Recovery		83.30	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		87.80	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		92.60	70 - 130		Pass					

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300767736	PFAS_537	537_EXT-251120-1	254	11/19/2025

Sample ID: 300767737

Customer ID: FINISHED

Collection Date: 11/13/2025 15:00

PWS ID# / LOC ID#: 4244001/10296

Project: FEE-RANDOLPHHOLBROOK-25-000011

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.27	0.91	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFHxA	307-24-4	3.35	0.72	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
HFPO-DA	13252-13-6	ND	1.09	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFHpA	375-85-9	2.14	0.67	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFHxS	355-46-4	2.27	0.80	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
ADONA	919005-14-4	ND	0.60	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFOA	335-67-1	4.66	0.73	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFOS	1763-23-1	8.24	0.97	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFNA	375-95-1	0.99	0.69	1.92	ng/L	0.96	J	EPA 537.1	11/22/25 0451	CSS
9CI-PF3ONS	756426-58-1	ND	0.81	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFDA	335-76-2	ND	0.72	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFUnA	2058-94-8	ND	0.90	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
11CI-PF3OUdS	763051-92-9	ND	1.00	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
NMeFOSAA	2355-31-9	ND	1.10	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
NEtFOSAA	2991-50-6	ND	1.10	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFDoA	307-55-1	ND	0.86	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFTrDA	72629-94-8	ND	0.89	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFTA	376-06-7	ND	1.00	1.92	ng/L	0.96		EPA 537.1	11/22/25 0451	CSS
PFAS6 (MassDEP)		17.31	1.92	1.92	ng/L	0.96				
Surrogates		Results		Recovery Limits		Pass/Fail				
13C-PFHxA (SUR) % Recovery		98.80		70 - 130		Pass				
13C3-HFPO-DA (SUR) % Recovery		94.40		70 - 130		Pass				
13C-PFDA (SUR) % Recovery		94.00		70 - 130		Pass				
d5-NEtFOSAA (SUR) % Recovery		95.70		70 - 130		Pass				

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300767737	PFAS_537	537_EXT-251120-1	260	11/19/2025

Sample ID: 300767738

Customer ID: FIELD BLANK - FINISHED

Collection Date: 11/13/2025 15:00

PWS ID# / LOC ID#: FIELD BLANK - FINISHED

Project: FEE-RANDOLPHHOLBROOK-25-000011

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	11/22/25 0506	CSS
PFHxA	307-24-4	ND	0.75	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFHpA	375-85-9	ND	0.70	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFHxS	355-46-4	ND	0.83	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFOA	335-67-1	ND	0.76	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFOS	1763-23-1	ND	1.01	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFNA	375-95-1	ND	0.72	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
9CI-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
11CI-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	11/22/25 0506	CSS
PFAS6 (MassDEP)		ND	2.00	2.0	ng/L	1.0				
Surrogates		Results	Recovery Limits		Pass/Fail					
13C-PFHxA (SUR) % Recovery		89.80	70 - 130		Pass					
13C3-HFPO-DA (SUR) % Recovery		84.70	70 - 130		Pass					
13C-PFDA (SUR) % Recovery		82.30	70 - 130		Pass					
d5-NEtFOSAA (SUR) % Recovery		87.60	70 - 130		Pass					

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300767738	PFAS_537	537_EXT-251120-1	250	11/19/2025

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

02368

RWA LMS Number

**300767735
 737**

Date Collected

**11/13/25
 11/13/25**

Time Collected

**3PM
 3PM**

Sample ID / Sample Location

**① RAW
 ② FINISHED**

Number of Bottles

**5
 5**

EPA 537.1 PFA514
 250mL Plastic w/Tris Hydrochloride & Tris (Hydroxymethyl) Aminoethane

EPA 537.1 - Poured Field Blank
 250mL Plastic w/Tris Hydrochloride & Tris (Hydroxymethyl) Aminoethane

Remarks

**NOT FOR COMPLIANCE
 MADEP COMPLIANCE**

State Sample Collected:
 CT NY Other (specify) **MA**

Thermometer ID:

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

Cooler Temp °C: **3.7**

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

Relinquished By (Signature): **Paul Hennessy**

Date & Time: **11/13/25, 3:00PM**

Received By (Signature): **Fedex**

Date & Time:

Relinquished by (Signature): **Fedex**

Date & Time:

Received By (Signature): **[Signature]**

Date & Time: **11/14/25 1135**

Comments:

Lot # **410928**
 Lot # **456876**

PFA514

Fee-Randolph/Holbrook-25-000011

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: 11/19/2025

Sample ID for LFSM/LFSMD: 300768841

Analyte	LFSM %Recovery	LFSMD %Recovery	RPD of LFSM/LFSMD	LRB (MRL is 2)		LFB 60 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	89.2	92.8	3.0	ND	[Y]	88.9
PFHxA	93.2	90.8	2.1	ND	[Y]	89.5
HFPO-DA	82.9	79.8	3.8	ND	[Y]	86.7
PFHpA	90.5	90.5	0.0	ND	[Y]	89.7
PFHxS	93.8	91.5	2.2	ND	[Y]	90.8
ADONA	91.9	90.9	1.0	ND	[Y]	89.0
PFOA	94.4	91.1	2.1	ND	[Y]	91.0
PFOS	94.0	93.7	0.2	ND	[Y]	92.5
PFNA	94.6	93.2	1.3	ND	[Y]	90.5
9CI-PF3ONS	93.1	96.5	3.7	ND	[Y]	92.1
PFDA	87.2	86.0	1.5	ND	[Y]	81.6
PFUnA	95.7	95.3	0.4	ND	[Y]	91.6
11CI-PF3OUdS	88.9	90.1	1.4	ND	[Y]	87.2
NMeFOSAA	94.6	95.5	0.9	ND	[Y]	86.7
NEtFOSAA	91.3	90.1	1.3	ND	[Y]	87.4
PFDoA	95.4	94.0	1.5	ND	[Y]	92.2
PFTTrDA	95.4	93.4	2.1	ND	[Y]	90.7
PFTA	98.5	97.5	1.0	ND	[Y]	93.3

Surrogate %Recovery

¹³ C ₂ -PFHxA	¹³ C ₃ -HFPO-DA	¹³ C ₂ -PFDA	^d ₅ -NEtFOSAA	
95.90	87.00	91.50	94.20	LFSM
95.50	85.90	91.90	97.90	LFSMD
98.10	84.20	93.80	94.40	LRB
89.20	80.30	82.50	86.20	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

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