Brunswick County Public Utilities - NC

PO Box 249
Bolivia, NC 28422-0249

Leland, N.C

Client Project# 211 Water Plant
Samples Received: 12/3/2024

Analytical Report
1224-707

PFAS by Isotope Dilution (non-potable water)

Report Issue Date: 12/31/2024

I certify that to the best of my knowledge all analytical data presented in this report have been checked for completeness, accuracy, errors and legibility in addition to having been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s). This analytical report was prepared in Portable Document Format (.PDF) and contains 74 pages. This report shall not be reproduced except in full without approval of the laboratory. This will provide assurance that parts of the report are not taken out of context.

Amendment(s):

Signature:

Alexandra Mejia, Quality Assurance Associate I

ENTHALPY
ANALYTICAL

Enthalpy Analytical, LLC – Ultratrace
Christina Kurnath, Project Manager
chkurnath@montrose-env.com / www.enthalpy.com
O: 910-876-6895
2714 Exchange Drive, Wilmington, NC 28405

Table of Contents

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	1224-707-1
Client ID.	211 Water Plant Site: Leland, N.C

1. Custody

Christina Kurnath received the samples at 13.1 °C after being relinquished by Brunswick County Public Utilities - NC.

The samples were received in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC

Table 1 - Sample Inventory

EU Lab Sample ID	Client Sample ID	Matrix	Received
1224-707-001-1	120324 W6A	aqueous	2024-12-03
1224-707-001-1A	120324 W6A	aqueous	2024-12-03
1224-707-002-1	120324 W5	aqueous	2024-12-03
1224-707-002-1A	120324 W5	aqueous	2024-12-03
1224-707-003-1	120324 W3	aqueous	2024-12-03
1224-707-003-1A	120324 W3	aqueous	2024-12-03
1224-707-004-1	120324 W1	aqueous	2024-12-03
1224-707-004-1A	120324 W1	aqueous	2024-12-03
1224-707-005-1	120324 W2	aqueous	2024-12-03
1224-707-005-1A	120324 W2	aqueous	2024-12-03
1224-707-006-1	120324 W16	aqueous	2024-12-03
1224-707-006-1A	120324 W16	aqueous	2024-12-03
1224-707-007-1	120324 W17	aqueous	2024-12-03
1224-707-007-1A	120324 W17	aqueous	2024-12-03
1224-707-008-1	120324 W18	aqueous	2024-12-03
1224-707-008-1A	120324 W18	aqueous	2024-12-03
1224-707-009-1	120324 W19	aqueous	2024-12-03
1224-707-009-1A	120324 W19	aqueous	2024-12-03
1224-707-010-1	120324 W15	aqueous	2024-12-03
1224-707-010-1A	120324 W15	aqueous	2024-12-03
1224-707-011-1	120324 W8	aqueous	2024-12-03
1224-707-011-1A	120324 W8	aqueous	2024-12-03
1224-707-012-1	120324 W12A	aqueous	2024-12-03
1224-707-012-1A	120324 W12A	aqueous	2024-12-03
1224-707-013-1	120324 W12	aqueous	2024-12-03
1224-707-013-1A	120324 W12	aqueous	2024-12-03
1224-707-014-1	120324 W11	aqueous	2024-12-03
1224-707-014-1A	120324 W11	aqueous	2024-12-03
1224-707-015-1	120324 S02	aqueous	2024-12-03
1224-707-015-1A	120324 S02	aqueous	2024-12-03
1224-707-016-1	120324 E02	aqueous	2024-12-03
1224-707-016-1A	120324 E02	aqueous	2024-12-03

2. Methods and Analytes

A list of analytes of interest and corresponding methods of analysis is shown in Table 3. Abbreviations are defined in the listed Appendices.

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	1224-707-1
Client ID.	211 Water Plant Site: Leland, N.C

Table 3 - Methods and Analytes

EU Method	Analytes	Cleanup Method
EU-047	Custom List	ENVI-Carb

3. Analysis

The samples were analyzed using Sciex Triple Quad 7500 (LC/MS/MS "Bumblebee").

The samples were analyzed using Waters Acquity UPLC equipped with Xevo TQ MS (LC/MS/MS "Pippin").

4. Calibration

In the initial calibration, the reported analytes exhibited R^2 of ≥ 0.99. The reported analytes in the calibration standards, Initial Calibration Verification (ICV) and continuing calibration (concal) met the accuracy criterion for native analytes.

5. QC Notes

Except where noted below, the QC sample analyses passed all method criteria.

QC samples that did not meet method acceptance criteria were:

• MB_18683_PFAS (d3-N-MeFOSA, d5-N-EtFOSA)

Select surrogates (ES) deviated from method recovery criteria in the method blank (MB). Target analytes are quantified based on their ratio to their labeled standard analogs. When detected at a signal-to-noise above 10:1 the ES peak area is used to quantify its respective target analyte using accepted isotope dilution principles. The data is reported without adverse impact.

PFAS by Isotope Dilution (non-potable water) samples were extracted within 28 days, and extracts analyzed within 28 days.

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	1224-707-1
Client ID.	211 Water Plant Site: Leland, N.C

6. Reporting Notes

The results presented in this report are representative of the samples as provided to the laboratory.

Some labeled extraction standards in the sample analyses fell outside the control limits for ES recovery, as denoted by the "Q" qualifier. The target analytes are quantified based on their ratio to their labeled standard analogs. As a result, low or high labeled standard recovery do not cause any change to ratios or contribute any additional error in the measurement of the target analytes. The data have been accepted and reported with no further actions.

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

Enthalpy Analytical, LLC in Wilmington NC is accredited by the Louisiana Department of Environmental Quality to the 2009 TNI Standard under certificate number 05075.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC - Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers

- Ac - Alternate calculation flag indicates the es recovery was calculated using the opening concal when either of the following situations is encountered in the data processing software: the ES recovery is over 400% or the JS is not detected.
- B – The analyte was found in the method blank, at a concentration that was at least 10% of the amount in the sample.
- Cxx – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group ('xx') are shown with the number of the lowest IUPAC co-eluter**.**
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve). For HRMS data, this condition does not imply additional measurement uncertainty. For LC-MS/MS data, these values should be considered as having measurement uncertainty higher than values within the calibration range.
- EDL – Estimated Detection Level: The EDL is unique to isotope dilution methods and reflects the conditions of analysis at the time of analysis, including the equipment used. Where the MDL is a static value, the EDL is a dynamic value.
- EMPC – Estimated Maximum Possible Concentration: EMPC is specific to Dioxin/Furan tests to indicate the determined ion-abundance ratio was outside the allowed theoretical range (usually due to being near the detection limit, although it can very rarely be caused by a co-eluting interference). The EMPC concentration is adjusted to reflect the value at the theoretical ion-abundance ratio.
- I/IR – The ion ratio between the primary and secondary ions was observed to be outside the method criteria. The analyte concentration may be inaccurate due to interference.
- J – The analyte has a concentration below the minimum calibration level (LOQ value) but greater than the LOD. These values should be considered as having measurement uncertainty higher than values within the calibration range
- L - For reports containing PFAS analytes only, this flag indicates that an analyte has a concentration below the Minimum Detection Limit (MDL) . The reported concentration is not recommended for regulatory use as the analyte signal may have a signal-to-noise ratio less than the criteria deemed necessary to be considered a detected analyte.
- LOD – Limit of Detection: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOD. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the minimum detection limit (MDL). The LOD is adjusted for sample weight or volume.

- LOQ – Limit of Quantitation: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOQ. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the reporting limit (RL). The LOQ is adjusted for sample weight or volume.
- <LOD() – Analyte was not found at a concentration high enough to be reported as detected. It is reported as less than the LOD, and the LOD is given in the parentheses.
- <LOQ() – Analyte was not found at a concentration high enough to be reported as above the QSM-defined LOQ or TNI defined Reporting Limit. It is reported as less than the LOQ, and the LOQ is given in the parentheses.
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable due to issues observed in sample preparation or analysis.
- PR – The associated congener(s) is(are) poorly resolved.
- QI – Indicates the presence of a quantitative interference.
- RL – Reporting Limit. Lowest reportable value. The level is higher than the MDL.
- SI – Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected.
- V / Q – The labeled standard recovery is not within method control limits.
- X – Indicates the result is from re-injection/repeat/second-column analysis.

Lab Identifiers/ Data Attributes

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Dilution Data. Result was obtained from the analysis of a dilution. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.

- R – Indicates a re-extraction of the sample.
- RJ – Indicates a reinjection of the sample extract.
- S – Indicates a sample split. The number that follows the "S" indicates the split factor.
- SAT – Indicates an analyte saturated the detector.

	PFAS Compound Acronym List		
	Acronym	**CAS #**	**Compound Name**
	*** accredited for SOP EU047 / EPA method 1633**		***# Method 537.1 Accredited ^ Method 533 Accredited ~EPA 1633 extended list***
	Target Analytes		
*, ^	PFBA	375-22-4	Perfluorobutanoic Acid
*, #, ^	PFPeA	2706-90-3	Perfluoropentanoic Acid
*, #, ^	PFHxA	307-24-4	Perfluorohexanoic Acid
*, #, ^	PFHpA	375-85-9	Perfluoroheptanoic Acid
*, #, ^	PFOA	335-67-1	Perfluorooctanoic Acid
*, #, ^	PFNA	375-95-1	Perfluorononanoic Acid
*, #, ^	PFDA	335-76-2	Perfluorodecanoic acid
*, #, ^	PFUnA (PFUnDA)	2058-94-8	Perfluoroundecanoic acid
*, #	PFDoA (PFDoDA)	307-55-1	Perfluorododecanoic acid
*, #	PFTrDA (PFTriA)	72629-94-8	Perfluorotridecanoic acid
*, #, ^	PFTeDA (PFTA)	376-06-7	Perfluorotetradecanoic acid
*, ^	PFBS	375-73-5	Perfluorobutane sulfonic acid
*, #, ^	PFPeS	2706-91-4	Perfluoropentane sulfonic acid
*, ^	PFHxS	355-46-4	Perfluorohexane sulfonic acid
*, #, ^	PFHpS	375-92-8	Perfluoroheptane sulfonic acid
*, #, ^	PFOS	1763-23-1	Perfluorooctane sulfonic acid
*	PFNS	68259-12-1	Perfluorononane sulfonic acid
*	PFDS	335-77-3	Perfluorodecane sulfonic acid
*, ^	4:2 FTS	757124-72-4	4:2 fluorotelomer sulfonic acid
*, ^	6:2 FTS	27619-97-2	6:2 fluorotelomer sulfonic acid
*, ^	8:2 FTS	39108-34-4	8:2 fluorotelomer sulfonic acid
~	10:2 FTS	120226-60-0	Fluorotelomer sulfonate 10:2
~	FHxSA	41997-13-1	Perfluorohexanesulfonamide
*	PFOSA (FOSA)	754-91-6	Perfluorooctane sulfonamide
*, #	N-MeFOSAA	2355-31-9	N-methyl perfluorooctane sulfonamido acetic acid
*	N-MeFOSA	31506-32-8	N-methylperfluoro-1-octanesulfonamide
*	N-MeFOSE	24448-09-7	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol
*, #	N-EtFOSAA	2991-50-6	N-ethyl perfluorooctane sulfonamido acetic acid
*	N-EtFOSA	4151-50-2	N-ethylperfluoro-1-octanesulfonamide
*	N-EtFOSE	1691-99-2	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol
*, #, ^	HFPO-DA	13252-13-6	2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid (Gen-X)
*, #, ^	11Cl-PF3OUdS	763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid
*, #, ^	9Cl-PF3ONS	756426-58-1	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
*, #, ^	ADONA	919005-14-4	4,8-dioxa-3H-perfluorononanoic acid
*, ^	PFEESA	113507-82-7	Perfluoro(2-ethoxyethane)sulphonic acid
*, ^	PFMOBA (PFMBA)	863090-89-5	Perfluoro-4-methoxybutanic acid
*, ^	NFDHA	151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid
*, ^	PFMOPrA (PFMPA)	377-73-1	Perfluoro-3-methoxypropanoic acid
~	PFPrA	422-64-0	2,2,3,3,3-Pentafluoropropionic acid
~	PFPrS (PFPS)	423-41-6	Perfluoropropanesulfonic acid
~	PFMOAA	674-13-5	Perfluoro-2-methoxyacetic acid
~	PFO2HxA	39492-88-1	Perfluoro (3,5-dioxahexanoic) acid
~	PFO3OA	39492-89-2	Perfluoro (3,5,7-trioxaoctanoic) acid
~	PFO4DA	39492-90-5	Perfluoro (3,5,7,9-tetraoxadecanoic) acid
~	PFO5DA	39492-91-6	Perfluoro(3,5,7,9,11-pentaoxadodecanoic) acid
~	Nafion Byproduct 1 (PS Acid)	29311-67-9	Nafion Byproduct 1
~	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	Nafion Byproduct 2
~	PEPA	267239-61-2	Perfluoro-2-ethoxypropanoic acid
~	PMPA	13140-29-9	Perfluoro-2-methoxypropanoic acid

PFAS Compound Acronym List			
	Acronym	CAS #	Compound Name
	* accredited for SOP EU047 / EPA method 1633		*# Method 537.1 Accredited ^ Method 533 Accredited ~EPA 1633 extended list*
~	PFECA-G	801212-59-9	4-(Heptafluoroisopropoxy)hexafluorobutanoic acid
~	PFHxDA	67905-19-5	Perfluorohexadecanoic acid
~	R-PSDA (Nafion Byproduct 4)	2416366-18-0	Perfluoro-4-(2-sulfoethoxy)pentanoic acid
~	Hydrolyzed PSDA (Nafion Byproduct 5)	2416366-19-1	2-fluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2-tetrafluoro-2-sulfoethoxy)propoxy]-acetic acid
~	R-PSDCA (Nafion Byproduct 6)	2416366-21-5	1,1,2,2-tetrafluoro-2-[1,2,2,3,3-pentafluoro-1-(trifluoromethyl)propoxy] ethanesulfonic acid
~	EVE Acid	69087-46-3	2,2,3,3-tetrafluoro-3-({1,1,1,2,3,3-hexafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propan-2-yl}oxy)propionic acid
~	FBSA	30334-69-1	Perfluorobutylsulfonamide
~	MeFBSA	68298-12-4	1-Butanesulfonamide; (N-(Methyl)nonafluorobutanesulfonamide)
~	Hydro-EVE Acid	773804-62-9	2,2,3,3-Tetrafluoro-3-{[1,1,1,2,3,3-hexafluoro-3-(1,2,2,2-tetrafluoroethoxy)propan-2-yl]oxy}propanoic acid
~	R-EVE Acid	2416366-22-6	4-(2-carboxy-1,1,2,2-tetrafluoroethoxy)-2,2,3,3,4,5,5,5-octafluoro-pentanoic acid
~	NVHOS	1132933-86-8	Perfluoroethoxysulfonic acid
*~	PFDoS	79780-39-5	Perfluorododecane sulfonic acid
~	PFODA	16517-11-6	Perfluorooctadecanoic acid
*	3:3 FTCA	356-02-5	2H,2H,3H,3H-Perfluorohexanoic acid
*	5:3 FTCA	914637-49-3	2H,2H,3H,3H-Perfluorooctanoic acid
*	7:3 FTCA	812-70-4	2H,2H,3H,3H-Perfluorodecanoic acid
~	N-AP-FHxSA	50598-28-2	N-(3-(Dimethylamino)propyl)tridecafluoro-1-hexanesulfonamide
~	N-CMAmP-6:2 FOSA	34455-29-3	N-(Carboxymethyl)-N,N-dimethyl-3-(((3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulfonyl)amino)1-propanaminium
~	BPAF	1478-61-1	Bisphenol AF
~	HQ-115	90076-65-6	Bis(trifluoromethane)sulfonimide lithium salt

Results

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Summary

	Compound	CAS	120324 W6A ng/L	120324 W5 ng/L	120324 W3 ng/L	120324 W1 ng/L	120324 W2 ng/L
Acids	PFPrA	422-64-0	ND U	ND U	ND U	ND U	ND U
	PFBA	375-22-4	0.483 J	ND U	ND U	0.950	ND U
	PFPeA	2706-90-3	0.377 J	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	0.334 J	ND U	ND U	ND U	ND U
	PFHpA	375-85-9	0.126 L	ND U	ND U	ND U	ND U
	PFOA	335-67-1	0.126 L	ND U	ND U	ND U	ND U
	PFNA	375-95-1	ND U	ND U	ND U	ND U	ND U
	PFDA	335-76-2	ND U	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	ND U	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	ND U	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	0.120 L	ND U	ND U	0.193 L	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	ND U	ND U	ND U	ND U	ND U
	PFHpS	375-92-8	ND U	ND U	ND U	ND U	ND U
	PFOS	1763-23-1	0.0743 L	ND U	ND U	ND U	ND U
	PFNS	68259-12-1	ND U	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U	ND U
Sulfonamidos	FBSA	30334-69-1	ND U	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U	ND U
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U	ND U
	PFOSA	754-91-6	ND U	ND U	ND U	ND U	ND U
PFECAs	ADONA	919005-14-4	ND U	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	0.175 J	ND U	ND U	0.0732 J	ND U
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U	ND U
	PFMOAA	674-13-5	20.9	0.747	ND U	2.72	ND U
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U	ND U
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	1.28	ND U	ND U	ND U	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	0.327 J	ND U	ND U	0.900	ND U
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U	ND U
PFESAs	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	ND U	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U	ND U
	R-PSDCA	2416366-21-5	ND U	ND U	ND U	ND U	ND U

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Summary

	Compound	CAS	120324 W16 ng/L	120324 W17 ng/L	120324 W18 ng/L	120324 W19 ng/L	120324 W15 ng/L
Acids	PFPrA	422-64-0	ND U	ND U	ND U	ND U	ND U
	PFBA	375-22-4	ND U	ND U	ND U	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	ND U	ND U	ND U	ND U	ND U
	PFHpA	375-85-9	ND U	ND U	ND U	ND U	ND U
	PFOA	335-67-1	ND U	ND U	ND U	ND U	ND U
	PFNA	375-95-1	ND U	ND U	ND U	ND U	ND U
	PFDA	335-76-2	ND U	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	ND U	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	ND U	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	0.0424 L	ND U	ND U	ND U	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	ND U	ND U	ND U	ND U	ND U
	PFHpS	375-92-8	ND U	ND U	ND U	ND U	ND U
	PFOS	1763-23-1	ND U	ND U	ND U	ND U	0.000451 L
	PFNS	68259-12-1	ND U	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U	ND U
Sulfonamidos	FBSA	30334-69-1	ND U	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U	ND U
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U	ND U
	PFOSA	754-91-6	ND U	ND U	ND U	ND U	ND U
PFECAs	ADONA	919005-14-4	ND U	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	ND U	ND U	ND U	ND U	ND U
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U	ND U
	PFMOAA	674-13-5	0.246 L	ND U	ND U	ND U	0.607
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U	ND U
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	ND U	ND U	ND U	ND U	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	0.362 J	ND U	ND U	ND U	0.629
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U	ND U
PFESAs	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	ND U	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U	ND U
	R-PSDCA	2416366-21-5	ND U	ND U	ND U	ND U	ND U

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Summary

	Compound	CAS	120324 W8 ng/L	120324 W12A ng/L	120324 W12 ng/L	120324 W11 ng/L	120324 S02 ng/L
Acids	PFPrA	422-64-0	ND U	ND U	ND U	ND U	ND U
	PFBA	375-22-4	ND U	ND U	ND U	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	ND U	ND U	ND U	ND U	ND U
	PFHpA	375-85-9	ND U	ND U	ND U	ND U	ND U
	PFOA	335-67-1	ND U	ND U	ND U	ND U	ND U
	PFNA	375-95-1	ND U	ND U	ND U	ND U	ND U
	PFDA	335-76-2	ND U	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	ND U	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	ND U	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	ND U	ND U	ND U	ND U	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	ND U	ND U	0.368 L	ND U	ND U
	PFHpS	375-92-8	ND U	ND U	ND U	ND U	ND U
	PFOS	1763-23-1	0.0466 L	0.00947 L	1.58	0.0448 L	0.0375 L
	PFNS	68259-12-1	ND U	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U	ND U
Sulfonamidos	FBSA	30334-69-1	ND U	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U	ND U
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U	ND U
	PFOSA	754-91-6	ND U	0.470 J	ND U	ND U	ND U
PFECAs	ADONA	919005-14-4	ND U	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	ND U	ND U	ND U	ND U	ND U
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U	ND U
	PFMOAA	674-13-5	0.382 J	0.474 J	6.92	8.72	2.79
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U	ND U
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	ND U	ND U	0.0690 L	0.301 J	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	0.171 J	0.167 J	0.323 J	0.546 J	ND U
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U	ND U
PFESAs	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	ND U	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U	ND U
	R-PSDCA	2416366-21-5	ND U	ND U	ND U	ND U	ND U

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Summary

	Compound	CAS	120324 E02 ng/L
Acids	PFPrA	422-64-0	ND U
	PFBA	375-22-4	1.99
	PFPeA	2706-90-3	1.93
	PFHxA	307-24-4	1.25
	PFHpA	375-85-9	0.241 J
	PFOA	335-67-1	0.381 J
	PFNA	375-95-1	ND U
	PFDA	335-76-2	ND U
	PFUnDA	2058-94-8	ND U
	PFDoDA	307-55-1	ND U
	PFTrDA	72629-94-8	ND U
	PFTeDA	376-06-7	ND U
	PFHxDA	67905-19-5	ND U
Sulfonates	PFBS	375-73-5	0.661
	PFPeS	2706-91-4	ND U
	PFHxS	355-46-4	ND U
	PFHpS	375-92-8	ND U
	PFOS	1763-23-1	0.235 L
	PFNS	68259-12-1	ND U
	PFDS	335-77-3	ND U
	4:2 FTS	757124-72-4	ND U
	6:2 FTS	27619-97-2	ND U
	8:2 FTS	39108-34-4	ND U
	10:2 FTS	120226-60-0	ND U
Sulfonamidos	FBSA	30334-69-1	ND U
	N-EtFOSA	4151-50-2	ND U
	N-EtFOSAA	2991-50-6	ND U
	N-EtFOSE	1691-99-2	ND U
	N-MeFOSA	31506-32-8	ND U
	N-MeFOSAA	2355-31-9	ND U
	N-MeFOSE	24448-09-7	ND U
	PFOSA	754-91-6	ND U
PFECAs	ADONA	919005-14-4	ND U
	EVE Acid	69087-46-3	ND U
	HFPO-DA	13252-13-6	ND U
	Hydro-EVE Acid	773804-62-9	ND U
	NFDHA	151772-58-6	ND U
	PEPA	267239-61-2	ND U
	PFECA-G	801212-59-9	ND U
	PFMOAA	674-13-5	9.87
	PFMOBA	863090-89-5	ND U
	PFMOPrA	377-73-1	0.272 J
	PFO2HxA	39492-88-1	0.503 J
	PFO3OA	39492-89-2	ND U
	PFO4DA	39492-90-5	ND U
	PFO5DA	39492-91-6	ND U
	PMPA	13140-29-9	ND U
	R-EVE	2416366-22-6	ND U
PFESAs	11Cl-PF3OUdS	763051-92-9	ND U
	9Cl-PF3ONS	756426-58-1	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	ND U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	ND U
	NVHOS	1132933-86-8	ND U
	PFEESA	113507-82-7	ND U
	R-PSDA	2416366-18-0	ND U
	R-PSDCA	2416366-21-5	ND U

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W6A		
Sampling Site			
Enthalpy ID	1224-707-001-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 08:38	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 16:53	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041653	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041653				20-150%	133%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W6A		
Sampling Site			
Enthalpy ID	1224-707-001-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:38	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	271.6
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 00:17	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224031	0.483	0.234	0.589			J
	PFPeA	2706-90-3	P171224031	0.377	0.168	0.589			J
	PFHxA	307-24-4	P171224031	0.334	0.197	0.589			J
	PFHpA	375-85-9	P171224031	0.126	0.206	0.589			L
	PFOA	335-67-1	P171224031	0.126	0.135	0.589			L
	PFNA	375-95-1	P171224031	ND	0.133	0.589			U
	PFDA	335-76-2	P171224031	ND	0.168	0.589			U
	PFUnDA	2058-94-8	P171224031	ND	0.133	0.589			U
	PFDoDA	307-55-1	P171224031	ND	0.239	0.589			U
	PFTrDA	72629-94-8	P171224031	ND	0.195	0.589			U
	PFTeDA	376-06-7	P171224031	ND	0.225	0.589			U
	PFHxDA	67905-19-5	P171224031	ND	0.313	0.589			U
Sulfonates	PFBS	375-73-5	P171224031	0.120	0.313	0.589			L
	PFPeS	2706-91-4	P171224031	ND	0.121	0.555			U
	PFHxS	355-46-4	P171224031	ND	0.455	0.539			U
	PFHpS	375-92-8	P171224031	ND	0.285	0.561			U
	PFOS	1763-23-1	P171224031	0.0743	0.311	0.546			L
	PFNS	68259-12-1	P171224031	ND	0.183	0.567			U
	PFDS	335-77-3	P171224031	ND	0.309	0.567			U
	4:2 FTS	757124-72-4	P171224031	ND	0.0764	0.552			U
	6:2 FTS	27619-97-2	P171224031	ND	0.278	0.561			U
	8:2 FTS	39108-34-4	P171224031	ND	0.132	0.564			U
	10:2 FTS	120226-60-0	P171224031	ND	0.451	0.589			U
Sulfonamidos	FBSA	30334-69-1	P171224031	ND	0.280	0.589			U
	N-EtFOSA	4151-50-2	P171224031	ND	0.365	0.589			U
	N-EtFOSAA	2991-50-6	P171224031	ND	0.239	0.589			U
	N-EtFOSE	1691-99-2	P171224031	ND	0.902	2.65			U
	N-MeFOSA	31506-32-8	P171224031	ND	0.243	0.589			U
	N-MeFOSAA	2355-31-9	P171224031	ND	0.166	0.589			U
	N-MeFOSE	24448-09-7	P171224031	ND	0.560	2.65			U
	PFOSA	754-91-6	P171224031	ND	0.0827	0.589			U
PFECAs	ADONA	919005-14-4	P171224031	ND	0.160	0.558			U
	EVE Acid	69087-46-3	P171224031	ND	0.188	1.33			U
	HFPO-DA	13252-13-6	P171224031	0.175	0.0624	0.589			J
	Hydro-EVE Acid	773804-62-9	P171224031	ND	0.193	0.589			U
	NFDHA	151772-58-6	P171224031	ND	0.124	0.589			U
	PEPA	267239-61-2	P171224031	ND	0.110	0.589			U
	PFECA-G	801212-59-9	P171224031	ND	0.0786	0.589			U
	PFMOAA	674-13-5	P171224031	20.9	0.298	0.589			
	PFMOBA	863090-89-5	P171224031	ND	0.989	1.33			U
	PFMOPrA	377-73-1	P171224031	ND	0.210	0.589			U
	PFO2HxA	39492-88-1	P171224031	1.28	0.190	0.589			
	PFO3OA	39492-89-2	P171224031	ND	0.271	0.589			U
	PFO4DA	39492-90-5	P171224031	ND	0.466	2.95			U
	PFO5DA	39492-91-6	P171224031	ND	0.471	2.95			U
	PMPA	13140-29-9	P171224031	0.327	0.139	0.589			J
	R-EVE	2416366-22-6	P171224031	ND	0.978	1.33			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224031	ND	0.278	0.555			U
	9Cl-PF3ONS	756426-58-1	P171224031	ND	0.377	0.549			U
	Hydrolyzed PSDA	2416366-19-1	P171224031	ND	0.392	0.589			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224031	ND	0.315	0.589			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224031	ND	0.488	0.589			U
	NVHOS	1132933-86-8	P171224031	ND	0.0908	0.589			U
	PFEESA	113507-82-7	P171224031	ND	0.177	0.589			U
	R-PSDA	2416366-18-0	P171224031	ND	2.60	2.60			U
	R-PSDCA	2416366-21-5	P171224031	ND	0.249	0.589			U
ES	MPFBA		P171224031				20-150%	85.7%	
	M5PFPeA		P171224031				20-150%	195%	Q
	M3PFBS		P171224031				20-150%	235%	Q
	M2-4:2 FTS		P171224031				20-150%	150%	Q
	M5PFHxA		P171224031				20-150%	90.5%	
	M3HFPO-DA		P171224031				20-150%	77.3%	
	M4PFHpA		P171224031				20-150%	91.2%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W6A		
Sampling Site			
Enthalpy ID	1224-707-001-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:38	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	271.6
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 00:17	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224031				20-150%	90.5%	
	M2-6:2 FTS		P171224031				20-150%	95.6%	
	M8PFOA		P171224031				20-150%	95.8%	
	M9PFNA		P171224031				20-150%	93.8%	
	M8PFOS		P171224031				20-150%	87.8%	
	M2-8:2 FTS		P171224031				20-150%	74.4%	
	M8FOSA-I		P171224031				20-150%	78.5%	
	M6PFDA		P171224031				20-150%	86.8%	
	d3-N-MeFOSAA		P171224031				20-150%	74.3%	
	d5-N-EtFOSAA		P171224031				20-150%	71.7%	
	M7PFUdA		P171224031				20-150%	72.9%	
	MPFDoA		P171224031				20-150%	54.6%	
	M2PFTeDA		P171224031				20-150%	37.7%	
	d3-N-MeFOSA		P171224031				10-200%	3.01%	Q
	d5-N-EtFOSA		P171224031				10-200%	2.19%	Q
	d7-N-MeFOSE		P171224031				10-200%	29.0%	
	d9-N-EtFOSE		P171224031				10-200%	26.2%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W5		
Sampling Site			
Enthalpy ID	1224-707-002-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 08:45	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 17:04	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041704	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041704				20-150%	131%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W5		
Sampling Site			
Enthalpy ID	1224-707-002-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:45	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	291.55
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 00:40	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224032	ND	0.218	0.549			U
	PFPeA	2706-90-3	P171224032	ND	0.157	0.549			U
	PFHxA	307-24-4	P171224032	ND	0.184	0.549			U
	PFHpA	375-85-9	P171224032	ND	0.192	0.549			U
	PFOA	335-67-1	P171224032	ND	0.126	0.549			U
	PFNA	375-95-1	P171224032	ND	0.124	0.549			U
	PFDA	335-76-2	P171224032	ND	0.157	0.549			U
	PFUnDA	2058-94-8	P171224032	ND	0.124	0.549			U
	PFDoDA	307-55-1	P171224032	ND	0.223	0.549			U
	PFTrDA	72629-94-8	P171224032	ND	0.182	0.549			U
	PFTeDA	376-06-7	P171224032	ND	0.209	0.549			U
	PFHxDA	67905-19-5	P171224032	ND	0.292	0.549			U
Sulfonates	PFBS	375-73-5	P171224032	ND	0.292	0.549			U
	PFPeS	2706-91-4	P171224032	ND	0.113	0.517			U
	PFHxS	355-46-4	P171224032	ND	0.424	0.503			U
	PFHpS	375-92-8	P171224032	ND	0.266	0.523			U
	PFOS	1763-23-1	P171224032	ND	0.290	0.508			U
	PFNS	68259-12-1	P171224032	ND	0.170	0.529			U
	PFDS	335-77-3	P171224032	ND	0.288	0.529			U
	4:2 FTS	757124-72-4	P171224032	ND	0.0712	0.514			U
	6:2 FTS	27619-97-2	P171224032	ND	0.259	0.523			U
	8:2 FTS	39108-34-4	P171224032	ND	0.123	0.526			U
	10:2 FTS	120226-60-0	P171224032	ND	0.420	0.549			U
Sulfonamidos	FBSA	30334-69-1	P171224032	ND	0.261	0.549			U
	N-EtFOSA	4151-50-2	P171224032	ND	0.340	0.549			U
	N-EtFOSAA	2991-50-6	P171224032	ND	0.223	0.549			U
	N-EtFOSE	1691-99-2	P171224032	ND	0.840	2.47			U
	N-MeFOSA	31506-32-8	P171224032	ND	0.226	0.549			U
	N-MeFOSAA	2355-31-9	P171224032	ND	0.154	0.549			U
	N-MeFOSE	24448-09-7	P171224032	ND	0.521	2.47			U
	PFOSA	754-91-6	P171224032	ND	0.0770	0.549			U
PFECAs	ADONA	919005-14-4	P171224032	ND	0.149	0.520			U
	EVE Acid	69087-46-3	P171224032	ND	0.175	1.23			U
	HFPO-DA	13252-13-6	P171224032	ND	0.0581	0.549			U
	Hydro-EVE Acid	773804-62-9	P171224032	ND	0.180	0.549			U
	NFDHA	151772-58-6	P171224032	ND	0.115	0.549			U
	PEPA	267239-61-2	P171224032	ND	0.103	0.549			U
	PFECA-G	801212-59-9	P171224032	ND	0.0732	0.549			U
	PFMOAA	674-13-5	P171224032	0.747	0.278	0.549			
	PFMOBA	863090-89-5	P171224032	ND	0.921	1.23			U
	PFMOPrA	377-73-1	P171224032	ND	0.196	0.549			U
	PFO2HxA	39492-88-1	P171224032	ND	0.177	0.549			U
	PFO3OA	39492-89-2	P171224032	ND	0.252	0.549			U
	PFO4DA	39492-90-5	P171224032	ND	0.434	2.74			U
	PFO5DA	39492-91-6	P171224032	ND	0.439	2.74			U
	PMPA	13140-29-9	P171224032	ND	0.129	0.549			U
	R-EVE	2416366-22-6	P171224032	ND	0.911	1.23			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224032	ND	0.259	0.517			U
	9Cl-PF3ONS	756426-58-1	P171224032	ND	0.352	0.511			U
	Hydrolyzed PSDA	2416366-19-1	P171224032	ND	0.365	0.549			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224032	ND	0.293	0.549			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224032	ND	0.454	0.549			U
	NVHOS	1132933-86-8	P171224032	ND	0.0845	0.549			U
	PFEESA	113507-82-7	P171224032	ND	0.165	0.549			U
	R-PSDA	2416366-18-0	P171224032	ND	2.42	2.42			U
	R-PSDCA	2416366-21-5	P171224032	ND	0.232	0.549			U
ES	MPFBA		P171224032				20-150%	93.9%	
	M5PFPeA		P171224032				20-150%	200%	Q
	M3PFBS		P171224032				20-150%	243%	Q
	M2-4:2 FTS		P171224032				20-150%	152%	Q
	M5PFHxA		P171224032				20-150%	96.7%	
	M3HFPO-DA		P171224032				20-150%	79.7%	
	M4PFHpA		P171224032				20-150%	90.6%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W5		
Sampling Site			
Enthalpy ID	1224-707-002-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:45	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	291.55
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 00:40	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224032				20-150%	98.4%	
	M2-6:2 FTS		P171224032				20-150%	102%	
	M8PFOA		P171224032				20-150%	91.4%	
	M9PFNA		P171224032				20-150%	90.3%	
	M8PFOS		P171224032				20-150%	87.8%	
	M2-8:2 FTS		P171224032				20-150%	76.8%	
	M8FOSA-I		P171224032				20-150%	80.4%	
	M6PFDA		P171224032				20-150%	88.2%	
	d3-N-MeFOSAA		P171224032				20-150%	75.4%	
	d5-N-EtFOSAA		P171224032				20-150%	73.3%	
	M7PFUdA		P171224032				20-150%	75.0%	
	MPFDoA		P171224032				20-150%	55.2%	
	M2PFTeDA		P171224032				20-150%	22.0%	
	d3-N-MeFOSA		P171224032				10-200%	4.34%	Q
	d5-N-EtFOSA		P171224032				10-200%	3.24%	Q
	d7-N-MeFOSE		P171224032				10-200%	32.8%	
	d9-N-EtFOSE		P171224032				10-200%	29.4%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W3		
Sampling Site			
Enthalpy ID	1224-707-003-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 08:55	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 17:16	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041716	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041716				20-150%	108%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W3		
Sampling Site			
Enthalpy ID	1224-707-003-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:55	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	274.81
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:02	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224033	ND	0.231	0.582			U
	PFPeA	2706-90-3	P171224033	ND	0.166	0.582			U
	PFHxA	307-24-4	P171224033	ND	0.195	0.582			U
	PFHpA	375-85-9	P171224033	ND	0.204	0.582			U
	PFOA	335-67-1	P171224033	ND	0.133	0.582			U
	PFNA	375-95-1	P171224033	ND	0.132	0.582			U
	PFDA	335-76-2	P171224033	ND	0.166	0.582			U
	PFUnDA	2058-94-8	P171224033	ND	0.132	0.582			U
	PFDoDA	307-55-1	P171224033	ND	0.237	0.582			U
	PFTrDA	72629-94-8	P171224033	ND	0.193	0.582			U
	PFTeDA	376-06-7	P171224033	ND	0.222	0.582			U
	PFHxDA	67905-19-5	P171224033	ND	0.309	0.582			U
Sulfonates	PFBS	375-73-5	P171224033	ND	0.309	0.582			U
	PFPeS	2706-91-4	P171224033	ND	0.120	0.549			U
	PFHxS	355-46-4	P171224033	ND	0.449	0.533			U
	PFHpS	375-92-8	P171224033	ND	0.282	0.555			U
	PFOS	1763-23-1	P171224033	ND	0.307	0.539			U
	PFNS	68259-12-1	P171224033	ND	0.181	0.561			U
	PFDS	335-77-3	P171224033	ND	0.306	0.561			U
	4:2 FTS	757124-72-4	P171224033	ND	0.0755	0.545			U
	6:2 FTS	27619-97-2	P171224033	ND	0.275	0.555			U
	8:2 FTS	39108-34-4	P171224033	ND	0.130	0.558			U
	10:2 FTS	120226-60-0	P171224033	ND	0.446	0.582			U
Sulfonamidos	FBSA	30334-69-1	P171224033	ND	0.277	0.582			U
	N-EtFOSA	4151-50-2	P171224033	ND	0.360	0.582			U
	N-EtFOSAA	2991-50-6	P171224033	ND	0.237	0.582			U
	N-EtFOSE	1691-99-2	P171224033	ND	0.892	2.62			U
	N-MeFOSA	31506-32-8	P171224033	ND	0.240	0.582			U
	N-MeFOSAA	2355-31-9	P171224033	ND	0.164	0.582			U
	N-MeFOSE	24448-09-7	P171224033	ND	0.553	2.62			U
	PFOSA	754-91-6	P171224033	ND	0.0817	0.582			U
PFECAs	ADONA	919005-14-4	P171224033	ND	0.158	0.552			U
	EVE Acid	69087-46-3	P171224033	ND	0.186	1.31			U
	HFPO-DA	13252-13-6	P171224033	ND	0.0617	0.582			U
	Hydro-EVE Acid	773804-62-9	P171224033	ND	0.191	0.582			U
	NFDHA	151772-58-6	P171224033	ND	0.122	0.582			U
	PEPA	267239-61-2	P171224033	ND	0.109	0.582			U
	PFECA-G	801212-59-9	P171224033	ND	0.0777	0.582			U
	PFMOAA	674-13-5	P171224033	ND	0.295	0.582			U
	PFMOBA	863090-89-5	P171224033	ND	0.977	1.31			U
	PFMOPrA	377-73-1	P171224033	ND	0.207	0.582			U
	PFO2HxA	39492-88-1	P171224033	ND	0.187	0.582			U
	PFO3OA	39492-89-2	P171224033	ND	0.267	0.582			U
	PFO4DA	39492-90-5	P171224033	ND	0.460	2.91			U
	PFO5DA	39492-91-6	P171224033	ND	0.466	2.91			U
	PMPA	13140-29-9	P171224033	ND	0.137	0.582			U
	R-EVE	2416366-22-6	P171224033	ND	0.966	1.31			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224033	ND	0.275	0.549			U
	9Cl-PF3ONS	756426-58-1	P171224033	ND	0.373	0.542			U
	Hydrolyzed PSDA	2416366-19-1	P171224033	ND	0.388	0.582			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224033	ND	0.311	0.582			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224033	ND	0.482	0.582			U
	NVHOS	1132933-86-8	P171224033	ND	0.0897	0.582			U
	PFEESA	113507-82-7	P171224033	ND	0.175	0.582			U
	R-PSDA	2416366-18-0	P171224033	ND	2.57	2.57			U
	R-PSDCA	2416366-21-5	P171224033	ND	0.246	0.582			U
ES	MPFBA		P171224033				20-150%	82.8%	
	M5PFPeA		P171224033				20-150%	188%	Q
	M3PFBS		P171224033				20-150%	216%	Q
	M2-4:2 FTS		P171224033				20-150%	152%	Q
	M5PFHxA		P171224033				20-150%	89.6%	
	M3HFPO-DA		P171224033				20-150%	74.2%	
	M4PFHpA		P171224033				20-150%	84.7%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W3		
Sampling Site			
Enthalpy ID	1224-707-003-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:55	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	274.81
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:02	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224033				20-150%	91.0%	
	M2-6:2 FTS		P171224033				20-150%	89.8%	
	M8PFOA		P171224033				20-150%	82.0%	
	M9PFNA		P171224033				20-150%	75.0%	
	M8PFOS		P171224033				20-150%	72.0%	
	M2-8:2 FTS		P171224033				20-150%	61.6%	
	M8FOSA-I		P171224033				20-150%	59.5%	
	M6PFDA		P171224033				20-150%	70.5%	
	d3-N-MeFOSAA		P171224033				20-150%	59.4%	
	d5-N-EtFOSAA		P171224033				20-150%	55.9%	
	M7PFUdA		P171224033				20-150%	55.4%	
	MPFDoA		P171224033				20-150%	40.6%	
	M2PFTeDA		P171224033				20-150%	27.4%	
	d3-N-MeFOSA		P171224033				10-200%	1.32%	Q
	d5-N-EtFOSA		P171224033				10-200%	1.18%	Q
	d7-N-MeFOSE		P171224033				10-200%	19.4%	
	d9-N-EtFOSE		P171224033				10-200%	17.2%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W1		
Sampling Site			
Enthalpy ID	1224-707-004-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:05	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 17:28	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041728	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041728				20-150%	113%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W1		
Sampling Site			
Enthalpy ID	1224-707-004-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:05	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	280.17
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:25	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224034	0.950	0.227	0.571			
	PFPeA	2706-90-3	P171224034	ND	0.163	0.571			U
	PFHxA	307-24-4	P171224034	ND	0.191	0.571			U
	PFHpA	375-85-9	P171224034	ND	0.200	0.571			U
	PFOA	335-67-1	P171224034	ND	0.131	0.571			U
	PFNA	375-95-1	P171224034	ND	0.129	0.571			U
	PFDA	335-76-2	P171224034	ND	0.163	0.571			U
	PFUnDA	2058-94-8	P171224034	ND	0.129	0.571			U
	PFDoDA	307-55-1	P171224034	ND	0.232	0.571			U
	PFTrDA	72629-94-8	P171224034	ND	0.189	0.571			U
	PFTeDA	376-06-7	P171224034	ND	0.218	0.571			U
	PFHxDA	67905-19-5	P171224034	ND	0.303	0.571			U
Sulfonates	PFBS	375-73-5	P171224034	0.193	0.303	0.571			L
	PFPeS	2706-91-4	P171224034	ND	0.117	0.538			U
	PFHxS	355-46-4	P171224034	ND	0.441	0.523			U
	PFHpS	375-92-8	P171224034	ND	0.277	0.544			U
	PFOS	1763-23-1	P171224034	ND	0.302	0.529			U
	PFNS	68259-12-1	P171224034	ND	0.177	0.550			U
	PFDS	335-77-3	P171224034	ND	0.300	0.550			U
	4:2 FTS	757124-72-4	P171224034	ND	0.0741	0.535			U
	6:2 FTS	27619-97-2	P171224034	ND	0.269	0.544			U
	8:2 FTS	39108-34-4	P171224034	ND	0.128	0.547			U
	10:2 FTS	120226-60-0	P171224034	ND	0.437	0.571			U
Sulfonamidos	FBSA	30334-69-1	P171224034	ND	0.271	0.571			U
	N-EtFOSA	4151-50-2	P171224034	ND	0.353	0.571			U
	N-EtFOSAA	2991-50-6	P171224034	ND	0.232	0.571			U
	N-EtFOSE	1691-99-2	P171224034	ND	0.874	2.57			U
	N-MeFOSA	31506-32-8	P171224034	ND	0.236	0.571			U
	N-MeFOSAA	2355-31-9	P171224034	ND	0.160	0.571			U
	N-MeFOSE	24448-09-7	P171224034	ND	0.543	2.57			U
	PFOSA	754-91-6	P171224034	ND	0.0801	0.571			U
PFECAs	ADONA	919005-14-4	P171224034	ND	0.155	0.541			U
	EVE Acid	69087-46-3	P171224034	ND	0.182	1.28			U
	HFPO-DA	13252-13-6	P171224034	0.0732	0.0605	0.571			J
	Hydro-EVE Acid	773804-62-9	P171224034	ND	0.187	0.571			U
	NFDHA	151772-58-6	P171224034	ND	0.120	0.571			U
	PEPA	267239-61-2	P171224034	ND	0.107	0.571			U
	PFECA-G	801212-59-9	P171224034	ND	0.0762	0.571			U
	PFMOAA	674-13-5	P171224034	2.72	0.289	0.571			
	PFMOBA	863090-89-5	P171224034	ND	0.958	1.28			U
	PFMOPrA	377-73-1	P171224034	ND	0.203	0.571			U
	PFO2HxA	39492-88-1	P171224034	ND	0.184	0.571			U
	PFO3OA	39492-89-2	P171224034	ND	0.262	0.571			U
	PFO4DA	39492-90-5	P171224034	ND	0.452	2.86			U
	PFO5DA	39492-91-6	P171224034	ND	0.457	2.86			U
	PMPA	13140-29-9	P171224034	0.900	0.135	0.571			
	R-EVE	2416366-22-6	P171224034	ND	0.948	1.28			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224034	ND	0.269	0.538			U
	9Cl-PF3ONS	756426-58-1	P171224034	ND	0.366	0.532			U
	Hydrolyzed PSDA	2416366-19-1	P171224034	ND	0.380	0.571			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224034	ND	0.305	0.571			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224034	ND	0.473	0.571			U
	NVHOS	1132933-86-8	P171224034	ND	0.0880	0.571			U
	PFEESA	113507-82-7	P171224034	ND	0.172	0.571			U
	R-PSDA	2416366-18-0	P171224034	ND	2.52	2.52			U
	R-PSDCA	2416366-21-5	P171224034	ND	0.241	0.571			U
ES	MPFBA		P171224034				20-150%	94.5%	
	M5PFPeA		P171224034				20-150%	265%	Q
	M3PFBS		P171224034				20-150%	364%	Q
	M2-4:2 FTS		P171224034				20-150%	132%	
	M5PFHxA		P171224034				20-150%	88.0%	
	M3HFPO-DA		P171224034				20-150%	75.1%	
	M4PFHpA		P171224034				20-150%	84.7%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W1		
Sampling Site			
Enthalpy ID	1224-707-004-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:05	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	280.17
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:25	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224034				20-150%	92.1%	
	M2-6:2 FTS		P171224034				20-150%	90.0%	
	M8PFOA		P171224034				20-150%	94.7%	
	M9PFNA		P171224034				20-150%	90.4%	
	M8PFOS		P171224034				20-150%	83.9%	
	M2-8:2 FTS		P171224034				20-150%	72.3%	
	M8FOSA-I		P171224034				20-150%	65.0%	
	M6PFDA		P171224034				20-150%	87.8%	
	d3-N-MeFOSAA		P171224034				20-150%	71.6%	
	d5-N-EtFOSAA		P171224034				20-150%	67.9%	
	M7PFUdA		P171224034				20-150%	74.6%	
	MPFDoA		P171224034				20-150%	45.4%	
	M2PFTeDA		P171224034				20-150%	13.4%	Q
	d3-N-MeFOSA		P171224034				10-200%	1.79%	Q
	d5-N-EtFOSA		P171224034				10-200%	1.19%	Q
	d7-N-MeFOSE		P171224034				10-200%	24.6%	
	d9-N-EtFOSE		P171224034				10-200%	20.9%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W2		
Sampling Site			
Enthalpy ID	1224-707-005-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:15	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 17:39	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041739	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041739				20-150%	124%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W2		
Sampling Site			
Enthalpy ID	1224-707-005-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:15	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	279.65
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:48	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224035	ND	0.227	0.572			U
	PFPeA	2706-90-3	P171224035	ND	0.164	0.572			U
	PFHxA	307-24-4	P171224035	ND	0.191	0.572			U
	PFHpA	375-85-9	P171224035	ND	0.200	0.572			U
	PFOA	335-67-1	P171224035	ND	0.131	0.572			U
	PFNA	375-95-1	P171224035	ND	0.129	0.572			U
	PFDA	335-76-2	P171224035	ND	0.164	0.572			U
	PFUnDA	2058-94-8	P171224035	ND	0.129	0.572			U
	PFDoDA	307-55-1	P171224035	ND	0.232	0.572			U
	PFTrDA	72629-94-8	P171224035	ND	0.190	0.572			U
	PFTeDA	376-06-7	P171224035	ND	0.218	0.572			U
	PFHxDA	67905-19-5	P171224035	ND	0.304	0.572			U
Sulfonates	PFBS	375-73-5	P171224035	ND	0.304	0.572			U
	PFPeS	2706-91-4	P171224035	ND	0.117	0.539			U
	PFHxS	355-46-4	P171224035	ND	0.442	0.524			U
	PFHpS	375-92-8	P171224035	ND	0.277	0.545			U
	PFOS	1763-23-1	P171224035	ND	0.302	0.530			U
	PFNS	68259-12-1	P171224035	ND	0.178	0.551			U
	PFDS	335-77-3	P171224035	ND	0.300	0.551			U
	4:2 FTS	757124-72-4	P171224035	ND	0.0742	0.536			U
	6:2 FTS	27619-97-2	P171224035	ND	0.270	0.545			U
	8:2 FTS	39108-34-4	P171224035	ND	0.128	0.548			U
	10:2 FTS	120226-60-0	P171224035	ND	0.438	0.572			U
Sulfonamidos	FBSA	30334-69-1	P171224035	ND	0.272	0.572			U
	N-EtFOSA	4151-50-2	P171224035	ND	0.354	0.572			U
	N-EtFOSAA	2991-50-6	P171224035	ND	0.232	0.572			U
	N-EtFOSE	1691-99-2	P171224035	ND	0.876	2.57			U
	N-MeFOSA	31506-32-8	P171224035	ND	0.236	0.572			U
	N-MeFOSAA	2355-31-9	P171224035	ND	0.161	0.572			U
	N-MeFOSE	24448-09-7	P171224035	ND	0.544	2.57			U
	PFOSA	754-91-6	P171224035	ND	0.0803	0.572			U
PFECAs	ADONA	919005-14-4	P171224035	ND	0.155	0.542			U
	EVE Acid	69087-46-3	P171224035	ND	0.182	1.29			U
	HFPO-DA	13252-13-6	P171224035	ND	0.0606	0.572			U
	Hydro-EVE Acid	773804-62-9	P171224035	ND	0.188	0.572			U
	NFDHA	151772-58-6	P171224035	ND	0.120	0.572			U
	PEPA	267239-61-2	P171224035	ND	0.107	0.572			U
	PFECA-G	801212-59-9	P171224035	ND	0.0763	0.572			U
	PFMOAA	674-13-5	P171224035	ND	0.290	0.572			U
	PFMOBA	863090-89-5	P171224035	ND	0.960	1.29			U
	PFMOPrA	377-73-1	P171224035	ND	0.204	0.572			U
	PFO2HxA	39492-88-1	P171224035	ND	0.184	0.572			U
	PFO3OA	39492-89-2	P171224035	ND	0.263	0.572			U
	PFO4DA	39492-90-5	P171224035	ND	0.452	2.86			U
	PFO5DA	39492-91-6	P171224035	ND	0.458	2.86			U
	PMPA	13140-29-9	P171224035	ND	0.135	0.572			U
	R-EVE	2416366-22-6	P171224035	ND	0.949	1.29			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224035	ND	0.270	0.539			U
	9Cl-PF3ONS	756426-58-1	P171224035	ND	0.367	0.533			U
	Hydrolyzed PSDA	2416366-19-1	P171224035	ND	0.381	0.572			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224035	ND	0.306	0.572			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224035	ND	0.474	0.572			U
	NVHOS	1132933-86-8	P171224035	ND	0.0881	0.572			U
	PFEESA	113507-82-7	P171224035	ND	0.172	0.572			U
	R-PSDA	2416366-18-0	P171224035	ND	2.52	2.52			U
	R-PSDCA	2416366-21-5	P171224035	ND	0.241	0.572			U
ES	MPFBA		P171224035				20-150%	85.3%	
	M5PFPeA		P171224035				20-150%	174%	Q
	M3PFBS		P171224035				20-150%	208%	Q
	M2-4:2 FTS		P171224035				20-150%	132%	
	M5PFHxA		P171224035				20-150%	83.4%	
	M3HFPO-DA		P171224035				20-150%	68.8%	
	M4PFHpA		P171224035				20-150%	74.3%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W2		
Sampling Site			
Enthalpy ID	1224-707-005-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:15	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	279.65
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 01:48	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224035				20-150%	80.4%	
	M2-6:2 FTS		P171224035				20-150%	85.8%	
	M8PFOA		P171224035				20-150%	76.7%	
	M9PFNA		P171224035				20-150%	70.6%	
	M8PFOS		P171224035				20-150%	68.9%	
	M2-8:2 FTS		P171224035				20-150%	57.7%	
	M8FOSA-I		P171224035				20-150%	62.6%	
	M6PFDA		P171224035				20-150%	68.8%	
	d3-N-MeFOSAA		P171224035				20-150%	56.7%	
	d5-N-EtFOSAA		P171224035				20-150%	54.7%	
	M7PFUdA		P171224035				20-150%	53.1%	
	MPFDoA		P171224035				20-150%	37.6%	
	M2PFTeDA		P171224035				20-150%	25.1%	
	d3-N-MeFOSA		P171224035				10-200%	3.36%	Q
	d5-N-EtFOSA		P171224035				10-200%	2.34%	Q
	d7-N-MeFOSE		P171224035				10-200%	22.7%	
	d9-N-EtFOSE		P171224035				10-200%	18.9%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W16		
Sampling Site			
Enthalpy ID	1224-707-006-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:20	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 17:51	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041751	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041751				20-150%	112%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W16		
Sampling Site			
Enthalpy ID	1224-707-006-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:20	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	286.97
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:10	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224036	ND	0.221	0.558			U
	PFPeA	2706-90-3	P171224036	ND	0.159	0.558			U
	PFHxA	307-24-4	P171224036	ND	0.186	0.558			U
	PFHpA	375-85-9	P171224036	ND	0.195	0.558			U
	PFOA	335-67-1	P171224036	ND	0.128	0.558			U
	PFNA	375-95-1	P171224036	ND	0.126	0.558			U
	PFDA	335-76-2	P171224036	ND	0.159	0.558			U
	PFUnDA	2058-94-8	P171224036	ND	0.126	0.558			U
	PFDoDA	307-55-1	P171224036	ND	0.227	0.558			U
	PFTrDA	72629-94-8	P171224036	ND	0.185	0.558			U
	PFTeDA	376-06-7	P171224036	ND	0.213	0.558			U
	PFHxDA	67905-19-5	P171224036	ND	0.296	0.558			U
Sulfonates	PFBS	375-73-5	P171224036	0.0424	0.296	0.558			L
	PFPeS	2706-91-4	P171224036	ND	0.114	0.525			U
	PFHxS	355-46-4	P171224036	ND	0.430	0.511			U
	PFHpS	375-92-8	P171224036	ND	0.270	0.531			U
	PFOS	1763-23-1	P171224036	ND	0.294	0.516			U
	PFNS	68259-12-1	P171224036	ND	0.173	0.537			U
	PFDS	335-77-3	P171224036	ND	0.293	0.537			U
	4:2 FTS	757124-72-4	P171224036	ND	0.0723	0.522			U
	6:2 FTS	27619-97-2	P171224036	ND	0.263	0.531			U
	8:2 FTS	39108-34-4	P171224036	ND	0.125	0.534			U
	10:2 FTS	120226-60-0	P171224036	ND	0.427	0.558			U
Sulfonamidos	FBSA	30334-69-1	P171224036	ND	0.265	0.558			U
	N-EtFOSA	4151-50-2	P171224036	ND	0.345	0.558			U
	N-EtFOSAA	2991-50-6	P171224036	ND	0.227	0.558			U
	N-EtFOSE	1691-99-2	P171224036	ND	0.854	2.51			U
	N-MeFOSA	31506-32-8	P171224036	ND	0.230	0.558			U
	N-MeFOSAA	2355-31-9	P171224036	ND	0.157	0.558			U
	N-MeFOSE	24448-09-7	P171224036	ND	0.530	2.51			U
	PFOSA	754-91-6	P171224036	ND	0.0782	0.558			U
PFECAs	ADONA	919005-14-4	P171224036	ND	0.151	0.528			U
	EVE Acid	69087-46-3	P171224036	ND	0.178	1.25			U
	HFPO-DA	13252-13-6	P171224036	ND	0.0591	0.558			U
	Hydro-EVE Acid	773804-62-9	P171224036	ND	0.183	0.558			U
	NFDHA	151772-58-6	P171224036	ND	0.117	0.558			U
	PEPA	267239-61-2	P171224036	ND	0.105	0.558			U
	PFECA-G	801212-59-9	P171224036	ND	0.0744	0.558			U
	PFMOAA	674-13-5	P171224036	0.246	0.282	0.558			L
	PFMOBA	863090-89-5	P171224036	ND	0.936	1.25			U
	PFMOPrA	377-73-1	P171224036	ND	0.199	0.558			U
	PFO2HxA	39492-88-1	P171224036	ND	0.179	0.558			U
	PFO3OA	39492-89-2	P171224036	ND	0.256	0.558			U
	PFO4DA	39492-90-5	P171224036	ND	0.441	2.79			U
	PFO5DA	39492-91-6	P171224036	ND	0.446	2.79			U
	PMPA	13140-29-9	P171224036	0.362	0.131	0.558			J
	R-EVE	2416366-22-6	P171224036	ND	0.925	1.25			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224036	ND	0.263	0.525			U
	9Cl-PF3ONS	756426-58-1	P171224036	ND	0.357	0.519			U
	Hydrolyzed PSDA	2416366-19-1	P171224036	ND	0.371	0.558			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224036	ND	0.298	0.558			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224036	ND	0.462	0.558			U
	NVHOS	1132933-86-8	P171224036	ND	0.0859	0.558			U
	PFEESA	113507-82-7	P171224036	ND	0.168	0.558			U
	R-PSDA	2416366-18-0	P171224036	ND	2.46	2.46			U
	R-PSDCA	2416366-21-5	P171224036	ND	0.235	0.558			U
ES	MPFBA		P171224036				20-150%	89.5%	
	M5PFPeA		P171224036				20-150%	273%	Q
	M3PFBS		P171224036				20-150%	379%	Q
	M2-4:2 FTS		P171224036				20-150%	179%	Q
	M5PFHxA		P171224036				20-150%	95.5%	
	M3HFPO-DA		P171224036				20-150%	82.0%	
	M4PFHpA		P171224036				20-150%	90.1%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W16		
Sampling Site			
Enthalpy ID	1224-707-006-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:20	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	286.97
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:10	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224036				20-150%	107%	
	M2-6:2 FTS		P171224036				20-150%	105%	
	M8PFOA		P171224036				20-150%	96.2%	
	M9PFNA		P171224036				20-150%	90.2%	
	M8PFOS		P171224036				20-150%	86.4%	
	M2-8:2 FTS		P171224036				20-150%	75.9%	
	M8FOSA-I		P171224036				20-150%	63.7%	
	M6PFDA		P171224036				20-150%	86.1%	
	d3-N-MeFOSAA		P171224036				20-150%	69.6%	
	d5-N-EtFOSAA		P171224036				20-150%	66.1%	
	M7PFUdA		P171224036				20-150%	71.0%	
	MPFDoA		P171224036				20-150%	45.3%	
	M2PFTeDA		P171224036				20-150%	28.6%	
	d3-N-MeFOSA		P171224036				10-200%	1.79%	Q
	d5-N-EtFOSA		P171224036				10-200%	1.66%	Q
	d7-N-MeFOSE		P171224036				10-200%	20.5%	
	d9-N-EtFOSE		P171224036				10-200%	17.4%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W17		
Sampling Site			
Enthalpy ID	1224-707-007-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:30	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 18:14	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041814	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041814				20-150%	126%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W17		
Sampling Site			
Enthalpy ID	1224-707-007-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:30	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	271.19
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:33	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224037	ND	0.234	0.590			U
	PFPeA	2706-90-3	P171224037	ND	0.169	0.590			U
	PFHxA	307-24-4	P171224037	ND	0.197	0.590			U
	PFHpA	375-85-9	P171224037	ND	0.206	0.590			U
	PFOA	335-67-1	P171224037	ND	0.135	0.590			U
	PFNA	375-95-1	P171224037	ND	0.133	0.590			U
	PFDA	335-76-2	P171224037	ND	0.169	0.590			U
	PFUnDA	2058-94-8	P171224037	ND	0.133	0.590			U
	PFDoDA	307-55-1	P171224037	ND	0.240	0.590			U
	PFTrDA	72629-94-8	P171224037	ND	0.195	0.590			U
	PFTeDA	376-06-7	P171224037	ND	0.225	0.590			U
	PFHxDA	67905-19-5	P171224037	ND	0.313	0.590			U
Sulfonates	PFBS	375-73-5	P171224037	ND	0.313	0.590			U
	PFPeS	2706-91-4	P171224037	ND	0.121	0.556			U
	PFHxS	355-46-4	P171224037	ND	0.455	0.540			U
	PFHpS	375-92-8	P171224037	ND	0.286	0.562			U
	PFOS	1763-23-1	P171224037	ND	0.312	0.547			U
	PFNS	68259-12-1	P171224037	ND	0.183	0.568			U
	PFDS	335-77-3	P171224037	ND	0.310	0.568			U
	4:2 FTS	757124-72-4	P171224037	ND	0.0765	0.553			U
	6:2 FTS	27619-97-2	P171224037	ND	0.278	0.562			U
	8:2 FTS	39108-34-4	P171224037	ND	0.132	0.565			U
	10:2 FTS	120226-60-0	P171224037	ND	0.452	0.590			U
Sulfonamidos	FBSA	30334-69-1	P171224037	ND	0.280	0.590			U
	N-EtFOSA	4151-50-2	P171224037	ND	0.365	0.590			U
	N-EtFOSAA	2991-50-6	P171224037	ND	0.240	0.590			U
	N-EtFOSE	1691-99-2	P171224037	ND	0.903	2.65			U
	N-MeFOSA	31506-32-8	P171224037	ND	0.243	0.590			U
	N-MeFOSAA	2355-31-9	P171224037	ND	0.166	0.590			U
	N-MeFOSE	24448-09-7	P171224037	ND	0.560	2.65			U
	PFOSA	754-91-6	P171224037	ND	0.0828	0.590			U
PFECAs	ADONA	919005-14-4	P171224037	ND	0.160	0.559			U
	EVE Acid	69087-46-3	P171224037	ND	0.188	1.33			U
	HFPO-DA	13252-13-6	P171224037	ND	0.0625	0.590			U
	Hydro-EVE Acid	773804-62-9	P171224037	ND	0.194	0.590			U
	NFDHA	151772-58-6	P171224037	ND	0.124	0.590			U
	PEPA	267239-61-2	P171224037	ND	0.111	0.590			U
	PFECA-G	801212-59-9	P171224037	ND	0.0787	0.590			U
	PFMOAA	674-13-5	P171224037	ND	0.299	0.590			U
	PFMOBA	863090-89-5	P171224037	ND	0.990	1.33			U
	PFMOPrA	377-73-1	P171224037	ND	0.210	0.590			U
	PFO2HxA	39492-88-1	P171224037	ND	0.190	0.590			U
	PFO3OA	39492-89-2	P171224037	ND	0.271	0.590			U
	PFO4DA	39492-90-5	P171224037	ND	0.466	2.95			U
	PFO5DA	39492-91-6	P171224037	ND	0.472	2.95			U
	PMPA	13140-29-9	P171224037	ND	0.139	0.590			U
	R-EVE	2416366-22-6	P171224037	ND	0.979	1.33			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224037	ND	0.278	0.556			U
	9Cl-PF3ONS	756426-58-1	P171224037	ND	0.378	0.550			U
	Hydrolyzed PSDA	2416366-19-1	P171224037	ND	0.393	0.590			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224037	ND	0.315	0.590			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224037	ND	0.489	0.590			U
	NVHOS	1132933-86-8	P171224037	ND	0.0909	0.590			U
	PFEESA	113507-82-7	P171224037	ND	0.177	0.590			U
	R-PSDA	2416366-18-0	P171224037	ND	2.60	2.60			U
	R-PSDCA	2416366-21-5	P171224037	ND	0.249	0.590			U
ES	MPFBA		P171224037				20-150%	91.8%	
	M5PFPeA		P171224037				20-150%	211%	Q
	M3PFBS		P171224037				20-150%	269%	Q
	M2-4:2 FTS		P171224037				20-150%	121%	
	M5PFHxA		P171224037				20-150%	86.7%	
	M3HFPO-DA		P171224037				20-150%	74.9%	
	M4PFHpA		P171224037				20-150%	83.5%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W17		
Sampling Site			
Enthalpy ID	1224-707-007-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:30	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	271.19
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:33	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224037				20-150%	86.7%	
	M2-6:2 FTS		P171224037				20-150%	88.1%	
	M8PFOA		P171224037				20-150%	88.7%	
	M9PFNA		P171224037				20-150%	87.8%	
	M8PFOS		P171224037				20-150%	86.7%	
	M2-8:2 FTS		P171224037				20-150%	73.4%	
	M8FOSA-I		P171224037				20-150%	68.0%	
	M6PFDA		P171224037				20-150%	88.3%	
	d3-N-MeFOSAA		P171224037				20-150%	77.0%	
	d5-N-EtFOSAA		P171224037				20-150%	75.4%	
	M7PFUdA		P171224037				20-150%	78.9%	
	MPFDoA		P171224037				20-150%	64.2%	
	M2PFTeDA		P171224037				20-150%	32.7%	
	d3-N-MeFOSA		P171224037				10-200%	4.15%	Q
	d5-N-EtFOSA		P171224037				10-200%	2.82%	Q
	d7-N-MeFOSE		P171224037				10-200%	35.1%	
	d9-N-EtFOSE		P171224037				10-200%	25.7%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W18		
Sampling Site			
Enthalpy ID	1224-707-008-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:36	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 18:26	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041826	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041826				20-150%	126%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W18		
Sampling Site			
Enthalpy ID	1224-707-008-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:36	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	275.82
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:56	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224038	ND	0.230	0.580			U
	PFPeA	2706-90-3	P171224038	ND	0.166	0.580			U
	PFHxA	307-24-4	P171224038	ND	0.194	0.580			U
	PFHpA	375-85-9	P171224038	ND	0.203	0.580			U
	PFOA	335-67-1	P171224038	ND	0.133	0.580			U
	PFNA	375-95-1	P171224038	ND	0.131	0.580			U
	PFDA	335-76-2	P171224038	ND	0.166	0.580			U
	PFUnDA	2058-94-8	P171224038	ND	0.131	0.580			U
	PFDoDA	307-55-1	P171224038	ND	0.236	0.580			U
	PFTrDA	72629-94-8	P171224038	ND	0.192	0.580			U
	PFTeDA	376-06-7	P171224038	ND	0.221	0.580			U
	PFHxDA	67905-19-5	P171224038	ND	0.308	0.580			U
Sulfonates	PFBS	375-73-5	P171224038	ND	0.308	0.580			U
	PFPeS	2706-91-4	P171224038	ND	0.119	0.547			U
	PFHxS	355-46-4	P171224038	ND	0.448	0.531			U
	PFHpS	375-92-8	P171224038	ND	0.281	0.553			U
	PFOS	1763-23-1	P171224038	ND	0.306	0.537			U
	PFNS	68259-12-1	P171224038	ND	0.180	0.559			U
	PFDS	335-77-3	P171224038	ND	0.305	0.559			U
	4:2 FTS	757124-72-4	P171224038	ND	0.0752	0.543			U
	6:2 FTS	27619-97-2	P171224038	ND	0.274	0.553			U
	8:2 FTS	39108-34-4	P171224038	ND	0.130	0.556			U
	10:2 FTS	120226-60-0	P171224038	ND	0.444	0.580			U
Sulfonamidos	FBSA	30334-69-1	P171224038	ND	0.276	0.580			U
	N-EtFOSA	4151-50-2	P171224038	ND	0.359	0.580			U
	N-EtFOSAA	2991-50-6	P171224038	ND	0.236	0.580			U
	N-EtFOSE	1691-99-2	P171224038	ND	0.888	2.61			U
	N-MeFOSA	31506-32-8	P201224015	ND	0.239	0.580			U
	N-MeFOSAA	2355-31-9	P171224038	ND	0.163	0.580			U
	N-MeFOSE	24448-09-7	P171224038	ND	0.551	2.61			U
	PFOSA	754-91-6	P171224038	ND	0.0814	0.580			U
PFECAs	ADONA	919005-14-4	P171224038	ND	0.157	0.550			U
	EVE Acid	69087-46-3	P171224038	ND	0.185	1.31			U
	HFPO-DA	13252-13-6	P171224038	ND	0.0615	0.580			U
	Hydro-EVE Acid	773804-62-9	P171224038	ND	0.190	0.580			U
	NFDHA	151772-58-6	P171224038	ND	0.122	0.580			U
	PEPA	267239-61-2	P171224038	ND	0.109	0.580			U
	PFECA-G	801212-59-9	P171224038	ND	0.0774	0.580			U
	PFMOAA	674-13-5	P171224038	ND	0.294	0.580			U
	PFMOBA	863090-89-5	P171224038	ND	0.973	1.31			U
	PFMOPrA	377-73-1	P171224038	ND	0.207	0.580			U
	PFO2HxA	39492-88-1	P171224038	ND	0.187	0.580			U
	PFO3OA	39492-89-2	P171224038	ND	0.266	0.580			U
	PFO4DA	39492-90-5	P171224038	ND	0.459	2.90			U
	PFO5DA	39492-91-6	P171224038	ND	0.464	2.90			U
	PMPA	13140-29-9	P171224038	ND	0.137	0.580			U
	R-EVE	2416366-22-6	P171224038	ND	0.963	1.31			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224038	ND	0.274	0.547			U
	9Cl-PF3ONS	756426-58-1	P171224038	ND	0.372	0.540			U
	Hydrolyzed PSDA	2416366-19-1	P171224038	ND	0.386	0.580			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224038	ND	0.310	0.580			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224038	ND	0.480	0.580			U
	NVHOS	1132933-86-8	P171224038	ND	0.0894	0.580			U
	PFEESA	113507-82-7	P171224038	ND	0.174	0.580			U
	R-PSDA	2416366-18-0	P171224038	ND	2.56	2.56			U
	R-PSDCA	2416366-21-5	P171224038	ND	0.245	0.580			U
ES	MPFBA		P171224038				20-150%	84.4%	
	M5PFPeA		P171224038				20-150%	157%	Q
	M3PFBS		P171224038				20-150%	169%	Q
	M2-4:2 FTS		P171224038				20-150%	120%	
	M5PFHxA		P171224038				20-150%	88.6%	
	M3HFPO-DA		P171224038				20-150%	75.0%	
	M4PFHpA		P171224038				20-150%	80.7%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W18		
Sampling Site			
Enthalpy ID	1224-707-008-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:36	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	275.82
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 02:56	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224038				20-150%	92.0%	
	M2-6:2 FTS		P171224038				20-150%	96.6%	
	M8PFOA		P171224038				20-150%	91.3%	
	M9PFNA		P171224038				20-150%	84.3%	
	M8PFOS		P171224038				20-150%	87.6%	
	M2-8:2 FTS		P171224038				20-150%	73.0%	
	M8FOSA-I		P171224038				20-150%	69.1%	
	M6PFDA		P171224038				20-150%	89.1%	
	d3-N-MeFOSAA		P171224038				20-150%	71.7%	
	d5-N-EtFOSAA		P171224038				20-150%	69.2%	
	M7PFUdA		P171224038				20-150%	75.2%	
	MPFDoA		P171224038				20-150%	56.1%	
	M2PFTeDA		P171224038				20-150%	42.6%	
	d3-N-MeFOSA		P201224015				10-200%	3.74%	Q
	d5-N-EtFOSA		P171224038				10-200%	3.71%	Q
	d7-N-MeFOSE		P171224038				10-200%	31.5%	
	d9-N-EtFOSE		P171224038				10-200%	27.0%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W19		
Sampling Site			
Enthalpy ID	1224-707-009-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 09:44	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 18:37	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041837	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041837				20-150%	121%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W19		
Sampling Site			
Enthalpy ID	1224-707-009-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:44	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	269.5
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 03:18	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224039	ND	0.236	0.594			U
	PFPeA	2706-90-3	P171224039	ND	0.170	0.594			U
	PFHxA	307-24-4	P171224039	ND	0.199	0.594			U
	PFHpA	375-85-9	P171224039	ND	0.208	0.594			U
	PFOA	335-67-1	P171224039	ND	0.136	0.594			U
	PFNA	375-95-1	P171224039	ND	0.134	0.594			U
	PFDA	335-76-2	P171224039	ND	0.170	0.594			U
	PFUnDA	2058-94-8	P171224039	ND	0.134	0.594			U
	PFDoDA	307-55-1	P171224039	ND	0.241	0.594			U
	PFTrDA	72629-94-8	P171224039	ND	0.197	0.594			U
	PFTeDA	376-06-7	P171224039	ND	0.226	0.594			U
	PFHxDA	67905-19-5	P171224039	ND	0.315	0.594			U
Sulfonates	PFBS	375-73-5	P171224039	ND	0.315	0.594			U
	PFPeS	2706-91-4	P171224039	ND	0.122	0.559			U
	PFHxS	355-46-4	P171224039	ND	0.458	0.544			U
	PFHpS	375-92-8	P171224039	ND	0.288	0.566			U
	PFOS	1763-23-1	P171224039	ND	0.314	0.550			U
	PFNS	68259-12-1	P171224039	ND	0.184	0.572			U
	PFDS	335-77-3	P171224039	ND	0.312	0.572			U
	4:2 FTS	757124-72-4	P171224039	ND	0.0770	0.556			U
	6:2 FTS	27619-97-2	P171224039	ND	0.280	0.566			U
	8:2 FTS	39108-34-4	P171224039	ND	0.133	0.569			U
	10:2 FTS	120226-60-0	P171224039	ND	0.455	0.594			U
Sulfonamidos	FBSA	30334-69-1	P171224039	ND	0.282	0.594			U
	N-EtFOSA	4151-50-2	P171224039	ND	0.367	0.594			U
	N-EtFOSAA	2991-50-6	P171224039	ND	0.241	0.594			U
	N-EtFOSE	1691-99-2	P171224039	ND	0.909	2.67			U
	N-MeFOSA	31506-32-8	P171224039	ND	0.245	0.594			U
	N-MeFOSAA	2355-31-9	P171224039	ND	0.167	0.594			U
	N-MeFOSE	24448-09-7	P171224039	ND	0.564	2.67			U
	PFOSA	754-91-6	P171224039	ND	0.0833	0.594			U
PFECAs	ADONA	919005-14-4	P171224039	ND	0.161	0.562			U
	EVE Acid	69087-46-3	P171224039	ND	0.189	1.34			U
	HFPO-DA	13252-13-6	P171224039	ND	0.0629	0.594			U
	Hydro-EVE Acid	773804-62-9	P171224039	ND	0.195	0.594			U
	NFDHA	151772-58-6	P171224039	ND	0.125	0.594			U
	PEPA	267239-61-2	P171224039	ND	0.111	0.594			U
	PFECA-G	801212-59-9	P171224039	ND	0.0792	0.594			U
	PFMOAA	674-13-5	P171224039	ND	0.301	0.594			U
	PFMOBA	863090-89-5	P171224039	ND	0.996	1.34			U
	PFMOPrA	377-73-1	P171224039	ND	0.212	0.594			U
	PFO2HxA	39492-88-1	P171224039	ND	0.191	0.594			U
	PFO3OA	39492-89-2	P171224039	ND	0.273	0.594			U
	PFO4DA	39492-90-5	P171224039	ND	0.469	2.97			U
	PFO5DA	39492-91-6	P171224039	ND	0.475	2.97			U
	PMPA	13140-29-9	P171224039	ND	0.140	0.594			U
	R-EVE	2416366-22-6	P171224039	ND	0.985	1.34			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224039	ND	0.280	0.559			U
	9Cl-PF3ONS	756426-58-1	P171224039	ND	0.380	0.553			U
	Hydrolyzed PSDA	2416366-19-1	P171224039	ND	0.395	0.594			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224039	ND	0.317	0.594			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224039	ND	0.492	0.594			U
	NVHOS	1132933-86-8	P171224039	ND	0.0915	0.594			U
	PFEESA	113507-82-7	P171224039	ND	0.178	0.594			U
	R-PSDA	2416366-18-0	P171224039	ND	2.62	2.62			U
	R-PSDCA	2416366-21-5	P171224039	ND	0.250	0.594			U
ES	MPFBA		P171224039				20-150%	88.8%	
	M5PFPeA		P171224039				20-150%	210%	Q
	M3PFBS		P171224039				20-150%	259%	Q
	M2-4:2 FTS		P171224039				20-150%	180%	Q
	M5PFHxA		P171224039				20-150%	93.6%	
	M3HFPO-DA		P171224039				20-150%	79.7%	
	M4PFHpA		P171224039				20-150%	89.3%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W19		
Sampling Site			
Enthalpy ID	1224-707-009-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 09:44	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	269.5
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 03:18	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224039				20-150%	108%	
	M2-6:2 FTS		P171224039				20-150%	108%	
	M8PFOA		P171224039				20-150%	95.5%	
	M9PFNA		P171224039				20-150%	92.1%	
	M8PFOS		P171224039				20-150%	94.2%	
	M2-8:2 FTS		P171224039				20-150%	81.6%	
	M8FOSA-I		P171224039				20-150%	67.3%	
	M6PFDA		P171224039				20-150%	90.1%	
	d3-N-MeFOSAA		P171224039				20-150%	79.7%	
	d5-N-EtFOSAA		P171224039				20-150%	74.4%	
	M7PFUdA		P171224039				20-150%	72.7%	
	MPFDoA		P171224039				20-150%	42.8%	
	M2PFTeDA		P171224039				20-150%	8.13%	Q
	d3-N-MeFOSA		P171224039				10-200%	1.09%	Q
	d5-N-EtFOSA		P171224039				10-200%	0.732%	Q
	d7-N-MeFOSE		P171224039				10-200%	21.0%	
	d9-N-EtFOSE		P171224039				10-200%	15.9%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W15		
Sampling Site			
Enthalpy ID	1224-707-010-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 10:00	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 18:49	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041849	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041849				20-150%	120%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W15		
Sampling Site			
Enthalpy ID	1224-707-010-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:00	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.84
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 03:41	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224040	ND	0.220	0.554			U
	PFPeA	2706-90-3	P171224040	ND	0.158	0.554			U
	PFHxA	307-24-4	P171224040	ND	0.185	0.554			U
	PFHpA	375-85-9	P171224040	ND	0.194	0.554			U
	PFOA	335-67-1	P171224040	ND	0.127	0.554			U
	PFNA	375-95-1	P171224040	ND	0.125	0.554			U
	PFDA	335-76-2	P171224040	ND	0.158	0.554			U
	PFUnDA	2058-94-8	P171224040	ND	0.125	0.554			U
	PFDoDA	307-55-1	P171224040	ND	0.225	0.554			U
	PFTrDA	72629-94-8	P171224040	ND	0.183	0.554			U
	PFTeDA	376-06-7	P171224040	ND	0.211	0.554			U
	PFHxDA	67905-19-5	P171224040	ND	0.294	0.554			U
Sulfonates	PFBS	375-73-5	P171224040	ND	0.294	0.554			U
	PFPeS	2706-91-4	P171224040	ND	0.114	0.522			U
	PFHxS	355-46-4	P171224040	ND	0.428	0.507			U
	PFHpS	375-92-8	P171224040	ND	0.268	0.528			U
	PFOS	1763-23-1	P171224040	0.000451	0.293	0.513			L
	PFNS	68259-12-1	P171224040	ND	0.172	0.534			U
	PFDS	335-77-3	P171224040	ND	0.291	0.534			U
	4:2 FTS	757124-72-4	P171224040	ND	0.0718	0.519			U
	6:2 FTS	27619-97-2	P171224040	ND	0.261	0.528			U
	8:2 FTS	39108-34-4	P171224040	ND	0.124	0.531			U
	10:2 FTS	120226-60-0	P171224040	ND	0.424	0.554			U
Sulfonamidos	FBSA	30334-69-1	P171224040	ND	0.263	0.554			U
	N-EtFOSA	4151-50-2	P171224040	ND	0.343	0.554			U
	N-EtFOSAA	2991-50-6	P171224040	ND	0.225	0.554			U
	N-EtFOSE	1691-99-2	P171224040	ND	0.848	2.49			U
	N-MeFOSA	31506-32-8	P171224040	ND	0.229	0.554			U
	N-MeFOSAA	2355-31-9	P171224040	ND	0.156	0.554			U
	N-MeFOSE	24448-09-7	P171224040	ND	0.526	2.49			U
	PFOSA	754-91-6	P171224040	ND	0.0777	0.554			U
PFECAs	ADONA	919005-14-4	P171224040	ND	0.150	0.525			U
	EVE Acid	69087-46-3	P171224040	ND	0.177	1.25			U
	HFPO-DA	13252-13-6	P171224040	ND	0.0587	0.554			U
	Hydro-EVE Acid	773804-62-9	P171224040	ND	0.182	0.554			U
	NFDHA	151772-58-6	P171224040	ND	0.117	0.554			U
	PEPA	267239-61-2	P171224040	ND	0.104	0.554			U
	PFECA-G	801212-59-9	P171224040	ND	0.0739	0.554			U
	PFMOAA	674-13-5	P171224040	0.607	0.280	0.554			
	PFMOBA	863090-89-5	P171224040	ND	0.930	1.25			U
	PFMOPrA	377-73-1	P171224040	ND	0.197	0.554			U
	PFO2HxA	39492-88-1	P171224040	ND	0.178	0.554			U
	PFO3OA	39492-89-2	P171224040	ND	0.254	0.554			U
	PFO4DA	39492-90-5	P171224040	ND	0.438	2.77			U
	PFO5DA	39492-91-6	P171224040	ND	0.443	2.77			U
	PMPA	13140-29-9	P171224040	0.629	0.131	0.554			
	R-EVE	2416366-22-6	P171224040	ND	0.919	1.25			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224040	ND	0.261	0.522			U
	9Cl-PF3ONS	756426-58-1	P171224040	ND	0.355	0.516			U
	Hydrolyzed PSDA	2416366-19-1	P171224040	ND	0.369	0.554			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224040	ND	0.296	0.554			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224040	ND	0.459	0.554			U
	NVHOS	1132933-86-8	P171224040	ND	0.0853	0.554			U
	PFEESA	113507-82-7	P171224040	ND	0.167	0.554			U
	R-PSDA	2416366-18-0	P171224040	ND	2.44	2.44			U
	R-PSDCA	2416366-21-5	P171224040	ND	0.234	0.554			U
ES	MPFBA		P171224040				20-150%	90.3%	
	M5PFPeA		P171224040				20-150%	363%	Q
	M3PFBS		P171224040				20-150%	99.9%	Ac
	M2-4:2 FTS		P171224040				20-150%	174%	Q
	M5PFHxA		P171224040				20-150%	80.1%	
	M3HFPO-DA		P171224040				20-150%	72.3%	
	M4PFHpA		P171224040				20-150%	87.9%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W15		
Sampling Site			
Enthalpy ID	1224-707-010-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:00	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.84
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 03:41	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224040				20-150%	95.7%	
	M2-6:2 FTS		P171224040				20-150%	102%	
	M8PFOA		P171224040				20-150%	93.5%	
	M9PFNA		P171224040				20-150%	91.0%	
	M8PFOS		P171224040				20-150%	78.5%	
	M2-8:2 FTS		P171224040				20-150%	56.4%	
	M8FOSA-I		P171224040				20-150%	34.3%	
	M6PFDA		P171224040				20-150%	66.4%	
	d3-N-MeFOSAA		P171224040				20-150%	48.4%	
	d5-N-EtFOSAA		P171224040				20-150%	41.5%	
	M7PFUdA		P171224040				20-150%	37.1%	
	MPFDoA		P171224040				20-150%	17.7%	Q
	M2PFTeDA		P171224040				20-150%	3.36%	Q
	d3-N-MeFOSA		P171224040				10-200%	0.226%	Q
	d5-N-EtFOSA		P171224040				10-200%	0.0968%	Q
	d7-N-MeFOSE		P171224040				10-200%	10.5%	
	d9-N-EtFOSE		P171224040				10-200%	8.58%	Q

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W8		
Sampling Site			
Enthalpy ID	1224-707-011-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 10:06	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:01	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041901	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041901				20-150%	120%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W8		
Sampling Site			
Enthalpy ID	1224-707-011-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:06	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.91
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 04:27	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224042	ND	0.220	0.554			U
	PFPeA	2706-90-3	P171224042	ND	0.158	0.554			U
	PFHxA	307-24-4	P171224042	ND	0.185	0.554			U
	PFHpA	375-85-9	P171224042	ND	0.194	0.554			U
	PFOA	335-67-1	P171224042	ND	0.127	0.554			U
	PFNA	375-95-1	P171224042	ND	0.125	0.554			U
	PFDA	335-76-2	P171224042	ND	0.158	0.554			U
	PFUnDA	2058-94-8	P171224042	ND	0.125	0.554			U
	PFDoDA	307-55-1	P171224042	ND	0.225	0.554			U
	PFTrDA	72629-94-8	P171224042	ND	0.183	0.554			U
	PFTeDA	376-06-7	P171224042	ND	0.211	0.554			U
	PFHxDA	67905-19-5	P171224042	ND	0.294	0.554			U
Sulfonates	PFBS	375-73-5	P171224042	ND	0.294	0.554			U
	PFPeS	2706-91-4	P171224042	ND	0.114	0.522			U
	PFHxS	355-46-4	P171224042	ND	0.427	0.507			U
	PFHpS	375-92-8	P171224042	ND	0.268	0.528			U
	PFOS	1763-23-1	P171224042	0.0466	0.292	0.513			L
	PFNS	68259-12-1	P171224042	ND	0.172	0.533			U
	PFDS	335-77-3	P171224042	ND	0.291	0.533			U
	4:2 FTS	757124-72-4	P171224042	ND	0.0718	0.519			U
	6:2 FTS	27619-97-2	P171224042	ND	0.261	0.528			U
	8:2 FTS	39108-34-4	P171224042	ND	0.124	0.530			U
	10:2 FTS	120226-60-0	P171224042	ND	0.424	0.554			U
Sulfonamidos	FBSA	30334-69-1	P171224042	ND	0.263	0.554			U
	N-EtFOSA	4151-50-2	P171224042	ND	0.343	0.554			U
	N-EtFOSAA	2991-50-6	P171224042	ND	0.225	0.554			U
	N-EtFOSE	1691-99-2	P171224042	ND	0.848	2.49			U
	N-MeFOSA	31506-32-8	P171224042	ND	0.228	0.554			U
	N-MeFOSAA	2355-31-9	P171224042	ND	0.156	0.554			U
	N-MeFOSE	24448-09-7	P171224042	ND	0.526	2.49			U
	PFOSA	754-91-6	P171224042	ND	0.0777	0.554			U
PFECAs	ADONA	919005-14-4	P171224042	ND	0.150	0.525			U
	EVE Acid	69087-46-3	P171224042	ND	0.177	1.25			U
	HFPO-DA	13252-13-6	P171224042	ND	0.0587	0.554			U
	Hydro-EVE Acid	773804-62-9	P171224042	ND	0.182	0.554			U
	NFDHA	151772-58-6	P171224042	ND	0.116	0.554			U
	PEPA	267239-61-2	P171224042	ND	0.104	0.554			U
	PFECA-G	801212-59-9	P171224042	ND	0.0739	0.554			U
	PFMOAA	674-13-5	P171224042	0.382	0.280	0.554			J
	PFMOBA	863090-89-5	P171224042	ND	0.929	1.25			U
	PFMOPrA	377-73-1	P171224042	ND	0.197	0.554			U
	PFO2HxA	39492-88-1	P171224042	ND	0.178	0.554			U
	PFO3OA	39492-89-2	P171224042	ND	0.254	0.554			U
	PFO4DA	39492-90-5	P171224042	ND	0.438	2.77			U
	PFO5DA	39492-91-6	P171224042	ND	0.443	2.77			U
	PMPA	13140-29-9	P171224042	0.171	0.130	0.554			J
	R-EVE	2416366-22-6	P171224042	ND	0.919	1.25			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224042	ND	0.261	0.522			U
	9Cl-PF3ONS	756426-58-1	P171224042	ND	0.355	0.516			U
	Hydrolyzed PSDA	2416366-19-1	P171224042	ND	0.369	0.554			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224042	ND	0.296	0.554			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224042	ND	0.459	0.554			U
	NVHOS	1132933-86-8	P171224042	ND	0.0853	0.554			U
	PFEESA	113507-82-7	P171224042	ND	0.166	0.554			U
	R-PSDA	2416366-18-0	P171224042	ND	2.44	2.44			U
	R-PSDCA	2416366-21-5	P171224042	ND	0.234	0.554			U
ES	MPFBA		P171224042				20-150%	94.2%	
	M5PFPeA		P171224042				20-150%	223%	Q
	M3PFBS		P171224042				20-150%	315%	Q
	M2-4:2 FTS		P171224042				20-150%	183%	Q
	M5PFHxA		P171224042				20-150%	105%	
	M3HFPO-DA		P171224042				20-150%	87.5%	
	M4PFHpA		P171224042				20-150%	96.2%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W8		
Sampling Site			
Enthalpy ID	1224-707-011-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:06	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.91
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 04:27	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224042				20-150%	113%	
	M2-6:2 FTS		P171224042				20-150%	112%	
	M8PFOA		P171224042				20-150%	98.7%	
	M9PFNA		P171224042				20-150%	85.3%	
	M8PFOS		P171224042				20-150%	85.7%	
	M2-8:2 FTS		P171224042				20-150%	69.3%	
	M8FOSA-I		P171224042				20-150%	62.1%	
	M6PFDA		P171224042				20-150%	84.0%	
	d3-N-MeFOSAA		P171224042				20-150%	67.9%	
	d5-N-EtFOSAA		P171224042				20-150%	57.7%	
	M7PFUdA		P171224042				20-150%	60.1%	
	MPFDoA		P171224042				20-150%	36.1%	
	M2PFTeDA		P171224042				20-150%	22.7%	
	d3-N-MeFOSA		P171224042				10-200%	1.08%	Q
	d5-N-EtFOSA		P171224042				10-200%	0.869%	Q
	d7-N-MeFOSE		P171224042				10-200%	17.5%	
	d9-N-EtFOSE		P171224042				10-200%	14.4%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12A		
Sampling Site			
Enthalpy ID	1224-707-012-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 10:15	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:12	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041912	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041912				20-150%	122%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12A		
Sampling Site			
Enthalpy ID	1224-707-012-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:15	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	280.29
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 04:49	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224043	ND	0.227	0.571			U
	PFPeA	2706-90-3	P171224043	ND	0.163	0.571			U
	PFHxA	307-24-4	P171224043	ND	0.191	0.571			U
	PFHpA	375-85-9	P171224043	ND	0.200	0.571			U
	PFOA	335-67-1	P171224043	ND	0.131	0.571			U
	PFNA	375-95-1	P171224043	ND	0.129	0.571			U
	PFDA	335-76-2	P171224043	ND	0.163	0.571			U
	PFUnDA	2058-94-8	P171224043	ND	0.129	0.571			U
	PFDoDA	307-55-1	P171224043	ND	0.232	0.571			U
	PFTrDA	72629-94-8	P171224043	ND	0.189	0.571			U
	PFTeDA	376-06-7	P171224043	ND	0.218	0.571			U
	PFHxDA	67905-19-5	P171224043	ND	0.303	0.571			U
Sulfonates	PFBS	375-73-5	P171224043	ND	0.303	0.571			U
	PFPeS	2706-91-4	P171224043	ND	0.117	0.538			U
	PFHxS	355-46-4	P171224043	ND	0.441	0.523			U
	PFHpS	375-92-8	P171224043	ND	0.276	0.544			U
	PFOS	1763-23-1	P171224043	0.00947	0.301	0.529			L
	PFNS	68259-12-1	P171224043	ND	0.177	0.550			U
	PFDS	335-77-3	P171224043	ND	0.300	0.550			U
	4:2 FTS	757124-72-4	P171224043	ND	0.0740	0.535			U
	6:2 FTS	27619-97-2	P171224043	ND	0.269	0.544			U
	8:2 FTS	39108-34-4	P171224043	ND	0.128	0.547			U
	10:2 FTS	120226-60-0	P171224043	ND	0.437	0.571			U
Sulfonamidos	FBSA	30334-69-1	P171224043	ND	0.271	0.571			U
	N-EtFOSA	4151-50-2	P171224043	ND	0.353	0.571			U
	N-EtFOSAA	2991-50-6	P171224043	ND	0.232	0.571			U
	N-EtFOSE	1691-99-2	P171224043	ND	0.874	2.57			U
	N-MeFOSA	31506-32-8	P171224043	ND	0.235	0.571			U
	N-MeFOSAA	2355-31-9	P171224043	ND	0.160	0.571			U
	N-MeFOSE	24448-09-7	P171224043	ND	0.542	2.57			U
	PFOSA	754-91-6	P171224043	0.470	0.0801	0.571			J
PFECAs	ADONA	919005-14-4	P171224043	ND	0.155	0.541			U
	EVE Acid	69087-46-3	P171224043	ND	0.182	1.28			U
	HFPO-DA	13252-13-6	P171224043	ND	0.0605	0.571			U
	Hydro-EVE Acid	773804-62-9	P171224043	ND	0.187	0.571			U
	NFDHA	151772-58-6	P171224043	ND	0.120	0.571			U
	PEPA	267239-61-2	P171224043	ND	0.107	0.571			U
	PFECA-G	801212-59-9	P171224043	ND	0.0762	0.571			U
	PFMOAA	674-13-5	P171224043	0.474	0.289	0.571			J
	PFMOBA	863090-89-5	P171224043	ND	0.958	1.28			U
	PFMOPrA	377-73-1	P171224043	ND	0.203	0.571			U
	PFO2HxA	39492-88-1	P171224043	ND	0.184	0.571			U
	PFO3OA	39492-89-2	P171224043	ND	0.262	0.571			U
	PFO4DA	39492-90-5	P171224043	ND	0.451	2.85			U
	PFO5DA	39492-91-6	P171224043	ND	0.457	2.85			U
	PMPA	13140-29-9	P171224043	0.167	0.135	0.571			J
	R-EVE	2416366-22-6	P171224043	ND	0.947	1.28			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224043	ND	0.269	0.538			U
	9Cl-PF3ONS	756426-58-1	P171224043	ND	0.366	0.532			U
	Hydrolyzed PSDA	2416366-19-1	P171224043	ND	0.380	0.571			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224043	ND	0.305	0.571			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224043	ND	0.473	0.571			U
	NVHOS	1132933-86-8	P171224043	ND	0.0879	0.571			U
	PFEESA	113507-82-7	P171224043	ND	0.172	0.571			U
	R-PSDA	2416366-18-0	P171224043	ND	2.52	2.52			U
	R-PSDCA	2416366-21-5	P171224043	ND	0.241	0.571			U
ES	MPFBA		P171224043				20-150%	92.5%	
	M5PFPeA		P171224043				20-150%	206%	Q
	M3PFBS		P171224043				20-150%	262%	Q
	M2-4:2 FTS		P171224043				20-150%	156%	Q
	M5PFHxA		P171224043				20-150%	95.0%	
	M3HFPO-DA		P171224043				20-150%	82.2%	
	M4PFHpA		P171224043				20-150%	91.3%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12A		
Sampling Site			
Enthalpy ID	1224-707-012-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:15	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	280.29
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 04:49	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224043				20-150%	96.1%	
	M2-6:2 FTS		P171224043				20-150%	102%	
	M8PFOA		P171224043				20-150%	95.9%	
	M9PFNA		P171224043				20-150%	90.9%	
	M8PFOS		P171224043				20-150%	92.7%	
	M2-8:2 FTS		P171224043				20-150%	75.7%	
	M8FOSA-I		P171224043				20-150%	58.5%	
	M6PFDA		P171224043				20-150%	94.5%	
	d3-N-MeFOSAA		P171224043				20-150%	72.9%	
	d5-N-EtFOSAA		P171224043				20-150%	61.2%	
	M7PFUdA		P171224043				20-150%	70.6%	
	MPFDoA		P171224043				20-150%	36.2%	
	M2PFTeDA		P171224043				20-150%	8.28%	Q
	d3-N-MeFOSA		P171224043				10-200%	0.785%	Q
	d5-N-EtFOSA		P171224043				10-200%	0.570%	Q
	d7-N-MeFOSE		P171224043				10-200%	10.5%	
	d9-N-EtFOSE		P171224043				10-200%	6.12%	Q

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12		
Sampling Site			
Enthalpy ID	1224-707-013-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 10:22	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:24	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041924	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041924				20-150%	129%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12		
Sampling Site			
Enthalpy ID	1224-707-013-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:22	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.57
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:12	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224044	ND	0.220	0.554			U
	PFPeA	2706-90-3	P171224044	ND	0.159	0.554			U
	PFHxA	307-24-4	P171224044	ND	0.185	0.554			U
	PFHpA	375-85-9	P171224044	ND	0.194	0.554			U
	PFOA	335-67-1	P171224044	ND	0.127	0.554			U
	PFNA	375-95-1	P171224044	ND	0.125	0.554			U
	PFDA	335-76-2	P171224044	ND	0.159	0.554			U
	PFUnDA	2058-94-8	P171224044	ND	0.125	0.554			U
	PFDoDA	307-55-1	P171224044	ND	0.225	0.554			U
	PFTrDA	72629-94-8	P171224044	ND	0.184	0.554			U
	PFTeDA	376-06-7	P171224044	ND	0.211	0.554			U
	PFHxDA	67905-19-5	P171224044	ND	0.295	0.554			U
Sulfonates	PFBS	375-73-5	P171224044	ND	0.295	0.554			U
	PFPeS	2706-91-4	P171224044	ND	0.114	0.522			U
	PFHxS	355-46-4	P171224044	0.368	0.428	0.508			L
	PFHpS	375-92-8	P171224044	ND	0.269	0.528			U
	PFOS	1763-23-1	P171224044	1.58	0.293	0.514			
	PFNS	68259-12-1	P171224044	ND	0.172	0.534			U
	PFDS	335-77-3	P171224044	ND	0.291	0.534			U
	4:2 FTS	757124-72-4	P171224044	ND	0.0719	0.519			U
	6:2 FTS	27619-97-2	P171224044	ND	0.262	0.528			U
	8:2 FTS	39108-34-4	P171224044	ND	0.124	0.531			U
	10:2 FTS	120226-60-0	P171224044	ND	0.425	0.554			U
Sulfonamidos	FBSA	30334-69-1	P171224044	ND	0.263	0.554			U
	N-EtFOSA	4151-50-2	P171224044	ND	0.343	0.554			U
	N-EtFOSAA	2991-50-6	P171224044	ND	0.225	0.554			U
	N-EtFOSE	1691-99-2	P171224044	ND	0.849	2.50			U
	N-MeFOSA	31506-32-8	P171224044	ND	0.229	0.554			U
	N-MeFOSAA	2355-31-9	P171224044	ND	0.156	0.554			U
	N-MeFOSE	24448-09-7	P171224044	ND	0.527	2.50			U
	PFOSA	754-91-6	P171224044	ND	0.0778	0.554			U
PFECAs	ADONA	919005-14-4	P171224044	ND	0.150	0.525			U
	EVE Acid	69087-46-3	P171224044	ND	0.177	1.25			U
	HFPO-DA	13252-13-6	P171224044	ND	0.0587	0.554			U
	Hydro-EVE Acid	773804-62-9	P171224044	ND	0.182	0.554			U
	NFDHA	151772-58-6	P171224044	ND	0.117	0.554			U
	PEPA	267239-61-2	P171224044	ND	0.104	0.554			U
	PFECA-G	801212-59-9	P171224044	ND	0.0740	0.554			U
	PFMOAA	674-13-5	P171224044	6.92	0.281	0.554			
	PFMOBA	863090-89-5	P171224044	ND	0.930	1.25			U
	PFMOPrA	377-73-1	P171224044	ND	0.198	0.554			U
	PFO2HxA	39492-88-1	P171224044	0.0690	0.178	0.554			L
	PFO3OA	39492-89-2	P171224044	ND	0.255	0.554			U
	PFO4DA	39492-90-5	P171224044	ND	0.438	2.77			U
	PFO5DA	39492-91-6	P171224044	ND	0.444	2.77			U
	PMPA	13140-29-9	P171224044	0.323	0.131	0.554			J
	R-EVE	2416366-22-6	P171224044	ND	0.920	1.25			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224044	ND	0.262	0.522			U
	9Cl-PF3ONS	756426-58-1	P171224044	ND	0.355	0.517			U
	Hydrolyzed PSDA	2416366-19-1	P171224044	ND	0.369	0.554			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224044	ND	0.296	0.554			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224044	ND	0.459	0.554			U
	NVHOS	1132933-86-8	P171224044	ND	0.0854	0.554			U
	PFEESA	113507-82-7	P171224044	ND	0.167	0.554			U
	R-PSDA	2416366-18-0	P171224044	ND	2.44	2.44			U
	R-PSDCA	2416366-21-5	P171224044	ND	0.234	0.554			U
ES	MPFBA		P171224044				20-150%	93.0%	
	M5PFPeA		P171224044				20-150%	279%	Q
	M3PFBS		P171224044				20-150%	55.8%	Ac
	M2-4:2 FTS		P171224044				20-150%	173%	Q
	M5PFHxA		P171224044				20-150%	91.9%	
	M3HFPO-DA		P171224044				20-150%	80.8%	
	M4PFHpA		P171224044				20-150%	89.6%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W12		
Sampling Site			
Enthalpy ID	1224-707-013-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:22	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	288.57
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:12	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224044				20-150%	108%	
	M2-6:2 FTS		P171224044				20-150%	104%	
	M8PFOA		P171224044				20-150%	97.2%	
	M9PFNA		P171224044				20-150%	90.4%	
	M8PFOS		P171224044				20-150%	90.2%	
	M2-8:2 FTS		P171224044				20-150%	75.8%	
	M8FOSA-I		P171224044				20-150%	66.9%	
	M6PFDA		P171224044				20-150%	92.0%	
	d3-N-MeFOSAA		P171224044				20-150%	75.3%	
	d5-N-EtFOSAA		P171224044				20-150%	69.5%	
	M7PFUdA		P171224044				20-150%	71.9%	
	MPFDoA		P171224044				20-150%	43.8%	
	M2PFTeDA		P171224044				20-150%	24.7%	
	d3-N-MeFOSA		P171224044				10-200%	4.15%	Q
	d5-N-EtFOSA		P171224044				10-200%	2.50%	Q
	d7-N-MeFOSE		P171224044				10-200%	24.9%	
	d9-N-EtFOSE		P171224044				10-200%	19.6%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W11		
Sampling Site			
Enthalpy ID	1224-707-014-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 10:30	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:36	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041936	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041936				20-150%	121%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W11		
Sampling Site			
Enthalpy ID	1224-707-014-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:30	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	278.68
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:35	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224045	ND	0.228	0.574			U
	PFPeA	2706-90-3	P171224045	ND	0.164	0.574			U
	PFHxA	307-24-4	P171224045	ND	0.192	0.574			U
	PFHpA	375-85-9	P171224045	ND	0.201	0.574			U
	PFOA	335-67-1	P171224045	ND	0.131	0.574			U
	PFNA	375-95-1	P171224045	ND	0.130	0.574			U
	PFDA	335-76-2	P171224045	ND	0.164	0.574			U
	PFUnDA	2058-94-8	P171224045	ND	0.130	0.574			U
	PFDoDA	307-55-1	P171224045	ND	0.233	0.574			U
	PFTrDA	72629-94-8	P171224045	ND	0.190	0.574			U
	PFTeDA	376-06-7	P171224045	ND	0.219	0.574			U
	PFHxDA	67905-19-5	P171224045	ND	0.305	0.574			U
Sulfonates	PFBS	375-73-5	P171224045	ND	0.305	0.574			U
	PFPeS	2706-91-4	P171224045	ND	0.118	0.541			U
	PFHxS	355-46-4	P171224045	ND	0.443	0.526			U
	PFHpS	375-92-8	P171224045	ND	0.278	0.547			U
	PFOS	1763-23-1	P171224045	0.0448	0.303	0.532			L
	PFNS	68259-12-1	P171224045	ND	0.178	0.553			U
	PFDS	335-77-3	P171224045	ND	0.301	0.553			U
	4:2 FTS	757124-72-4	P171224045	ND	0.0745	0.538			U
	6:2 FTS	27619-97-2	P171224045	ND	0.271	0.547			U
	8:2 FTS	39108-34-4	P171224045	ND	0.129	0.550			U
	10:2 FTS	120226-60-0	P171224045	ND	0.440	0.574			U
Sulfonamidos	FBSA	30334-69-1	P171224045	ND	0.273	0.574			U
	N-EtFOSA	4151-50-2	P171224045	ND	0.355	0.574			U
	N-EtFOSAA	2991-50-6	P171224045	ND	0.233	0.574			U
	N-EtFOSE	1691-99-2	P171224045	ND	0.879	2.58			U
	N-MeFOSA	31506-32-8	P171224045	ND	0.237	0.574			U
	N-MeFOSAA	2355-31-9	P171224045	ND	0.161	0.574			U
	N-MeFOSE	24448-09-7	P171224045	ND	0.545	2.58			U
	PFOSA	754-91-6	P171224045	ND	0.0806	0.574			U
PFECAs	ADONA	919005-14-4	P171224045	ND	0.156	0.544			U
	EVE Acid	69087-46-3	P171224045	ND	0.183	1.29			U
	HFPO-DA	13252-13-6	P171224045	ND	0.0608	0.574			U
	Hydro-EVE Acid	773804-62-9	P171224045	ND	0.188	0.574			U
	NFDHA	151772-58-6	P171224045	ND	0.121	0.574			U
	PEPA	267239-61-2	P171224045	ND	0.108	0.574			U
	PFECA-G	801212-59-9	P171224045	ND	0.0766	0.574			U
	PFMOAA	674-13-5	P171224045	8.72	0.291	0.574			
	PFMOBA	863090-89-5	P171224045	ND	0.963	1.29			U
	PFMOPrA	377-73-1	P171224045	ND	0.205	0.574			U
	PFO2HxA	39492-88-1	P171224045	0.301	0.185	0.574			J
	PFO3OA	39492-89-2	P171224045	ND	0.264	0.574			U
	PFO4DA	39492-90-5	P171224045	ND	0.454	2.87			U
	PFO5DA	39492-91-6	P171224045	ND	0.459	2.87			U
	PMPA	13140-29-9	P171224045	0.546	0.135	0.574			J
	R-EVE	2416366-22-6	P171224045	ND	0.953	1.29			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224045	ND	0.271	0.541			U
	9Cl-PF3ONS	756426-58-1	P171224045	ND	0.368	0.535			U
	Hydrolyzed PSDA	2416366-19-1	P171224045	ND	0.382	0.574			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224045	ND	0.307	0.574			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224045	ND	0.475	0.574			U
	NVHOS	1132933-86-8	P171224045	ND	0.0885	0.574			U
	PFEESA	113507-82-7	P171224045	ND	0.173	0.574			U
	R-PSDA	2416366-18-0	P171224045	ND	2.53	2.53			U
	R-PSDCA	2416366-21-5	P171224045	ND	0.242	0.574			U
ES	MPFBA		P171224045				20-150%	95.3%	
	M5PFPeA		P171224045				20-150%	303%	Q
	M3PFBS		P171224045				20-150%	64.1%	Ac
	M2-4:2 FTS		P171224045				20-150%	192%	Q
	M5PFHxA		P171224045				20-150%	98.9%	
	M3HFPO-DA		P171224045				20-150%	84.7%	
	M4PFHpA		P171224045				20-150%	93.6%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 W11		
Sampling Site			
Enthalpy ID	1224-707-014-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 10:30	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	278.68
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:35	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224045				20-150%	106%	
	M2-6:2 FTS		P171224045				20-150%	109%	
	M8PFOA		P171224045				20-150%	96.5%	
	M9PFNA		P171224045				20-150%	87.3%	
	M8PFOS		P171224045				20-150%	90.7%	
	M2-8:2 FTS		P171224045				20-150%	71.8%	
	M8FOSA-I		P171224045				20-150%	49.3%	
	M6PFDA		P171224045				20-150%	84.4%	
	d3-N-MeFOSAA		P171224045				20-150%	69.2%	
	d5-N-EtFOSAA		P171224045				20-150%	60.5%	
	M7PFUdA		P171224045				20-150%	65.8%	
	MPFDoA		P171224045				20-150%	36.4%	
	M2PFTeDA		P171224045				20-150%	9.03%	Q
	d3-N-MeFOSA		P171224045				10-200%	0.331%	Q
	d5-N-EtFOSA		P171224045				10-200%	0.198%	Q
	d7-N-MeFOSE		P171224045				10-200%	11.6%	
	d9-N-EtFOSE		P171224045				10-200%	6.89%	Q

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 S02		
Sampling Site			
Enthalpy ID	1224-707-015-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 08:23	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:47	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041947	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041947				20-150%	129%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 S02		
Sampling Site			
Enthalpy ID	1224-707-015-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:23	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	283.16
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:57	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224046	ND	0.224	0.565			U
	PFPeA	2706-90-3	P171224046	ND	0.162	0.565			U
	PFHxA	307-24-4	P171224046	ND	0.189	0.565			U
	PFHpA	375-85-9	P171224046	ND	0.198	0.565			U
	PFOA	335-67-1	P171224046	ND	0.129	0.565			U
	PFNA	375-95-1	P171224046	ND	0.128	0.565			U
	PFDA	335-76-2	P171224046	ND	0.162	0.565			U
	PFUnDA	2058-94-8	P171224046	ND	0.128	0.565			U
	PFDoDA	307-55-1	P171224046	ND	0.230	0.565			U
	PFTrDA	72629-94-8	P171224046	ND	0.187	0.565			U
	PFTeDA	376-06-7	P171224046	ND	0.215	0.565			U
	PFHxDA	67905-19-5	P171224046	ND	0.300	0.565			U
Sulfonates	PFBS	375-73-5	P171224046	ND	0.300	0.565			U
	PFPeS	2706-91-4	P171224046	ND	0.116	0.532			U
	PFHxS	355-46-4	P171224046	ND	0.436	0.517			U
	PFHpS	375-92-8	P171224046	ND	0.274	0.538			U
	PFOS	1763-23-1	P171224046	0.0375	0.298	0.523			L
	PFNS	68259-12-1	P171224046	ND	0.175	0.544			U
	PFDS	335-77-3	P171224046	ND	0.297	0.544			U
	4:2 FTS	757124-72-4	P171224046	ND	0.0733	0.529			U
	6:2 FTS	27619-97-2	P171224046	ND	0.267	0.538			U
	8:2 FTS	39108-34-4	P171224046	ND	0.127	0.541			U
	10:2 FTS	120226-60-0	P171224046	ND	0.433	0.565			U
Sulfonamidos	FBSA	30334-69-1	P171224046	ND	0.268	0.565			U
	N-EtFOSA	4151-50-2	P171224046	ND	0.350	0.565			U
	N-EtFOSAA	2991-50-6	P171224046	ND	0.230	0.565			U
	N-EtFOSE	1691-99-2	P171224046	ND	0.865	2.54			U
	N-MeFOSA	31506-32-8	P171224046	ND	0.233	0.565			U
	N-MeFOSAA	2355-31-9	P171224046	ND	0.159	0.565			U
	N-MeFOSE	24448-09-7	P171224046	ND	0.537	2.54			U
	PFOSA	754-91-6	P171224046	ND	0.0793	0.565			U
PFECAs	ADONA	919005-14-4	P171224046	ND	0.153	0.535			U
	EVE Acid	69087-46-3	P171224046	ND	0.180	1.27			U
	HFPO-DA	13252-13-6	P171224046	ND	0.0599	0.565			U
	Hydro-EVE Acid	773804-62-9	P171224046	ND	0.185	0.565			U
	NFDHA	151772-58-6	P171224046	ND	0.119	0.565			U
	PEPA	267239-61-2	P171224046	ND	0.106	0.565			U
	PFECA-G	801212-59-9	P171224046	ND	0.0754	0.565			U
	PFMOAA	674-13-5	P171224046	2.79	0.286	0.565			
	PFMOBA	863090-89-5	P171224046	ND	0.948	1.27			U
	PFMOPrA	377-73-1	P171224046	ND	0.201	0.565			U
	PFO2HxA	39492-88-1	P171224046	ND	0.182	0.565			U
	PFO3OA	39492-89-2	P171224046	ND	0.260	0.565			U
	PFO4DA	39492-90-5	P171224046	ND	0.447	2.83			U
	PFO5DA	39492-91-6	P171224046	ND	0.452	2.83			U
	PMPA	13140-29-9	P171224046	ND	0.133	0.565			U
	R-EVE	2416366-22-6	P171224046	ND	0.938	1.27			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224046	ND	0.267	0.532			U
	9Cl-PF3ONS	756426-58-1	P171224046	ND	0.362	0.526			U
	Hydrolyzed PSDA	2416366-19-1	P171224046	ND	0.376	0.565			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224046	ND	0.302	0.565			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224046	ND	0.468	0.565			U
	NVHOS	1132933-86-8	P171224046	ND	0.0871	0.565			U
	PFEESA	113507-82-7	P171224046	ND	0.170	0.565			U
	R-PSDA	2416366-18-0	P171224046	ND	2.49	2.49			U
	R-PSDCA	2416366-21-5	P171224046	ND	0.238	0.565			U
ES	MPFBA		P171224046				20-150%	94.3%	
	M5PFPeA		P171224046				20-150%	245%	Q
	M3PFBS		P171224046				20-150%	332%	Q
	M2-4:2 FTS		P171224046				20-150%	170%	Q
	M5PFHxA		P171224046				20-150%	94.0%	
	M3HFPO-DA		P171224046				20-150%	82.7%	
	M4PFHpA		P171224046				20-150%	91.5%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 S02		
Sampling Site			
Enthalpy ID	1224-707-015-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:23	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	283.16
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 05:57	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224046				20-150%	102%	
	M2-6:2 FTS		P171224046				20-150%	108%	
	M8PFOA		P171224046				20-150%	98.1%	
	M9PFNA		P171224046				20-150%	91.2%	
	M8PFOS		P171224046				20-150%	91.7%	
	M2-8:2 FTS		P171224046				20-150%	76.1%	
	M8FOSA-I		P171224046				20-150%	64.9%	
	M6PFDA		P171224046				20-150%	93.1%	
	d3-N-MeFOSAA		P171224046				20-150%	74.9%	
	d5-N-EtFOSAA		P171224046				20-150%	66.6%	
	M7PFUdA		P171224046				20-150%	70.7%	
	MPFDoA		P171224046				20-150%	43.7%	
	M2PFTeDA		P171224046				20-150%	27.7%	
	d3-N-MeFOSA		P171224046				10-200%	2.13%	Q
	d5-N-EtFOSA		P171224046				10-200%	1.55%	Q
	d7-N-MeFOSE		P171224046				10-200%	20.4%	
	d9-N-EtFOSE		P171224046				10-200%	16.5%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 E02		
Sampling Site			
Enthalpy ID	1224-707-016-1	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date	2024-12-03 08:25	Instrument	Bumblebee
Received Date	2024-12-03	Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 19:59	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041959	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041959				20-150%	122%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 E02		
Sampling Site			
Enthalpy ID	1224-707-016-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:25	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	283.18
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 06:20	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224047	1.99	0.224	0.565			
	PFPeA	2706-90-3	P171224047	1.93	0.162	0.565			
	PFHxA	307-24-4	P171224047	1.25	0.189	0.565			
	PFHpA	375-85-9	P171224047	0.241	0.198	0.565			J
	PFOA	335-67-1	P171224047	0.381	0.129	0.565			J
	PFNA	375-95-1	P171224047	ND	0.128	0.565			U
	PFDA	335-76-2	P171224047	ND	0.162	0.565			U
	PFUnDA	2058-94-8	P171224047	ND	0.128	0.565			U
	PFDoDA	307-55-1	P171224047	ND	0.230	0.565			U
	PFTrDA	72629-94-8	P171224047	ND	0.187	0.565			U
	PFTeDA	376-06-7	P171224047	ND	0.215	0.565			U
	PFHxDA	67905-19-5	P171224047	ND	0.300	0.565			U
Sulfonates	PFBS	375-73-5	P171224047	0.661	0.300	0.565			
	PFPeS	2706-91-4	P171224047	ND	0.116	0.532			U
	PFHxS	355-46-4	P171224047	ND	0.436	0.517			U
	PFHpS	375-92-8	P171224047	ND	0.274	0.538			U
	PFOS	1763-23-1	P171224047	0.235	0.298	0.523			L
	PFNS	68259-12-1	P171224047	ND	0.175	0.544			U
	PFDS	335-77-3	P171224047	ND	0.297	0.544			U
	4:2 FTS	757124-72-4	P171224047	ND	0.0733	0.529			U
	6:2 FTS	27619-97-2	P171224047	ND	0.267	0.538			U
	8:2 FTS	39108-34-4	P171224047	ND	0.127	0.541			U
	10:2 FTS	120226-60-0	P171224047	ND	0.433	0.565			U
Sulfonamidos	FBSA	30334-69-1	P171224047	ND	0.268	0.565			U
	N-EtFOSA	4151-50-2	P171224047	ND	0.350	0.565			U
	N-EtFOSAA	2991-50-6	P171224047	ND	0.230	0.565			U
	N-EtFOSE	1691-99-2	P171224047	ND	0.865	2.54			U
	N-MeFOSA	31506-32-8	P171224047	ND	0.233	0.565			U
	N-MeFOSAA	2355-31-9	P171224047	ND	0.159	0.565			U
	N-MeFOSE	24448-09-7	P171224047	ND	0.537	2.54			U
	PFOSA	754-91-6	P171224047	ND	0.0793	0.565			U
PFECAs	ADONA	919005-14-4	P171224047	ND	0.153	0.535			U
	EVE Acid	69087-46-3	P171224047	ND	0.180	1.27			U
	HFPO-DA	13252-13-6	P171224047	ND	0.0599	0.565			U
	Hydro-EVE Acid	773804-62-9	P171224047	ND	0.185	0.565			U
	NFDHA	151772-58-6	P171224047	ND	0.119	0.565			U
	PEPA	267239-61-2	P171224047	ND	0.106	0.565			U
	PFECA-G	801212-59-9	P171224047	ND	0.0754	0.565			U
	PFMOAA	674-13-5	P171224047	9.87	0.286	0.565			
	PFMOBA	863090-89-5	P171224047	ND	0.948	1.27			U
	PFMOPrA	377-73-1	P171224047	0.272	0.201	0.565			J
	PFO2HxA	39492-88-1	P171224047	0.503	0.182	0.565			J
	PFO3OA	39492-89-2	P171224047	ND	0.260	0.565			U
	PFO4DA	39492-90-5	P171224047	ND	0.447	2.83			U
	PFO5DA	39492-91-6	P171224047	ND	0.452	2.83			U
	PMPA	13140-29-9	P171224047	ND	0.133	0.565			U
	R-EVE	2416366-22-6	P171224047	ND	0.938	1.27			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224047	ND	0.267	0.532			U
	9Cl-PF3ONS	756426-58-1	P171224047	ND	0.362	0.526			U
	Hydrolyzed PSDA	2416366-19-1	P171224047	ND	0.376	0.565			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224047	ND	0.302	0.565			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224047	ND	0.468	0.565			U
	NVHOS	1132933-86-8	P171224047	ND	0.0870	0.565			U
	PFEESA	113507-82-7	P171224047	ND	0.170	0.565			U
	R-PSDA	2416366-18-0	P171224047	ND	2.49	2.49			U
	R-PSDCA	2416366-21-5	P171224047	ND	0.238	0.565			U
ES	MPFBA		P171224047				20-150%	87.1%	
	M5PFPeA		P171224047				20-150%	263%	Q
	M3PFBS		P171224047				20-150%	390%	Q
	M2-4:2 FTS		P171224047				20-150%	148%	
	M5PFHxA		P171224047				20-150%	85.7%	
	M3HFPO-DA		P171224047				20-150%	76.5%	
	M4PFHpA		P171224047				20-150%	83.9%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	120324 E02		
Sampling Site			
Enthalpy ID	1224-707-016-1A	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date	2024-12-03 08:25	Instrument	Pippin
Received Date	2024-12-03	Sample Vol mL	283.18
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-18 06:20	Split Factor	N/A
SampleType	Sample	Method Code	EU-047-NPW
Bottle ID	A		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224047				20-150%	91.5%	
	M2-6:2 FTS		P171224047				20-150%	95.8%	
	M8PFOA		P171224047				20-150%	92.7%	
	M9PFNA		P171224047				20-150%	89.8%	
	M8PFOS		P171224047				20-150%	86.9%	
	M2-8:2 FTS		P171224047				20-150%	75.5%	
	M8FOSA-I		P171224047				20-150%	59.7%	
	M6PFDA		P171224047				20-150%	91.4%	
	d3-N-MeFOSAA		P171224047				20-150%	82.3%	
	d5-N-EtFOSAA		P171224047				20-150%	87.5%	
	M7PFUdA		P171224047				20-150%	86.2%	
	MPFDoA		P171224047				20-150%	75.8%	
	M2PFTeDA		P171224047				20-150%	35.7%	
	d3-N-MeFOSA		P171224047				10-200%	2.45%	Q
	d5-N-EtFOSA		P171224047				10-200%	2.01%	Q
	d7-N-MeFOSE		P171224047				10-200%	32.4%	
	d9-N-EtFOSE		P171224047				10-200%	24.6%	

QC Data

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	MB_18622_PFAS		
Sampling Site			
Enthalpy ID	MB_18622_PFAS	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date		Instrument	Bumblebee
Received Date		Sample Vol mL	0.1
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 15:43	Split Factor	N/A
SampleType	Blank	Method Code	EU-047-NPW
Bottle ID	-		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041543	ND	700	1530			U
ES	13C3-PFPrA		B041224-12041543				20-150%	108%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	MB_18683_PFAS		
Sampling Site			
Enthalpy ID	MB_18683_PFAS	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date		Instrument	Pippin
Received Date		Sample Vol mL	250
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-17 23:32	Split Factor	N/A
SampleType	Blank	Method Code	EU-047-NPW
Bottle ID	-		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224029	ND	0.254	0.640			U
	PFPeA	2706-90-3	P171224029	ND	0.183	0.640			U
	PFHxA	307-24-4	P171224029	ND	0.214	0.640			U
	PFHpA	375-85-9	P171224029	ND	0.224	0.640			U
	PFOA	335-67-1	P171224029	ND	0.146	0.640			U
	PFNA	375-95-1	P171224029	ND	0.145	0.640			U
	PFDA	335-76-2	P171224029	ND	0.183	0.640			U
	PFUnDA	2058-94-8	P171224029	ND	0.145	0.640			U
	PFDoDA	307-55-1	P171224029	ND	0.260	0.640			U
	PFTrDA	72629-94-8	P171224029	ND	0.212	0.640			U
	PFTeDA	376-06-7	P171224029	ND	0.244	0.640			U
	PFHxDA	67905-19-5	P171224029	ND	0.340	0.640			U
Sulfonates	PFBS	375-73-5	P171224029	ND	0.340	0.640			U
	PFPeS	2706-91-4	P171224029	ND	0.131	0.603			U
	PFHxS	355-46-4	P171224029	ND	0.494	0.586			U
	PFHpS	375-92-8	P171224029	ND	0.310	0.610			U
	PFOS	1763-23-1	P171224029	ND	0.338	0.593			U
	PFNS	68259-12-1	P171224029	ND	0.199	0.616			U
	PFDS	335-77-3	P171224029	ND	0.336	0.616			U
	4:2 FTS	757124-72-4	P171224029	ND	0.0830	0.600			U
	6:2 FTS	27619-97-2	P171224029	0.563	0.302	0.610			J
	8:2 FTS	39108-34-4	P171224029	ND	0.143	0.613			U
	10:2 FTS	120226-60-0	P171224029	ND	0.490	0.640			U
Sulfonamidos	FBSA	30334-69-1	P171224029	ND	0.304	0.640			U
	N-EtFOSA	4151-50-2	P171224029	ND	0.396	0.640			U
	N-EtFOSAA	2991-50-6	P171224029	ND	0.260	0.640			U
	N-EtFOSE	1691-99-2	P171224029	ND	0.980	2.88			U
	N-MeFOSA	31506-32-8	P171224029	ND	0.264	0.640			U
	N-MeFOSAA	2355-31-9	P171224029	ND	0.180	0.640			U
	N-MeFOSE	24448-09-7	P171224029	ND	0.608	2.88			U
	PFOSA	754-91-6	P171224029	ND	0.0898	0.640			U
PFECAs	ADONA	919005-14-4	P171224029	ND	0.173	0.606			U
	EVE Acid	69087-46-3	P171224029	ND	0.204	1.44			U
	HFPO-DA	13252-13-6	P171224029	ND	0.0678	0.640			U
	Hydro-EVE Acid	773804-62-9	P171224029	ND	0.210	0.640			U
	NFDHA	151772-58-6	P171224029	ND	0.135	0.640			U
	PEPA	267239-61-2	P171224029	ND	0.120	0.640			U
	PFECA-G	801212-59-9	P171224029	ND	0.0854	0.640			U
	PFMOAA	674-13-5	P171224029	ND	0.324	0.640			U
	PFMOBA	863090-89-5	P171224029	ND	1.07	1.44			U
	PFMOPrA	377-73-1	P171224029	ND	0.228	0.640			U
	PFO2HxA	39492-88-1	P171224029	ND	0.206	0.640			U
	PFO3OA	39492-89-2	P171224029	ND	0.294	0.640			U
	PFO4DA	39492-90-5	P171224029	ND	0.506	3.20			U
	PFO5DA	39492-91-6	P171224029	ND	0.512	3.20			U
	PMPA	13140-29-9	P171224029	ND	0.151	0.640			U
	R-EVE	2416366-22-6	P171224029	ND	1.06	1.44			U
PFESAs	11Cl-PF3OUdS	763051-92-9	P171224029	ND	0.302	0.603			U
	9Cl-PF3ONS	756426-58-1	P171224029	ND	0.410	0.596			U
	Hydrolyzed PSDA	2416366-19-1	P171224029	ND	0.426	0.640			U
	Nafion Byproduct 1 (PS Acid)	29311-67-9	P171224029	ND	0.342	0.640			U
	Nafion Byproduct 2 (Hydro-PS Acid)	749836-20-2	P171224029	ND	0.530	0.640			U
	NVHOS	1132933-86-8	P171224029	ND	0.0986	0.640			U
	PFEESA	113507-82-7	P171224029	ND	0.192	0.640			U
	R-PSDA	2416366-18-0	P171224029	ND	2.82	2.82			U
	R-PSDCA	2416366-21-5	P171224029	ND	0.270	0.640			U
ES	MPFBA		P171224029				20-150%	91.0%	
	M5PFPeA		P171224029				20-150%	88.8%	
	M3PFBS		P171224029				20-150%	81.0%	
	M2-4:2 FTS		P171224029				20-150%	95.9%	
	M5PFHxA		P171224029				20-150%	88.6%	
	M3HFPO-DA		P171224029				20-150%	82.6%	
	M4PFHpA		P171224029				20-150%	89.0%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	MB_18683_PFAS		
Sampling Site			
Enthalpy ID	MB_18683_PFAS	Prep Batch	eu18683
Matrix	aqueous	Analyst	jacksullivan
Sampling Date		Instrument	Pippin
Received Date		Sample Vol mL	250
Prep Date	2024-12-16 06:15	Extract Vol mL	0.4
AnalysisDate	2024-12-17 23:32	Split Factor	N/A
SampleType	Blank	Method Code	EU-047-NPW
Bottle ID	-		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	M3PFHxS		P171224029				20-150%	97.7%	
	M2-6:2 FTS		P171224029				20-150%	99.0%	
	M8PFOA		P171224029				20-150%	92.6%	
	M9PFNA		P171224029				20-150%	89.5%	
	M8PFOS		P171224029				20-150%	87.4%	
	M2-8:2 FTS		P171224029				20-150%	82.1%	
	M8FOSA-I		P171224029				20-150%	73.6%	
	M6PFDA		P171224029				20-150%	95.1%	
	d3-N-MeFOSAA		P171224029				20-150%	89.1%	
	d5-N-EtFOSAA		P171224029				20-150%	92.8%	
	M7PFUdA		P171224029				20-150%	91.1%	
	MPFDoA		P171224029				20-150%	79.9%	
	M2PFTeDA		P171224029				20-150%	62.0%	
	d3-N-MeFOSA		P171224029				10-200%	4.38%	Q
	d5-N-EtFOSA		P171224029				10-200%	3.25%	Q
	d7-N-MeFOSE		P171224029				10-200%	46.8%	
	d9-N-EtFOSE		P171224029				10-200%	43.0%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Details

Sample Name	OPR_18622_PFAS		
Sampling Site			
Enthalpy ID	OPR_18622_PFAS	Prep Batch	EU18622
Matrix	aqueous	Analyst	jogres
Sampling Date		Instrument	Bumblebee
Received Date		Sample Vol mL	0.08
Prep Date	2024-12-04 08:11	Extract Vol mL	0.2
AnalysisDate	2024-12-04 15:55	Split Factor	N/A
SampleType	Control	Method Code	EU-047-NPW
Bottle ID	-		

	Compound	CAS	Injection File Name	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFPrA	422-64-0	B041224-12041555	25500	875	1910	40-150%	102%	
ES	13C3-PFPrA		B041224-12041555				20-150%	112%	

Enthalpy Analytical

Job No.: 1224-707-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC 211 Water Plant Leland, N.C

Enthalpy ID	OPR_18683_PFAS	Prep Batch	eu18683	Sample Vol (mL)	250
Sample Name	OPR_18683_PFAS	Prep Date	2024-12-16 06:15	Extract Vol (mL)	0.4
Matrix	aqueous	Analysis Date	2024-12-17 23:54	Split Factor	N/A
Sampling Date		Analyst	jacksullivan	Method Code	EU-047-NPW
Received Date		Instrument	Pippin	Sample Type	Control
		Bottle ID	-		

	Compound	CAS	InjFileName	Sample Concentration ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	P171224030	18.9	0.254	0.640	69.1-122%	94.3%	
	PFPeA	2706-90-3	P171224030	17.6	0.183	0.640	68.5-121%	88.1%	
	PFHxA	307-24-4	P171224030	17.6	0.214	0.640	68.3-121%	88.1%	
	PFHpA	375-85-9	P171224030	17.9	0.224	0.640	62.4-128%	89.6%	
	PFOA	335-67-1	P171224030	19.1	0.146	0.640	66.3-124%	95.6%	
	PFNA	375-95-1	P171224030	18.2	0.145	0.640	70.5-120%	91.0%	
	PFDA	335-76-2	P171224030	17.1	0.183	0.640	68.9-117%	85.4%	
	PFUnDA	2058-94-8	P171224030	17.1	0.145	0.640	58.1-132%	85.6%	
	PFDoDA	307-55-1	P171224030	18.8	0.260	0.640	52.1-140%	93.9%	
	PFTrDA	72629-94-8	P171224030	24.8	0.212	0.640	65-144%	124%	
	PFTeDA	376-06-7	P171224030	17.9	0.244	0.640	36.1-161%	89.7%	
Sulfonates	PFBS	375-73-5	P171224030	16.4	0.340	0.640	67.5-111.6%	92.3%	
	PFPeS	2706-91-4	P171224030	16.9	0.131	0.603	51.8-142%	90.0%	
	PFHxS	355-46-4	P171224030	16.7	0.494	0.586	59.6-128%	91.6%	
	PFHpS	375-92-8	P171224030	18.1	0.310	0.610	46.9-157%	95.0%	
	PFOS	1763-23-1	P171224030	16.2	0.338	0.593	59.2-132%	87.5%	
	PFNS	68259-12-1	P171224030	16.2	0.199	0.616	53.9-133%	84.4%	
	PFDS	335-77-3	P171224030	15.0	0.336	0.616	38.1-142%	77.5%	
	4:2 FTS	757124-72-4	P171224030	17.2	0.0830	0.600	61.9-131%	91.9%	
	6:2 FTS	27619-97-2	P171224030	16.2	0.302	0.610	62.3-129%	85.0%	
	8:2 FTS	39108-34-4	P171224030	16.2	0.143	0.613	37.5-159%	84.4%	
Sulfonamidos	N-EtFOSAA	2991-50-6	P171224030	17.5	0.260	0.640	61.5-133%	87.5%	
	N-MeFOSAA	2355-31-9	P171224030	18.5	0.180	0.640	57.3-138%	92.4%	
	PFOSA	754-91-6	P171224030	16.4	0.0898	0.640	49.1-143%	81.8%	
PFECAs	HFPO-DA	13252-13-6	P171224030	20.0	0.0678	0.640	57.2-130%	99.9%	
ES	MPFBA		P171224030				20-150%	87.3%	
	M5PFPeA		P171224030				20-150%	88.3%	
	M3PFBS		P171224030				20-150%	79.6%	
	M2-4:2 FTS		P171224030				20-150%	96.2%	
	M5PFHxA		P171224030				20-150%	93.6%	
	M3HFPO-DA		P171224030				20-150%	83.7%	
	M4PFHpA		P171224030				20-150%	88.8%	
	M3PFHxS		P171224030				20-150%	92.2%	
	M2-6:2 FTS		P171224030				20-150%	97.6%	
	M8PFOA		P171224030				20-150%	89.0%	
	M9PFNA		P171224030				20-150%	85.3%	
	M8PFOS		P171224030				20-150%	89.1%	
	M2-8:2 FTS		P171224030				20-150%	76.5%	
	M8FOSA-I		P171224030				20-150%	65.2%	
	M6PFDA		P171224030				20-150%	89.8%	
	d3-N-MeFOSAA		P171224030				20-150%	83.0%	
	d5-N-EtFOSAA		P171224030				20-150%	86.6%	
	M7PFUdA		P171224030				20-150%	83.6%	
	MPFDoA		P171224030				20-150%	69.6%	
	M2PFTeDA		P171224030				20-150%	40.7%	

Sample Custody

1224-707

Chain of Custody Record

ENTHALPY analytical

Enthalpy Ultratrace Job#: _____ COC Page__1__of__1__

Special Handling:
X Standard Turn Around Time
☐ Rush Turn Around Time -- Date Needed_____
• All Fast TATs Subject to Approval by Enthalpy Analytical, Inc.
• All Samples Disposed of After 6 months Unless Otherwise Instructed.
Enthalpy Analytical-Wilmington, NC has added enhancements to standard methods to improve accuracy, precision and permit an assessment of laboratory performance in the context of your specific data needs. For more information email Cindy.James@enthalpy.com.

Client Name: BRUNSWICK COUNTY UTILITIES
Project Manager: GLENN WALKER
Report To: SAME
Project Number:
Site Name: 211 WATER PLANT
Location: LELAND N.C.
PO#:
Telephone#:
Email:

This Chain of Custody is applicable to Non-Air samples. Standard TAT differ per analysis and are provided by request.

Client Special Instructions:

Matrix: GW-Groundwater, WW-Wastewater, NW-Non-Potable Water, DW-Drinking Water, S-Soil, SL-Sludge, BT-Biological Tissue, O-Other

Type: G=Grab C=Composite Q=Quality Control

Sample ID	Date	Time	Sample Volume	Type	Matrix	Sample Containers: # of Bottles	# of Jars	# of Bags	# Other	Analyses: Method 1613	Method 8290	Method 1668A/B/C PCB	PFAS by LC/MS/MS	PAHs by HRGC/HRMS	Sample on Hold	Method 23	ALL PFAS	Notes:
120324 W6A	12/3/24	0838	250mL	G	GW	2											X	Please Add PFPrA and
120324 W5	12/3/24	0845	250mL	G	GW	2											X	PFHpA To All The Testing.
120324 W3	12/3/24	0855	250mL	G	GW	2											X	Mark Hager Knows About
120324 W1	12/3/24	0905	250mL	G	GW	2											X	This If you Have Questions
120324 W2	12/3/24	0915	250mL	G	GW	2											X	
120324 W16	12/3/24	0920	250mL	G	GW	2											X	
120324 W17	12/3/24	0930	250mL	G	GW	2											X	
120324 W18	12/3/24	0936	250mL	G	GW	2											X	
120324 W19	12/3/24	0944	250mL	G	GW	2											X	
120324 W15	12/3/24	1000	250mL	G	GW	2											X	
120324 W8	12/3/24	1006	250mL	G	GW	2											X	
120324 W12A	12/3/24	1015	250mL	G	GW	2											X	
120324 W12	12/3/24	1022	250mL	G	GW	2											X	
120324 W11	12/3/24	1030	250mL	G	GW	2											X	

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Temperature Upon Receipt:
Kenny Rewels	12/3/24	CMA/KLP	12/3/24	1305	☒ Iced ☐ Ambient °C 13.1 T16
					☐ Iced ☐ Ambient °C_____
					☐ Iced ☐ Ambient °C_____

2714 Exchange Drive • Wilmington, NC 28405 • (910) 212-5858 • www.enthalpy.com

1224-707

ENTHALPY analytical

Chain of Custody Record

Enthalpy Ultratrace Job#: __________ COC Page __1__ of __1__

Special Handling:
X Standard Turn Around Time
☐ Rush Turn Around Time -- Date Needed__________
• All Fast TATs Subject to Approval by Enthalpy Analytical, Inc.
• All Samples Disposed of After 6 months Unless Otherwise Instructed.
Enthalpy Analytical-Wilmington, NC has added enhancements to standard methods to improve accuracy, precision and permit an assessment of laboratory performance in the context of your specific data needs. For more information email Cindy.James@enthalpy.com.

Client Name: BRUNSWICK COUNTY UTILITIES
Project Manager: GLENN WALKER
Report To: SAME

Project Number: __________
Site Name: 211 WATER PLANT
Location: LELAND N.C.

PO#: __________
Telephone#: __________
Email: __________

This Chain of Custody is applicable to Non-Air samples. Standard TAT differ per analysis and are provided by request.

Client Special Instructions:

Matrix: GW-Groundwater, WW-Wastewater, NW-Non-Potable Water, DW-Drinking Water, S-Soil, SL-Sludge, BT-Biological Tissue, O-Other

Type: G=Grab C=Composite Q=Quality Control

Sample ID	Date	Time	Sample Volume	Type	Matrix	Sample Containers: # of Bottles	# of Jars	# of Bags	# Other				Analyses: Method 1613	Method 8290	Method 1668A/B/C PCB	PFAS by LC/MS/MS	PAHs by HRGC/HRMS	Sample on Hold	Method 23	ALL PFAS	Notes:
120324S02	12/3/24	0823	250mL	G	GW	2														X	Please Add PFPrA and
120324E02	12/3/24	0825	250mL	G	GW	2														X	PFHpA To All The Testing.
			250mL	G	GW	2														X	Mark Hager Knows About
			250mL	G	GW	2														X	This If you Have Questions
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	
			250mL	G	GW	2														X	

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Temperature Upon Receipt:
Kenny Revels	12/3/24	[illegible signature]	13:05	12/3/24	☒ Iced ☐ Ambient °C 13.1 T16
					☐ Iced ☐ Ambient °C______
					☐ Iced ☐ Ambient °C______

2714 Exchange Drive • Wilmington, NC 28405 • (910) 212-5858 • www.enthalpy.com

JOB ID: 1224-707 Date / Time: 12/3/24 13:05 Initials: CK

OR

Client: Brunswick County

Cooler 1 of 7

Temp °C: 13.1 Thermometer ID: T16

Received via
FedEx ☐
UPS ☐
DHL ☐
USPS ☐
Courier ☑
Other ☐

Check one	
On ice:	☑
Melted ice:	☐
Ambient:	☐

Check one	
in a Box:	☐
in a Cooler:	☑
Cooler in Box:	☐

	Yes	No
Cooler seals:	☐	☒
Sample seals:	☐	☒
Good condition:	☑	☐

Comment:

Cooler ☐ of ☐

Temp °C: ☐ Thermometer ID: ☐

Received via
FedEx ☐
UPS ☐
DHL ☐
USPS ☐
Courier ☐
Other ☐

Check one	
On ice:	☐
Melted ice:	☐
Ambient:	☐

Check one	
in a Box:	☐
in a Cooler:	☐
Cooler in Box:	☐

	Yes	No
Cooler seals:	☐	☐
Sample seals:	☐	☐
Good condition:	☐	☐

Comment:

Cooler ☐ of ☐

Temp °C: ☐ Thermometer ID: ☐

Received via
FedEx ☐
UPS ☐
DHL ☐
USPS ☐
Courier ☐
Other ☐

Check one	
On ice:	☐
Melted ice:	☐
Ambient:	☐

Check one	
in a Box:	☐
in a Cooler:	☐
Cooler in Box:	☐

	Yes	No
Cooler seals:	☐	☐
Sample seals:	☐	☐
Good condition:	☐	☐

Comment: