

A DIVISION OF GRANITE STATE ANALYTICAL SERVICES, LLC.

155 Center Street, Building C. Auburn, Maine 04210 Phone (207) 784-5354 website www.allaboratory.com

## **Laboratory Report**

**Southwest Harbor Water District PO Box 1100** Southwest Harbor, ME 04679

**Date Printed:** Work Order #: 01/17/2022

Client Job #:

2112-02508

**Date Received:** 

12/16/2021

Sample collected in:

Maine

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of the analyzing laboratory's Quality Assurance Plan, Standard Operating Procedures and State Accreditation. This certificate shall not be reproduced, except in full, without the written approval of the analyzing laboratory. The results presented in this report relate to the samples listed on the following pages in the condition in which they were received. Accreditation for each analyte is identified by the \* symbol following the analyte name. Location of our analyzing laboratory is identified by the code in the Analyst Column.

## A & L Laboratory:

Identified by ME in Analyst Column 155 Center Street, Auburn, Maine 04210 www.allaboratory.com

## **Granite State Analytical Services LLC:**

Identified by NH in Analyst Column 22 Manchester Road, Derry, NH 03038 www.granitestateanalytical.com

#### **ANALYSIS RELATED NOTES:**

- RL: "Reporting limit" means the lowest level of an analyte that can be accurately recovered from the matrix of interest.
- A & L Laboratory / Granite State Analytical Services LLC. accreditation lists can be found on our websites listed above.
- Subcontracted samples will be identified by the Accreditation number of the subcontract laboratory in the analyst field for each analyte and the appropriate laboratory will be listed here. This report contains data that were produced by a subcontracted laboratory accredited for the fields of testing performed. Alpha Analytical-Mansfield, 320 Forbes Boulevard, Mansfield, MA 02048 Accreditation # MA00030
- Data Qualifiers (DQ) Flags provide additional information in regards to the receipt, analysis or quality control of a sample. These are indicated under the DQ Flags Column on your report and listed here if necessary: Data Qualifier (DQ) Flags: None

### **SAMPLE STATE SPECIFIC NOTES:**

The thermal preservation requirement of 4°C for nitrate & nitrite has been waived by the Maine CDC for all samples submitted to the Drinking Water Program.

Additional Narrative or Comments: NOTE: Data Qualifiers Present in Sub Contract Report

We appreciate the opportunity to provide you with laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be happy to assist you.

> Rebecca L. Labranche **Laboratory Director**



## A DIVISION OF GRANITE STATE ANALYTICAL SERVICES, LLC.

155 Center Street, Building C, Auburn, Maine 04210 Phone (207) 784-5354 website www.allaboratory.com

## CERTIFICATE OF ANALYSIS FOR DRINKING WATER

**DATE PRINTED:** 

01/17/2022

PO Box 1100

**CLIENT NAME:** 

**CLIENT ADDRESS:** 

Southwest Harbor Water District

Southwest Harbor, ME 04679

PWSID#:

ME0091490

**Passes** 

Fails EPA Primary Fails EPA Secondary Fails State Guideline

Legend

**DATE AND TIME COLLECTED:** 12/15/2021 12:30PM

Attention

**SAMPLE ID #:** 

2112-02508-001

**SAMPLED BY:** 

Eric Schoff

**LOCATION:** 

TP-1 EP (TP 1-LONG POND), Long Pond

**Pump Station** 

**DATE AND TIME RECEIVED:** 12/16/2021 11:15AM ANALYSIS PACKAGE: RECEIPT TEMPERATURE:

PFC-533-25-alpha-ME ON ICE 4° CELSIUS

**CLIENT JOB #:** 

**MORE LOC INFO:** 

Test Description	Result	Test Units	Pass /Fail	DQ Flag	RL	Limit	Method	Analyst	Date - Time Analyzed
11-chloroeicosafluoro-3- oxaundecane-1-sulfonic Acid.*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
1H,1H,2H,2H- Perfluorodecanesulfonic Acid (8:2FTS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
1H,1H,2H,2H- Perfluorohexanesulfonic Acid (4:2FTS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
1H,1H,2H,2H- Perfluorooctanesulfonic Acid (6:2FTS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
4,8-dioxa-3H- perfluorononanoic acid.*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid.*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
Date Extracted	-					No Limit	EPA 533	MA00030	01/06/2022 08:00PM
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
Perfluoro(2- ethoxyethane)sulfonic acid (PFEESA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
Perfluoro-3-methoxypropanoic acid (PFMPA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM
Perfluoro-4-methoxybutanoic acid (PFMBA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030	01/14/2022 10:07AM

Rebecca L. Labranche **Laboratory Director** 



## A DIVISION OF GRANITE STATE ANALYTICAL SERVICES, LLC.

155 Center Street, Building C, Auburn, Maine 04210 website www.allaboratory.com Phone (207) 784-5354

## **CERTIFICATE OF ANALYSIS FOR DRINKING WATER**

**DATE PRINTED:** 01/17/2022

**CLIENT NAME:** Southwest Harbor Water District PWSID#: ME0091490

**CLIENT ADDRESS:** PO Box 1100

Southwest Harbor, ME 04679

**SAMPLE ID #:** 2112-02508-001 **SAMPLED BY:** Eric Schoff

**LOCATION:** 

**Pump Station** 

TP-1 EP (TP 1-LONG POND), Long Pond

CLIENT JOB #:

Legend

Fails EPA Primary Fails EPA Secondary Fails State Guideline Attention

**Passes** 

**DATE AND TIME COLLECTED:** 12/15/2021 12:30PM DATE AND TIME RECEIVED: 12/16/2021 11:15AM **ANALYSIS PACKAGE:** PFC-533-25-alpha-ME RECEIPT TEMPERATURE: ON ICE 4° CELSIUS

MORE LOC INFO:						CLIENT J	OB #:	2. 01110	0220100
Test Description	Result	Test Units	Pass /Fail	DQ Flag	RL	Limit	Method	Analyst	Date - Time Analyzed
Perfluorobutanesulfonic Acid (PFBS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorobutanoic Acid (PFBA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorodecanoic Acid (PFDA).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorododecanoic Acid (PFDoA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluoroheptanesulfonic Acid (PFHpS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluoroheptanoic Acid (PFHpA).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorohexanesulfonic Acid (PFHxS).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorohexanoic Acid (PFHxA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorononanoic Acid (PFNA).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorooctanesulfonic Acid (PFOS).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluorooctanoic Acid (PFOA).*	<2.00	ng/L	$\checkmark$		Sub Report	20 ng/L	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluoropentanesulfonic Acid (PFPeS).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluoropentanoic Acid (PFPeA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM
Perfluoroundecanoic Acid (PFUnA).*	<2.00	ng/L			Sub Report	No Limit	EPA 533	MA00030 (	01/14/2022 10:07AM

Rebecca L. Labranche **Laboratory Director** 



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CERTIFICATE OF ANALYSIS FOR DRINKING WATER

**DATE PRINTED:** 01/17/2022

**CLIENT NAME:** Southwest Harbor Water District PWSID#: ME0091490 **Passes** 

Legend

Fails EPA Primary Fails EPA Secondary Fails State Guideline

**DATE AND TIME COLLECTED:** 12/15/2021

Attention

DATE AND TIME RECEIVED:

**ANALYSIS PACKAGE:** 

**CLIENT JOB #:** 

RECEIPT TEMPERATURE:

12/16/2021 11:15AM

PFC-533-25-alpha-ME

ON ICE 4° CELSIUS

**CLIENT ADDRESS:** PO Box 1100

Southwest Harbor, ME 04679

**SAMPLE ID #:** 2112-02508-001 **SAMPLED BY:** Eric Schoff

**LOCATION:** TP-1 EP (TP 1-LONG POND), Long Pond

Result

**Pump Station** 

**MORE LOC INFO: Test Description** 

**Test Units** 

**Pass** DQ /Fail Flag

RL

Limit

Method **Analyst**  Date - Time

Analyzed PFAS, Total Maine (6) N/A Calculation MA00030 01/14/2022 10:07AM < 2.00 ng/L Sub 20 ng/L

Report

ZIILL Rebecca L. Labranche

Laboratory Director

A & L Laboratory Final Report Page 4 of 30



## ANALYTICAL REPORT

Lab Number: L2169449

Client: A&L Laboratory

155 Center Street

Building C

Auburn, ME 04210

ATTN: Rebecca Labranche

Phone: (207) 784-5354

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Report Date: 01/17/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



**Project Name:** SOUTHWEST HARBOR WD

Project Number: 2112-02508

**Lab Number:** L2169449 **Report Date:** 01/17/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2169449-01	2112-02508-001	DW	LONG POND	12/15/21 12:30	12/16/21
L2169449-02	2112-02508-001 FB	DW	LONG POND	12/15/21 12:30	12/16/21



Project Name: SOUTHWEST HARBOR WD Lab Number: L2169449

### **Case Narrative**

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Project Name:SOUTHWEST HARBOR WDLab Number:L2169449Project Number:2112-02508Report Date:01/17/22

## **Case Narrative (continued)**

Perfluorinated Alkyl Acids by EPA 533

L2169449-01R: The sample was re-analyzed due to QC failures in the original analysis. The results of the reanalysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative

Date: 01/17/22



Alycia Mogayzel

## **ORGANICS**



## **SEMIVOLATILES**



**Project Name:** Lab Number: SOUTHWEST HARBOR WD L2169449

Report Date: **Project Number:** 2112-02508 01/17/22

**SAMPLE RESULTS** 

01/14/22 10:07

Lab ID: R Date Collected: 12/15/21 12:30 L2169449-01

Date Received: Client ID: 2112-02508-001 12/16/21 Sample Location: LONG POND Field Prep: Not Specified

Sample Depth:

Analytical Date:

Extraction Method: EPA 533 Matrix: Dw

**Extraction Date:** 01/06/22 20:00 Analytical Method: 136,533

Analyst: MP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Ma	nsfield Lab					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00		1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.00		1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00		1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00		1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.00		1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.00		1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00		1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00		1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00		1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3- Heptafluoropropoxyl-Propanoic Acid (HFPO-DA)	ND		ng/l	2.00		1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00		1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00		1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00		1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00		1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00		1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00		1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00		1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00		1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00		1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)	ND		ng/l	2.00		1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00		1



Project Name: SOUTHWEST HARBOR WD Lab Number: L2169449

**Project Number:** 2112-02508 **Report Date:** 01/17/22

**SAMPLE RESULTS** 

Lab ID: L2169449-01 R Date Collected: 12/15/21 12:30

Client ID: 2112-02508-001 Date Received: 12/16/21 Sample Location: LONG POND Field Prep: Not Specified

Sample Depth:

Parameter Result Qualifier Units RL MDL Dilution Factor

Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Acceptance Qualifier Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96	50-200
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	80	50-200
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	82	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	139	50-200
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88	50-200
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81	50-200
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98	50-200
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	99	50-200
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89	50-200
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87	50-200
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83	50-200
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86	50-200
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89	50-200
$2,3,3,3\text{-Tetrafluoro-}2\text{-}[1,1,2,2,3,3,3\text{-Heptafluoropropoxy}]\text{-}13\text{C}3\text{-Propanoic Acid}\\ \text{(M3HFPO-DA)}$	71	50-200



**Project Name:** Lab Number: SOUTHWEST HARBOR WD L2169449

Report Date: **Project Number:** 2112-02508 01/17/22

**SAMPLE RESULTS** 

01/13/22 15:31

Lab ID: Date Collected: 12/15/21 12:30 L2169449-02

Date Received: Client ID: 2112-02508-001 FB 12/16/21 Sample Location: LONG POND Field Prep: Not Specified

Sample Depth:

Extraction Method: EPA 533 Matrix: Dw

**Extraction Date:** 01/06/22 20:00 Analytical Method: 136,533 Analytical Date:

Analyst: MP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 533 - Ma	nsfield Lab					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00		1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.00		1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00		1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00		1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.00		1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.00		1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	2.00		1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00		1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00		1
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3- Heptafluoropropoxyl-Propanoic Acid (HFPO-DA)	ND		ng/l	2.00		1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00		1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00		1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00		1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00		1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00		1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00		1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00		1
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)	ND		ng/l	2.00		1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	-	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00		1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00		1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	2.00		1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00		1



Project Name: SOUTHWEST HARBOR WD Lab Number: L2169449

**Project Number:** 2112-02508 **Report Date:** 01/17/22

**SAMPLE RESULTS** 

Lab ID: L2169449-02 Date Collected: 12/15/21 12:30

Client ID: 2112-02508-001 FB Date Received: 12/16/21 Sample Location: LONG POND Field Prep: Not Specified

Sample Depth:

Parameter Result Qualifier Units RL MDL Dilution Factor

Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Acceptance Qualifier Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	73	50-200
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	68	50-200
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	91	50-200
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78	50-200
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78	50-200
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91	50-200
Perfluoro[13C8]Octanoic Acid (M8PFOA)	107	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	71	50-200
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92	50-200
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84	50-200
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80	50-200
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	93	50-200
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106	50-200
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	72	50-200



L2169449

Lab Number:

Project Name: SOUTHWEST HARBOR WD

**Project Number:** 2112-02508 **Report Date:** 01/17/22

Method Blank Analysis Batch Quality Control

Analytical Method: 136,533 Extraction Method: EPA 533

Analytical Date: 01/13/22 11:35 Extraction Date: 01/06/22 17:18

Analyst: MP

Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab for sample(s): 01-02   Batch: WG1591439-1	Parameter	Result	Qualifier	Units	RL	ı	MDL
Perfluoro-3-Methoxypropanoic Acid (PFPA)	Perfluorinated Alkyl Acids by EPA 53	33 - Mansfie	eld Lab for	sample(s):	01-02	Batch:	WG1591439-1
Perfluoropentanoic Acid (PFPeA)	Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00		
Perfluorobutanesulfonic Acid (PFBS)		ND		ng/l	2.00		
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00		
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFESA)	Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00		
PEFESA  Nonafluoro-3,6-Dioxaheptanoic Acid   ND   ng/l   2.00     (NFDHA)   1H,1H,2H,2H-Perfluorohexanesulfonic Acid   ND   ng/l   2.00     (4:2FTS)   Perfluorohexanoic Acid (PFHxA)   ND   ng/l   2.00     (4:2FTS)   Perfluorohexanoic Acid (PFHxA)   ND   ng/l   2.00     Perfluorohexanoic Acid (PFHxA)   ND   ng/l   2.00     Perfluoropentanesulfonic Acid (PFPeS)   ND   ng/l   2.00     Perfluorohexanesulfonic Acid (HFPO-DA)   Perfluorohexanesulfonic Acid (HFPO-DA)   ND   ng/l   2.00     Perfluorohexanesulfonic Acid (PFHxS)   ND   ng/l   2.00     Perfluorohexanesulfonic Acid (PFHxS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFHxS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFHxS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFDS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFOS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFOS)   ND   ng/l   2.00       Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00         Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00           Perfluorohexanesulfonic Acid (PFDA)   ND   ng/l   2.00	Perfluoro-4-Methoxybutanoic Acid (PFMBA	A) ND		ng/l	2.00		
NFDHA    1H, 1H, 2H, 2H-Perfluorohexanesulfonic Acid   ND   ng/l   2.00		ND		ng/l	2.00		
Perfluoronexanoic Acid (PFHxA)   ND   ng/l   2.00		ND		ng/l	2.00		
Perfluoropentanesulfonic Acid (PFPeS)         ND         ng/l         2.00            2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxyl-Propanoic Acid (HFPO-DA)         ND         ng/l         2.00            Perfluoroheptanoic Acid (PFHpA)         ND         ng/l         2.00            Perfluorohexanesulfonic Acid (PFHxS)         ND         ng/l         2.00            4,8-Dioxa-3h-Perfluoronanonic Acid (ADONA)         ND         ng/l         2.00            1H, 1H,2H,2H-Perfluorooctanesulfonic Acid (BCPG)         ND         ng/l         2.00            Perfluorootanoic Acid (PFOA)         ND         ng/l         2.00            Perfluoroheptanesulfonic Acid (PFHpS)         ND         ng/l         2.00            Perfluoroonanoic Acid (PFNA)         ND         ng/l         2.00            Perfluorooctanesulfonic Acid (PFOS)         ND         ng/l         2.00            9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorodecanesulfonic Acid (PFDA)         ND         ng/l         2.00            Perfluorodecanoic Acid (PFDA)         ND		d ND		ng/l	2.00		
ND	Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00		
Heptafluoropropoxyl-Propanoic Acid (HFPO-DA)	Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	2.00		
Perfluorohexanesulfonic Acid (PFHxS)  ND  ng/l  2.00   4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)  1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)  Perfluorooctanoic Acid (PFOA)  ND  ng/l  2.00   Perfluoroheptanesulfonic Acid (PFHpS)  ND  ng/l  2.00   Perfluorononanoic Acid (PFNA)  ND  ng/l  2.00   Perfluorooctanesulfonic Acid (PFNA)  ND  ng/l  2.00   Perfluorononanoic Acid (PFNA)  ND  ng/l  2.00   Perfluorooctanesulfonic Acid (PFOS)  ND  ng/l  2.00   9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9CI-PF3ONS)  1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)  Perfluorodecanoic Acid (PFDA)  ND  ng/l  2.00   Perfluorodecanoic Acid (PFDA)  ND  ng/l  2.00   1-  Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   1-  Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   ND  ng/l  2.00   Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   11-Chloroeicosafluoro-3-Oxaundecane-1- ND  ng/l  2.00   Sulfonic Acid (11CI-PF3OUdS)	Heptafluoropropoxy]-Propanoic Acid (HFP			ng/l	2.00		
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorooctanesulfonic Acid (BFDA)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorooctanoic Acid (PFOA)         ND         ng/l         2.00            Perfluoroheptanesulfonic Acid (PFOA)         ND         ng/l         2.00            Perfluorononanoic Acid (PFNA)         ND         ng/l         2.00            Perfluorooctanesulfonic Acid (PFOS)         ND         ng/l         2.00            9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorodecanesulfonic Acid (PFDA)         ND         ng/l         2.00            Perfluoroundecanoic Acid (PFDA)         ND         ng/l         2.00            11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)         ND         ng/l         2.00	Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00		
(ADONA)         IH,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)         ND         ng/l         2.00            Perfluorooctanoic Acid (PFOA)         ND         ng/l         2.00            Perfluoroheptanesulfonic Acid (PFHpS)         ND         ng/l         2.00            Perfluorononanoic Acid (PFNA)         ND         ng/l         2.00            Perfluorooctanesulfonic Acid (PFOS)         ND         ng/l         2.00            9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)         ND         ng/l         2.00            Perfluoroundecanoic Acid (PFDA)         ND         ng/l         2.00            11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)         ND         ng/l         2.00	Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00		
(6:2FTS)           Perfluorooctanoic Acid (PFOA)         ND         ng/l         2.00            Perfluoroheptanesulfonic Acid (PFHpS)         ND         ng/l         2.00            Perfluorononanoic Acid (PFNA)         ND         ng/l         2.00            Perfluorooctanesulfonic Acid (PFOS)         ND         ng/l         2.00            9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)         ND         ng/l         2.00            1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)         ND         ng/l         2.00            Perfluorodecanoic Acid (PFDA)         ND         ng/l         2.00            11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)         ND         ng/l         2.00		ND		ng/l	2.00		
Perfluoroheptanesulfonic Acid (PFHpS) ND ng/l 2.00 Perfluorononanoic Acid (PFNA) ND ng/l 2.00 Perfluorooctanesulfonic Acid (PFOS) ND ng/l 2.00 9-Chlorohexadecafluoro-3-Oxanone-1- ND ng/l 2.00 Sulfonic Acid (9CI-PF3ONS) ND ng/l 2.00 Sulfonic Acid (9CI-PF3ONS) ND ng/l 2.00 (8:2FTS) Perfluorodecanesulfonic Acid (ND ng/l 2.00 Perfluoroundecanoic Acid (PFDA) ND ng/l 2.00 11-Chloroeicosafluoro-3-Oxaundecane-1- ND ng/l 2.00 Sulfonic Acid (11CI-PF3OUdS) Sulfonic Acid (11CI-PF3OUdS)		d ND		ng/l	2.00		
Perfluorononanoic Acid (PFNA)  ND  ng/l  2.00   Perfluorooctanesulfonic Acid (PFOS)  ND  ng/l  2.00   9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9Cl-PF3ONS)  1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)  Perfluorodecanoic Acid (PFDA)  ND  ng/l  2.00   Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00		
Perfluorooctanesulfonic Acid (PFOS)  ND  ng/l  2.00   9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9CI-PF3ONS)  1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)  Perfluorodecanoic Acid (PFDA)  ND  ng/l  2.00   Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11CI-PF3OUdS)	Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00		
9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9CI-PF3ONS)  1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)  Perfluorodecanoic Acid (PFDA)  ND  ng/l  2.00   Refluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11CI-PF3OUdS)	Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00		
Sulfonic Acid (9CI-PF3ONS)  1H,1H,2H,2H-Perfluorodecanesulfonic Acid ND ng/l 2.00 (8:2FTS)  Perfluorodecanoic Acid (PFDA) ND ng/l 2.00 Perfluoroundecanoic Acid (PFUnA) ND ng/l 2.00 11-Chloroeicosafluoro-3-Oxaundecane-1- ND ng/l 2.00 Sulfonic Acid (11CI-PF3OUdS)	Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00		
(8:2FTS)  Perfluorodecanoic Acid (PFDA) ND ng/l 2.00  Perfluoroundecanoic Acid (PFUnA) ND ng/l 2.00  11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11CI-PF3OUdS)		ND		ng/l	2.00		
Perfluoroundecanoic Acid (PFUnA)  ND  ng/l  2.00   11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)  ND  ng/l  2.00		d ND		ng/l	2.00		
11-Chloroeicosafluoro-3-Oxaundecane-1- ND ng/l 2.00 Sulfonic Acid (11Cl-PF3OUdS)	Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00		
Sulfonic Acid (11CI-PF3OUdS)	Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00		
Perfluorododecanoic Acid (PFDoA) ND ng/l 2.00		ND		ng/l	2.00		
	Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00		



Project Name: SOUTHWEST HARBOR WD Lab Number: L2169449

Method Blank Analysis
Batch Quality Control

Analytical Method: 136,533 Extraction Method: EPA 533

Analytical Date: 01/13/22 11:35 Extraction Date: 01/06/22 17:18

Analyst: MP

Parameter Result Qualifier Units RL MDL

Perfluorinated Alkyl Acids by EPA 533 - Mansfield Lab for sample(s): 01-02 Batch: WG1591439-1

Surrogate (Extracted Internal Standard)	%Recovery	Acceptance Qualifier Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93	50-200
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92	50-200
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	98	50-200
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	106	50-200
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86	50-200
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	88	50-200
Perfluoro[13C8]Octanoic Acid (M8PFOA)	90	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77	50-200
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94	50-200
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86	50-200
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87	50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85	50-200
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97	50-200
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100	50-200
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	92	50-200



# Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Lab Number: L2169449

**Report Date:** 01/17/22

arameter	LCS %Recovery	LCSD Qual %Recovery	%Recovery V Qual Limits	RPD	RPD Qual Limits	
erfluorinated Alkyl Acids by EPA 533 - M	Mansfield Lab Associ	ciated sample(s): 01-02	Batch: WG1591439-2			
Perfluorobutanoic Acid (PFBA)	92	-	70-130	-	30	
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	96	-	70-130	-	30	
Perfluoropentanoic Acid (PFPeA)	103	-	70-130	-	30	
Perfluorobutanesulfonic Acid (PFBS)	97	-	70-130	-	30	
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	96	-	70-130	-	30	
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	103	-	70-130	-	30	
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	89	-	70-130	-	30	
1H,1H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	102	-	70-130	-	30	
Perfluorohexanoic Acid (PFHxA)	114	•	70-130	-	30	
Perfluoropentanesulfonic Acid (PFPeS)	124	-	70-130	-	30	
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3- Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	105	-	70-130	-	30	
Perfluoroheptanoic Acid (PFHpA)	93	-	70-130	-	30	
Perfluorohexanesulfonic Acid (PFHxS)	106	-	70-130	-	30	
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	91	-	70-130	-	30	
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	111	-	70-130	-	30	
Perfluorooctanoic Acid (PFOA)	106	•	70-130	-	30	
Perfluoroheptanesulfonic Acid (PFHpS)	100	-	70-130	-	30	
Perfluorononanoic Acid (PFNA)	90	-	70-130	-	30	
Perfluorooctanesulfonic Acid (PFOS)	100	-	70-130	-	30	
9-Chlorohexadecafluoro-3-Oxanone-1- Sulfonic Acid (9CI-PF3ONS)	88	-	70-130	-	30	
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	97	-	70-130	-	30	



# Lab Control Sample Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Lab Number: L2169449

**Report Date:** 01/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Perfluorinated Alkyl Acids by EPA 533 - M	ansfield Lab Assoc	ciated sample(s	): 01-02 Batcl	h: WG15	91439-2				
Perfluorodecanoic Acid (PFDA)	98		-		70-130	-		30	
Perfluoroundecanoic Acid (PFUnA)	104		-		70-130	-		30	
11-Chloroeicosafluoro-3-Oxaundecane- 1-Sulfonic Acid (11Cl-PF3OUdS)	107		-		70-130	-		30	
Perfluorododecanoic Acid (PFDoA)	105		-		70-130	-		30	

	LCS		LCSD		Acceptance
Surrogate (Extracted Internal Standard)	%Recovery	Qual	%Recovery	Qual	Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93				50-200
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	85				50-200
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	87				50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	91				50-200
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91				50-200
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84				50-200
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	77				50-200
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98				50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	89				50-200
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104				50-200
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88				50-200
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97				50-200
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	90				50-200
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	107				50-200
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106				50-200
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	88				50-200



# Matrix Spike Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Lab Number:

L2169449

Report Date:

01/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by E	PA 533 - Ma	insfield Lab	Associated s	ample(s): 01-02	QC Bato	h ID: WO	G1591439-3	QC Sar	mple: L21694	139-01	Client I	D: MS Sample
Perfluorobutanoic Acid (PFBA)	ND	149	148	99		-	-		70-130	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	149	143	96		-	-		70-130	-		30
Perfluoropentanoic Acid (PFPeA)	2.67	149	154	101		-	-		70-130	-		30
Perfluorobutanesulfonic Acid (PFBS)	10.1	133	138	96		-	-		70-130	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	149	141	94		-	-		70-130	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	133	129	97		-	-		70-130	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	149	149	100		-	-		70-130	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	140	145	103		-	-		70-130	-		30
Perfluorohexanoic Acid (PFHxA)	5.23	149	173	112		-	-		70-130	-		30
Perfluoropentanesulfonic Acid (PFPeS)	11.3	140	123	80		-	-		70-130	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3- Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	149	152	102		-	-		70-130	-		30
Perfluoroheptanoic Acid (PFHpA)	2.22	149	155	102		-	-		70-130	-		30
Perfluorohexanesulfonic Acid (PFHxS)	85.6	136	201	85		-	-		70-130	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	141	129	92		-	-		70-130	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	142	154	108		-	-		70-130	-		30
Perfluorooctanoic Acid (PFOA)	26.2	149	181	104		-	-		70-130	•		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	142	159	112		-	-		70-130	-		30
Perfluorononanoic Acid (PFNA)	ND	149	138	92		-	-		70-130	-		30
Perfluorooctanesulfonic Acid (PFOS)	34.0	139	175	102		-	-		70-130	-		30
9-Chlorohexadecafluoro-3- Oxanone-1-Sulfonic Acid (9Cl- PF3ONS)	ND	140	157	113		-	-		70-130	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	143	155	108		-	-		70-130	-		30
Perfluorodecanoic Acid (PFDA)	ND	149	149	100	- Fi I D-	-	-		70-130	-		30

# Matrix Spike Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Lab Number:

L2169449

Report Date:

01/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery		Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by E	EPA 533 - Ma	nsfield Lab	Associated s	sample(s): 01-02	QC Bat	ch ID: WG	61591439-3	QC San	nple: L2169	439-01	Client	ID: MS Sample
Perfluoroundecanoic Acid (PFUnA)	ND	149	152	102		-	-		70-130	-		30
11-Chloroeicosafluoro-3- Oxaundecane-1-Sulfonic Acid (11Cl- PF3OUdS)	ND	141	166	118		-	-		70-130	-		30
Perfluorododecanoic Acid (PFDoA)	ND	149	146	98		-	-		70-130	-		30

	MS	3	MS	SD	Acceptance	
Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	% Recovery	Qualifier	Criteria	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	88				50-200	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	95				50-200	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	95				50-200	
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	50				50-200	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72				50-200	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	69				50-200	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	58				50-200	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	58				50-200	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96				50-200	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82				50-200	
Perfluoro[13C4]Butanoic Acid (MPFBA)	75				50-200	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	77				50-200	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	79				50-200	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	62				50-200	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	65				50-200	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94				50-200	



# Lab Duplicate Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD

Project Number: 2112-02508

Lab Number: L2169449

**Report Date:** 01/17/22

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
erfluorinated Alkyl Acids by EPA 533 - Mansfield OUP Sample	Lab Associated sample(s):	01-02 QC Batch ID:	WG1591439-4	QC Sam	ple: L2169439-02 Client ID:
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/l	NC	30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	ND	ng/l	NC	30
Perfluoropentanoic Acid (PFPeA)	ND	2.08	ng/l	NC	30
Perfluorobutanesulfonic Acid (PFBS)	9.81	9.81	ng/l	2	30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	ND	ng/l	NC	30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	ND	ng/l	NC	30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	ND	ng/l	NC	30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/l	NC	30
Perfluorohexanoic Acid (PFHxA)	4.78	4.68	ng/l	7	30
Perfluoropentanesulfonic Acid (PFPeS)	11.3	9.25	ng/l	9	30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3- Heptafluoropropoxyl-Propanoic Acid (HFPO-DA)	ND	ND	ng/l	NC	30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/l	NC	30
Perfluorohexanesulfonic Acid (PFHxS)	68.7	56.9	ng/l	10	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	ND	ng/l	NC	30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/l	NC	30
Perfluorooctanoic Acid (PFOA)	20.1	16.2	ng/l	3	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/l	NC	30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/l	NC	30
Perfluorooctanesulfonic Acid (PFOS)	16.9	13.5	ng/l	11	30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9CI-PF3ONS)	ND	ND	ng/l	NC	30



# Lab Duplicate Analysis Batch Quality Control

Project Name: SOUTHWEST HARBOR WD Bato

Project Number: 2112-02508

**Lab Number:** L2169449

**Report Date:** 01/17/22

Parameter	Native Sample	Units	RPD	Qual	RPD Limits		
Perfluorinated Alkyl Acids by EPA 533 - Mansfield L DUP Sample	.ab Associated sample(s):	01-02	QC Batch ID:	WG1591439-4	QC Samp	ole: L21694	139-02 Client ID:
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ND	ng/l	NC		30
Perfluorodecanoic Acid (PFDA)	ND		ND	ng/l	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND		ND	ng/l	NC		30
11-Chloroeicosafluoro-3-Oxaundecane-1- Sulfonic Acid (11Cl-PF3OUdS)	ND		ND	ng/l	NC		30
Perfluorododecanoic Acid (PFDoA)	ND		ND	ng/l	NC		30

					Acceptance	
Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Criteria	
Perfluoro[13C4]Butanoic Acid (MPFBA)	75		84		50-200	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	79		85		50-200	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98		95		50-200	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	100		106		50-200	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	73		79		50-200	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	69		79		50-200	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	90		106		50-200	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	62		83		50-200	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	78		76		50-200	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	61		82		50-200	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	81		89		50-200	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68		74		50-200	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	76		84		50-200	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	66		78		50-200	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		83		50-200	
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	43	Q	62		50-200	



Project Name: SOUTHWEST HARBOR WD Lab Number: L2169449

**Project Number:** 2112-02508 **Report Date:** 01/17/22

## Sample Receipt and Container Information

Were project specific reporting limits specified?

**Cooler Information** 

Cooler Custody Seal

A Absent

Container Info	Initial	Final	Temp			Frozen			
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2169449-01A	Plastic 250ml Ammonium Acetate preserved	Α	NA		4.4	Υ	Absent		A2-NH-533(28)
L2169449-01B	Plastic 250ml Ammonium Acetate preserved	Α	NA		4.4	Υ	Absent		A2-NH-533(28)
L2169449-02A	Plastic 250ml Ammonium Acetate preserved	Α	NA		4.4	Υ	Absent		A2-NH-533(28)



Serial\_No:01172210:16 **Lab Number:** L2169 **Project Name:** L2169449 SOUTHWEST HARBOR WD

Report Date: Project Number: 2112-02508 01/17/22

## **PFAS PARAMETER SUMMARY**

PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11CI-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9CI-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6
	=	101772 00 0



Project Name:SOUTHWEST HARBOR WDLab Number:L2169449Project Number:2112-02508Report Date:01/17/22

## **GLOSSARY**

### **Acronyms**

EDL.

LOQ

MS

RPD

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

 Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

 NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

Organic Tre only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

 SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name:SOUTHWEST HARBOR WDLab Number:L2169449Project Number:2112-02508Report Date:01/17/22

#### **Footnotes**

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon

receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benza(a)anthracene, C1-C4 Chrysenes, Benza(b)fluoranthene, Benza(j)+(k)fluoranthene, Benza(e)pyrene, Benza(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenza(a)+(ac)anthracene, Benza(g,h,i)perylene. If a 'Total' result is requested, the

results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### **Data Qualifiers**

- A -Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



Project Name:SOUTHWEST HARBOR WDLab Number:L2169449Project Number:2112-02508Report Date:01/17/22

#### **Data Qualifiers**

the identification is based on a mass spectral library search.

- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits.
   (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report



Project Name:SOUTHWEST HARBOR WDLab Number:L2169449Project Number:2112-02508Report Date:01/17/22

### REFERENCES

Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 533, EPA Document 815-B-19-020, November 2019.

## **LIMITATION OF LIABILITIES**

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.
Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873

Revision 19

Page 1 of 1

Published Date: 4/2/2021 1:14:23 PM

## **Certification Information**

#### The following analytes are not included in our Primary NELAP Scope of Accreditation:

## Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625/625.1: alpha-Terpineol

EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; 1,2,4,5-Tetramethylbenzene; 1,2,4,

4-Ethyltoluene.

EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

## Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

### The following analytes are included in our Massachusetts DEP Scope of Accreditation

## Westborough Facility:

### **Drinking Water**

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

### Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics.

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

## Mansfield Facility:

## **Drinking Water**

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522, EPA 537.1.** 

### Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1** Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Document Type: Form Pre-Qualtrax Document ID: 08-113

	CHAIN OF	CUSTO	DY	PAGE 1 OF 1		Date	Rec'd in	Lab:	- 1	2/1	1/21			ALPI	HA Jo	b#:	29	1169449	
ALPHA		Project Inform	nation			Rep		forma		Data ⊠ E	MAIL					Orma Client		PO #:	
TEL: 508-898-9220 TE	tory r Street Building C	Project Name: Suffwest Project Location Project #: 2112 Project Manage ALPHA Quote #	: (019 2-0256) r: Rebecca L	Pernol		Reg State Main	ulato /Fed Pr	ogram	quire	ment		-	mits	Criteri	a a				1
☐ These samples have b	granitestateanalytical.com  been Previously analyzed by Alpha ecific Requirements/Commen	Turn-Around Standard Due Date: ts/Detection Limi	☐ Rus	sh (ONLY IF PRE	-APPROVED)	1 - 6 Compound -Maine	- 18 Compound -Maine	6 Compound -Maine	3- 25 Compound -Maine									SAMPLE HANDLING Filtration Done Not Needed Lab to do Preservation Lab to do (Please specify below)	TAL # BOTTLES
ALPHA Lab ID (Lab Use Only)	Sample ID	Col	ection Time	Sample Matrix	Sampler's Initials	PFC 537.	PFC 537.1	PFC 533-	PFC 533-									Sample Specific Comments	
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