



## **MEMORANDUM**

**To:** Tom Rauth, NAVFAC SE  
**From:** AH Engineering Consultants, Inc.  
**Subject:** NS Mayport, FL., Per- and Polyfluoroalkyl Substances [PFAS] Sampling Support Analytical Results (USEPA Methods 533 and 537.1) – Event 1  
**Date:** 2 April 2024

On 14 March 2024, AH engineer Nick DeGuida, visited NS Mayport water treatment plant, following logistics coordination with Christine Spencer, PWD Mayport, to collect samples from the potable water system that were subsequently analyzed for the presence of PFAS substances (USEPA Method 537.1 and 533).

Finished water samples were collected from the water treatment plant sample sink. All PFAS sampling protocols were followed during sample collection and there were no anomalies. Samples were prepared for shipping in accordance with the sample collection protocols for PFAS sample collection and were hand delivered to Pace Analytical Services located in Ormond Beach Florida. Samples were received in the laboratory on 14 March 2024 in satisfactory condition.

**Analytical results show that none of the 29 PFAS parameters analyzed were detected above the respective Practical Quantification Limits (PQLs). PFOS/PFOA was not detected. Lab QA/QC checks were satisfactory (Field Blank, Method Blank, Matrix Spike/Matrix Spike Duplicates).**

Attachment 1 provides the subject Pace Analytical Laboratory Report (USEPA Method 533 and 537.1), with the respective chain of custody forms.

Should you have any questions please let us know.

Parameter	CAS Number	Method	Results (ng/L)	Practical Quantification Limit (PQL) AKA Method Report Limit (MRL) (ng/L)	Method Detection Limit (MDL) (ng/L)
11CI-PF3OUdS	763051-92-9	533	0.39U	1.7	0.39
4:2 FTS	757124-72-4	533	0.50U	1.7	0.50
6:2 FTS	27619-97-2	533	3.1U	3.4	3.1
8:2 FTS	39108-34-4	533	0.42U	1.7	0.42
9CI-PF3ONS	756426-58-1	533	0.44U	1.7	0.44
ADONA	919005-14-4	533	0.38U	1.7	0.38
HFPO-DA	13252-13-6	533	0.65U	1.7	0.65
NFDHA	151772-58-6	533	0.26U	1.7	0.26
PFBA	375-22-4	533	0.54U	1.7	0.54
PFEESA	113507-82-7	533	0.31U	1.7	0.31
PFHpS	375-92-8	533	0.35U	1.7	0.35
PFMBA	863090-89-5	533	0.23U	1.7	0.23
PFMPA	377-73-1	533	0.29U	1.7	0.29
PFPeA	2706-90-3	533	0.28U	1.7	0.28
PFPeS	2706-91-4	533	0.31U	1.7	0.31
NEtFOSAA	2991-50-6	537.1	0.86U	1.8	0.86
NMeFOSAA	2355-31-9	537.1	1.4U	1.8	1.4
Perfluorobutanesulfonic acid (PFBSA)	375-73-5	533	0.38U	1.7	0.38
Perfluorodecanoic acid (PFDA)	335-76-2	533	0.28U	1.7	0.28
Perfluorododecanoic acid (PFDOA)	307-55-1	533	0.47U	1.7	0.47
Perfluoroheptanoic acid (PFHPA)	375-85-9	533	0.39U	1.7	0.39
Perfluorohexanesulfonic acid (PFHXSA)	355-46-4	533	0.33U	1.7	0.33
Perfluorohexanoic acid (PFHXA)	307-24-4	533	0.28U	1.7	0.28
Perfluorononanoic acid (PFNA)	375-95-1	533	0.29U	1.7	0.29
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	533	0.31U	1.7	0.31
Perfluorooctanoic acid (PFOA)	335-67-1	533	0.28U	1.7	0.28
Perfluorotetradecanoic acid (PFTEA)	376-06-7	537.1	1.7U	1.8	1.7
Perfluorotridecanoic acid (PFTRIA)	72629-94-8	537.1	1.6U	1.8	1.6
Perfluoroundecanoic acid (PFUNA)	2058-94-8	533	0.37U	1.7	0.37
<b>DoD Policy Health Advisory (HA) for PFOS/PFOA Total = 70 ng/L</b>					
<b>PFOA/PFOS Total: Not Detected</b>					
Notes:					
J – Estimated concentration above the adjusted method detection limit and below the adjusted method reporting limit					
U – Indicates the compound was analyzed for, but not detected.					
HA - health advisory value					

Attachment 1  
Analytical Results Report



March 20, 2024

Anthony Gruber  
AH Environmental

RE: Project: 137-070 NS Mayport  
Pace Project No.: 35866814

Dear Anthony Gruber:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia  
bo.garcia@pacelabs.com  
(386)672-5668  
Project Manager

Enclosures

cc: Jay Allen, AH Environmental Consultants  
Faysal Bekdash, AH Environmental Consultants, Inc.  
Nick DeGuida, AH Environmental Consultants



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 137-070 NS Mayport

Pace Project No.: 35866814

**Pace Analytical Services Ormond Beach**

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

California Certification# 3096

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

DoD-ANAB #:ADE-3199

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maine Certification #: FL01264

Maryland Certification: #346

Massachusetts Certification #: M-FL1264

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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### SAMPLE SUMMARY

Project: 137-070 NS Mayport

Pace Project No.: 35866814

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35866814001	NS Mayport-Field Blank-2 QTR-1	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814002	NS Mayport Sample-5 QTR-1-24-5	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814003	No Charge	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814004	No Charge	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814005	No Charge	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814006	No Charge	Drinking Water	03/14/24 08:40	03/14/24 18:10
35866814007	No Charge	Drinking Water	03/14/24 08:40	03/14/24 18:10

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### SAMPLE ANALYTE COUNT

Project: 137-070 NS Mayport  
Pace Project No.: 35866814

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35866814001	NS Mayport-Field Blank-2 QTR-1	EPA 533	TSW	41	PASI-O
35866814002	NS Mayport Sample-5 QTR-1-24-5	EPA 533	TSW	41	PASI-O

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PASI-O = Pace Analytical Services - Ormond Beach

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## ANALYTICAL RESULTS

Project: 137-070 NS Mayport

Pace Project No.: 35866814

Sample: NS Mayport-Field Blank-2 Lab ID: 35866814001 Collected: 03/14/24 08:40 Received: 03/14/24 18:10 Matrix: Drinking Water  
QTR-1

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>533 PFAS Compounds, Water</b>									
Analytical Method: EPA 533 Preparation Method: EPA 533									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	0.39U	ng/L	1.7	0.39	1	03/15/24 23:24	03/17/24 23:19	763051-92-9	
4:2 FTS	0.50U	ng/L	1.7	0.50	1	03/15/24 23:24	03/17/24 23:19	757124-72-4	
6:2 FTS	3.1U	ng/L	3.5	3.1	1	03/15/24 23:24	03/17/24 23:19	27619-97-2	
8:2 FTS	0.43U	ng/L	1.7	0.43	1	03/15/24 23:24	03/17/24 23:19	39108-34-4	
9CI-PF3ONS	0.44U	ng/L	1.7	0.44	1	03/15/24 23:24	03/17/24 23:19	756426-58-1	
ADONA	0.38U	ng/L	1.7	0.38	1	03/15/24 23:24	03/17/24 23:19	919005-14-4	
HFPO-DA	0.65U	ng/L	1.7	0.65	1	03/15/24 23:24	03/17/24 23:19	13252-13-6	
NFDHA	0.26U	ng/L	1.7	0.26	1	03/15/24 23:24	03/17/24 23:19	151772-58-6	
PFBS	0.38U	ng/L	1.7	0.38	1	03/15/24 23:24	03/17/24 23:19	375-73-5	
PFDA	0.28U	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:19	335-76-2	
PFHxA	0.28U	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:19	307-24-4	
PFBA	0.55U	ng/L	1.7	0.55	1	03/15/24 23:24	03/17/24 23:19	375-22-4	
PFEESA	0.31U	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:19	113507-82-7	
PFHpS	0.36U	ng/L	1.7	0.36	1	03/15/24 23:24	03/17/24 23:19	375-92-8	
PFMBA	0.23U	ng/L	1.7	0.23	1	03/15/24 23:24	03/17/24 23:19	863090-89-5	
PFMPA	0.30U	ng/L	1.7	0.30	1	03/15/24 23:24	03/17/24 23:19	377-73-1	
PFPeA	0.28U	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:19	2706-90-3	
PFPeS	0.31U	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:19	2706-91-4	
PFDoA	0.48U	ng/L	1.7	0.48	1	03/15/24 23:24	03/17/24 23:19	307-55-1	
PFHpA	0.39U	ng/L	1.7	0.39	1	03/15/24 23:24	03/17/24 23:19	375-85-9	
PFHxS	0.33U	ng/L	1.7	0.33	1	03/15/24 23:24	03/17/24 23:19	355-46-4	
PFNA	0.30U	ng/L	1.7	0.30	1	03/15/24 23:24	03/17/24 23:19	375-95-1	
PFOS	0.31U	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:19	1763-23-1	
PFOA	0.28U	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:19	335-67-1	
PFUnA	0.37U	ng/L	1.7	0.37	1	03/15/24 23:24	03/17/24 23:19	2058-94-8	
<b>Surrogates</b>									
13C24:2FTS (S)	119	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C26:2FTS (S)	108	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C28:2FTS (S)	109	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C2-PFDoA (S)	98	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C3HFPO-DA(S)	101	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C3-PFBS (S)	115	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C3-PFHxS (S)	111	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C4-PFBA (S)	96	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C4-PFHpA (S)	99	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C5-PFHxA (S)	98	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C5-PFPeA (S)	99	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C6-PFDA (S)	102	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C7-PFUdA (S)	102	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C8-PFOA (S)	101	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C8-PFOS (S)	111	%	50-200		1	03/15/24 23:24	03/17/24 23:19		
13C9-PFNA (S)	101	%	50-200		1	03/15/24 23:24	03/17/24 23:19		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 137-070 NS Mayport

Pace Project No.: 35866814

Sample: **NS Mayport Sample-5** Lab ID: **35866814002** Collected: 03/14/24 08:40 Received: 03/14/24 18:10 Matrix: Drinking Water  
 QTR-1-24-5

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>533 PFAS Compounds, Water</b>									
Analytical Method: EPA 533 Preparation Method: EPA 533									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	<b>0.39U</b>	ng/L	1.7	0.39	1	03/15/24 23:24	03/17/24 23:36	763051-92-9	
4:2 FTS	<b>0.50U</b>	ng/L	1.7	0.50	1	03/15/24 23:24	03/17/24 23:36	757124-72-4	
6:2 FTS	<b>3.1U</b>	ng/L	3.4	3.1	1	03/15/24 23:24	03/17/24 23:36	27619-97-2	
8:2 FTS	<b>0.42U</b>	ng/L	1.7	0.42	1	03/15/24 23:24	03/17/24 23:36	39108-34-4	
9CI-PF3ONS	<b>0.44U</b>	ng/L	1.7	0.44	1	03/15/24 23:24	03/17/24 23:36	756426-58-1	
ADONA	<b>0.38U</b>	ng/L	1.7	0.38	1	03/15/24 23:24	03/17/24 23:36	919005-14-4	
HFPO-DA	<b>0.65U</b>	ng/L	1.7	0.65	1	03/15/24 23:24	03/17/24 23:36	13252-13-6	
NFDHA	<b>0.26U</b>	ng/L	1.7	0.26	1	03/15/24 23:24	03/17/24 23:36	151772-58-6	
PFBS	<b>0.38U</b>	ng/L	1.7	0.38	1	03/15/24 23:24	03/17/24 23:36	375-73-5	
PFDA	<b>0.28U</b>	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:36	335-76-2	
PFHxA	<b>0.28U</b>	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:36	307-24-4	
PFBA	<b>0.54U</b>	ng/L	1.7	0.54	1	03/15/24 23:24	03/17/24 23:36	375-22-4	
PFEESA	<b>0.31U</b>	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:36	113507-82-7	
PFHpS	<b>0.35U</b>	ng/L	1.7	0.35	1	03/15/24 23:24	03/17/24 23:36	375-92-8	
PFMBA	<b>0.23U</b>	ng/L	1.7	0.23	1	03/15/24 23:24	03/17/24 23:36	863090-89-5	
PFMPA	<b>0.29U</b>	ng/L	1.7	0.29	1	03/15/24 23:24	03/17/24 23:36	377-73-1	
PFPeA	<b>0.28U</b>	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:36	2706-90-3	
PFPeS	<b>0.31U</b>	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:36	2706-91-4	
PFDoA	<b>0.47U</b>	ng/L	1.7	0.47	1	03/15/24 23:24	03/17/24 23:36	307-55-1	
PFHpA	<b>0.39U</b>	ng/L	1.7	0.39	1	03/15/24 23:24	03/17/24 23:36	375-85-9	
PFHxS	<b>0.33U</b>	ng/L	1.7	0.33	1	03/15/24 23:24	03/17/24 23:36	355-46-4	
PFNA	<b>0.29U</b>	ng/L	1.7	0.29	1	03/15/24 23:24	03/17/24 23:36	375-95-1	
PFOS	<b>0.31U</b>	ng/L	1.7	0.31	1	03/15/24 23:24	03/17/24 23:36	1763-23-1	
PFOA	<b>0.28U</b>	ng/L	1.7	0.28	1	03/15/24 23:24	03/17/24 23:36	335-67-1	
PFUnA	<b>0.37U</b>	ng/L	1.7	0.37	1	03/15/24 23:24	03/17/24 23:36	2058-94-8	
<b>Surrogates</b>									
13C24:2FTS (S)	177	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C26:2FTS (S)	118	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C28:2FTS (S)	112	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C2-PFDoA (S)	91	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C3HFPO-DA(S)	92	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C3-PFBS (S)	107	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C3-PFHxS (S)	108	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C4-PFBA (S)	105	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C4-PFHpA (S)	99	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C5-PFHxA (S)	95	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C5-PFPeA (S)	86	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C6-PFDA (S)	98	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C7-PFUdA (S)	95	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C8-PFOA (S)	100	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C8-PFOS (S)	109	%	50-200		1	03/15/24 23:24	03/17/24 23:36		
13C9-PFNA (S)	99	%	50-200		1	03/15/24 23:24	03/17/24 23:36		

## REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 137-070 NS Mayport

Pace Project No.: 35866814

QC Batch: 996918

Analysis Method: EPA 533

QC Batch Method: EPA 533

Analysis Description: 533 PFAS Compounds, Water

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35866814001, 35866814002

METHOD BLANK: 5481193

Matrix: Drinking Water

Associated Lab Samples: 35866814001, 35866814002

Table with 7 columns: Parameter, Units, Blank Result, Reporting Limit, MDL, Analyzed, Qualifiers. Rows include various PFAS compounds like 11CI-PF3OUdS, 4:2 FTS, 6:2 FTS, etc., with their respective units and values.

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866814

METHOD BLANK: 5481193

Matrix: Drinking Water

Associated Lab Samples: 35866814001, 35866814002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C9-PFNA (S)	%	96	50-200		03/17/24 19:20	

LABORATORY CONTROL SAMPLE: 5481194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	37.8	35.4	94	70-130	
4:2 FTS	ng/L	37.5	34.9	93	70-130	
6:2 FTS	ng/L	38.1	35.2	92	70-130	
8:2 FTS	ng/L	38.4	35.8	93	70-130	
9CI-PF3ONS	ng/L	37.4	35.2	94	70-130	
ADONA	ng/L	37.8	34.6	92	70-130	
HFPO-DA	ng/L	40	39.0	97	70-130	
NFDHA	ng/L	40	37.8	94	70-130	
PFBA	ng/L	40	37.4	94	70-130	
PFBS	ng/L	35.5	32.8	92	70-130	
PFDA	ng/L	40	37.6	94	70-130	
PFDoA	ng/L	40	37.8	95	70-130	
PFEESA	ng/L	35.7	33.7	95	70-130	
PFHpA	ng/L	40	37.9	95	70-130	
PFHpS	ng/L	38.2	35.6	93	70-130	
PFHxA	ng/L	40	38.1	95	70-130	
PFHxS	ng/L	36.5	34.6	95	70-130	
PFMBA	ng/L	40	37.9	95	70-130	
PFMPA	ng/L	40	39.7	99	70-130	
PFNA	ng/L	40	46.8	117	70-130	
PFOA	ng/L	40	49.7	124	70-130	
PFOS	ng/L	37.2	34.6	93	70-130	
PFPeA	ng/L	40	37.9	95	70-130	
PFPeS	ng/L	37.6	35.5	94	70-130	
PFUnA	ng/L	40	37.1	93	70-130	
13C2-PFDoA (S)	%			96	50-200	
13C24:2FTS (S)	%			115	50-200	
13C26:2FTS (S)	%			100	50-200	
13C28:2FTS (S)	%			102	50-200	
13C3-PFBS (S)	%			110	50-200	
13C3-PFHxS (S)	%			107	50-200	
13C3HFPO-DA(S)	%			100	50-200	
13C4-PFBA (S)	%			99	50-200	
13C4-PFHpA (S)	%			100	50-200	
13C5-PFHxA (S)	%			99	50-200	
13C5-PFPeA (S)	%			100	50-200	
13C6-PFDA (S)	%			95	50-200	
13C7-PFUdA (S)	%			97	50-200	
13C8-PFOA (S)	%			98	50-200	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 137-070 NS Mayport

Pace Project No.: 35866814

LABORATORY CONTROL SAMPLE: 5481194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C8-PFOS (S)	%			103	50-200	
13C9-PFNA (S)	%			97	50-200	

LABORATORY CONTROL SAMPLE: 5481195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	1.9	1.6J	84	50-150	
4:2 FTS	ng/L	1.9	1.5J	81	50-150	
6:2 FTS	ng/L	1.9	3.6U	93	50-150	
8:2 FTS	ng/L	1.9	1.7J	89	50-150	
9CI-PF3ONS	ng/L	1.9	1.5J	80	50-150	
ADONA	ng/L	1.9	1.5J	79	50-150	
HFPO-DA	ng/L	2	1.8J	91	50-150	
NFDHA	ng/L	2	1.7J	86	50-150	
PFBA	ng/L	2	1.7J	86	50-150	
PFBS	ng/L	1.8	1.6J	90	50-150	
PFDA	ng/L	2	1.7J	84	50-150	
PFDaA	ng/L	2	1.7J	85	50-150	
PFEESA	ng/L	1.8	1.5J	85	50-150	
PFHpA	ng/L	2	1.6J	81	50-150	
PFHpS	ng/L	1.9	1.8J	92	50-150	
PFHxA	ng/L	2	1.7J	85	50-150	
PFHxS	ng/L	1.8	1.6J	90	50-150	
PFMBA	ng/L	2	1.7J	84	50-150	
PFMPA	ng/L	2	2.0J	99	50-150	
PFNA	ng/L	2	2.2	109	50-150	
PFOA	ng/L	2	2.2	112	50-150	
PFOS	ng/L	1.9	1.7J	90	50-150	
PFPeA	ng/L	2	1.7J	86	50-150	
PFPeS	ng/L	1.9	1.5J	81	50-150	
PFUnA	ng/L	2	1.7J	83	50-150	
13C2-PFDaA (S)	%			97	50-200	
13C24:2FTS (S)	%			116	50-200	
13C26:2FTS (S)	%			109	50-200	
13C28:2FTS (S)	%			106	50-200	
13C3-PFBS (S)	%			112	50-200	
13C3-PFHxS (S)	%			110	50-200	
13C3HFPO-DA(S)	%			105	50-200	
13C4-PFBA (S)	%			100	50-200	
13C4-PFHpA (S)	%			101	50-200	
13C5-PFHxA (S)	%			101	50-200	
13C5-PFPeA (S)	%			101	50-200	
13C6-PFDA (S)	%			98	50-200	
13C7-PFUdA (S)	%			99	50-200	
13C8-PFOA (S)	%			100	50-200	

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### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866814

LABORATORY CONTROL SAMPLE: 5481195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C8-PFOS (S)	%			107	50-200	
13C9-PFNA (S)	%			99	50-200	

MATRIX SPIKE SAMPLE: 5481196

Parameter	Units	35866620003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	<0.0048 ug/L	7	6.4	91	70-130	
4:2 FTS	ng/L	<0.0029 ug/L	7	6.2	88	70-130	
6:2 FTS	ng/L	<0.0048 ug/L	7	6.6	93	70-130	
8:2 FTS	ng/L	<0.0048 ug/L	7	6.7	96	70-130	
9CI-PF3ONS	ng/L	<0.0019 ug/L	7	6.3	90	70-130	
ADONA	ng/L	<0.0029 ug/L	7	6.2	88	70-130	
HFPO-DA	ng/L	<0.0048 ug/L	7.3	7.1	96	70-130	
NFDHA	ng/L	<0.0019 ug/L	7.3	6.9	93	70-130	
PFBA	ng/L	<0.0048 ug/L	7.3	7.3	85	70-130	
PFBS	ng/L	<0.0029 ug/L	6.6	6.1	93	70-130	
PFDA	ng/L	<0.0029 ug/L	7.3	6.8	92	70-130	
PFDaA	ng/L	<0.0029 ug/L	7.3	6.9	93	70-130	
PFEESA	ng/L	<0.0029 ug/L	6.6	6.2	95	70-130	
PFHpA	ng/L	<0.0029 ug/L	7.3	6.9	94	70-130	
PFHpS	ng/L	<0.0029 ug/L	7	6.4	91	70-130	
PFHxA	ng/L	<0.0029 ug/L	7.3	6.9	94	70-130	
PFHxS	ng/L	<0.0029 ug/L	6.6	6.2	94	70-130	
PFMBA	ng/L	<0.0029 ug/L	7.3	7.0	96	70-130	
PFMPA	ng/L	<0.0038 ug/L	7.3	7.2	98	70-130	
PFNA	ng/L	<0.0038 ug/L	7.3	8.6	115	70-130	
PFOA	ng/L	<0.0038 ug/L	7.3	9.0	121	70-130	
PFOS	ng/L	<0.0038 ug/L	7	6.4	91	70-130	
PFPeA	ng/L	<0.0029 ug/L	7.3	7.0	96	70-130	
PFPeS	ng/L	<0.0038 ug/L	7	6.5	93	70-130	
PFUnA	ng/L	<0.0019 ug/L	7.3	6.9	93	70-130	
13C2-PFDaA (S)	%				87	50-200	
13C24:2FTS (S)	%				111	50-200	
13C26:2FTS (S)	%				104	50-200	
13C28:2FTS (S)	%				102	50-200	
13C3-PFBS (S)	%				107	50-200	
13C3-PFHxS (S)	%				104	50-200	
13C3HFPO-DA(S)	%				95	50-200	
13C4-PFBA (S)	%				94	50-200	
13C4-PFHpA (S)	%				94	50-200	
13C5-PFHxA (S)	%				94	50-200	
13C5-PFPeA (S)	%				94	50-200	
13C6-PFDA (S)	%				91	50-200	
13C7-PFUdA (S)	%				89	50-200	
13C8-PFOA (S)	%				94	50-200	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866814

MATRIX SPIKE SAMPLE: 5481196		35866620003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
13C8-PFOS (S)	%				102	50-200	
13C9-PFNA (S)	%				93	50-200	

SAMPLE DUPLICATE: 5481197

Parameter	Units	35866621003	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
11CI-PF3OUdS	ng/L	<0.0045 ug/L	0.41U		30	
4:2 FTS	ng/L	<0.0027 ug/L	0.53U		30	
6:2 FTS	ng/L	<0.0045 ug/L	3.3U		30	
8:2 FTS	ng/L	<0.0045 ug/L	0.45U		30	
9CI-PF3ONS	ng/L	<0.0018 ug/L	0.47U		30	
ADONA	ng/L	<0.0027 ug/L	0.40U		30	
HFPO-DA	ng/L	<0.0045 ug/L	0.68U		30	
NFDHA	ng/L	<0.0018 ug/L	0.27U		30	
PFBA	ng/L	<0.0045 ug/L	0.58U		30	
PFBS	ng/L	<0.0027 ug/L	0.40U		30	
PFDA	ng/L	<0.0027 ug/L	0.29U		30	
PFDaA	ng/L	<0.0027 ug/L	0.50U		30	
PFEESA	ng/L	<0.0027 ug/L	0.33U		30	
PFHpA	ng/L	<0.0027 ug/L	0.41U		30	
PFHpS	ng/L	<0.0027 ug/L	0.37U		30	
PFHxA	ng/L	<0.0027 ug/L	0.29U		30	
PFHxS	ng/L	<0.0027 ug/L	0.35U		30	
PFMBA	ng/L	<0.0027 ug/L	0.25U		30	
PFMPA	ng/L	<0.0036 ug/L	0.31U		30	
PFNA	ng/L	<0.0036 ug/L	0.31U		30	
PFOA	ng/L	<0.0036 ug/L	0.29U		30	
PFOS	ng/L	<0.0036 ug/L	0.33U		30	
PFPeA	ng/L	<0.0027 ug/L	0.29U		30	
PFPeS	ng/L	<0.0036 ug/L	0.33U		30	
PFUnA	ng/L	<0.0018 ug/L	0.39U		30	
13C2-PFDaA (S)	%	93	95			
13C24:2FTS (S)	%	154	156			
13C26:2FTS (S)	%	114	117			
13C28:2FTS (S)	%	110	112			
13C3-PFBS (S)	%	105	108			
13C3-PFHxS (S)	%	105	108			
13C3HFPO-DA(S)	%	93	92			
13C4-PFBA (S)	%	97	100			
13C4-PFHpA (S)	%	94	96			
13C5-PFHxA (S)	%	94	94			
13C5-PFPeA (S)	%	92	94			
13C6-PFDA (S)	%	93	93			
13C7-PFUdA (S)	%	93	95			
13C8-PFOA (S)	%	95	96			

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: 137-070 NS Mayport

Pace Project No.: 35866814

SAMPLE DUPLICATE: 5481197

Parameter	Units	35866621003 Result	Dup Result	RPD	Max RPD	Qualifiers
13C8-PFOS (S)	%	103	106			
13C9-PFNA (S)	%	95	97			

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 137-070 NS Mayport

Pace Project No.: 35866814

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 137-070 NS Mayport  
Pace Project No.: 35866814

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35866814001	NS Mayport-Field Blank-2 QTR-1	EPA 533	996918	EPA 533	997114
35866814002	NS Mayport Sample-5 QTR-1-24-5	EPA 533	996918	EPA 533	997114

### REPORT OF LABORATORY ANALYSIS

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WO#: 35866814



CHAIN-OF-CUSTODY Analytical Request Document



Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing information:

Company: **AH Environmental Consultants, Inc**  
 Address: **11837 Rock Landing Drive, Suite 300, Newport News, VA 23606**  
 Report To: **Anthony Gruber**  
 Copy To:

Customer Project Name/Number: **137-070**  
 Phone: **757-873-4959**  
 Email: **tgruber@ahenv.com**  
 N DeGuida  
 Collected By (signature):  
 Sample Disposal:  
 [ ] Dispose as appropriate [ ] Return  
 [ ] Archive:  
 [ ] Hold:

Site Collection Info/Address: **NS Mayport WTP**  
 State: County/City: Time Zone Collected:  
 FL / Mayport [ ] JPT [ ] MT [ ] CT [ ] X [ ] ET  
 Compliance Monitoring?  
 [ ] Yes [ ] No  
 DW PWS ID #: FL2160734  
 DW Location Code:  
 Immediately Packed on Ice:  
 [ ] Yes [ ] No  
 Field Filtered (if applicable):  
 [ ] Yes [ ] No  
 Analysis:

Lab Profile/Line:  
 Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signatures Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 Samples Received on Ice Y N NA  
 VOA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips: Y N NA  
 Sample pH Acceptable Y N NA  
 pH Strips: Y N NA  
 Sulfide Present Y N NA  
 Lead Acetate Strips:  
 LAB USE ONLY:  
 Lab Sample # / Comments:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite)		Composite End	Res Cl	# of Ctns	Method-537.1	Method-533	Short Holds Present (<72 hours):	Y	N	N/A	LAB Sample Temperature Info:	
			Date	Time										Temp Blank Received:	Therm ID#:
NS Mayport-Field Blank-1 QTR-1-24-533	GW	G	3/14/2024	08:40			1	X							
NS Mayport-Field Blank-2 QTR-1-24-533	GW	G	3/14/2024				1	X							
NS Mayport Sample-1 QTR-1-24-533	GW	G	3/14/2024				1	X							
NS Mayport Sample-2 QTR-1-24-533	GW	G	3/14/2024				1	X							
NS Mayport Sample-3 QTR-1-24-533	GW	G	3/14/2024				1	X							
NS Mayport MS/MSD-1 QTR-1-24-533	GW	G	3/14/2024				1	X							
NS Mayport MS/MSD-2 QTR-1-24-533	GW	G	3/14/2024				1	X							

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None  
 Packing Material Used:  
 Radchem sample(s) screened (<500 cpm): Y N NA  
 Date/Time: 3/14/24 10:50  
 Date/Time: 3/14 18:00  
 Date/Time:

Relinquished by/Company: (Signature) AH ENV  
 Relinquished by/Company: (Signature)  
 Relinquished by/Company: (Signature)

Relinquished by/Company: (Signature) AH ENV  
 Relinquished by/Company: (Signature)  
 Relinquished by/Company: (Signature)

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#:  
 Cooler 1 Temp Upon Receipt: °C  
 Cooler 1 Therm Corr. Factor: °C  
 Cooler 1 Corrected Temp: °C  
 Comments:  
 3.5°

Trip Blank Received: Y N NA  
 HCL MeOH TSP Other

Non Conformance(s): YES / NO  
 Page: of:

Pace

Sample Condition Upon Receipt Form (SCUR)

Project #  
 Project Manager:  
 Client:

**WO#: 35866814**

PM: VEG Due Date: 03/29/24  
 CLIENT: AHENVI

Date and Initials of person:

Examining contents:                       
 Label:                       
 Deliver:                       
 pH:                     

Thermometer Used: T-414 Date: 3-14-24 Time: 2124

Initials:                     

State of Origin: \_\_\_\_\_  For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C 3.6 (Visual) -0.1 (Correction Factor) 3.5 (Actual)  
 Cooler #2 Temp.°C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #3 Temp.°C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #4 Temp.°C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #5 Temp.°C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #6 Temp.°C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Recheck for OOT °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)

Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Time: \_\_\_\_\_ Initials: \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other:

Shipping Method:  Standard Overnight  First Overnight  Priority Overnight  Ground  International Priority  Other:

Billing:  Recipient  Sender  Third Party  Credit Card  Unknown

Tracking # \_\_\_\_\_

Custody Seal Present:  Yes  No Seal properly placed and intact:  Yes  No

Ice:  Wet  Blue  Dry  None  Melted

Packing Material:  Bubble Wrap  Bubble Bags  None  Other:

Samples shorted to lab:  Yes  No (If yes, complete the following)

Shorted Date: \_\_\_\_\_

Bottle Quantity / Type: \_\_\_\_\_

Shorted Time: \_\_\_\_\_

Chain of Custody:	Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampler Name: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A								
	Relinquished To Pace: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampling Date(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampling Time(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A								
Samples Arrived within Hold Time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
Rush Turnaround Requested on COC.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
Sufficient Volume.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
Correct Containers Used.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
Containers Intact.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
Sample Labels Match COC (Sample ID, Date/Time of Collection).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Comments: _____								
All containers needing acid / base preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
All containers needing preservation are found to be in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
Exceptions: Vials, Microbiology, O&G, PFAS									
Headspace in Volatile Vials? (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
<table border="1" style="width: 100%;"> <tr> <td colspan="2" style="text-align: center;">Preservation Information</td> </tr> <tr> <td>Preservative: _____</td> <td>Date: _____</td> </tr> <tr> <td>Lot / Trace: _____</td> <td>Time: _____</td> </tr> <tr> <td>Amount added (mL): _____</td> <td>Initials: _____</td> </tr> </table>		Preservation Information		Preservative: _____	Date: _____	Lot / Trace: _____	Time: _____	Amount added (mL): _____	Initials: _____
Preservation Information									
Preservative: _____	Date: _____								
Lot / Trace: _____	Time: _____								
Amount added (mL): _____	Initials: _____								

Comments / Resolutions (use back for additional comments):



March 25, 2024

Anthony Gruber  
AH Environmental

RE: Project: 137-070 NS Mayport  
Pace Project No.: 35866815

Dear Anthony Gruber:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia  
bo.garcia@pacelabs.com  
(386)672-5668  
Project Manager

Enclosures

cc: Jay Allen, AH Environmental Consultants  
Faysal Bekdash, AH Environmental Consultants, Inc.  
Nick DeGuida, AH Environmental Consultants



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: 137-070 NS Mayport

Pace Project No.: 35866815

**Pace Analytical Services Ormond Beach**

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

California Certification# 3096

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

DoD-ANAB #:ADE-3199

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maine Certification #: FL01264

Maryland Certification: #346

Massachusetts Certification #: M-FL1264

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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### SAMPLE SUMMARY

Project: 137-070 NS Mayport

Pace Project No.: 35866815

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35866815001	NS Mayport-Field Blank-2 QTR-1	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815002	NS Mayport-Sample-5 QTR-1-24-5	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815003	No Charge	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815004	No Charge	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815005	No Charge	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815006	No Charge	Drinking Water	03/14/24 08:30	03/14/24 18:10
35866815007	No Charge	Drinking Water	03/14/24 08:30	03/14/24 18:10

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### SAMPLE ANALYTE COUNT

Project: 137-070 NS Mayport  
Pace Project No.: 35866815

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35866815001	NS Mayport-Field Blank-2 QTR-1	EPA 537.1	HL	22	PASI-O
35866815002	NS Mayport-Sample-5 QTR-1-24-5	EPA 537.1	HL	22	PASI-O

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PASI-O = Pace Analytical Services - Ormond Beach

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### ANALYTICAL RESULTS

Project: 137-070 NS Mayport

Pace Project No.: 35866815

Sample: **NS Mayport-Field Blank-2** Lab ID: **35866815001** Collected: 03/14/24 08:30 Received: 03/14/24 18:10 Matrix: Drinking Water  
QTR-1

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>537.1 PFAS Compounds, Water</b>									
Analytical Method: EPA 537.1 Preparation Method: EPA 537.1									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	<b>1.5U</b>	ng/L	1.8	1.5	1	03/15/24 23:46	03/17/24 17:40	763051-92-9	
9CI-PF3ONS	<b>1.1U</b>	ng/L	1.8	1.1	1	03/15/24 23:46	03/17/24 17:40	756426-58-1	
ADONA	<b>0.68U</b>	ng/L	1.8	0.68	1	03/15/24 23:46	03/17/24 17:40	919005-14-4	
HFPO-DA	<b>1.5U</b>	ng/L	1.8	1.5	1	03/15/24 23:46	03/17/24 17:40	13252-13-6	
NEtFOSAA	<b>0.87U</b>	ng/L	1.8	0.87	1	03/15/24 23:46	03/17/24 17:40	2991-50-6	
NMeFOSAA	<b>1.5U</b>	ng/L	1.8	1.5	1	03/15/24 23:46	03/17/24 17:40	2355-31-9	
PFBS	<b>0.62U</b>	ng/L	1.8	0.62	1	03/15/24 23:46	03/17/24 17:40	375-73-5	
PFDA	<b>0.91U</b>	ng/L	1.8	0.91	1	03/15/24 23:46	03/17/24 17:40	335-76-2	
PFHxA	<b>1.2U</b>	ng/L	1.8	1.2	1	03/15/24 23:46	03/17/24 17:40	307-24-4	
PFDoA	<b>1.4U</b>	ng/L	1.8	1.4	1	03/15/24 23:46	03/17/24 17:40	307-55-1	
PFHpA	<b>0.94U</b>	ng/L	1.8	0.94	1	03/15/24 23:46	03/17/24 17:40	375-85-9	
PFHxS	<b>0.69U</b>	ng/L	1.8	0.69	1	03/15/24 23:46	03/17/24 17:40	355-46-4	
PFNA	<b>1.8U</b>	ng/L	1.8	1.8	1	03/15/24 23:46	03/17/24 17:40	375-95-1	
PFOS	<b>1.1U</b>	ng/L	1.8	1.1	1	03/15/24 23:46	03/17/24 17:40	1763-23-1	
PFOA	<b>0.82U</b>	ng/L	1.8	0.82	1	03/15/24 23:46	03/17/24 17:40	335-67-1	
PFTeDA	<b>1.8U</b>	ng/L	1.8	1.8	1	03/15/24 23:46	03/17/24 17:40	376-06-7	
PFTTrDA	<b>1.6U</b>	ng/L	1.8	1.6	1	03/15/24 23:46	03/17/24 17:40	72629-94-8	
PFUnA	<b>1.8U</b>	ng/L	1.8	1.8	1	03/15/24 23:46	03/17/24 17:40	2058-94-8	
<b>Surrogates</b>									
13C2-PFDA (S)	96	%	70-130		1	03/15/24 23:46	03/17/24 17:40		
13C2-PFHxA (S)	90	%	70-130		1	03/15/24 23:46	03/17/24 17:40		
NEtFOSAA-d5 (S)	101	%	70-130		1	03/15/24 23:46	03/17/24 17:40		
HFPO-DAS (S)	91	%	70-130		1	03/15/24 23:46	03/17/24 17:40		

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### ANALYTICAL RESULTS

Project: 137-070 NS Mayport

Pace Project No.: 35866815

Sample: NS Mayport-Sample-5 QTR-1-24-5 Lab ID: 35866815002 Collected: 03/14/24 08:30 Received: 03/14/24 18:10 Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>537.1 PFAS Compounds, Water</b>									
Analytical Method: EPA 537.1 Preparation Method: EPA 537.1									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	1.5U	ng/L	1.8	1.5	1	03/19/24 10:25	03/21/24 03:35	763051-92-9	
9CI-PF3ONS	1.0U	ng/L	1.8	1.0	1	03/19/24 10:25	03/21/24 03:35	756426-58-1	
ADONA	0.67U	ng/L	1.8	0.67	1	03/19/24 10:25	03/21/24 03:35	919005-14-4	
HFPO-DA	1.5U	ng/L	1.8	1.5	1	03/19/24 10:25	03/21/24 03:35	13252-13-6	
NEtFOSAA	0.86U	ng/L	1.8	0.86	1	03/19/24 10:25	03/21/24 03:35	2991-50-6	
NMeFOSAA	1.4U	ng/L	1.8	1.4	1	03/19/24 10:25	03/21/24 03:35	2355-31-9	
PFBS	0.61U	ng/L	1.8	0.61	1	03/19/24 10:25	03/21/24 03:35	375-73-5	
PFDA	0.89U	ng/L	1.8	0.89	1	03/19/24 10:25	03/21/24 03:35	335-76-2	
PFHxA	1.2U	ng/L	1.8	1.2	1	03/19/24 10:25	03/21/24 03:35	307-24-4	
PFDoA	1.3U	ng/L	1.8	1.3	1	03/19/24 10:25	03/21/24 03:35	307-55-1	
PFHpA	0.93U	ng/L	1.8	0.93	1	03/19/24 10:25	03/21/24 03:35	375-85-9	
PFHxS	0.68U	ng/L	1.8	0.68	1	03/19/24 10:25	03/21/24 03:35	355-46-4	
PFNA	1.8U	ng/L	1.8	1.8	1	03/19/24 10:25	03/21/24 03:35	375-95-1	
PFOS	1.1U	ng/L	1.8	1.1	1	03/19/24 10:25	03/21/24 03:35	1763-23-1	
PFOA	0.81U	ng/L	1.8	0.81	1	03/19/24 10:25	03/21/24 03:35	335-67-1	
PFTeDA	1.7U	ng/L	1.8	1.7	1	03/19/24 10:25	03/21/24 03:35	376-06-7	
PFTrDA	1.6U	ng/L	1.8	1.6	1	03/19/24 10:25	03/21/24 03:35	72629-94-8	
PFUnA	1.8U	ng/L	1.8	1.8	1	03/19/24 10:25	03/21/24 03:35	2058-94-8	
<b>Surrogates</b>									
13C2-PFDA (S)	101	%	70-130		1	03/19/24 10:25	03/21/24 03:35		
13C2-PFHxA (S)	108	%	70-130		1	03/19/24 10:25	03/21/24 03:35		
NEtFOSAA-d5 (S)	101	%	70-130		1	03/19/24 10:25	03/21/24 03:35		
HFPO-DAS (S)	100	%	70-130		1	03/19/24 10:25	03/21/24 03:35		

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### QUALITY CONTROL DATA

Project: 137-070 NS Mayport

Pace Project No.: 35866815

QC Batch: 996919

Analysis Method: EPA 537.1

QC Batch Method: EPA 537.1

Analysis Description: 537.1 PFOA Compounds, Water

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35866815001

METHOD BLANK: 5481198

Matrix: Water

Associated Lab Samples: 35866815001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	1.6U	2.0	1.6	03/17/24 16:21	
9CI-PF3ONS	ng/L	1.2U	2.0	1.2	03/17/24 16:21	
ADONA	ng/L	0.74U	2.0	0.74	03/17/24 16:21	
HFPO-DA	ng/L	1.7U	2.0	1.7	03/17/24 16:21	
NEtFOSAA	ng/L	0.95U	2.0	0.95	03/17/24 16:21	
NMeFOSAA	ng/L	1.6U	2.0	1.6	03/17/24 16:21	
PFBS	ng/L	0.68U	2.0	0.68	03/17/24 16:21	
PFDA	ng/L	0.99U	2.0	0.99	03/17/24 16:21	
PFDaA	ng/L	1.5U	2.0	1.5	03/17/24 16:21	
PFHpA	ng/L	1.0U	2.0	1.0	03/17/24 16:21	
PFHxA	ng/L	1.3U	2.0	1.3	03/17/24 16:21	
PFHxS	ng/L	0.75U	2.0	0.75	03/17/24 16:21	
PFNA	ng/L	2.0U	2.0	2.0	03/17/24 16:21	
PFOA	ng/L	0.89U	2.0	0.89	03/17/24 16:21	
PFOS	ng/L	1.2U	2.0	1.2	03/17/24 16:21	
PFTeDA	ng/L	1.9U	2.0	1.9	03/17/24 16:21	
PFTrDA	ng/L	1.8U	2.0	1.8	03/17/24 16:21	
PFUnA	ng/L	2.0U	2.0	2.0	03/17/24 16:21	
13C2-PFDA (S)	%	100	70-130		03/17/24 16:21	
13C2-PFHxA (S)	%	93	70-130		03/17/24 16:21	
HFPO-DAS (S)	%	93	70-130		03/17/24 16:21	
NEtFOSAA-d5 (S)	%	101	70-130		03/17/24 16:21	

LABORATORY CONTROL SAMPLE: 5481199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	151	171	113	70-130	
9CI-PF3ONS	ng/L	150	176	117	70-130	
ADONA	ng/L	151	170	112	70-130	
HFPO-DA	ng/L	160	184	115	70-130	
NEtFOSAA	ng/L	160	174	109	70-130	
NMeFOSAA	ng/L	160	182	114	70-130	
PFBS	ng/L	142	161	114	70-130	
PFDA	ng/L	160	186	116	70-130	
PFDaA	ng/L	160	189	118	70-130	
PFHpA	ng/L	160	187	117	70-130	
PFHxA	ng/L	160	178	111	70-130	
PFHxS	ng/L	146	170	117	70-130	
PFNA	ng/L	160	181	113	70-130	

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866815

LABORATORY CONTROL SAMPLE: 5481199

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFOA	ng/L	160	184	115	70-130	
PFOS	ng/L	148	180	121	70-130	
PFTeDA	ng/L	160	177	111	70-130	
PFTTrDA	ng/L	160	182	114	70-130	
PFUnA	ng/L	160	191	119	70-130	
13C2-PFDA (S)	%			106	70-130	
13C2-PFHxA (S)	%			99	70-130	
HFPO-DAS (S)	%			103	70-130	
NEtFOSAA-d5 (S)	%			103	70-130	

LABORATORY CONTROL SAMPLE: 5481200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	1.9	1.8J	93	50-150	
9Cl-PF3ONS	ng/L	1.9	1.8J	94	50-150	
ADONA	ng/L	1.9	1.8J	94	50-150	
HFPO-DA	ng/L	2	1.9J	96	50-150	
NEtFOSAA	ng/L	2	2.3	114	50-150	
NMeFOSAA	ng/L	2	1.9J	94	50-150	
PFBS	ng/L	1.8	1.5J	87	50-150	
PFDA	ng/L	2	2.0	101	50-150	
PFDaA	ng/L	2	2.1	103	50-150	
PFHpA	ng/L	2	2.1	103	50-150	
PFHxA	ng/L	2	1.9J	95	50-150	
PFHxS	ng/L	1.8	1.7J	95	50-150	
PFNA	ng/L	2	2.0	101	50-150	
PFOA	ng/L	2	1.9J	97	50-150	
PFOS	ng/L	1.9	2.2	117	50-150	
PFTeDA	ng/L	2	2.0J	99	50-150	
PFTTrDA	ng/L	2	1.9J	97	50-150	
PFUnA	ng/L	2	2.0U	99	50-150	
13C2-PFDA (S)	%			103	70-130	
13C2-PFHxA (S)	%			98	70-130	
HFPO-DAS (S)	%			95	70-130	
NEtFOSAA-d5 (S)	%			109	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5481201 5481202

Parameter	Units	MS 35866638020		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
11Cl-PF3OUdS	ng/L	ND	133	132	152	149	114	113	113	70-130	2	30	
9Cl-PF3ONS	ng/L	ND	132	131	144	153	109	117	117	70-130	6	30	
ADONA	ng/L	ND	133	132	156	156	117	118	118	70-130	1	30	
HFPO-DA	ng/L	ND	141	140	165	165	117	118	118	70-130	0	30	

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866815

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5481201 5481202												
Parameter	Units	35866638020		MS	MSD	5481202		% Rec	% Rec	% Rec	Max	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	Limits					
NEtFOSAA	ng/L	ND	141	140	138	142	98	101	70-130	2	30	
NMeFOSAA	ng/L	ND	141	140	143	152	102	109	70-130	6	30	
PFBS	ng/L	ND	125	124	160	160	128	129	70-130	0	30	
PFDA	ng/L	ND	141	140	154	158	109	113	70-130	3	30	
PFDoA	ng/L	ND	141	140	165	140	117	100	70-130	16	30	
PFHpA	ng/L	ND	141	140	180	174	128	124	70-130	4	30	
PFHxA	ng/L	ND	141	140	167	168	118	120	70-130	0	30	
PFHxS	ng/L	ND	129	127	161	165	125	130	70-130	2	30	
PFNA	ng/L	ND	141	140	155	165	110	118	70-130	6	30	
PFOA	ng/L	ND	141	140	165	167	117	120	70-130	1	30	
PFOS	ng/L	ND	130	129	151	163	115	126	70-130	8	30	
PFTeDA	ng/L	ND	141	140	148	127	105	91	70-130	15	30	
PFTrDA	ng/L	ND	141	140	160	123	114	88	70-130	26	30	
PFUnA	ng/L	ND	141	140	156	162	111	116	70-130	3	30	
13C2-PFDA (S)	%						87	97	70-130			
13C2-PFHxA (S)	%						99	105	70-130			
HFPO-DAS (S)	%						99	105	70-130			
NEtFOSAA-d5 (S)	%						85	92	70-130			

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### QUALITY CONTROL DATA

Project: 137-070 NS Mayport

Pace Project No.: 35866815

QC Batch: 997324

Analysis Method: EPA 537.1

QC Batch Method: EPA 537.1

Analysis Description: 537.1 PFOA Compounds, Water

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35866815002

METHOD BLANK: 5482606

Matrix: Water

Associated Lab Samples: 35866815002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	1.6U	2.0	1.6	03/20/24 22:48	
9CI-PF3ONS	ng/L	1.2U	2.0	1.2	03/20/24 22:48	
ADONA	ng/L	0.74U	2.0	0.74	03/20/24 22:48	
HFPO-DA	ng/L	1.7U	2.0	1.7	03/20/24 22:48	
NEtFOSAA	ng/L	0.95U	2.0	0.95	03/20/24 22:48	
NMeFOSAA	ng/L	1.6U	2.0	1.6	03/20/24 22:48	
PFBS	ng/L	0.68U	2.0	0.68	03/20/24 22:48	
PFDA	ng/L	0.99U	2.0	0.99	03/20/24 22:48	
PFDaA	ng/L	1.5U	2.0	1.5	03/20/24 22:48	
PFHpA	ng/L	1.0U	2.0	1.0	03/20/24 22:48	
PFHxA	ng/L	1.3U	2.0	1.3	03/20/24 22:48	
PFHxS	ng/L	0.75U	2.0	0.75	03/20/24 22:48	
PFNA	ng/L	2.0U	2.0	2.0	03/20/24 22:48	
PFOA	ng/L	0.89U	2.0	0.89	03/20/24 22:48	
PFOS	ng/L	1.2U	2.0	1.2	03/20/24 22:48	
PFTeDA	ng/L	1.9U	2.0	1.9	03/20/24 22:48	
PFTrDA	ng/L	1.8U	2.0	1.8	03/20/24 22:48	
PFUnA	ng/L	2.0U	2.0	2.0	03/20/24 22:48	
13C2-PFDA (S)	%	84	70-130		03/20/24 22:48	
13C2-PFHxA (S)	%	82	70-130		03/20/24 22:48	
HFPO-DAS (S)	%	84	70-130		03/20/24 22:48	
NEtFOSAA-d5 (S)	%	84	70-130		03/20/24 22:48	

LABORATORY CONTROL SAMPLE: 5482607

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	7.6	6.3	84	70-130	
9CI-PF3ONS	ng/L	7.5	6.4	85	70-130	
ADONA	ng/L	7.6	6.8	91	70-130	
HFPO-DA	ng/L	8	7.4	92	70-130	
NEtFOSAA	ng/L	8	7.5	93	70-130	
NMeFOSAA	ng/L	8	7.1	88	70-130	
PFBS	ng/L	7.1	6.2	88	70-130	
PFDA	ng/L	8	7.1	89	70-130	
PFDaA	ng/L	8	6.8	85	70-130	
PFHpA	ng/L	8	7.2	90	70-130	
PFHxA	ng/L	8	7.3	92	70-130	
PFHxS	ng/L	7.3	7.1	98	70-130	
PFNA	ng/L	8	7.0	88	70-130	

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866815

LABORATORY CONTROL SAMPLE: 5482607

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFOA	ng/L	8	7.1	89	70-130	
PFOS	ng/L	7.4	6.8	91	70-130	
PFTeDA	ng/L	8	6.9	86	70-130	
PFTTrDA	ng/L	8	7.0	87	70-130	
PFUnA	ng/L	8	7.2	90	70-130	
13C2-PFDA (S)	%			84	70-130	
13C2-PFHxA (S)	%			86	70-130	
HFPO-DAS (S)	%			89	70-130	
NEtFOSAA-d5 (S)	%			85	70-130	

LABORATORY CONTROL SAMPLE: 5482608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	1.9	1.6U	81	50-150	
9Cl-PF3ONS	ng/L	1.9	1.5J	79	50-150	
ADONA	ng/L	1.9	1.7J	88	50-150	
HFPO-DA	ng/L	2	1.8J	91	50-150	
NEtFOSAA	ng/L	2	1.8J	91	50-150	
NMeFOSAA	ng/L	2	1.8J	88	50-150	
PFBS	ng/L	1.8	1.6J	88	50-150	
PFDA	ng/L	2	1.7J	85	50-150	
PFDaA	ng/L	2	1.6J	81	50-150	
PFHpA	ng/L	2	1.8J	91	50-150	
PFHxA	ng/L	2	1.8J	90	50-150	
PFHxS	ng/L	1.8	1.7J	93	50-150	
PFNA	ng/L	2	2.0U	85	50-150	
PFOA	ng/L	2	1.8J	89	50-150	
PFOS	ng/L	1.9	1.7J	93	50-150	
PFTeDA	ng/L	2	1.9U	86	50-150	
PFTTrDA	ng/L	2	1.8U	80	50-150	
PFUnA	ng/L	2	2.0U	86	50-150	
13C2-PFDA (S)	%			85	70-130	
13C2-PFHxA (S)	%			88	70-130	
HFPO-DAS (S)	%			92	70-130	
NEtFOSAA-d5 (S)	%			85	70-130	

MATRIX SPIKE SAMPLE: 5482609

Parameter	Units	35866692001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	ND	1.7	1.5J	77	70-130	
9Cl-PF3ONS	ng/L	ND	1.7	1.4J	79	70-130	
ADONA	ng/L	ND	1.7	1.9	103	70-130	
HFPO-DA	ng/L	ND	1.8	2.0	104	70-130	
NEtFOSAA	ng/L	ND	1.8	1.9	95	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: 137-070 NS Mayport

Pace Project No.: 35866815

MATRIX SPIKE SAMPLE: 5482609		35866692001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
NMeFOSAA	ng/L	ND	1.8	1.9	89	70-130	
PFBS	ng/L	0.0031 ug/L	1.6	5.0	119	70-130	
PFDA	ng/L	ND	1.8	1.7J	83	70-130	
PFDoA	ng/L	ND	1.8	1.7J	81	70-130	
PFHpA	ng/L	ND	1.8	2.6	108	70-130	
PFHxA	ng/L	ND	1.8	3.1	102	70-130	
PFHxS	ng/L	ND	1.7	2.5	124	70-130	
PFNA	ng/L	ND	1.8	2.0	96	70-130	
PFOA	ng/L	ND	1.8	3.0	104	70-130	
PFOS	ng/L	ND	1.7	3.4	103	70-130	
PFTeDA	ng/L	ND	1.8	1.7J	87	70-130	
PFTrDA	ng/L	ND	1.8	1.7J	84	70-130	
PFUnA	ng/L	ND	1.8	1.8U	82	70-130	
13C2-PFDA (S)	%				98	70-130	
13C2-PFHxA (S)	%				112	70-130	
HFPO-DAS (S)	%				101	70-130	
NEtFOSAA-d5 (S)	%				103	70-130	

SAMPLE DUPLICATE: 5482611

Parameter	Units	70290506001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
11CI-PF3OUdS	ng/L	<1.9	1.5U		30	
9CI-PF3ONS	ng/L	<1.9	1.1U		30	
ADONA	ng/L	<1.9	0.69U		30	
HFPO-DA	ng/L	<1.9	1.6U		30	
NEtFOSAA	ng/L	<1.9	0.89U		30	
NMeFOSAA	ng/L	<1.9	1.5U		30	
PFBS	ng/L	<1.9	0.82J		30	
PFDA	ng/L	<1.9	0.92U		30	
PFDoA	ng/L	<1.9	1.4U		30	
PFHpA	ng/L	<1.9	0.96U		30	
PFHxA	ng/L	<1.9	1.2J		30	
PFHxS	ng/L	<1.9	0.70U		30	
PFNA	ng/L	<1.9	1.9U		30	
PFOA	ng/L	<1.9	1.1J		30	
PFOS	ng/L	1.9	1.8J		30	
PFTeDA	ng/L	<1.9	1.8U		30	
PFTrDA	ng/L	<1.9	1.7U		30	
PFUnA	ng/L	<1.9	1.9U		30	
13C2-PFDA (S)	%	87	79			
13C2-PFHxA (S)	%	93	88			
HFPO-DAS (S)	%	87	83			
NEtFOSAA-d5 (S)	%	89	85			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 137-070 NS Mayport

Pace Project No.: 35866815

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 137-070 NS Mayport

Pace Project No.: 35866815

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35866815001	NS Mayport-Field Blank-2 QTR-1	EPA 537.1	996919	EPA 537.1	997099
35866815002	NS Mayport-Sample-5 QTR-1-24-5	EPA 537.1	997324	EPA 537.1	997592

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# CHAIN-OF-CUSTODY Analytical Request Document

# WO#: 35866815

Company: AH Environmental Consultants, Inc  
 Address: 11837 Rock Landing Drive, Suite 300, Newport News, VA 23606  
 Report To: Anthony Gruber  
 Copy To:

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields  
 Billing Information:

Company: AH Environmental Consultants, Inc  
 Address: 11837 Rock Landing Drive, Suite 300, Newport News, VA 23606  
 Report To: Anthony Gruber  
 Copy To:

Customer Project Name/Number: 137-070  
 Phone: 757-873-4959  
 Email: agruber@ahenv.com

Site/Facility ID #: NS Mayport  
 Purchase Order #: FL2160734  
 Quote #:  
 Turnaround Date Required:

State: County/City: Time Zone Collected:  
 Compliance Monitoring?  
 DW PWS ID #: FL2160734  
 DW Location Code:  
 Immediately Packed on Ice:  
 Field Filtered (if applicable):  
 Analysis:

Sample Disposal:  
 Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW),  
 Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID  
 Matrix \*  
 Comp / Grab  
 Collected (or Composite)  
 Date  
 Time  
 Composite End  
 Date  
 Time  
 Res  
 CI  
 # of Ctns

Customer Remarks / Special Conditions / Possible Hazards:

Method-537.1  
 Method-533

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Lab Project Manager:  
 Container Preservative Type \*\*  
 Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signatures Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 VOA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips: Y N NA  
 Sample pH Acceptable Y N NA  
 pH Strips: Y N NA  
 Sulfide Present Y N NA  
 Lead Acetate Strips: Y N NA  
 LAB USE ONLY:  
 Lab Sample # / Comments:

Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses  
 Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signatures Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 VOA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips: Y N NA  
 Sample pH Acceptable Y N NA  
 pH Strips: Y N NA  
 Sulfide Present Y N NA  
 Lead Acetate Strips: Y N NA  
 LAB USE ONLY:  
 Lab Sample # / Comments:

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: \_\_\_\_\_  
 Cooler 1 Temp Upon Receipt: \_\_\_\_\_ °C  
 Cooler 1 Therm Corr. Factor: \_\_\_\_\_ °C  
 Cooler 1 Corrected Temp: \_\_\_\_\_ °C  
 Comments: 3.5°

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: \_\_\_\_\_  
 Cooler 1 Temp Upon Receipt: \_\_\_\_\_ °C  
 Cooler 1 Therm Corr. Factor: \_\_\_\_\_ °C  
 Cooler 1 Corrected Temp: \_\_\_\_\_ °C  
 Comments: 3.5°

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: \_\_\_\_\_  
 Cooler 1 Temp Upon Receipt: \_\_\_\_\_ °C  
 Cooler 1 Therm Corr. Factor: \_\_\_\_\_ °C  
 Cooler 1 Corrected Temp: \_\_\_\_\_ °C  
 Comments: 3.5°

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: \_\_\_\_\_  
 Cooler 1 Temp Upon Receipt: \_\_\_\_\_ °C  
 Cooler 1 Therm Corr. Factor: \_\_\_\_\_ °C  
 Cooler 1 Corrected Temp: \_\_\_\_\_ °C  
 Comments: 3.5°

Relinquished by/Company: (Signature)  
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Sample Condition Upon Receipt Form (SCUR)

Pdub

Project #  
 Project Manager:  
 Client:

**WO#: 35866815**

PM: VEG Due Date: 03/29/24  
 CLIENT: AHENVI

Date and Initials of person:

Examining contents:                       
 Label:                                       
 Deliver:                                       
 pH:     
 Initials:                                     

Thermometer Used: T-414 Date: 3-14-24 Time: 2124

State of Origin: \_\_\_\_\_  
 For WV projects, all containers verified to ≤6 °C  
 Cooler #1 Temp. °C 3.6 (Visual) -0.1 (Correction Factor) 3.5 (Actual)  
 Cooler #2 Temp. °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #3 Temp. °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #4 Temp. °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #5 Temp. °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Cooler #6 Temp. °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)  
 Recheck for OOT °C \_\_\_\_\_ (Visual) \_\_\_\_\_ (Correction Factor) \_\_\_\_\_ (Actual)

Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Samples on ice, cooling process has begun.  
 Time: \_\_\_\_\_ Initials: \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other:

Shipping Method:  Standard Overnight  First Overnight  Priority Overnight  Ground  International Priority  Other  
 Billing:  Recipient  Sender  Third Party  Credit Card  Unknown

Tracking # \_\_\_\_\_  
 Custody Seal Present:  Yes  No Seal properly placed and intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other:

Ice:  Wet  Blue  Dry  None  Melted

Samples shorted to lab:  Yes  No (If yes, complete the following)

Shorted Date: \_\_\_\_\_

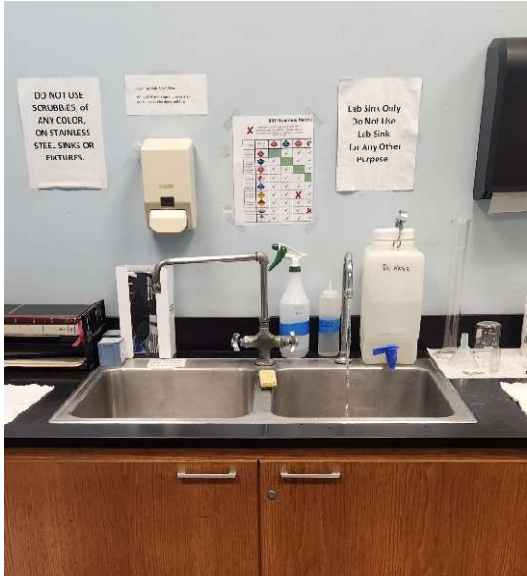
Bottle Quantity / Type: \_\_\_\_\_

Shorted Time: \_\_\_\_\_

Chain of Custody:	Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampler Name: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Relinquished To Pace: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampling Date(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A   Sampling Time(s): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples Arrived within Hold Time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments:
Rush Turnaround Requested on COC.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Comments:
Sufficient Volume	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments:
Correct Containers Used	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments:
Containers Intact.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments:
Sample Labels Match COC (Sample ID, Date/Time of Collection).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Comments:
All containers needing acid / base preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
All containers needing preservation are found to be in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Exceptions: Vials, Microbiology, O&G, PFAS	
Headspace in Volatile Vials? (>6mm)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Comments / Resolutions (use back for additional comments):	

Preservation Information  
 Preservative: \_\_\_\_\_ Date: \_\_\_\_\_  
 Lot / Trace: \_\_\_\_\_ Time: \_\_\_\_\_  
 Amount added (mL): \_\_\_\_\_ Initials: \_\_\_\_\_

### PFC Sample Collection Form

Facility:	Naval Station Mayport - Water Treatment Plant		
Sample Collection Date/Time:	14 March 2024; 0830		
Sampled By:	Nick DeGuida		
Sample Location Description - (Well House, WTP, etc.):	WTP Sink - Distribution System point of entry		
Water Supply Source (Check one)	<b>Well</b>	Surface Water	Consecutive System
Sample Port Type (tap, hose bib, etc.)	Lab sink sample faucet		
Weather Conditions:	Sunny, dry.		
Field Blank Collected:	<b>Yes</b>	No	
Duplicate Collected:	<b>Yes</b>	No	
Shipping Container type:	<b>Cooler</b>	Box	
Ice Added?	<b>Yes</b>	No	
Shipper Used?	No. Sampler from off samples to Pace Analytical JAX service center.		
Notes & Photos:	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1; min-height: 200px;"></div> <div style="flex: 1; text-align: center;">  </div> </div>		