# Brunswick County Public Utilities - NC

PO Box 249
Bolivia, NC 28422-0249

## 211 WTP
## NC

Client Project# 1920
Samples Received: 9/11/2025

Analytical Report
0925-783

DOD QSM Table B-24 (EPA 1633) - non-potable water

Report Issue Date: 10/7/2025

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 57 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:

Laura Boivin, QA Associate II

ENTHALPY ANALYTICAL

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# Narrative Summary

# Enthalpy Analytical Narrative Summary

| | |
|---|---|
| Company | Brunswick County Public Utilities - NC |
| Job No. | 0925-783-1 |
| Client ID. | 1920 Site: 211 WTP |

**1. Custody**

Brunswick County Public Utilities - NC collected the samples on September 11, 2025 and relinquished the samples via courier for shipment to Enthalpy Analytical, LLC. Shane Santos received the samples in two separate coolers at 5.9 °C and 6.0 °C.

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 |
|---|---|---|---|
| 0925-783-001-1A | 091125-W03 | Aqueous | 2025-09-11 |
| 0925-783-002-1A | 091125-W01 | Aqueous | 2025-09-11 |
| 0925-783-003-1A | 091125-W02 | Aqueous | 2025-09-11 |
| 0925-783-004-1A | 091125-W16 | Aqueous | 2025-09-11 |
| 0925-783-005-1A | 091125-W17 | Aqueous | 2025-09-11 |
| 0925-783-006-1A | 091125-W19 | Aqueous | 2025-09-11 |
| 0925-783-007-1A | 091125-W15 | Aqueous | 2025-09-11 |
| 0925-783-008-1A | 091125-W08 | Aqueous | 2025-09-11 |
| 0925-783-009-1A | 091125-W12A | Aqueous | 2025-09-11 |
| 0925-783-010-1A | 091125-W12 | Aqueous | 2025-09-11 |
| 0925-783-011-1A | 091125-W11 | Aqueous | 2025-09-11 |
| 0925-783-012-1A | 091125-W05 | Aqueous | 2025-09-11 |
| 0925-783-013-1A | 091125-W6A | Aqueous | 2025-09-11 |
| 0925-783-014-1A | 091125-CH | Aqueous | 2025-09-11 |
| 0925-783-015-1A | 091125-FW | Aqueous | 2025-09-11 |

**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.

**Table 3 - Methods and Analytes**

| EU Method | Analytes | Cleanup Method |
|---|---|---|
| EU062 | EPA 1633 List | ENVI-Carb |

**3. Analysis**

The samples were analyzed using LC/MS/MS instrument Pippin.

Samples were initially screened by direct injection to determine extraction volume.

# Enthalpy Analytical Narrative Summary

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Due to a supply issue, a SOP deviation was employed to measure the pH of samples prior to extraction. Instead of utilizing pH strips with a measurement increment of 0.5 required by the method, pH strips with a measurement increment of 1.0 were employed. The data is accepted as-is with no adverse impact.

**4. Calibration**

In the initial calibration, the reported analytes exhibited an RSD or RSE of ≤ 20%. The reported analytes in the calibration standards, and Initial Calibration Verification (ICV), continuing calibration (concal), and sensitivity check met the accuracy and S/N criterion for native analytes, except as noted below.

The Standards that did not were:

• BN89 (8:2 FTS, ADONA)
• BN91 (ADONA)

Analyte(s) that exceeded method control limits in the concals and/or sensitivity check were ND >LOQ in the samples. The data is reported without adverse impact.

**5. QC Notes**

The QC sample analyses passed all method criteria.

Client is aware samples were submitted without matrix spike (MS) and matrix spike duplicate (MSD) samples required by DOD Table B-24 method reporting and approved reporting data without these QCs.

DOD QSM Table B-24 (EPA 1633) - non-potable water samples were extracted within 28 days, and extracts analyzed within 28 days.

**6. Reporting Notes**

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

The ion ratios for all compounds were within tolerance.

The area responses for the non-extracted internal standards (injection standards or JS) met method criteria.

Manual integrations were performed on analytes in the ICAL, concals, controls, blanks, and samples to correct baseline-to-baseline integration and to integrate all isomers for all compounds. The following secondary codes are used to indicate the reason for the manual integration employed.

# Enthalpy Analytical Narrative Summary

| | |
|---|---|
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n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

Shaded areas in the chromatograms display the peak integration used for the final results. Dashed lines show the original integration, and solid lines show the final integration.

These analyses met the requirements of the DoD QSM 5.4. Any deviations from the requirements of the reference method or the QSM have been stated above.

Enthalpy Analytical, LLC in Wilmington NC is accredited by ANAB to perform testing to the DOD ELAP QSM 5.4 standards under certificate number ADE-2835.

# 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.

# General Reporting Notes – Data Qualifiers

- 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 | | | Methods | | | | | |
|---|---|---|---|---|---|---|---|---|
| Acronym | CAS # | Compound Name | SOP EU047 | EPA 1633 (B-24) | EPA 1633X | EPA 537.1 | EPA 533 | EPA 8327* |
| Target Analytes | | | | | | | | |
| PFBA | 375-22-4 | Perfluorobutanoic Acid | X | X | X | | X | X |
| PFPeA | 2706-90-3 | Perfluoropentanoic Acid | X | X | X | | X | X |
| PFHxA | 307-24-4 | Perfluorohexanoic Acid | X | X | X | X | X | X |
| PFHpA | 375-85-9 | Perfluoroheptanoic Acid | X | X | X | X | X | X |
| PFOA | 335-67-1 | Perfluorooctanoic Acid | X | X | X | X | X | X |
| PFNA | 375-95-1 | Perfluorononanoic Acid | X | X | X | X | X | X |
| PFDA | 335-76-2 | Perfluorodecanoic acid | X | X | X | X | X | X |
| PFUnA (PFUnDA) | 2058-94-8 | Perfluoroundecanoic acid | X | X | X | X | X | X |
| PFDoA (PFDoDA) | 307-55-1 | Perfluorododecanoic acid | X | X | X | X | | X |
| PFTrDA (PFTriA, PFTrDA) | 72629-94-8 | Perfluorotridecanoic acid | X | X | X | X | | X |
| PFTeDA (PFTA, PFTreA) | 376-06-7 | Perfluorotetradecanoic acid | X | X | X | X | | X |
| PFBS | 375-73-5 | Perfluorobutane sulfonic acid | X | X | X | X | X | X |
| PFPeS | 2706-91-4 | Perfluoropentane sulfonic acid | X | X | X | | X | X |
| PFHxS | 355-46-4 | Perfluorohexane sulfonic acid | X | X | X | X | X | X |
| PFHpS | 375-92-8 | Perfluoroheptane sulfonic acid | X | X | X | | X | X |
| PFOS | 1763-23-1 | Perfluorooctane sulfonic acid | X | X | X | X | X | X |
| PFNS | 68259-12-1 | Perfluorononane sulfonic acid | X | X | X | | | X |
| PFDS | 335-77-3 | Perfluorodecane sulfonic acid | X | X | X | | | X |
| 4:2 FTS | 757124-72-4 | 4:2 fluorotelomer sulfonic acid | X | X | X | | X | X |
| 6:2 FTS | 27619-97-2 | 6:2 fluorotelomer sulfonic acid | X | X | X | | X | X |
| 8:2 FTS | 39108-34-4 | 8:2 fluorotelomer sulfonic acid | X | X | X | | X | X |
| 10:2 FTS | 120226-60-0 | Fluorotelomer sulfonate 10:2 | | | | | | X |
| FHxSA | 41997-13-1 | Perfluorohexanesulfonamide | | | X | | | X |
| PFOSA (FOSA) | 754-91-6 | Perfluorooctane sulfonamide | X | X | X | | | X |
| N-MeFOSAA | 2355-31-9 | N-methyl perfluorooctane sulfonamido acetic acid | X | X | X | X | | X |
| N-MeFOSA | 31506-32-8 | N-methylperfluoro-1-octanesulfonamide | X | X | X | | | X |
| N-MeFOSE | 24448-09-7 | 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol | X | X | X | | | X |
| N-EtFOSAA | 2991-50-6 | N-ethyl perfluorooctane sulfonamido acetic acid | X | X | X | X | | X |
| N-EtFOSA | 4151-50-2 | N-ethylperfluoro-1-octanesulfonamide | X | X | X | | | X |
| N-EtFOSE | 1691-99-2 | 2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol | X | X | X | | | X |
| HFPO-DA | 13252-13-6 | Hexafluoropropyleneoxide dimer acid (GenX) | X | X | X | X | X | X |
| 11Cl-PF3OUdS | 763051-92-9 | 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | X | X | X | X | X | X |
| 9Cl-PF3ONS | 756426-58-1 | 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | X | X | X | X | X | X |
| ADONA | 919005-14-4 | 4,8-dioxa-3H-perfluorononanoic acid | X | X | X | X | X | X |
| PFEESA | 113507-82-7 | Perfluoro(2-ethoxyethane)sulfonic acid | | X | X | | X | X |
| PFMOBA (PFMBA) | 863090-89-5 | Perfluoro-4-methoxybutanoic acid | | X | X | | X | X |
| NFDHA | 151772-58-6 | Nonafluoro-3,6-dioxaheptanoic acid | | X | X | | X | X |
| PFMOPrA (PFMPA) | 377-73-1 | Perfluoro-3-methoxypropanoic acid | | X | X | | X | X |
| PFPrA | 422-64-0 | Perfluoropropionic acid, 2,2,3,3,3-Pentafluoropropionic acid | | | X | | | |
| PFPrS (PFPS) | 423-41-6 | Perfluoropropanesulfonic acid | | | X | | | X |

| PFAS Compound Acronym List | | | Methods | | | | | |
|---|---|---|---|---|---|---|---|---|
| Acronym | CAS # | Compound Name | SOP EU047 | EPA 1633 (B-24) | EPA 1633X | EPA 537.1 | EPA 533 | EPA 8327* |
| PFMOAA | 674-13-5 | Perfluoro-2-methoxyacetic acid; | | | X | | | X |
| PFO2HxA | 39492-88-1 | Perfluoro (3,5-dioxahexanoic) acid | | | X | | | X |
| PFO3OA | 39492-89-2 | Perfluoro (3,5,7-trioxaoctanoic) acid | | | X | | | X |
| PFO4DA | 39492-90-5 | Perfluoro (3,5,7,9-tetraoxadecanoic) acid | | | X | | | X |
| PFO5DA | 39492-91-6 | Perfluoro(3,5,7,9,11-pentaoxadodecanoic) acid | | | X | | | X |
| Nafion Byproduct 1 (PS Acid) | 29311-67-9 | 1,1,2,2-tetrafluoro-2-[1,1,1,2,3,3-hexafluoro-3-(1,2,2-trifluoroethenoxy)propan-2-yl]oxyethanesulfonic acid | | | X | | | X |
| Nafion Byproduct 2 (Hydro-PS Acid) | 749836-20-2 | Perfluoro-2-{[perfluoro-3-(perfluoroethoxy)-2-propanyl]oxy}ethanesulfonic acid (Hydro-PS Acid) | | | X | | | X |
| PEPA | 267239-61-2 | Perfluoro-2-ethoxypropanoic acid | | | X | | | X |
| PMPA | 13140-29-9 | Perfluoro-2-methoxypropanoic acid | | | X | | | X |
| PFECA-G, (PFPE-1) | 801212-59-9 | 4-(Heptafluoroisopropoxy)hexafluorobutanoic acid, Perfluoro-4-isopropoxybutanoic acid | | | X | | | X |
| PFHxDA | 67905-19-5 | Perfluorohexadecanoic acid | | | X | | | |
| R-PSDA (Nafion Byproduct 4) | 2416366-18-0 | Perfluoro-4-(2-sulfoethoxy)pentanoic acid; 2,2,3,3,4,5,5,5-Octafluoro-4-(1,1,2,2-tetrafluoro-2-sulfoethoxy)pentanoic acid | | | X | | | X |
| 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 | | | X | | | X |
| 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 | | | X | | | X |
| 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 | | | X | | | X |
| FBSA | 30334-69-1 | Perfluorobutylsulfonamide | | | X | | | X |
| MeFBSA | 68298-12-4 | 1-Butanesulfonamide; (N-(Methyl)nonafluorobutanesulfonamide); 1,1,2,2,3,3,4,4,4-nonafluoro-N-methyl-1-Butanesulfonamide | | | X | | | X |
| 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 | | | X | | | X |
| 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 | | | X | | | X |
| NVHOS | 1132933-86-8 | Perfluoroethoxysulfonic acid; 1,1,2,2-Tetrafluoro-2-(1,2,2,2-tetrafluoroethoxy)ethane-1-sulfonic acid | | | X | | | X |

| PFAS Compound Acronym List | | | Methods | | | | | |
|---|---|---|---|---|---|---|---|---|
| Acronym | CAS # | Compound Name | SOP EU047 | EPA 1633 (B-24) | EPA 1633X | EPA 537.1 | EPA 533 | EPA 8327* |
| PFDoS | 79780-39-5 | Perfluorododecane sulfonic acid | | X | X | | | X |
| PFODA | 16517-11-6 | Perfluorooctadecanoic acid | | | X | | | |
| 3:3 FTCA | 356-02-5 | 2H,2H,3H,3H-Perfluorohexanoic acid | | X | X | | | X |
| 5:3 FTCA | 914637-49-3 | 2H,2H,3H,3H-Perfluorooctanoic acid | | X | X | | | X |
| 7:3 FTCA | 812-70-4 | 2H,2H,3H,3H-Perfluorodecanoic acid | | X | X | | | X |
| N-AP-FHxSA | 50598-28-2 | N-(3-(Dimethylamino)propyl)tridecafluoro-1-hexanesulfonamide | | | X | | | X |
| 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 | | | X | | | X |
| BPAF | 1478-61-1 | Bisphenol AF | | | X | | | X |
| HQ-115 | 90076-65-6 | Bis(trifluoromethane)sulfonimide lithium salt | | | X | | | X |

* Accreditation pending

# Results

## Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water
Brunswick County Public Utilities - NC 1920 211 WTP

### Summary

| | Compound | CAS | 091125-W03 ng/L | 091125-W01 ng/L | 091125-W02 ng/L | 091125-W16 ng/L | 091125-W17 ng/L |
|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | <LOQ (7.28) U | <LOQ (7.11) U | <LOQ (7.17) U | <LOQ (7.08) U | <LOQ (7.19) U |
| | PFPeA | 2706-90-3 | <LOQ (3.64) U | <LOQ (3.55) U | <LOQ (3.59) U | <LOQ (3.54) U | <LOQ (3.59) U |
| | PFHxA | 307-24-4 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFHpA | 375-85-9 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFOA | 335-67-1 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFNA | 375-95-1 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFDA | 335-76-2 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFUnDA | 2058-94-8 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFDoA | 307-55-1 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFTrDA | 72629-94-8 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFTeDA | 376-06-7 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| Sulfonates | PFBS | 375-73-5 | <LOQ (1.61) U | <LOQ (1.58) U | <LOQ (1.59) U | <LOQ (1.57) U | <LOQ (1.59) U |
| | PFPeS | 2706-91-4 | <LOQ (1.71) U | <LOQ (1.67) U | <LOQ (1.69) U | <LOQ (1.66) U | <LOQ (1.69) U |
| | PFHxS | 355-46-4 | <LOQ (1.66) U | <LOQ (1.62) U | <LOQ (1.64) U | <LOQ (1.62) U | <LOQ (1.64) U |
| | PFHpS | 375-92-8 | <LOQ (1.73) U | <LOQ (1.69) U | <LOQ (1.71) U | <LOQ (1.69) U | <LOQ (1.71) U |
| | PFOS | 1763-23-1 | <LOQ (1.69) U | <LOQ (1.65) U | <LOQ (1.66) U | <LOQ (1.64) U | <LOQ (1.67) U |
| | PFNS | 68259-12-1 | <LOQ (1.75) U | <LOQ (1.71) U | <LOQ (1.72) U | <LOQ (1.70) U | <LOQ (1.73) U |
| | PFDS | 335-77-3 | <LOQ (1.76) U | <LOQ (1.72) U | <LOQ (1.73) U | <LOQ (1.71) U | <LOQ (1.73) U |
| | PFDoS | 79780-39-5 | <LOQ (1.76) U | <LOQ (1.72) U | <LOQ (1.74) U | <LOQ (1.72) U | <LOQ (1.74) U |
| | 4:2 FTS | 757124-72-4 | <LOQ (6.82) U | <LOQ (6.66) U | <LOQ (6.72) U | <LOQ (6.63) U | <LOQ (6.74) U |
| | 6:2 FTS | 27619-97-2 | <LOQ (6.91) U | <LOQ (6.75) U | <LOQ (6.81) U | <LOQ (6.72) U | <LOQ (6.83) U |
| | 8:2 FTS | 39108-34-4 | <LOQ (6.99) U | <LOQ (6.82) U | <LOQ (6.89) U | <LOQ (6.79) U | <LOQ (6.90) U |
| Sulfonmides | PFOSA | 754-91-6 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | N-MeFOSA | 31506-32-8 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | N-EtFOSA | 4151-50-2 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | N-MeFOSE | 24448-09-7 | <LOQ (18.2) U | <LOQ (17.8) U | <LOQ (17.9) U | <LOQ (17.7) U | <LOQ (18.0) U |
| | N-EtFOSE | 1691-99-2 | <LOQ (18.2) U | <LOQ (17.8) U | <LOQ (17.9) U | <LOQ (17.7) U | <LOQ (18.0) U |
| PFECAs | HFPO-DA | 13252-13-6 | <LOQ (7.28) U | <LOQ (7.11) U | <LOQ (7.17) U | <LOQ (7.08) U | <LOQ (7.19) U |
| | PFMBA | 863090-89-5 | <LOQ (3.64) U | <LOQ (3.55) U | <LOQ (3.59) U | <LOQ (3.54) U | <LOQ (3.59) U |
| | PFMPA | 377-73-1 | <LOQ (3.64) U | <LOQ (3.55) U | <LOQ (3.59) U | <LOQ (3.54) U | <LOQ (3.59) U |
| | NFDHA | 151772-58-6 | <LOQ (3.64) U | <LOQ (3.55) U | <LOQ (3.59) U | <LOQ (3.54) U | <LOQ (3.59) U |
| FTCAs | 3:3 FTCA | 356-02-5 | <LOQ (9.10) U | <LOQ (8.89) U | <LOQ (8.97) U | <LOQ (8.85) U | <LOQ (8.99) U |
| | 5:3 FTCA | 914637-49-3 | <LOQ (9.10) U | <LOQ (8.89) U | <LOQ (8.97) U | <LOQ (8.85) U | <LOQ (8.99) U |
| | 7:3 FTCA | 812-70-4 | <LOQ (9.10) U | <LOQ (8.89) U | <LOQ (8.97) U | <LOQ (8.85) U | <LOQ (8.99) U |
| Other | ADONA | 919005-14-4 | <LOQ (6.88) U | <LOQ (6.72) U | <LOQ (6.78) U | <LOQ (6.69) U | <LOQ (6.79) U |
| | 9Cl-PF3ONS | 756426-58-1 | <LOQ (6.80) U | <LOQ (6.65) U | <LOQ (6.71) U | <LOQ (6.62) U | <LOQ (6.72) U |
| | N-MeFOSAA | 2355-31-9 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | 11Cl-PF3OUdS | 763051-92-9 | <LOQ (6.88) U | <LOQ (6.72) U | <LOQ (6.78) U | <LOQ (6.69) U | <LOQ (6.79) U |
| | N-EtFOSAA | 2991-50-6 | <LOQ (1.82) U | <LOQ (1.78) U | <LOQ (1.79) U | <LOQ (1.77) U | <LOQ (1.80) U |
| | PFEESA | 113507-82-7 | <LOQ (3.24) U | <LOQ (3.16) U | <LOQ (3.19) U | <LOQ (3.15) U | <LOQ (3.20) U |

## Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water
Brunswick County Public Utilities - NC 1920 211 WTP

### Summary

| | Compound | CAS | 091125-W19 ng/L | 091125-W15 ng/L | 091125-W08 ng/L | 091125-W12A ng/L | 091125-W12 ng/L |
|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | <LOQ (6.93) U | <LOQ (6.96) U | <LOQ (7.10) U | <LOQ (7.06) U | <LOQ (7.08) U |
| | PFPeA | 2706-90-3 | <LOQ (3.46) U | <LOQ (3.48) U | <LOQ (3.55) U | <LOQ (3.53) U | <LOQ (3.54) U |
| | PFHxA | 307-24-4 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFHpA | 375-85-9 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFOA | 335-67-1 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFNA | 375-95-1 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFDA | 335-76-2 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFUnDA | 2058-94-8 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFDoA | 307-55-1 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFTrDA | 72629-94-8 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFTeDA | 376-06-7 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| Sulfonates | PFBS | 375-73-5 | <LOQ (1.54) U | <LOQ (1.54) U | <LOQ (1.57) U | <LOQ (1.56) U | <LOQ (1.57) U |
| | PFPeS | 2706-91-4 | <LOQ (1.63) U | <LOQ (1.64) U | <LOQ (1.67) U | <LOQ (1.66) U | <LOQ (1.67) U |
| | PFHxS | 355-46-4 | <LOQ (1.58) U | <LOQ (1.59) U | <LOQ (1.62) U | <LOQ (1.61) U | <LOQ (1.62) U |
| | PFHpS | 375-92-8 | <LOQ (1.65) U | <LOQ (1.66) U | <LOQ (1.69) U | <LOQ (1.68) U | <LOQ (1.69) U |
| | PFOS | 1763-23-1 | <LOQ (1.61) U | <LOQ (1.61) U | <LOQ (1.65) U | <LOQ (1.64) U | <LOQ (1.64) U |
| | PFNS | 68259-12-1 | <LOQ (1.67) U | <LOQ (1.67) U | <LOQ (1.71) U | <LOQ (1.70) U | <LOQ (1.70) U |
| | PFDS | 335-77-3 | <LOQ (1.67) U | <LOQ (1.68) U | <LOQ (1.71) U | <LOQ (1.70) U | <LOQ (1.71) U |
| | PFDoS | 79780-39-5 | <LOQ (1.68) U | <LOQ (1.69) U | <LOQ (1.72) U | <LOQ (1.71) U | <LOQ (1.72) U |
| | 4:2 FTS | 757124-72-4 | <LOQ (6.49) U | <LOQ (6.52) U | <LOQ (6.65) U | <LOQ (6.61) U | <LOQ (6.64) U |
| | 6:2 FTS | 27619-97-2 | <LOQ (6.58) U | <LOQ (6.61) U | <LOQ (6.74) U | <LOQ (6.70) U | <LOQ (6.72) U |
| | 8:2 FTS | 39108-34-4 | <LOQ (6.65) U | <LOQ (6.68) U | <LOQ (6.81) U | <LOQ (6.77) U | <LOQ (6.80) U |
| Sulfonmides | PFOSA | 754-91-6 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | N-MeFOSA | 31506-32-8 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | N-EtFOSA | 4151-50-2 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | N-MeFOSE | 24448-09-7 | <LOQ (17.3) U | <LOQ (17.4) U | <LOQ (17.7) U | <LOQ (17.6) U | <LOQ (17.7) U |
| | N-EtFOSE | 1691-99-2 | <LOQ (17.3) U | <LOQ (17.4) U | <LOQ (17.7) U | <LOQ (17.6) U | <LOQ (17.7) U |
| PFECAs | HFPO-DA | 13252-13-6 | <LOQ (6.93) U | <LOQ (6.96) U | <LOQ (7.10) U | <LOQ (7.06) U | <LOQ (7.08) U |
| | PFMBA | 863090-89-5 | <LOQ (3.46) U | <LOQ (3.48) U | <LOQ (3.55) U | <LOQ (3.53) U | <LOQ (3.54) U |
| | PFMPA | 377-73-1 | <LOQ (3.46) U | <LOQ (3.48) U | <LOQ (3.55) U | <LOQ (3.53) U | <LOQ (3.54) U |
| | NFDHA | 151772-58-6 | <LOQ (3.46) U | <LOQ (3.48) U | <LOQ (3.55) U | <LOQ (3.53) U | <LOQ (3.54) U |
| FTCAs | 3:3 FTCA | 356-02-5 | <LOQ (8.66) U | <LOQ (8.69) U | <LOQ (8.87) U | <LOQ (8.82) U | <LOQ (8.85) U |
| | 5:3 FTCA | 914637-49-3 | <LOQ (8.66) U | <LOQ (8.69) U | <LOQ (8.87) U | <LOQ (8.82) U | <LOQ (8.85) U |
| | 7:3 FTCA | 812-70-4 | <LOQ (8.66) U | <LOQ (8.69) U | <LOQ (8.87) U | <LOQ (8.82) U | <LOQ (8.85) U |
| Other | ADONA | 919005-14-4 | <LOQ (6.55) U | <LOQ (6.57) U | <LOQ (6.71) U | <LOQ (6.67) U | <LOQ (6.69) U |
| | 9Cl-PF3ONS | 756426-58-1 | <LOQ (6.48) U | <LOQ (6.50) U | <LOQ (6.64) U | <LOQ (6.60) U | <LOQ (6.62) U |
| | N-MeFOSAA | 2355-31-9 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | 11Cl-PF3OUdS | 763051-92-9 | <LOQ (6.55) U | <LOQ (6.57) U | <LOQ (6.71) U | <LOQ (6.67) U | <LOQ (6.69) U |
| | N-EtFOSAA | 2991-50-6 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.77) U | <LOQ (1.76) U | <LOQ (1.77) U |
| | PFEESA | 113507-82-7 | <LOQ (3.08) U | <LOQ (3.10) U | <LOQ (3.16) U | <LOQ (3.14) U | <LOQ (3.15) U |

## Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water
Brunswick County Public Utilities - NC 1920 211 WTP

### Summary

| | Compound | CAS | 091125-W11 ng/L | 091125-W05 ng/L | 091125-W6A ng/L | 091125-CH ng/L | 091125-FW ng/L |
|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | <LOQ (7.14) U | <LOQ (7.19) U | <LOQ (7.26) U | <LOQ (7.02) U | <LOQ (7.11) U |
| | PFPeA | 2706-90-3 | <LOQ (3.57) U | <LOQ (3.60) U | <LOQ (3.63) U | <LOQ (3.51) U | <LOQ (3.55) U |
| | PFHxA | 307-24-4 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFHpA | 375-85-9 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFOA | 335-67-1 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFNA | 375-95-1 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFDA | 335-76-2 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFUnDA | 2058-94-8 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFDoA | 307-55-1 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFTrDA | 72629-94-8 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFTeDA | 376-06-7 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| Sulfonates | PFBS | 375-73-5 | <LOQ (1.58) U | <LOQ (1.59) U | <LOQ (1.61) U | <LOQ (1.56) U | <LOQ (1.58) U |
| | PFPeS | 2706-91-4 | <LOQ (1.68) U | <LOQ (1.69) U | <LOQ (1.71) U | <LOQ (1.65) U | <LOQ (1.67) U |
| | PFHxS | 355-46-4 | <LOQ (1.63) U | <LOQ (1.64) U | <LOQ (1.66) U | <LOQ (1.60) U | <LOQ (1.62) U |
| | PFHpS | 375-92-8 | <LOQ (1.70) U | <LOQ (1.71) U | <LOQ (1.73) U | <LOQ (1.67) U | <LOQ (1.69) U |
| | PFOS | 1763-23-1 | <LOQ (1.66) U | <LOQ (1.67) U | <LOQ (1.68) U | <LOQ (1.63) U | <LOQ (1.65) U |
| | PFNS | 68259-12-1 | <LOQ (1.72) U | <LOQ (1.73) U | <LOQ (1.75) U | <LOQ (1.69) U | <LOQ (1.71) U |
| | PFDS | 335-77-3 | <LOQ (1.72) U | <LOQ (1.73) U | <LOQ (1.75) U | <LOQ (1.69) U | <LOQ (1.71) U |
| | PFDoS | 79780-39-5 | <LOQ (1.73) U | <LOQ (1.74) U | <LOQ (1.76) U | <LOQ (1.70) U | <LOQ (1.72) U |
| | 4:2 FTS | 757124-72-4 | <LOQ (6.69) U | <LOQ (6.74) U | <LOQ (6.81) U | <LOQ (6.58) U | <LOQ (6.66) U |
| | 6:2 FTS | 27619-97-2 | <LOQ (6.78) U | <LOQ (6.83) U | <LOQ (6.90) U | <LOQ (6.67) U | <LOQ (6.75) U |
| | 8:2 FTS | 39108-34-4 | <LOQ (6.85) U | <LOQ (6.90) U | <LOQ (6.97) U | <LOQ (6.74) U | <LOQ (6.82) U |
| Sulfonmides | PFOSA | 754-91-6 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | N-MeFOSA | 31506-32-8 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | N-EtFOSA | 4151-50-2 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | N-MeFOSE | 24448-09-7 | <LOQ (17.8) U | <LOQ (18.0) U | <LOQ (18.1) U | <LOQ (17.5) U | <LOQ (17.8) U |
| | N-EtFOSE | 1691-99-2 | <LOQ (17.8) U | <LOQ (18.0) U | <LOQ (18.1) U | <LOQ (17.5) U | <LOQ (17.8) U |
| PFECAs | HFPO-DA | 13252-13-6 | <LOQ (7.14) U | <LOQ (7.19) U | <LOQ (7.26) U | <LOQ (7.02) U | <LOQ (7.11) U |
| | PFMBA | 863090-89-5 | <LOQ (3.57) U | <LOQ (3.60) U | <LOQ (3.63) U | <LOQ (3.51) U | <LOQ (3.55) U |
| | PFMPA | 377-73-1 | <LOQ (3.57) U | <LOQ (3.60) U | <LOQ (3.63) U | <LOQ (3.51) U | <LOQ (3.55) U |
| | NFDHA | 151772-58-6 | <LOQ (3.57) U | <LOQ (3.60) U | <LOQ (3.63) U | <LOQ (3.51) U | <LOQ (3.55) U |
| FTCAs | 3:3 FTCA | 356-02-5 | <LOQ (8.92) U | <LOQ (8.99) U | <LOQ (9.07) U | <LOQ (8.77) U | <LOQ (8.88) U |
| | 5:3 FTCA | 914637-49-3 | <LOQ (8.92) U | <LOQ (8.99) U | <LOQ (9.07) U | <LOQ (8.77) U | <LOQ (8.88) U |
| | 7:3 FTCA | 812-70-4 | <LOQ (8.92) U | <LOQ (8.99) U | <LOQ (9.07) U | <LOQ (8.77) U | <LOQ (8.88) U |
| Other | ADONA | 919005-14-4 | <LOQ (6.74) U | <LOQ (6.79) U | <LOQ (6.86) U | <LOQ (6.63) U | <LOQ (6.72) U |
| | 9Cl-PF3ONS | 756426-58-1 | <LOQ (6.67) U | <LOQ (6.72) U | <LOQ (6.79) U | <LOQ (6.56) U | <LOQ (6.64) U |
| | N-MeFOSAA | 2355-31-9 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | 11Cl-PF3OUdS | 763051-92-9 | <LOQ (6.74) U | <LOQ (6.79) U | <LOQ (6.86) U | <LOQ (6.63) U | <LOQ (6.72) U |
| | N-EtFOSAA | 2991-50-6 | <LOQ (1.78) U | <LOQ (1.80) U | <LOQ (1.81) U | <LOQ (1.75) U | <LOQ (1.78) U |
| | PFEESA | 113507-82-7 | <LOQ (3.18) U | <LOQ (3.20) U | <LOQ (3.23) U | <LOQ (3.12) U | <LOQ (3.16) U |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W03 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-001-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:33 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 549.62 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:56 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925011 | <LOQ (7.28) | MM1* | 6.55 | 7.28 | 1.71 | | | U |
| | PFPeA | 2706-90-3 | P170925011 | <LOQ (3.64) | MM1* | 3.27 | 3.64 | 1.26 | | | U |
| | PFHxA | 307-24-4 | P170925011 | <LOQ (1.82) | MM1* | 1.64 | 1.82 | 0.600 | | | U |
| | PFHpA | 375-85-9 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.549 | | | U |
| | PFOA | 335-67-1 | P170925011 | <LOQ (1.82) | MM1* | 1.64 | 1.82 | 1.06 | | | U |
| | PFNA | 375-95-1 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.348 | | | U |
| | PFDA | 335-76-2 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.398 | | | U |
| | PFUnDA | 2058-94-8 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.615 | | | U |
| | PFDoA | 307-55-1 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.615 | | | U |
| | PFTrDA | 72629-94-8 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.626 | | | U |
| | PFTeDA | 376-06-7 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.469 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925011 | <LOQ (1.61) | | 1.45 | 1.61 | 0.821 | | | U |
| | PFPeS | 2706-91-4 | P170925011 | <LOQ (1.71) | | 1.54 | 1.71 | 1.02 | | | U |
| | PFHxS | 355-46-4 | P170925011 | <LOQ (1.66) | | 1.50 | 1.66 | 0.703 | | | U |
| | PFHpS | 375-92-8 | P170925011 | <LOQ (1.73) | | 1.56 | 1.73 | 0.600 | | | U |
| | PFOS | 1763-23-1 | P170925011 | <LOQ (1.69) | | 1.52 | 1.69 | 0.640 | | | U |
| | PFNS | 68259-12-1 | P170925011 | <LOQ (1.75) | | 1.58 | 1.75 | 1.01 | | | U |
| | PFDS | 335-77-3 | P170925011 | <LOQ (1.76) | | 1.58 | 1.76 | 0.772 | | | U |
| | PFDoS | 79780-39-5 | P170925011 | <LOQ (1.76) | | 1.59 | 1.76 | 0.438 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925011 | <LOQ (6.82) | | 6.14 | 6.82 | 2.86 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925011 | <LOQ (6.91) | | 6.22 | 6.91 | 1.72 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925011 | <LOQ (6.99) | | 6.29 | 6.99 | 4.38 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.946 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.500 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 1.25 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925011 | <LOQ (18.2) | | 16.4 | 18.2 | 5.95 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925011 | <LOQ (18.2) | | 16.4 | 18.2 | 8.61 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925011 | <LOQ (7.28) | | 6.55 | 7.28 | 4.35 | | | U |
| | PFMBA | 863090-89-5 | P170925011 | <LOQ (3.64) | | 3.27 | 3.64 | 1.49 | | | U |
| | PFMPA | 377-73-1 | P170925011 | <LOQ (3.64) | | 3.27 | 3.64 | 0.683 | | | U |
| | NFDHA | 151772-58-6 | P170925011 | <LOQ (3.64) | | 3.27 | 3.64 | 1.84 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925011 | <LOQ (9.10) | | 8.19 | 9.10 | 3.14 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925011 | <LOQ (9.10) | | 8.19 | 9.10 | 2.66 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925011 | <LOQ (9.10) | | 8.19 | 9.10 | 3.95 | | | U |
| Other | ADONA | 919005-14-4 | P170925011 | <LOQ (6.88) | | 6.19 | 6.88 | 3.63 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925011 | <LOQ (6.80) | | 6.12 | 6.80 | 1.94 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.928 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925011 | <LOQ (6.88) | | 6.19 | 6.88 | 1.55 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925011 | <LOQ (1.82) | | 1.64 | 1.82 | 0.881 | | | U |
| | PFEESA | 113507-82-7 | P170925011 | <LOQ (3.24) | | 2.91 | 3.24 | 1.26 | | | U |
| ES | M4PFBA | | P170925011 | | bb | | | | 5-130% | 45.5% | |
| | M5PFPeA | | P170925011 | | MM2* | | | | 40-130% | 76.5% | |
| | M5PFHxA | | P170925011 | | MM2* | | | | 40-130% | 82.6% | |
| | M4PFHpA | | P170925011 | | bb | | | | 40-130% | 86.1% | |
| | M8PFOA | | P170925011 | | bb | | | | 40-130% | 84.8% | |
| | M9PFNA | | P170925011 | | bs | | | | 40-130% | 85.0% | |
| | M6PFDA | | P170925011 | | MM2* | | | | 40-130% | 77.7% | |
| | M7PFUdA | | P170925011 | | bb | | | | 30-130% | 74.2% | |
| | M2-PFDoA | | P170925011 | | MM2* | | | | 10-130% | 65.4% | |
| | 13C2-PFTeDA | | P170925011 | | MM2* | | | | 10-130% | 48.3% | |
| | M3PFBS | | P170925011 | | bb | | | | 40-135% | 76.2% | |
| | M3PFHxS | | P170925011 | | bb | | | | 40-130% | 83.0% | |
| | M8PFOS | | P170925011 | | MM2* | | | | 40-130% | 87.8% | |
| | M2-4:2 FTS | | P170925011 | | bb | | | | 40-200% | 105% | |
| | M2-6:2 FTS | | P170925011 | | bb | | | | 40-200% | 80.0% | |
| | M2-8:2 FTS | | P170925011 | | bb | | | | 40-300% | 88.0% | |
| | M8PFOSA | | P170925011 | | bb | | | | 40-130% | 72.0% | |
| | d3-N-MeFOSA | | P170925011 | | bb | | | | 10-130% | 60.9% | |
| | d5-N-EtFOSA | | P170925011 | | bb | | | | 10-130% | 58.8% | |
| | d3-N-MeFOSAA | | P170925011 | | MM2* | | | | 40-170% | 71.6% | |
| | d5-N-EtFOSAA | | P170925011 | | MM2* | | | | 25-135% | 74.6% | |
| | d7-N-MeFOSE | | P170925011 | | bb | | | | 10-130% | 91.6% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W03 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-001-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:33 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 549.62 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:56 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925011 | | bb | | | | 10-130% | 85.0% | |
| | M3HFPO-DA | | P170925011 | | bb | | | | 40-130% | 69.3% | |
| JS | M3PFBA | | P170925011 | | MM2* | | | | 50-200% | 84.2% | |
| | M2-PFHxA | | P170925011 | | MM2* | | | | 50-200% | 89.1% | |
| | M4-PFOA | | P170925011 | | bb | | | | 50-200% | 89.9% | |
| | M5-PFNA | | P170925011 | | bb | | | | 50-200% | 96.5% | |
| | M2-PFDA | | P170925011 | | bb | | | | 50-200% | 98.4% | |
| | 18O2PFHxS | | P170925011 | | bb | | | | 50-200% | 99.1% | |
| | M4-PFOS | | P170925011 | | bb | | | | 50-200% | 105% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W01 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-002-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:48 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 562.68 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 16:19 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925012 | <LOQ (7.11) | MM1* | 6.40 | 7.11 | 1.67 | | | U |
| | PFPeA | 2706-90-3 | P170925012 | <LOQ (3.55) | MM2* | 3.20 | 3.55 | 1.23 | | | U |
| | PFHxA | 307-24-4 | P170925012 | <LOQ (1.78) | MM2* | 1.60 | 1.78 | 0.586 | | | U |
| | PFHpA | 375-85-9 | P170925012 | <LOQ (1.78) | bb1* | 1.60 | 1.78 | 0.536 | | | U |
| | PFOA | 335-67-1 | P170925012 | <LOQ (1.78) | MM2* | 1.60 | 1.78 | 1.04 | | | U |
| | PFNA | 375-95-1 | P170925012 | <LOQ (1.78) | MM2* | 1.60 | 1.78 | 0.340 | | | U |
| | PFDA | 335-76-2 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.388 | | | U |
| | PFUnDA | 2058-94-8 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.601 | | | U |
| | PFDoA | 307-55-1 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.601 | | | U |
| | PFTrDA | 72629-94-8 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.611 | | | U |
| | PFTeDA | 376-06-7 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.458 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925012 | <LOQ (1.58) | | 1.42 | 1.58 | 0.802 | | | U |
| | PFPeS | 2706-91-4 | P170925012 | <LOQ (1.67) | | 1.51 | 1.67 | 0.992 | | | U |
| | PFHxS | 355-46-4 | P170925012 | <LOQ (1.62) | | 1.46 | 1.62 | 0.687 | | | U |
| | PFHpS | 375-92-8 | P170925012 | <LOQ (1.69) | | 1.52 | 1.69 | 0.586 | | | U |
| | PFOS | 1763-23-1 | P170925012 | <LOQ (1.65) | | 1.48 | 1.65 | 0.626 | | | U |
| | PFNS | 68259-12-1 | P170925012 | <LOQ (1.71) | | 1.54 | 1.71 | 0.989 | | | U |
| | PFDS | 335-77-3 | P170925012 | <LOQ (1.72) | | 1.54 | 1.72 | 0.754 | | | U |
| | PFDoS | 79780-39-5 | P170925012 | <LOQ (1.72) | | 1.55 | 1.72 | 0.427 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925012 | <LOQ (6.66) | | 6.00 | 6.66 | 2.79 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925012 | <LOQ (6.75) | | 6.08 | 6.75 | 1.68 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925012 | <LOQ (6.82) | | 6.14 | 6.82 | 4.27 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.924 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.489 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 1.22 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925012 | <LOQ (17.8) | | 16.0 | 17.8 | 5.81 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925012 | <LOQ (17.8) | | 16.0 | 17.8 | 8.41 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925012 | <LOQ (7.11) | MM3* | 6.40 | 7.11 | 4.24 | | | U |
| | PFMBA | 863090-89-5 | P170925012 | <LOQ (3.55) | | 3.20 | 3.55 | 1.45 | | | U |
| | PFMPA | 377-73-1 | P170925012 | <LOQ (3.55) | | 3.20 | 3.55 | 0.667 | | | U |
| | NFDHA | 151772-58-6 | P170925012 | <LOQ (3.55) | | 3.20 | 3.55 | 1.79 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925012 | <LOQ (8.89) | | 8.00 | 8.89 | 3.07 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925012 | <LOQ (8.89) | | 8.00 | 8.89 | 2.59 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925012 | <LOQ (8.89) | | 8.00 | 8.89 | 3.85 | | | U |
| Other | ADONA | 919005-14-4 | P170925012 | <LOQ (6.72) | | 6.05 | 6.72 | 3.55 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925012 | <LOQ (6.65) | | 5.98 | 6.65 | 1.89 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.906 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925012 | <LOQ (6.72) | | 6.05 | 6.72 | 1.51 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925012 | <LOQ (1.78) | | 1.60 | 1.78 | 0.860 | | | U |
| | PFEESA | 113507-82-7 | P170925012 | <LOQ (3.16) | | 2.85 | 3.16 | 1.23 | | | U |
| ES | M4PFBA | | P170925012 | | bb | | | | 5-130% | 47.6% | |
| | M5PFPeA | | P170925012 | | MM4* | | | | 40-130% | 68.4% | |
| | M5PFHxA | | P170925012 | | bb | | | | 40-130% | 77.9% | |
| | M4PFHpA | | P170925012 | | MM4* | | | | 40-130% | 80.5% | |
| | M8PFOA | | P170925012 | | bb | | | | 40-130% | 83.0% | |
| | M9PFNA | | P170925012 | | bb | | | | 40-130% | 80.5% | |
| | M6PFDA | | P170925012 | | MM4* | | | | 40-130% | 83.2% | |
| | M7PFUdA | | P170925012 | | bb | | | | 30-130% | 76.5% | |
| | M2-PFDoA | | P170925012 | | MM4* | | | | 10-130% | 70.3% | |
| | 13C2-PFTeDA | | P170925012 | | bb | | | | 10-130% | 57.1% | |
| | M3PFBS | | P170925012 | | bb | | | | 40-135% | 77.1% | |
| | M3PFHxS | | P170925012 | | bb | | | | 40-130% | 81.6% | |
| | M8PFOS | | P170925012 | | bb | | | | 40-130% | 88.0% | |
| | M2-4:2 FTS | | P170925012 | | bb | | | | 40-200% | 98.1% | |
| | M2-6:2 FTS | | P170925012 | | MM1* | | | | 40-200% | 77.3% | |
| | M2-8:2 FTS | | P170925012 | | MM4* | | | | 40-300% | 59.3% | |
| | M8PFOSA | | P170925012 | | MM4* | | | | 40-130% | 79.5% | |
| | d3-N-MeFOSA | | P170925012 | | bb | | | | 10-130% | 67.4% | |
| | d5-N-EtFOSA | | P170925012 | | bb | | | | 10-130% | 63.4% | |
| | d3-N-MeFOSAA | | P170925012 | | MM4* | | | | 40-170% | 79.1% | |
| | d5-N-EtFOSAA | | P170925012 | | MM4* | | | | 25-135% | 85.8% | |
| | d7-N-MeFOSE | | P170925012 | | bb | | | | 10-130% | 103% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W01 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-002-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:48 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 562.68 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 16:19 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925012 | | bb | | | | 10-130% | 94.0% | |
| | M3HFPO-DA | | P170925012 | | bb | | | | 40-130% | 63.1% | |
| JS | M3PFBA | | P170925012 | | MM4* | | | | 50-200% | 81.0% | |
| | M2-PFHxA | | P170925012 | | MM4* | | | | 50-200% | 91.8% | |
| | M4-PFOA | | P170925012 | | bb | | | | 50-200% | 88.0% | |
| | M5-PFNA | | P170925012 | | bb | | | | 50-200% | 98.1% | |
| | M2-PFDA | | P170925012 | | bb | | | | 50-200% | 92.5% | |
| | 18O2PFHxS | | P170925012 | | MM1* | | | | 50-200% | 101% | |
| | M4-PFOS | | P170925012 | | bb | | | | 50-200% | 95.4% | |

Peak Flags
MM1* MM;C JWS 09/22/25
MM2* MM-;R JWS 09/22/25
bb1* bb;C JWS 09/25/25
MM3* MM-;R JWS 09/22/25
MM4* MM;C JWS 09/25/25

Primary Code
b: Peak starts or ends on the baseline
d: Peak starts or ends on a drop line
v: peak starts or ends on a valley
s: Peak is a shoulder on another peak
t: Peak starts or ends at the start or end of the trace
M: The peak start or end point was manually altered
-: The peak was manually deleted
X: Point manually excluded from the calibration curve
!: Flagged peak
I: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)

Secondary Code
n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W02 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-003-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:59 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 557.72 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 16:41 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925013 | <LOQ (7.17) | MM1* | 6.45 | 7.17 | 1.69 | | | U |
| | PFPeA | 2706-90-3 | P170925013 | <LOQ (3.59) | MM1* | 3.23 | 3.59 | 1.25 | | | U |
| | PFHxA | 307-24-4 | P170925013 | <LOQ (1.79) | MM1* | 1.61 | 1.79 | 0.592 | | | U |
| | PFHpA | 375-85-9 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.541 | | | U |
| | PFOA | 335-67-1 | P170925013 | <LOQ (1.79) | MM1* | 1.61 | 1.79 | 1.05 | | | U |
| | PFNA | 375-95-1 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.343 | | | U |
| | PFDA | 335-76-2 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.392 | | | U |
| | PFUnDA | 2058-94-8 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.606 | | | U |
| | PFDoA | 307-55-1 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.606 | | | U |
| | PFTrDA | 72629-94-8 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.617 | | | U |
| | PFTeDA | 376-06-7 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.462 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925013 | <LOQ (1.59) | | 1.43 | 1.59 | 0.809 | | | U |
| | PFPeS | 2706-91-4 | P170925013 | <LOQ (1.69) | | 1.52 | 1.69 | 1.00 | | | U |
| | PFHxS | 355-46-4 | P170925013 | <LOQ (1.64) | | 1.47 | 1.64 | 0.693 | | | U |
| | PFHpS | 375-92-8 | P170925013 | <LOQ (1.71) | | 1.54 | 1.71 | 0.592 | | | U |
| | PFOS | 1763-23-1 | P170925013 | <LOQ (1.66) | | 1.50 | 1.66 | 0.631 | | | U |
| | PFNS | 68259-12-1 | P170925013 | <LOQ (1.72) | | 1.55 | 1.72 | 0.998 | | | U |
| | PFDS | 335-77-3 | P170925013 | <LOQ (1.73) | | 1.56 | 1.73 | 0.761 | | | U |
| | PFDoS | 79780-39-5 | P170925013 | <LOQ (1.74) | | 1.57 | 1.74 | 0.431 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925013 | <LOQ (6.72) | | 6.05 | 6.72 | 2.82 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925013 | <LOQ (6.81) | | 6.13 | 6.81 | 1.69 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925013 | <LOQ (6.89) | | 6.20 | 6.89 | 4.31 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.932 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.493 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 1.23 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925013 | <LOQ (17.9) | | 16.1 | 17.9 | 5.86 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925013 | <LOQ (17.9) | | 16.1 | 17.9 | 8.48 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925013 | <LOQ (7.17) | | 6.45 | 7.17 | 4.28 | | | U |
| | PFMBA | 863090-89-5 | P170925013 | <LOQ (3.59) | | 3.23 | 3.59 | 1.47 | | | U |
| | PFMPA | 377-73-1 | P170925013 | <LOQ (3.59) | | 3.23 | 3.59 | 0.673 | | | U |
| | NFDHA | 151772-58-6 | P170925013 | <LOQ (3.59) | | 3.23 | 3.59 | 1.81 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925013 | <LOQ (8.97) | | 8.07 | 8.97 | 3.10 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925013 | <LOQ (8.97) | | 8.07 | 8.97 | 2.62 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925013 | <LOQ (8.97) | | 8.07 | 8.97 | 3.89 | | | U |
| Other | ADONA | 919005-14-4 | P170925013 | <LOQ (6.78) | | 6.10 | 6.78 | 3.58 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925013 | <LOQ (6.71) | | 6.04 | 6.71 | 1.91 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.914 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925013 | <LOQ (6.78) | | 6.10 | 6.78 | 1.52 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925013 | <LOQ (1.79) | | 1.61 | 1.79 | 0.868 | | | U |
| | PFEESA | 113507-82-7 | P170925013 | <LOQ (3.19) | | 2.87 | 3.19 | 1.24 | | | U |
| ES | M4PFBA | | P170925013 | | bb | | | | 5-130% | 44.6% | |
| | M5PFPeA | | P170925013 | | MM2* | | | | 40-130% | 77.0% | |
| | M5PFHxA | | P170925013 | | MM2* | | | | 40-130% | 84.0% | |
| | M4PFHpA | | P170925013 | | bb | | | | 40-130% | 87.0% | |
| | M8PFOA | | P170925013 | | bb | | | | 40-130% | 82.4% | |
| | M9PFNA | | P170925013 | | bb | | | | 40-130% | 85.6% | |
| | M6PFDA | | P170925013 | | bb | | | | 40-130% | 84.0% | |
| | M7PFUdA | | P170925013 | | bb | | | | 30-130% | 80.7% | |
| | M2-PFDoA | | P170925013 | | MM2* | | | | 10-130% | 69.3% | |
| | 13C2-PFTeDA | | P170925013 | | bb | | | | 10-130% | 48.2% | |
| | M3PFBS | | P170925013 | | bb | | | | 40-135% | 82.4% | |
| | M3PFHxS | | P170925013 | | bb | | | | 40-130% | 85.3% | |
| | M8PFOS | | P170925013 | | bb | | | | 40-130% | 78.9% | |
| | M2-4:2 FTS | | P170925013 | | bb | | | | 40-200% | 108% | |
| | M2-6:2 FTS | | P170925013 | | MM2* | | | | 40-200% | 77.2% | |
| | M2-8:2 FTS | | P170925013 | | bb | | | | 40-300% | 82.8% | |
| | M8PFOSA | | P170925013 | | MM2* | | | | 40-130% | 71.8% | |
| | d3-N-MeFOSA | | P170925013 | | bb | | | | 10-130% | 55.9% | |
| | d5-N-EtFOSA | | P170925013 | | bb | | | | 10-130% | 48.7% | |
| | d3-N-MeFOSAA | | P170925013 | | MM2* | | | | 40-170% | 71.4% | |
| | d5-N-EtFOSAA | | P170925013 | | MM3* | | | | 25-135% | 74.2% | |
| | d7-N-MeFOSE | | P170925013 | | bb | | | | 10-130% | 81.5% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W02 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-003-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 10:59 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 557.72 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 16:41 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925013 | | bb | | | | 10-130% | 71.3% | |
| | M3HFPO-DA | | P170925013 | | bb | | | | 40-130% | 68.5% | |
| JS | M3PFBA | | P170925013 | | MM2* | | | | 50-200% | 82.1% | |
| | M2-PFHxA | | P170925013 | | MM2* | | | | 50-200% | 86.3% | |
| | M4-PFOA | | P170925013 | | bb | | | | 50-200% | 87.9% | |
| | M5-PFNA | | P170925013 | | bb | | | | 50-200% | 96.3% | |
| | M2-PFDA | | P170925013 | | bb | | | | 50-200% | 93.9% | |
| | 18O2PFHxS | | P170925013 | | MM2* | | | | 50-200% | 101% | |
| | M4-PFOS | | P170925013 | | bb | | | | 50-200% | 108% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25
MM3* MM;C JWS 09/22/25

Primary Code
b: Peak starts or ends on the baseline
d: Peak starts or ends on a drop line
v: peak starts or ends on a valley
s: Peak is a shoulder on another peak
!: Flagged peak
l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
t: Peak starts or ends at the start or end of the trace
M: The peak start or end point was manually altered
-: The peak was manually deleted
X: Point manually excluded from the calibration curve

Secondary Code
n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W16 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-004-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:10 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 565.28 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:04 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925014 | <LOQ (7.08) | bb | 6.37 | 7.08 | 1.66 | | | U |
| | PFPeA | 2706-90-3 | P170925014 | <LOQ (3.54) | MM1* | 3.18 | 3.54 | 1.23 | | | U |
| | PFHxA | 307-24-4 | P170925014 | <LOQ (1.77) | MM1* | 1.59 | 1.77 | 0.584 | | | U |
| | PFHpA | 375-85-9 | P170925014 | <LOQ (1.77) | MM1* | 1.59 | 1.77 | 0.533 | | | U |
| | PFOA | 335-67-1 | P170925014 | <LOQ (1.77) | MM1* | 1.59 | 1.77 | 1.03 | | | U |
| | PFNA | 375-95-1 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.339 | | | U |
| | PFDA | 335-76-2 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.387 | | | U |
| | PFUnDA | 2058-94-8 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.598 | | | U |
| | PFDoA | 307-55-1 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.598 | | | U |
| | PFTrDA | 72629-94-8 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.609 | | | U |
| | PFTeDA | 376-06-7 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.456 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925014 | <LOQ (1.57) | | 1.41 | 1.57 | 0.798 | | | U |
| | PFPeS | 2706-91-4 | P170925014 | <LOQ (1.66) | | 1.50 | 1.66 | 0.987 | | | U |
| | PFHxS | 355-46-4 | P170925014 | <LOQ (1.62) | | 1.46 | 1.62 | 0.684 | | | U |
| | PFHpS | 375-92-8 | P170925014 | <LOQ (1.69) | | 1.52 | 1.69 | 0.584 | | | U |
| | PFOS | 1763-23-1 | P170925014 | <LOQ (1.64) | | 1.48 | 1.64 | 0.623 | | | U |
| | PFNS | 68259-12-1 | P170925014 | <LOQ (1.70) | | 1.53 | 1.70 | 0.984 | | | U |
| | PFDS | 335-77-3 | P170925014 | <LOQ (1.71) | | 1.54 | 1.71 | 0.751 | | | U |
| | PFDoS | 79780-39-5 | P170925014 | <LOQ (1.72) | | 1.54 | 1.72 | 0.425 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925014 | <LOQ (6.63) | | 5.97 | 6.63 | 2.78 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925014 | <LOQ (6.72) | | 6.05 | 6.72 | 1.67 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925014 | <LOQ (6.79) | | 6.11 | 6.79 | 4.25 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.920 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.486 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 1.21 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925014 | <LOQ (17.7) | | 15.9 | 17.7 | 5.78 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925014 | <LOQ (17.7) | | 15.9 | 17.7 | 8.37 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925014 | <LOQ (7.08) | | 6.37 | 7.08 | 4.23 | | | U |
| | PFMBA | 863090-89-5 | P170925014 | <LOQ (3.54) | | 3.18 | 3.54 | 1.45 | | | U |
| | PFMPA | 377-73-1 | P170925014 | <LOQ (3.54) | | 3.18 | 3.54 | 0.664 | | | U |
| | NFDHA | 151772-58-6 | P170925014 | <LOQ (3.54) | | 3.18 | 3.54 | 1.79 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925014 | <LOQ (8.85) | | 7.96 | 8.85 | 3.06 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925014 | <LOQ (8.85) | | 7.96 | 8.85 | 2.58 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925014 | <LOQ (8.85) | | 7.96 | 8.85 | 3.84 | | | U |
| Other | ADONA | 919005-14-4 | P170925014 | <LOQ (6.69) | | 6.02 | 6.69 | 3.53 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925014 | <LOQ (6.62) | | 5.95 | 6.62 | 1.88 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.902 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925014 | <LOQ (6.69) | | 6.02 | 6.69 | 1.50 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925014 | <LOQ (1.77) | | 1.59 | 1.77 | 0.856 | | | U |
| | PFEESA | 113507-82-7 | P170925014 | <LOQ (3.15) | | 2.83 | 3.15 | 1.22 | | | U |
| ES | M4PFBA | | P170925014 | | bb | | | | 5-130% | 52.0% | |
| | M5PFPeA | | P170925014 | | MM2* | | | | 40-130% | 73.5% | |
| | M5PFHxA | | P170925014 | | bb | | | | 40-130% | 79.0% | |
| | M4PFHpA | | P170925014 | | bb | | | | 40-130% | 88.4% | |
| | M8PFOA | | P170925014 | | bb | | | | 40-130% | 82.5% | |
| | M9PFNA | | P170925014 | | bb | | | | 40-130% | 76.6% | |
| | M6PFDA | | P170925014 | | bb | | | | 40-130% | 77.0% | |
| | M7PFUdA | | P170925014 | | bb | | | | 30-130% | 78.2% | |
| | M2-PFDoA | | P170925014 | | bs | | | | 10-130% | 63.3% | |
| | 13C2-PFTeDA | | P170925014 | | bb | | | | 10-130% | 57.1% | |
| | M3PFBS | | P170925014 | | bb | | | | 40-135% | 86.0% | |
| | M3PFHxS | | P170925014 | | bb | | | | 40-130% | 88.8% | |
| | M8PFOS | | P170925014 | | bb | | | | 40-130% | 82.9% | |
| | M2-4:2 FTS | | P170925014 | | bb | | | | 40-200% | 111% | |
| | M2-6:2 FTS | | P170925014 | | MM2* | | | | 40-200% | 81.6% | |
| | M2-8:2 FTS | | P170925014 | | MM2* | | | | 40-300% | 91.7% | |
| | M8PFOSA | | P170925014 | | MM2* | | | | 40-130% | 69.4% | |
| | d3-N-MeFOSA | | P170925014 | | bb | | | | 10-130% | 63.6% | |
| | d5-N-EtFOSA | | P170925014 | | bb | | | | 10-130% | 58.4% | |
| | d3-N-MeFOSAA | | P170925014 | | MM2* | | | | 40-170% | 80.5% | |
| | d5-N-EtFOSAA | | P170925014 | | MM2* | | | | 25-135% | 71.0% | |
| | d7-N-MeFOSE | | P170925014 | | bb | | | | 10-130% | 93.3% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W16 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-004-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:10 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 565.28 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:04 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925014 | | bb | | | | 10-130% | 89.9% | |
| | M3HFPO-DA | | P170925014 | | MM2* | | | | 40-130% | 67.1% | |
| JS | M3PFBA | | P170925014 | | MM2* | | | | 50-200% | 76.6% | |
| | M2-PFHxA | | P170925014 | | bb | | | | 50-200% | 88.8% | |
| | M4-PFOA | | P170925014 | | bb | | | | 50-200% | 87.3% | |
| | M5-PFNA | | P170925014 | | bb | | | | 50-200% | 102% | |
| | M2-PFDA | | P170925014 | | bb | | | | 50-200% | 99.4% | |
| | 18O2PFHxS | | P170925014 | | MM2* | | | | 50-200% | 94.3% | |
| | M4-PFOS | | P170925014 | | bb | | | | 50-200% | 106% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W17 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-005-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:22 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 556.37 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:27 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925015 | <LOQ (7.19) | | 6.47 | 7.19 | 1.69 | | | U |
| | PFPeA | 2706-90-3 | P170925015 | <LOQ (3.59) | MM1* | 3.24 | 3.59 | 1.25 | | | U |
| | PFHxA | 307-24-4 | P170925015 | <LOQ (1.80) | MM1* | 1.62 | 1.80 | 0.593 | | | U |
| | PFHpA | 375-85-9 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.542 | | | U |
| | PFOA | 335-67-1 | P170925015 | <LOQ (1.80) | MM1* | 1.62 | 1.80 | 1.05 | | | U |
| | PFNA | 375-95-1 | P170925015 | <LOQ (1.80) | MM1* | 1.62 | 1.80 | 0.344 | | | U |
| | PFDA | 335-76-2 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.393 | | | U |
| | PFUnDA | 2058-94-8 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.608 | | | U |
| | PFDoA | 307-55-1 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.608 | | | U |
| | PFTrDA | 72629-94-8 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.618 | | | U |
| | PFTeDA | 376-06-7 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.463 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925015 | <LOQ (1.59) | | 1.43 | 1.59 | 0.811 | | | U |
| | PFPeS | 2706-91-4 | P170925015 | <LOQ (1.69) | | 1.52 | 1.69 | 1.00 | | | U |
| | PFHxS | 355-46-4 | P170925015 | <LOQ (1.64) | | 1.48 | 1.64 | 0.695 | | | U |
| | PFHpS | 375-92-8 | P170925015 | <LOQ (1.71) | | 1.54 | 1.71 | 0.593 | | | U |
| | PFOS | 1763-23-1 | P170925015 | <LOQ (1.67) | | 1.50 | 1.67 | 0.633 | | | U |
| | PFNS | 68259-12-1 | P170925015 | <LOQ (1.73) | | 1.56 | 1.73 | 1.00 | | | U |
| | PFDS | 335-77-3 | P170925015 | <LOQ (1.73) | | 1.56 | 1.73 | 0.763 | | | U |
| | PFDoS | 79780-39-5 | P170925015 | <LOQ (1.74) | | 1.57 | 1.74 | 0.432 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925015 | <LOQ (6.74) | | 6.07 | 6.74 | 2.82 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925015 | <LOQ (6.83) | | 6.15 | 6.83 | 1.70 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925015 | <LOQ (6.90) | | 6.21 | 6.90 | 4.32 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.935 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.494 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 1.23 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925015 | <LOQ (18.0) | | 16.2 | 18.0 | 5.87 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925015 | <LOQ (18.0) | | 16.2 | 18.0 | 8.50 | | | U |
| Other | ADONA | 919005-14-4 | P170925015 | <LOQ (6.79) | | 6.11 | 6.79 | 3.59 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925015 | <LOQ (6.72) | | 6.05 | 6.72 | 1.91 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.917 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925015 | <LOQ (6.79) | | 6.11 | 6.79 | 1.53 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925015 | <LOQ (1.80) | | 1.62 | 1.80 | 0.870 | | | U |
| | PFEESA | 113507-82-7 | P170925015 | <LOQ (3.20) | | 2.88 | 3.20 | 1.24 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925015 | <LOQ (7.19) | | 6.47 | 7.19 | 4.29 | | | U |
| | PFMBA | 863090-89-5 | P170925015 | <LOQ (3.59) | | 3.24 | 3.59 | 1.47 | | | U |
| | PFMPA | 377-73-1 | P170925015 | <LOQ (3.59) | | 3.24 | 3.59 | 0.675 | | | U |
| | NFDHA | 151772-58-6 | P170925015 | <LOQ (3.59) | | 3.24 | 3.59 | 1.82 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925015 | <LOQ (8.99) | | 8.09 | 8.99 | 3.11 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925015 | <LOQ (8.99) | | 8.09 | 8.99 | 2.62 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925015 | <LOQ (8.99) | | 8.09 | 8.99 | 3.90 | | | U |
| ES | M4PFBA | | P170925015 | | MM2* | | | | 5-130% | 46.9% | |
| | M5PFPeA | | P170925015 | | MM2* | | | | 40-130% | 76.4% | |
| | M5PFHxA | | P170925015 | | MM2* | | | | 40-130% | 83.9% | |
| | M4PFHpA | | P170925015 | | bb | | | | 40-130% | 87.6% | |
| | M8PFOA | | P170925015 | | bb | | | | 40-130% | 84.7% | |
| | M9PFNA | | P170925015 | | bb | | | | 40-130% | 87.1% | |
| | M6PFDA | | P170925015 | | MM2* | | | | 40-130% | 86.1% | |
| | M7PFUdA | | P170925015 | | bb | | | | 30-130% | 78.9% | |
| | M2-PFDoA | | P170925015 | | bb | | | | 10-130% | 71.7% | |
| | 13C2-PFTeDA | | P170925015 | | bb | | | | 10-130% | 58.4% | |
| | M3PFBS | | P170925015 | | bb | | | | 40-135% | 80.2% | |
| | M3PFHxS | | P170925015 | | MM2* | | | | 40-130% | 91.7% | |
| | M8PFOS | | P170925015 | | MM2* | | | | 40-130% | 82.4% | |
| | M2-4:2 FTS | | P170925015 | | MM2* | | | | 40-200% | 110% | |
| | M2-6:2 FTS | | P170925015 | | bb | | | | 40-200% | 80.3% | |
| | M2-8:2 FTS | | P170925015 | | bb | | | | 40-300% | 77.9% | |
| | M8PFOSA | | P170925015 | | MM2* | | | | 40-130% | 78.3% | |
| | d3-N-MeFOSA | | P170925015 | | bb | | | | 10-130% | 62.2% | |
| | d5-N-EtFOSA | | P170925015 | | bb | | | | 10-130% | 59.3% | |
| | d3-N-MeFOSAA | | P170925015 | | MM2* | | | | 40-170% | 80.1% | |
| | d5-N-EtFOSAA | | P170925015 | | MM2* | | | | 25-135% | 74.9% | |
| | d7-N-MeFOSE | | P170925015 | | bb | | | | 10-130% | 96.9% | |

# Enthalpy Analytical

Job No.: 0925-783-1  DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC  1920  211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W17 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-005-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:22 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 556.37 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:27 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925015 | | bb | | | | 10-130% | 88.9% | |
| | M3HFPO-DA | | P170925015 | | bb | | | | 40-130% | 64.3% | |
| JS | M3PFBA | | P170925015 | | bb | | | | 50-200% | 78.7% | |
| | M2-PFHxA | | P170925015 | | bb | | | | 50-200% | 85.0% | |
| | M4-PFOA | | P170925015 | | MM2* | | | | 50-200% | 86.6% | |
| | M5-PFNA | | P170925015 | | bb | | | | 50-200% | 90.8% | |
| | M2-PFDA | | P170925015 | | bb | | | | 50-200% | 91.7% | |
| | 18O2PFHxS | | P170925015 | | bb | | | | 50-200% | 95.0% | |
| | M4-PFOS | | P170925015 | | bb | | | | 50-200% | 98.5% | |

Peak Flags
MM1*  MM-;R JWS 09/22/25
MM2*  MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W19 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-006-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:45 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 577.48 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:50 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925016 | <LOQ (6.93) | | 6.23 | 6.93 | 1.63 | | | U |
| | PFPeA | 2706-90-3 | P170925016 | <LOQ (3.46) | MM1* | 3.12 | 3.46 | 1.20 | | | U |
| | PFHxA | 307-24-4 | P170925016 | <LOQ (1.73) | MM1* | 1.56 | 1.73 | 0.571 | | | U |
| | PFHpA | 375-85-9 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.522 | | | U |
| | PFOA | 335-67-1 | P170925016 | <LOQ (1.73) | MM1* | 1.56 | 1.73 | 1.01 | | | U |
| | PFNA | 375-95-1 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.332 | | | U |
| | PFDA | 335-76-2 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.378 | | | U |
| | PFUnDA | 2058-94-8 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.585 | | | U |
| | PFDoA | 307-55-1 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.585 | | | U |
| | PFTrDA | 72629-94-8 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.596 | | | U |
| | PFTeDA | 376-06-7 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.446 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925016 | <LOQ (1.54) | | 1.38 | 1.54 | 0.781 | | | U |
| | PFPeS | 2706-91-4 | P170925016 | <LOQ (1.63) | | 1.47 | 1.63 | 0.966 | | | U |
| | PFHxS | 355-46-4 | P170925016 | <LOQ (1.58) | | 1.42 | 1.58 | 0.669 | | | U |
| | PFHpS | 375-92-8 | P170925016 | <LOQ (1.65) | | 1.49 | 1.65 | 0.571 | | | U |
| | PFOS | 1763-23-1 | P170925016 | <LOQ (1.61) | | 1.45 | 1.61 | 0.610 | | | U |
| | PFNS | 68259-12-1 | P170925016 | <LOQ (1.67) | | 1.50 | 1.67 | 0.964 | | | U |
| | PFDS | 335-77-3 | P170925016 | <LOQ (1.67) | | 1.50 | 1.67 | 0.735 | | | U |
| | PFDoS | 79780-39-5 | P170925016 | <LOQ (1.68) | | 1.51 | 1.68 | 0.416 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925016 | <LOQ (6.49) | | 5.84 | 6.49 | 2.72 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925016 | <LOQ (6.58) | | 5.92 | 6.58 | 1.64 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925016 | <LOQ (6.65) | | 5.98 | 6.65 | 4.16 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.900 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.476 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 1.19 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925016 | <LOQ (17.3) | | 15.6 | 17.3 | 5.66 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925016 | <LOQ (17.3) | | 15.6 | 17.3 | 8.19 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925016 | <LOQ (6.93) | | 6.23 | 6.93 | 4.14 | | | U |
| | PFMBA | 863090-89-5 | P170925016 | <LOQ (3.46) | | 3.12 | 3.46 | 1.42 | | | U |
| | PFMPA | 377-73-1 | P170925016 | <LOQ (3.46) | | 3.12 | 3.46 | 0.650 | | | U |
| | NFDHA | 151772-58-6 | P170925016 | <LOQ (3.46) | | 3.12 | 3.46 | 1.75 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925016 | <LOQ (8.66) | | 7.79 | 8.66 | 2.99 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925016 | <LOQ (8.66) | | 7.79 | 8.66 | 2.53 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925016 | <LOQ (8.66) | | 7.79 | 8.66 | 3.76 | | | U |
| Other | ADONA | 919005-14-4 | P170925016 | <LOQ (6.55) | | 5.89 | 6.55 | 3.46 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925016 | <LOQ (6.48) | | 5.83 | 6.48 | 1.84 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.883 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925016 | <LOQ (6.55) | | 5.89 | 6.55 | 1.47 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925016 | <LOQ (1.73) | | 1.56 | 1.73 | 0.838 | | | U |
| | PFEESA | 113507-82-7 | P170925016 | <LOQ (3.08) | | 2.77 | 3.08 | 1.20 | | | U |
| ES | M4PFBA | | P170925016 | | MM2* | | | | 5-130% | 46.1% | |
| | M5PFPeA | | P170925016 | | MM2* | | | | 40-130% | 79.1% | |
| | M5PFHxA | | P170925016 | | MM2* | | | | 40-130% | 85.2% | |
| | M4PFHpA | | P170925016 | | bb | | | | 40-130% | 92.6% | |
| | M8PFOA | | P170925016 | | MM3* | | | | 40-130% | 82.1% | |
| | M9PFNA | | P170925016 | | bb | | | | 40-130% | 86.4% | |
| | M6PFDA | | P170925016 | | MM2* | | | | 40-130% | 76.3% | |
| | M7PFUdA | | P170925016 | | bb | | | | 30-130% | 72.7% | |
| | M2-PFDoA | | P170925016 | | bs | | | | 10-130% | 63.7% | |
| | 13C2-PFTeDA | | P170925016 | | bb | | | | 10-130% | 56.6% | |
| | M3PFBS | | P170925016 | | bb | | | | 40-135% | 80.3% | |
| | M3PFHxS | | P170925016 | | MM2* | | | | 40-130% | 87.3% | |
| | M8PFOS | | P170925016 | | bb | | | | 40-130% | 81.5% | |
| | M2-4:2 FTS | | P170925016 | | bb | | | | 40-200% | 113% | |
| | M2-6:2 FTS | | P170925016 | | bb | | | | 40-200% | 80.2% | |
| | M2-8:2 FTS | | P170925016 | | MM2* | | | | 40-300% | 77.9% | |
| | M8PFOSA | | P170925016 | | MM2* | | | | 40-130% | 75.4% | |
| | d3-N-MeFOSA | | P170925016 | | bb | | | | 10-130% | 63.5% | |
| | d5-N-EtFOSA | | P170925016 | | bb | | | | 10-130% | 62.5% | |
| | d3-N-MeFOSAA | | P170925016 | | MM2* | | | | 40-170% | 74.8% | |
| | d5-N-EtFOSAA | | P170925016 | | bb | | | | 25-135% | 68.9% | |
| | d7-N-MeFOSE | | P170925016 | | bb | | | | 10-130% | 93.0% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W19 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-006-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 11:45 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 577.48 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 17:50 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925016 | | bb | | | | 10-130% | 86.5% | |
| | M3HFPO-DA | | P170925016 | | MM2* | | | | 40-130% | 73.9% | |
| JS | M3PFBA | | P170925016 | | MM2* | | | | 50-200% | 74.2% | |
| | M2-PFHxA | | P170925016 | | bb | | | | 50-200% | 79.5% | |
| | M4-PFOA | | P170925016 | | bb | | | | 50-200% | 83.0% | |
| | M5-PFNA | | P170925016 | | bb | | | | 50-200% | 89.6% | |
| | M2-PFDA | | P170925016 | | bb | | | | 50-200% | 91.7% | |
| | 18O2PFHxS | | P170925016 | | MM2* | | | | 50-200% | 95.5% | |
| | M4-PFOS | | P170925016 | | bb | | | | 50-200% | 97.2% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25
MM3* MM;C JWS 09/22/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W15 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-007-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:23 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 575.11 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:12 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925017 | <LOQ (6.96) | bb | 6.26 | 6.96 | 1.63 | | | U |
| | PFPeA | 2706-90-3 | P170925017 | <LOQ (3.48) | MM1* | 3.13 | 3.48 | 1.21 | | | U |
| | PFHxA | 307-24-4 | P170925017 | <LOQ (1.74) | MM1* | 1.56 | 1.74 | 0.574 | | | U |
| | PFHpA | 375-85-9 | P170925017 | <LOQ (1.74) | bb | 1.56 | 1.74 | 0.524 | | | U |
| | PFOA | 335-67-1 | P170925017 | <LOQ (1.74) | MM1* | 1.56 | 1.74 | 1.02 | | | U |
| | PFNA | 375-95-1 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.333 | | | U |
| | PFDA | 335-76-2 | P170925017 | <LOQ (1.74) | MM1* | 1.56 | 1.74 | 0.380 | | | U |
| | PFUnDA | 2058-94-8 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.588 | | | U |
| | PFDoA | 307-55-1 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.588 | | | U |
| | PFTrDA | 72629-94-8 | P170925017 | <LOQ (1.74) | MM1* | 1.56 | 1.74 | 0.598 | | | U |
| | PFTeDA | 376-06-7 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.448 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925017 | <LOQ (1.54) | | 1.39 | 1.54 | 0.784 | | | U |
| | PFPeS | 2706-91-4 | P170925017 | <LOQ (1.64) | | 1.47 | 1.64 | 0.970 | | | U |
| | PFHxS | 355-46-4 | P170925017 | <LOQ (1.59) | | 1.43 | 1.59 | 0.672 | | | U |
| | PFHpS | 375-92-8 | P170925017 | <LOQ (1.66) | | 1.49 | 1.66 | 0.574 | | | U |
| | PFOS | 1763-23-1 | P170925017 | <LOQ (1.61) | | 1.45 | 1.61 | 0.612 | | | U |
| | PFNS | 68259-12-1 | P170925017 | <LOQ (1.67) | | 1.51 | 1.67 | 0.968 | | | U |
| | PFDS | 335-77-3 | P170925017 | <LOQ (1.68) | | 1.51 | 1.68 | 0.738 | | | U |
| | PFDoS | 79780-39-5 | P170925017 | <LOQ (1.69) | | 1.52 | 1.69 | 0.418 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925017 | <LOQ (6.52) | | 5.87 | 6.52 | 2.73 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925017 | <LOQ (6.61) | | 5.95 | 6.61 | 1.64 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925017 | <LOQ (6.68) | | 6.01 | 6.68 | 4.18 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.904 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.478 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 1.19 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925017 | <LOQ (17.4) | | 15.6 | 17.4 | 5.68 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925017 | <LOQ (17.4) | | 15.6 | 17.4 | 8.22 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925017 | <LOQ (6.96) | | 6.26 | 6.96 | 4.15 | | | U |
| | PFMBA | 863090-89-5 | P170925017 | <LOQ (3.48) | | 3.13 | 3.48 | 1.42 | | | U |
| | PFMPA | 377-73-1 | P170925017 | <LOQ (3.48) | | 3.13 | 3.48 | 0.653 | | | U |
| | NFDHA | 151772-58-6 | P170925017 | <LOQ (3.48) | | 3.13 | 3.48 | 1.76 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925017 | <LOQ (8.69) | | 7.82 | 8.69 | 3.01 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925017 | <LOQ (8.69) | | 7.82 | 8.69 | 2.54 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925017 | <LOQ (8.69) | | 7.82 | 8.69 | 3.77 | | | U |
| Other | ADONA | 919005-14-4 | P170925017 | <LOQ (6.57) | | 5.92 | 6.57 | 3.47 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925017 | <LOQ (6.50) | | 5.85 | 6.50 | 1.85 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.887 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925017 | <LOQ (6.57) | | 5.92 | 6.57 | 1.48 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925017 | <LOQ (1.74) | | 1.56 | 1.74 | 0.842 | | | U |
| | PFEESA | 113507-82-7 | P170925017 | <LOQ (3.10) | | 2.79 | 3.10 | 1.20 | | | U |
| ES | M4PFBA | | P170925017 | | bb | | | | 5-130% | 49.9% | |
| | M5PFPeA | | P170925017 | | MM2* | | | | 40-130% | 69.8% | |
| | M5PFHxA | | P170925017 | | MM2* | | | | 40-130% | 81.7% | |
| | M4PFHpA | | P170925017 | | bb | | | | 40-130% | 85.1% | |
| | M8PFOA | | P170925017 | | bb | | | | 40-130% | 93.8% | |
| | M9PFNA | | P170925017 | | bb | | | | 40-130% | 84.0% | |
| | M6PFDA | | P170925017 | | MM2* | | | | 40-130% | 78.5% | |
| | M7PFUdA | | P170925017 | | bb | | | | 30-130% | 76.2% | |
| | M2-PFDoA | | P170925017 | | bb | | | | 10-130% | 64.9% | |
| | 13C2-PFTeDA | | P170925017 | | bb | | | | 10-130% | 58.1% | |
| | M3PFBS | | P170925017 | | bb | | | | 40-135% | 74.4% | |
| | M3PFHxS | | P170925017 | | bb | | | | 40-130% | 83.3% | |
| | M8PFOS | | P170925017 | | bb | | | | 40-130% | 79.1% | |
| | M2-4:2 FTS | | P170925017 | | bb | | | | 40-200% | 102% | |
| | M2-6:2 FTS | | P170925017 | | bb | | | | 40-200% | 74.3% | |
| | M2-8:2 FTS | | P170925017 | | MM2* | | | | 40-300% | 60.3% | |
| | M8PFOSA | | P170925017 | | MM2* | | | | 40-130% | 71.2% | |
| | d3-N-MeFOSA | | P170925017 | | bb | | | | 10-130% | 59.3% | |
| | d5-N-EtFOSA | | P170925017 | | bb | | | | 10-130% | 54.4% | |
| | d3-N-MeFOSAA | | P170925017 | | MM2* | | | | 40-170% | 73.4% | |
| | d5-N-EtFOSAA | | P170925017 | | MM2* | | | | 25-135% | 70.6% | |
| | d7-N-MeFOSE | | P170925017 | | bb | | | | 10-130% | 92.7% | |

# Enthalpy Analytical

Job No.: 0925-783-1  DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC  1920  211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W15 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-007-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:23 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 575.11 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:12 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925017 | | bb | | | | 10-130% | 85.2% | |
| | M3HFPO-DA | | P170925017 | | bb | | | | 40-130% | 65.9% | |
| JS | M3PFBA | | P170925017 | | MM2* | | | | 50-200% | 70.0% | |
| | M2-PFHxA | | P170925017 | | MM2* | | | | 50-200% | 83.0% | |
| | M4-PFOA | | P170925017 | | bb | | | | 50-200% | 77.6% | |
| | M5-PFNA | | P170925017 | | bb | | | | 50-200% | 87.2% | |
| | M2-PFDA | | P170925017 | | bb | | | | 50-200% | 91.3% | |
| | 18O2PFHxS | | P170925017 | | bb | | | | 50-200% | 97.3% | |
| | M4-PFOS | | P170925017 | | bb | | | | 50-200% | 100% | |

Peak Flags
MM1*  MM-;R JWS 09/22/25
MM2*  MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W08 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-008-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:33 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 563.56 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:35 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925018 | <LOQ (7.10) | MM1* | 6.39 | 7.10 | 1.67 | | | U |
| | PFPeA | 2706-90-3 | P170925018 | <LOQ (3.55) | MM1* | 3.19 | 3.55 | 1.23 | | | U |
| | PFHxA | 307-24-4 | P170925018 | <LOQ (1.77) | MM1* | 1.60 | 1.77 | 0.586 | | | U |
| | PFHpA | 375-85-9 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.535 | | | U |
| | PFOA | 335-67-1 | P170925018 | <LOQ (1.77) | MM1* | 1.60 | 1.77 | 1.04 | | | U |
| | PFNA | 375-95-1 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.340 | | | U |
| | PFDA | 335-76-2 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.388 | | | U |
| | PFUnDA | 2058-94-8 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.600 | | | U |
| | PFDoA | 307-55-1 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.600 | | | U |
| | PFTrDA | 72629-94-8 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.610 | | | U |
| | PFTeDA | 376-06-7 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.457 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925018 | <LOQ (1.57) | | 1.42 | 1.57 | 0.800 | | | U |
| | PFPeS | 2706-91-4 | P170925018 | <LOQ (1.67) | | 1.50 | 1.67 | 0.990 | | | U |
| | PFHxS | 355-46-4 | P170925018 | <LOQ (1.62) | | 1.46 | 1.62 | 0.686 | | | U |
| | PFHpS | 375-92-8 | P170925018 | <LOQ (1.69) | | 1.52 | 1.69 | 0.586 | | | U |
| | PFOS | 1763-23-1 | P170925018 | <LOQ (1.65) | | 1.48 | 1.65 | 0.625 | | | U |
| | PFNS | 68259-12-1 | P170925018 | <LOQ (1.71) | | 1.54 | 1.71 | 0.987 | | | U |
| | PFDS | 335-77-3 | P170925018 | <LOQ (1.71) | | 1.54 | 1.71 | 0.753 | | | U |
| | PFDoS | 79780-39-5 | P170925018 | <LOQ (1.72) | | 1.55 | 1.72 | 0.427 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925018 | <LOQ (6.65) | | 5.99 | 6.65 | 2.79 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925018 | <LOQ (6.74) | | 6.07 | 6.74 | 1.68 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925018 | <LOQ (6.81) | | 6.13 | 6.81 | 4.27 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.923 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.488 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 1.22 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925018 | <LOQ (17.7) | | 16.0 | 17.7 | 5.80 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925018 | <LOQ (17.7) | | 16.0 | 17.7 | 8.39 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925018 | <LOQ (7.10) | | 6.39 | 7.10 | 4.24 | | | U |
| | PFMBA | 863090-89-5 | P170925018 | <LOQ (3.55) | | 3.19 | 3.55 | 1.45 | | | U |
| | PFMPA | 377-73-1 | P170925018 | <LOQ (3.55) | | 3.19 | 3.55 | 0.666 | | | U |
| | NFDHA | 151772-58-6 | P170925018 | <LOQ (3.55) | | 3.19 | 3.55 | 1.79 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925018 | <LOQ (8.87) | | 7.98 | 8.87 | 3.07 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925018 | <LOQ (8.87) | | 7.98 | 8.87 | 2.59 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925018 | <LOQ (8.87) | | 7.98 | 8.87 | 3.85 | | | U |
| Other | ADONA | 919005-14-4 | P170925018 | <LOQ (6.71) | | 6.04 | 6.71 | 3.54 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925018 | <LOQ (6.64) | | 5.97 | 6.64 | 1.89 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.905 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925018 | <LOQ (6.71) | | 6.04 | 6.71 | 1.51 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925018 | <LOQ (1.77) | | 1.60 | 1.77 | 0.859 | | | U |
| | PFEESA | 113507-82-7 | P170925018 | <LOQ (3.16) | | 2.84 | 3.16 | 1.23 | | | U |
| ES | M4PFBA | | P170925018 | | MM2* | | | | 5-130% | 49.8% | |
| | M5PFPeA | | P170925018 | | MM2* | | | | 40-130% | 74.2% | |
| | M5PFHxA | | P170925018 | | MM2* | | | | 40-130% | 82.4% | |
| | M4PFHpA | | P170925018 | | bb | | | | 40-130% | 85.8% | |
| | M8PFOA | | P170925018 | | bb | | | | 40-130% | 87.5% | |
| | M9PFNA | | P170925018 | | bb | | | | 40-130% | 78.9% | |
| | M6PFDA | | P170925018 | | bb | | | | 40-130% | 85.0% | |
| | M7PFUdA | | P170925018 | | bb | | | | 30-130% | 74.7% | |
| | M2-PFDoA | | P170925018 | | MM2* | | | | 10-130% | 69.5% | |
| | 13C2-PFTeDA | | P170925018 | | bb | | | | 10-130% | 59.2% | |
| | M3PFBS | | P170925018 | | bb | | | | 40-135% | 85.8% | |
| | M3PFHxS | | P170925018 | | bb | | | | 40-130% | 83.7% | |
| | M8PFOS | | P170925018 | | bb | | | | 40-130% | 89.3% | |
| | M2-4:2 FTS | | P170925018 | | MM2* | | | | 40-200% | 118% | |
| | M2-6:2 FTS | | P170925018 | | bb | | | | 40-200% | 80.1% | |
| | M2-8:2 FTS | | P170925018 | | bb | | | | 40-300% | 63.9% | |
| | M8PFOSA | | P170925018 | | bs | | | | 40-130% | 87.7% | |
| | d3-N-MeFOSA | | P170925018 | | bb | | | | 10-130% | 70.2% | |
| | d5-N-EtFOSA | | P170925018 | | bb | | | | 10-130% | 64.5% | |
| | d3-N-MeFOSAA | | P170925018 | | MM2* | | | | 40-170% | 87.3% | |
| | d5-N-EtFOSAA | | P170925018 | | MM2* | | | | 25-135% | 86.1% | |
| | d7-N-MeFOSE | | P170925018 | | MM2* | | | | 10-130% | 106% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W08 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-008-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:33 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 563.56 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:35 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925018 | | bb | | | | 10-130% | 98.8% | |
| | M3HFPO-DA | | P170925018 | | bb | | | | 40-130% | 67.4% | |
| JS | M3PFBA | | P170925018 | | MM2* | | | | 50-200% | 76.6% | |
| | M2-PFHxA | | P170925018 | | bb | | | | 50-200% | 84.2% | |
| | M4-PFOA | | P170925018 | | bb | | | | 50-200% | 81.2% | |
| | M5-PFNA | | P170925018 | | bb | | | | 50-200% | 90.6% | |
| | M2-PFDA | | P170925018 | | bb | | | | 50-200% | 87.8% | |
| | 18O2PFHxS | | P170925018 | | bb | | | | 50-200% | 89.1% | |
| | M4-PFOS | | P170925018 | | bb | | | | 50-200% | 86.9% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25

Primary Code
b: Peak starts or ends on the baseline
d: Peak starts or ends on a drop line
v: peak starts or ends on a valley
s: Peak is a shoulder on another peak
!: Flagged peak
l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
t: Peak starts or ends at the start or end of the trace
M: The peak start or end point was manually altered
-: The peak was manually deleted
X: Point manually excluded from the calibration curve

Secondary Code
n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W12A | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-009-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:53 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 566.95 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:58 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925019 | <LOQ (7.06) | MM1* | 6.35 | 7.06 | 1.66 | | | U |
| | PFPeA | 2706-90-3 | P170925019 | <LOQ (3.53) | MM1* | 3.17 | 3.53 | 1.22 | | | U |
| | PFHxA | 307-24-4 | P170925019 | <LOQ (1.76) | MM1* | 1.59 | 1.76 | 0.582 | | | U |
| | PFHpA | 375-85-9 | P170925019 | <LOQ (1.76) | bb1* | 1.59 | 1.76 | 0.532 | | | U |
| | PFOA | 335-67-1 | P170925019 | <LOQ (1.76) | MM1* | 1.59 | 1.76 | 1.03 | | | U |
| | PFNA | 375-95-1 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.338 | | | U |
| | PFDA | 335-76-2 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.385 | | | U |
| | PFUnDA | 2058-94-8 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.596 | | | U |
| | PFDoA | 307-55-1 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.596 | | | U |
| | PFTrDA | 72629-94-8 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.607 | | | U |
| | PFTeDA | 376-06-7 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.454 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925019 | <LOQ (1.56) | | 1.41 | 1.56 | 0.795 | | | U |
| | PFPeS | 2706-91-4 | P170925019 | <LOQ (1.66) | | 1.49 | 1.66 | 0.984 | | | U |
| | PFHxS | 355-46-4 | P170925019 | <LOQ (1.61) | | 1.45 | 1.61 | 0.682 | | | U |
| | PFHpS | 375-92-8 | P170925019 | <LOQ (1.68) | | 1.51 | 1.68 | 0.582 | | | U |
| | PFOS | 1763-23-1 | P170925019 | <LOQ (1.64) | | 1.47 | 1.64 | 0.621 | | | U |
| | PFNS | 68259-12-1 | P170925019 | <LOQ (1.70) | | 1.53 | 1.70 | 0.982 | | | U |
| | PFDS | 335-77-3 | P170925019 | <LOQ (1.70) | | 1.53 | 1.70 | 0.749 | | | U |
| | PFDoS | 79780-39-5 | P170925019 | <LOQ (1.71) | | 1.54 | 1.71 | 0.424 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925019 | <LOQ (6.61) | | 5.95 | 6.61 | 2.77 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925019 | <LOQ (6.70) | | 6.03 | 6.70 | 1.67 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925019 | <LOQ (6.77) | | 6.10 | 6.77 | 4.24 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.917 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.485 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 1.21 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925019 | <LOQ (17.6) | | 15.9 | 17.6 | 5.77 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925019 | <LOQ (17.6) | | 15.9 | 17.6 | 8.34 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925019 | <LOQ (7.06) | | 6.35 | 7.06 | 4.21 | | | U |
| | PFMBA | 863090-89-5 | P170925019 | <LOQ (3.53) | | 3.17 | 3.53 | 1.44 | | | U |
| | PFMPA | 377-73-1 | P170925019 | <LOQ (3.53) | | 3.17 | 3.53 | 0.662 | | | U |
| | NFDHA | 151772-58-6 | P170925019 | <LOQ (3.53) | | 3.17 | 3.53 | 1.78 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925019 | <LOQ (8.82) | | 7.94 | 8.82 | 3.05 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925019 | <LOQ (8.82) | | 7.94 | 8.82 | 2.58 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925019 | <LOQ (8.82) | | 7.94 | 8.82 | 3.82 | | | U |
| Other | ADONA | 919005-14-4 | P170925019 | <LOQ (6.67) | | 6.00 | 6.67 | 3.52 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925019 | <LOQ (6.60) | | 5.94 | 6.60 | 1.88 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.900 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925019 | <LOQ (6.67) | | 6.00 | 6.67 | 1.50 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925019 | <LOQ (1.76) | | 1.59 | 1.76 | 0.854 | | | U |
| | PFEESA | 113507-82-7 | P170925019 | <LOQ (3.14) | | 2.83 | 3.14 | 1.22 | | | U |
| ES | M4PFBA | | P170925019 | | bb | | | | 5-130% | 44.3% | |
| | M5PFPeA | | P170925019 | | MM2* | | | | 40-130% | 76.3% | |
| | M5PFHxA | | P170925019 | | MM2* | | | | 40-130% | 83.2% | |
| | M4PFHpA | | P170925019 | | bb | | | | 40-130% | 94.2% | |
| | M8PFOA | | P170925019 | | bb | | | | 40-130% | 90.6% | |
| | M9PFNA | | P170925019 | | bb | | | | 40-130% | 81.2% | |
| | M6PFDA | | P170925019 | | MM2* | | | | 40-130% | 86.4% | |
| | M7PFUdA | | P170925019 | | bb | | | | 30-130% | 76.8% | |
| | M2-PFDoA | | P170925019 | | bb | | | | 10-130% | 72.3% | |
| | 13C2-PFTeDA | | P170925019 | | bb | | | | 10-130% | 67.5% | |
| | M3PFBS | | P170925019 | | bb | | | | 40-135% | 88.0% | |
| | M3PFHxS | | P170925019 | | bb | | | | 40-130% | 89.3% | |
| | M8PFOS | | P170925019 | | MM2* | | | | 40-130% | 87.4% | |
| | M2-4:2 FTS | | P170925019 | | MM2* | | | | 40-200% | 109% | |
| | M2-6:2 FTS | | P170925019 | | bb | | | | 40-200% | 74.4% | |
| | M2-8:2 FTS | | P170925019 | | bb | | | | 40-300% | 71.9% | |
| | M8PFOSA | | P170925019 | | bb | | | | 40-130% | 76.4% | |
| | d3-N-MeFOSA | | P170925019 | | bb | | | | 10-130% | 64.8% | |
| | d5-N-EtFOSA | | P170925019 | | bb | | | | 10-130% | 60.7% | |
| | d3-N-MeFOSAA | | P170925019 | | MM2* | | | | 40-170% | 80.4% | |
| | d5-N-EtFOSAA | | P170925019 | | MM3* | | | | 25-135% | 73.2% | |
| | d7-N-MeFOSE | | P170925019 | | bb | | | | 10-130% | 95.8% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W12A | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-009-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 12:53 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 566.95 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 18:58 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925019 | | bb | | | | 10-130% | 88.1% | |
| | M3HFPO-DA | | P170925019 | | bb | | | | 40-130% | 67.9% | |
| JS | M3PFBA | | P170925019 | | MM2* | | | | 50-200% | 74.7% | |
| | M2-PFHxA | | P170925019 | | MM2* | | | | 50-200% | 81.1% | |
| | M4-PFOA | | P170925019 | | bb | | | | 50-200% | 77.0% | |
| | M5-PFNA | | P170925019 | | bb | | | | 50-200% | 88.8% | |
| | M2-PFDA | | P170925019 | | bb | | | | 50-200% | 84.9% | |
| | 18O2PFHxS | | P170925019 | | MM2* | | | | 50-200% | 87.6% | |
| | M4-PFOS | | P170925019 | | bb | | | | 50-200% | 95.3% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
bb1* bb;C JWS 09/22/25
MM2* MM;C JWS 09/25/25
MM3* MM;C JWS 09/22/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- I: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W12 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-010-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:00 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 565.07 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 19:21 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925020 | <LOQ (7.08) | MM1* | 6.37 | 7.08 | 1.66 | | | U |
| | PFPeA | 2706-90-3 | P170925020 | <LOQ (3.54) | MM2* | 3.19 | 3.54 | 1.23 | | | U |
| | PFHxA | 307-24-4 | P170925020 | <LOQ (1.77) | MM2* | 1.59 | 1.77 | 0.584 | | | U |
| | PFHpA | 375-85-9 | P170925020 | <LOQ (1.77) | bb | 1.59 | 1.77 | 0.534 | | | U |
| | PFOA | 335-67-1 | P170925020 | <LOQ (1.77) | MM2* | 1.59 | 1.77 | 1.03 | | | U |
| | PFNA | 375-95-1 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.339 | | | U |
| | PFDA | 335-76-2 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.387 | | | U |
| | PFUnDA | 2058-94-8 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.598 | | | U |
| | PFDoA | 307-55-1 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.598 | | | U |
| | PFTrDA | 72629-94-8 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.609 | | | U |
| | PFTeDA | 376-06-7 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.456 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925020 | <LOQ (1.57) | | 1.41 | 1.57 | 0.798 | | | U |
| | PFPeS | 2706-91-4 | P170925020 | <LOQ (1.67) | | 1.50 | 1.67 | 0.987 | | | U |
| | PFHxS | 355-46-4 | P170925020 | <LOQ (1.62) | | 1.46 | 1.62 | 0.684 | | | U |
| | PFHpS | 375-92-8 | P170925020 | <LOQ (1.69) | | 1.52 | 1.69 | 0.584 | | | U |
| | PFOS | 1763-23-1 | P170925020 | <LOQ (1.64) | MM1* | 1.48 | 1.64 | 0.623 | | | U |
| | PFNS | 68259-12-1 | P170925020 | <LOQ (1.70) | | 1.53 | 1.70 | 0.985 | | | U |
| | PFDS | 335-77-3 | P170925020 | <LOQ (1.71) | | 1.54 | 1.71 | 0.751 | | | U |
| | PFDoS | 79780-39-5 | P170925020 | <LOQ (1.72) | | 1.54 | 1.72 | 0.426 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925020 | <LOQ (6.64) | | 5.97 | 6.64 | 2.78 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925020 | <LOQ (6.72) | | 6.05 | 6.72 | 1.67 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925020 | <LOQ (6.80) | | 6.12 | 6.80 | 4.26 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.920 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.487 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 1.21 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925020 | <LOQ (17.7) | | 15.9 | 17.7 | 5.78 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925020 | <LOQ (17.7) | | 15.9 | 17.7 | 8.37 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925020 | <LOQ (7.08) | bb1* | 6.37 | 7.08 | 4.23 | | | U |
| | PFMBA | 863090-89-5 | P170925020 | <LOQ (3.54) | | 3.19 | 3.54 | 1.45 | | | U |
| | PFMPA | 377-73-1 | P170925020 | <LOQ (3.54) | | 3.19 | 3.54 | 0.665 | | | U |
| | NFDHA | 151772-58-6 | P170925020 | <LOQ (3.54) | | 3.19 | 3.54 | 1.79 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925020 | <LOQ (8.85) | | 7.96 | 8.85 | 3.06 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925020 | <LOQ (8.85) | | 7.96 | 8.85 | 2.58 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925020 | <LOQ (8.85) | | 7.96 | 8.85 | 3.84 | | | U |
| Other | ADONA | 919005-14-4 | P170925020 | <LOQ (6.69) | | 6.02 | 6.69 | 3.53 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925020 | <LOQ (6.62) | | 5.96 | 6.62 | 1.88 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.903 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925020 | <LOQ (6.69) | | 6.02 | 6.69 | 1.50 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925020 | <LOQ (1.77) | | 1.59 | 1.77 | 0.857 | | | U |
| | PFEESA | 113507-82-7 | P170925020 | <LOQ (3.15) | | 2.84 | 3.15 | 1.22 | | | U |
| ES | M4PFBA | | P170925020 | | bb | | | | 5-130% | 44.5% | |
| | M5PFPeA | | P170925020 | | MM3* | | | | 40-130% | 70.2% | |
| | M5PFHxA | | P170925020 | | MM3* | | | | 40-130% | 90.4% | |
| | M4PFHpA | | P170925020 | | bb | | | | 40-130% | 87.1% | |
| | M8PFOA | | P170925020 | | bb | | | | 40-130% | 86.9% | |
| | M9PFNA | | P170925020 | | bb | | | | 40-130% | 83.7% | |
| | M6PFDA | | P170925020 | | bb | | | | 40-130% | 83.1% | |
| | M7PFUdA | | P170925020 | | bb | | | | 30-130% | 79.5% | |
| | M2-PFDoA | | P170925020 | | MM3* | | | | 10-130% | 71.2% | |
| | 13C2-PFTeDA | | P170925020 | | bb | | | | 10-130% | 60.0% | |
| | M3PFBS | | P170925020 | | bb | | | | 40-135% | 81.5% | |
| | M3PFHxS | | P170925020 | | bb | | | | 40-130% | 81.6% | |
| | M8PFOS | | P170925020 | | MM3* | | | | 40-130% | 79.0% | |
| | M2-4:2 FTS | | P170925020 | | bb | | | | 40-200% | 110% | |
| | M2-6:2 FTS | | P170925020 | | bb | | | | 40-200% | 80.7% | |
| | M2-8:2 FTS | | P170925020 | | bb | | | | 40-300% | 80.4% | |
| | M8PFOSA | | P170925020 | | bb | | | | 40-130% | 71.1% | |
| | d3-N-MeFOSA | | P170925020 | | bb | | | | 10-130% | 62.3% | |
| | d5-N-EtFOSA | | P170925020 | | bb | | | | 10-130% | 58.9% | |
| | d3-N-MeFOSAA | | P170925020 | | MM3* | | | | 40-170% | 73.4% | |
| | d5-N-EtFOSAA | | P170925020 | | MM3* | | | | 25-135% | 73.7% | |
| | d7-N-MeFOSE | | P170925020 | | bb | | | | 10-130% | 91.5% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W12 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-010-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:00 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 565.07 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 19:21 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925020 | | bb | | | | 10-130% | 87.6% | |
| | M3HFPO-DA | | P170925020 | | bb | | | | 40-130% | 70.0% | |
| JS | M3PFBA | | P170925020 | | MM3* | | | | 50-200% | 73.0% | |
| | M2-PFHxA | | P170925020 | | MM3* | | | | 50-200% | 85.6% | |
| | M4-PFOA | | P170925020 | | bb | | | | 50-200% | 85.0% | |
| | M5-PFNA | | P170925020 | | bb | | | | 50-200% | 91.4% | |
| | M2-PFDA | | P170925020 | | bb | | | | 50-200% | 95.5% | |
| | 18O2PFHxS | | P170925020 | | bb | | | | 50-200% | 99.8% | |
| | M4-PFOS | | P170925020 | | bb | | | | 50-200% | 107% | |

Peak Flags
MM1* MM;C JWS 09/22/25
MM2* MM-;R JWS 09/22/25
bb1* bb;C JWS 09/22/25
MM3* MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- I: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W11 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-011-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:11 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 560.59 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 20:29 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925023 | <LOQ (7.14) | MM1* | 6.42 | 7.14 | 1.68 | | | U |
| | PFPeA | 2706-90-3 | P170925023 | <LOQ (3.57) | MM1* | 3.21 | 3.57 | 1.24 | | | U |
| | PFHxA | 307-24-4 | P170925023 | <LOQ (1.78) | MM1* | 1.61 | 1.78 | 0.589 | | | U |
| | PFHpA | 375-85-9 | P170925023 | <LOQ (1.78) | bb1* | 1.61 | 1.78 | 0.538 | | | U |
| | PFOA | 335-67-1 | P170925023 | <LOQ (1.78) | MM1* | 1.61 | 1.78 | 1.04 | | | U |
| | PFNA | 375-95-1 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.342 | | | U |
| | PFDA | 335-76-2 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.390 | | | U |
| | PFUnDA | 2058-94-8 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.603 | | | U |
| | PFDoA | 307-55-1 | P170925023 | <LOQ (1.78) | MM1* | 1.61 | 1.78 | 0.603 | | | U |
| | PFTrDA | 72629-94-8 | P170925023 | <LOQ (1.78) | MM1* | 1.61 | 1.78 | 0.614 | | | U |
| | PFTeDA | 376-06-7 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.459 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925023 | <LOQ (1.58) | | 1.42 | 1.58 | 0.805 | | | U |
| | PFPeS | 2706-91-4 | P170925023 | <LOQ (1.68) | | 1.51 | 1.68 | 0.995 | | | U |
| | PFHxS | 355-46-4 | P170925023 | <LOQ (1.63) | | 1.47 | 1.63 | 0.689 | | | U |
| | PFHpS | 375-92-8 | P170925023 | <LOQ (1.70) | | 1.53 | 1.70 | 0.589 | | | U |
| | PFOS | 1763-23-1 | P170925023 | <LOQ (1.66) | | 1.49 | 1.66 | 0.628 | | | U |
| | PFNS | 68259-12-1 | P170925023 | <LOQ (1.72) | | 1.54 | 1.72 | 0.993 | | | U |
| | PFDS | 335-77-3 | P170925023 | <LOQ (1.72) | | 1.55 | 1.72 | 0.757 | | | U |
| | PFDoS | 79780-39-5 | P170925023 | <LOQ (1.73) | | 1.56 | 1.73 | 0.429 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925023 | <LOQ (6.69) | | 6.02 | 6.69 | 2.80 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925023 | <LOQ (6.78) | | 6.10 | 6.78 | 1.69 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925023 | <LOQ (6.85) | | 6.16 | 6.85 | 4.29 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.928 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.491 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 1.22 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925023 | <LOQ (17.8) | | 16.1 | 17.8 | 5.83 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925023 | <LOQ (17.8) | | 16.1 | 17.8 | 8.44 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925023 | <LOQ (7.14) | MM2* | 6.42 | 7.14 | 4.26 | | | U |
| | PFMBA | 863090-89-5 | P170925023 | <LOQ (3.57) | | 3.21 | 3.57 | 1.46 | | | U |
| | PFMPA | 377-73-1 | P170925023 | <LOQ (3.57) | | 3.21 | 3.57 | 0.670 | | | U |
| | NFDHA | 151772-58-6 | P170925023 | <LOQ (3.57) | | 3.21 | 3.57 | 1.80 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925023 | <LOQ (8.92) | | 8.03 | 8.92 | 3.08 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925023 | <LOQ (8.92) | | 8.03 | 8.92 | 2.60 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925023 | <LOQ (8.92) | | 8.03 | 8.92 | 3.87 | | | U |
| Other | ADONA | 919005-14-4 | P170925023 | <LOQ (6.74) | | 6.07 | 6.74 | 3.56 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925023 | <LOQ (6.67) | | 6.00 | 6.67 | 1.90 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.910 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925023 | <LOQ (6.74) | | 6.07 | 6.74 | 1.52 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925023 | <LOQ (1.78) | | 1.61 | 1.78 | 0.863 | | | U |
| | PFEESA | 113507-82-7 | P170925023 | <LOQ (3.18) | | 2.86 | 3.18 | 1.23 | | | U |
| ES | M4PFBA | | P170925023 | | MM3* | | | | 5-130% | 49.9% | |
| | M5PFPeA | | P170925023 | | MM3* | | | | 40-130% | 70.9% | |
| | M5PFHxA | | P170925023 | | MM3* | | | | 40-130% | 84.8% | |
| | M4PFHpA | | P170925023 | | bb | | | | 40-130% | 85.1% | |
| | M8PFOA | | P170925023 | | bb | | | | 40-130% | 81.2% | |
| | M9PFNA | | P170925023 | | bb | | | | 40-130% | 77.2% | |
| | M6PFDA | | P170925023 | | bb | | | | 40-130% | 82.7% | |
| | M7PFUdA | | P170925023 | | bb | | | | 30-130% | 79.0% | |
| | M2-PFDoA | | P170925023 | | MM3* | | | | 10-130% | 69.8% | |
| | 13C2-PFTeDA | | P170925023 | | MM3* | | | | 10-130% | 57.1% | |
| | M3PFBS | | P170925023 | | MM3* | | | | 40-135% | 73.5% | |
| | M3PFHxS | | P170925023 | | MM3* | | | | 40-130% | 85.0% | |
| | M8PFOS | | P170925023 | | bb | | | | 40-130% | 78.0% | |
| | M2-4:2 FTS | | P170925023 | | MM3* | | | | 40-200% | 111% | |
| | M2-6:2 FTS | | P170925023 | | bb | | | | 40-200% | 78.0% | |
| | M2-8:2 FTS | | P170925023 | | bb | | | | 40-300% | 69.6% | |
| | M8PFOSA | | P170925023 | | MM3* | | | | 40-130% | 68.0% | |
| | d3-N-MeFOSA | | P170925023 | | bb | | | | 10-130% | 61.9% | |
| | d5-N-EtFOSA | | P170925023 | | bb | | | | 10-130% | 57.0% | |
| | d3-N-MeFOSAA | | P170925023 | | bb | | | | 40-170% | 78.3% | |
| | d5-N-EtFOSAA | | P170925023 | | bb | | | | 25-135% | 72.5% | |
| | d7-N-MeFOSE | | P170925023 | | bb | | | | 10-130% | 91.7% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W11 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-011-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:11 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 560.59 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 20:29 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925023 | | bb | | | | 10-130% | 87.6% | |
| | M3HFPO-DA | | P170925023 | | bb | | | | 40-130% | 69.3% | |
| JS | M3PFBA | | P170925023 | | MM3* | | | | 50-200% | 70.0% | |
| | M2-PFHxA | | P170925023 | | MM3* | | | | 50-200% | 83.6% | |
| | M4-PFOA | | P170925023 | | bb | | | | 50-200% | 85.3% | |
| | M5-PFNA | | P170925023 | | bb | | | | 50-200% | 93.9% | |
| | M2-PFDA | | P170925023 | | bb | | | | 50-200% | 90.5% | |
| | 18O2PFHxS | | P170925023 | | bb | | | | 50-200% | 95.7% | |
| | M4-PFOS | | P170925023 | | MM3* | | | | 50-200% | 102% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
bb1* bb;C JWS 09/25/25
MM2* MM;C JWS 09/22/25
MM3* MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- I: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W05 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-012-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:25 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 556.32 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 20:52 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925024 | <LOQ (7.19) | | 6.47 | 7.19 | 1.69 | | | U |
| | PFPeA | 2706-90-3 | P170925024 | <LOQ (3.60) | MM1* | 3.24 | 3.60 | 1.25 | | | U |
| | PFHxA | 307-24-4 | P170925024 | <LOQ (1.80) | MM1* | 1.62 | 1.80 | 0.593 | | | U |
| | PFHpA | 375-85-9 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.542 | | | U |
| | PFOA | 335-67-1 | P170925024 | <LOQ (1.80) | MM1* | 1.62 | 1.80 | 1.05 | | | U |
| | PFNA | 375-95-1 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.344 | | | U |
| | PFDA | 335-76-2 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.393 | | | U |
| | PFUnDA | 2058-94-8 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.608 | | | U |
| | PFDoA | 307-55-1 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.608 | | | U |
| | PFTrDA | 72629-94-8 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.618 | | | U |
| | PFTeDA | 376-06-7 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.463 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925024 | <LOQ (1.59) | | 1.43 | 1.59 | 0.811 | | | U |
| | PFPeS | 2706-91-4 | P170925024 | <LOQ (1.69) | | 1.52 | 1.69 | 1.00 | | | U |
| | PFHxS | 355-46-4 | P170925024 | <LOQ (1.64) | | 1.48 | 1.64 | 0.695 | | | U |
| | PFHpS | 375-92-8 | P170925024 | <LOQ (1.71) | | 1.54 | 1.71 | 0.593 | | | U |
| | PFOS | 1763-23-1 | P170925024 | <LOQ (1.67) | | 1.50 | 1.67 | 0.633 | | | U |
| | PFNS | 68259-12-1 | P170925024 | <LOQ (1.73) | | 1.56 | 1.73 | 1.00 | | | U |
| | PFDS | 335-77-3 | P170925024 | <LOQ (1.73) | | 1.56 | 1.73 | 0.763 | | | U |
| | PFDoS | 79780-39-5 | P170925024 | <LOQ (1.74) | | 1.57 | 1.74 | 0.432 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925024 | <LOQ (6.74) | | 6.07 | 6.74 | 2.82 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925024 | <LOQ (6.83) | | 6.15 | 6.83 | 1.70 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925024 | <LOQ (6.90) | | 6.21 | 6.90 | 4.32 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.935 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.494 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 1.23 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925024 | <LOQ (18.0) | | 16.2 | 18.0 | 5.88 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925024 | <LOQ (18.0) | | 16.2 | 18.0 | 8.50 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925024 | <LOQ (7.19) | | 6.47 | 7.19 | 4.29 | | | U |
| | PFMBA | 863090-89-5 | P170925024 | <LOQ (3.60) | | 3.24 | 3.60 | 1.47 | | | U |
| | PFMPA | 377-73-1 | P170925024 | <LOQ (3.60) | | 3.24 | 3.60 | 0.675 | | | U |
| | NFDHA | 151772-58-6 | P170925024 | <LOQ (3.60) | | 3.24 | 3.60 | 1.82 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925024 | <LOQ (8.99) | | 8.09 | 8.99 | 3.11 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925024 | <LOQ (8.99) | | 8.09 | 8.99 | 2.62 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925024 | <LOQ (8.99) | | 8.09 | 8.99 | 3.90 | | | U |
| Other | ADONA | 919005-14-4 | P170925024 | <LOQ (6.79) | | 6.12 | 6.79 | 3.59 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925024 | <LOQ (6.72) | | 6.05 | 6.72 | 1.91 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.917 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925024 | <LOQ (6.79) | | 6.12 | 6.79 | 1.53 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925024 | <LOQ (1.80) | | 1.62 | 1.80 | 0.870 | | | U |
| | PFEESA | 113507-82-7 | P170925024 | <LOQ (3.20) | | 2.88 | 3.20 | 1.24 | | | U |
| ES | M4PFBA | | P170925024 | | MM2* | | | | 5-130% | 49.9% | |
| | M5PFPeA | | P170925024 | | MM2* | | | | 40-130% | 77.0% | |
| | M5PFHxA | | P170925024 | | bb | | | | 40-130% | 87.0% | |
| | M4PFHpA | | P170925024 | | bb | | | | 40-130% | 90.5% | |
| | M8PFOA | | P170925024 | | bb | | | | 40-130% | 81.5% | |
| | M9PFNA | | P170925024 | | bb | | | | 40-130% | 84.8% | |
| | M6PFDA | | P170925024 | | bb | | | | 40-130% | 83.4% | |
| | M7PFUdA | | P170925024 | | MM2* | | | | 30-130% | 78.3% | |
| | M2-PFDoA | | P170925024 | | MM2* | | | | 10-130% | 69.8% | |
| | 13C2-PFTeDA | | P170925024 | | bb | | | | 10-130% | 53.7% | |
| | M3PFBS | | P170925024 | | MM2* | | | | 40-135% | 82.6% | |
| | M3PFHxS | | P170925024 | | bb | | | | 40-130% | 86.3% | |
| | M8PFOS | | P170925024 | | MM2* | | | | 40-130% | 86.1% | |
| | M2-4:2 FTS | | P170925024 | | MM2* | | | | 40-200% | 107% | |
| | M2-6:2 FTS | | P170925024 | | MM2* | | | | 40-200% | 75.6% | |
| | M2-8:2 FTS | | P170925024 | | db | | | | 40-300% | 80.4% | |
| | M8PFOSA | | P170925024 | | MM2* | | | | 40-130% | 79.3% | |
| | d3-N-MeFOSA | | P170925024 | | bb | | | | 10-130% | 63.1% | |
| | d5-N-EtFOSA | | P170925024 | | bb | | | | 10-130% | 58.6% | |
| | d3-N-MeFOSAA | | P170925024 | | bb | | | | 40-170% | 76.5% | |
| | d5-N-EtFOSAA | | P170925024 | | MM2* | | | | 25-135% | 74.6% | |
| | d7-N-MeFOSE | | P170925024 | | bb | | | | 10-130% | 93.7% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W05 | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-012-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:25 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 556.32 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 20:52 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925024 | | bb | | | | 10-130% | 83.6% | |
| | M3HFPO-DA | | P170925024 | | MM2* | | | | 40-130% | 72.5% | |
| JS | M3PFBA | | P170925024 | | MM3* | | | | 50-200% | 80.7% | |
| | M2-PFHxA | | P170925024 | | MM2* | | | | 50-200% | 82.7% | |
| | M4-PFOA | | P170925024 | | bb | | | | 50-200% | 85.2% | |
| | M5-PFNA | | P170925024 | | bb | | | | 50-200% | 86.8% | |
| | M2-PFDA | | P170925024 | | MM2* | | | | 50-200% | 89.6% | |
| | 18O2PFHxS | | P170925024 | | bb | | | | 50-200% | 89.6% | |
| | M4-PFOS | | P170925024 | | bb | | | | 50-200% | 95.5% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25
MM3* MM;C JWS 09/22/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W6A | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-013-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:35 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 551.01 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 21:15 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925025 | <LOQ (7.26) | MM1* | 6.53 | 7.26 | 1.71 | | | U |
| | PFPeA | 2706-90-3 | P170925025 | <LOQ (3.63) | MM1* | 3.27 | 3.63 | 1.26 | | | U |
| | PFHxA | 307-24-4 | P170925025 | <LOQ (1.81) | MM1* | 1.63 | 1.81 | 0.599 | | | U |
| | PFHpA | 375-85-9 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.547 | | | U |
| | PFOA | 335-67-1 | P170925025 | <LOQ (1.81) | MM1* | 1.63 | 1.81 | 1.06 | | | U |
| | PFNA | 375-95-1 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.348 | | | U |
| | PFDA | 335-76-2 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.397 | | | U |
| | PFUnDA | 2058-94-8 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.613 | | | U |
| | PFDoA | 307-55-1 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.613 | | | U |
| | PFTrDA | 72629-94-8 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.624 | | | U |
| | PFTeDA | 376-06-7 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.467 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925025 | <LOQ (1.61) | | 1.45 | 1.61 | 0.818 | | | U |
| | PFPeS | 2706-91-4 | P170925025 | <LOQ (1.71) | | 1.54 | 1.71 | 1.01 | | | U |
| | PFHxS | 355-46-4 | P170925025 | <LOQ (1.66) | | 1.49 | 1.66 | 0.701 | | | U |
| | PFHpS | 375-92-8 | P170925025 | <LOQ (1.73) | | 1.56 | 1.73 | 0.599 | | | U |
| | PFOS | 1763-23-1 | P170925025 | <LOQ (1.68) | | 1.52 | 1.68 | 0.639 | | | U |
| | PFNS | 68259-12-1 | P170925025 | <LOQ (1.75) | | 1.57 | 1.75 | 1.01 | | | U |
| | PFDS | 335-77-3 | P170925025 | <LOQ (1.75) | | 1.58 | 1.75 | 0.770 | | | U |
| | PFDoS | 79780-39-5 | P170925025 | <LOQ (1.76) | | 1.58 | 1.76 | 0.436 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925025 | <LOQ (6.81) | | 6.13 | 6.81 | 2.85 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925025 | <LOQ (6.90) | | 6.21 | 6.90 | 1.72 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925025 | <LOQ (6.97) | | 6.27 | 6.97 | 4.36 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.944 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.499 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 1.24 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925025 | <LOQ (18.1) | | 16.3 | 18.1 | 5.93 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925025 | <LOQ (18.1) | | 16.3 | 18.1 | 8.58 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925025 | <LOQ (7.26) | | 6.53 | 7.26 | 4.33 | | | U |
| | PFMBA | 863090-89-5 | P170925025 | <LOQ (3.63) | | 3.27 | 3.63 | 1.48 | | | U |
| | PFMPA | 377-73-1 | P170925025 | <LOQ (3.63) | | 3.27 | 3.63 | 0.681 | | | U |
| | NFDHA | 151772-58-6 | P170925025 | <LOQ (3.63) | | 3.27 | 3.63 | 1.83 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925025 | <LOQ (9.07) | | 8.17 | 9.07 | 3.14 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925025 | <LOQ (9.07) | | 8.17 | 9.07 | 2.65 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925025 | <LOQ (9.07) | | 8.17 | 9.07 | 3.94 | | | U |
| Other | ADONA | 919005-14-4 | P170925025 | <LOQ (6.86) | | 6.17 | 6.86 | 3.62 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925025 | <LOQ (6.79) | | 6.11 | 6.79 | 1.93 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.926 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925025 | <LOQ (6.86) | | 6.17 | 6.86 | 1.54 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925025 | <LOQ (1.81) | | 1.63 | 1.81 | 0.878 | | | U |
| | PFEESA | 113507-82-7 | P170925025 | <LOQ (3.23) | | 2.91 | 3.23 | 1.25 | | | U |
| ES | M4PFBA | | P170925025 | | MM2* | | | | 5-130% | 41.7% | |
| | M5PFPeA | | P170925025 | | MM2* | | | | 40-130% | 70.3% | |
| | M5PFHxA | | P170925025 | | MM2* | | | | 40-130% | 77.1% | |
| | M4PFHpA | | P170925025 | | bb | | | | 40-130% | 80.4% | |
| | M8PFOA | | P170925025 | | bb | | | | 40-130% | 77.0% | |
| | M9PFNA | | P170925025 | | MM2* | | | | 40-130% | 82.0% | |
| | M6PFDA | | P170925025 | | MM2* | | | | 40-130% | 85.6% | |
| | M7PFUdA | | P170925025 | | bb | | | | 30-130% | 78.4% | |
| | M2-PFDoA | | P170925025 | | MM2* | | | | 10-130% | 68.2% | |
| | 13C2-PFTeDA | | P170925025 | | bb | | | | 10-130% | 52.7% | |
| | M3PFBS | | P170925025 | | MM2* | | | | 40-135% | 78.6% | |
| | M3PFHxS | | P170925025 | | bb | | | | 40-130% | 91.9% | |
| | M8PFOS | | P170925025 | | MM2* | | | | 40-130% | 73.8% | |
| | M2-4:2 FTS | | P170925025 | | bb | | | | 40-200% | 106% | |
| | M2-6:2 FTS | | P170925025 | | bb | | | | 40-200% | 79.1% | |
| | M2-8:2 FTS | | P170925025 | | MM2* | | | | 40-300% | 75.9% | |
| | M8PFOSA | | P170925025 | | MM2* | | | | 40-130% | 69.2% | |
| | d3-N-MeFOSA | | P170925025 | | bb | | | | 10-130% | 56.5% | |
| | d5-N-EtFOSA | | P170925025 | | bb | | | | 10-130% | 56.2% | |
| | d3-N-MeFOSAA | | P170925025 | | MM2* | | | | 40-170% | 76.1% | |
| | d5-N-EtFOSAA | | P170925025 | | MM2* | | | | 25-135% | 75.2% | |
| | d7-N-MeFOSE | | P170925025 | | bb | | | | 10-130% | 84.9% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-W6A | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-013-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:35 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 551.01 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 21:15 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925025 | | bb | | | | 10-130% | 78.3% | |
| | M3HFPO-DA | | P170925025 | | MM2* | | | | 40-130% | 58.9% | |
| JS | M3PFBA | | P170925025 | | MM2* | | | | 50-200% | 80.3% | |
| | M2-PFHxA | | P170925025 | | MM2* | | | | 50-200% | 90.2% | |
| | M4-PFOA | | P170925025 | | bb | | | | 50-200% | 89.7% | |
| | M5-PFNA | | P170925025 | | bb | | | | 50-200% | 93.0% | |
| | M2-PFDA | | P170925025 | | bb | | | | 50-200% | 89.2% | |
| | 18O2PFHxS | | P170925025 | | MM2* | | | | 50-200% | 93.9% | |
| | M4-PFOS | | P170925025 | | bb | | | | 50-200% | 104% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25

Primary Code
b: Peak starts or ends on the baseline
d: Peak starts or ends on a drop line
v: peak starts or ends on a valley
s: Peak is a shoulder on another peak
!: Flagged peak
l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
t: Peak starts or ends at the start or end of the trace
M: The peak start or end point was manually altered
-: The peak was manually deleted
X: Point manually excluded from the calibration curve

Secondary Code
n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-CH | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-014-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:42 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 569.87 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 21:37 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925026 | <LOQ (7.02) | MM1* | 6.32 | 7.02 | 1.65 | | | U |
| | PFPeA | 2706-90-3 | P170925026 | <LOQ (3.51) | MM1* | 3.16 | 3.51 | 1.22 | | | U |
| | PFHxA | 307-24-4 | P170925026 | <LOQ (1.75) | MM1* | 1.58 | 1.75 | 0.579 | | | U |
| | PFHpA | 375-85-9 | P170925026 | <LOQ (1.75) | bb1* | 1.58 | 1.75 | 0.529 | | | U |
| | PFOA | 335-67-1 | P170925026 | <LOQ (1.75) | MM1* | 1.58 | 1.75 | 1.03 | | | U |
| | PFNA | 375-95-1 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.336 | | | U |
| | PFDA | 335-76-2 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.383 | | | U |
| | PFUnDA | 2058-94-8 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.593 | | | U |
| | PFDoA | 307-55-1 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.593 | | | U |
| | PFTrDA | 72629-94-8 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.604 | | | U |
| | PFTeDA | 376-06-7 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.452 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925026 | <LOQ (1.56) | | 1.40 | 1.56 | 0.791 | | | U |
| | PFPeS | 2706-91-4 | P170925026 | <LOQ (1.65) | | 1.49 | 1.65 | 0.979 | | | U |
| | PFHxS | 355-46-4 | P170925026 | <LOQ (1.60) | | 1.44 | 1.60 | 0.678 | | | U |
| | PFHpS | 375-92-8 | P170925026 | <LOQ (1.67) | | 1.51 | 1.67 | 0.579 | | | U |
| | PFOS | 1763-23-1 | P170925026 | <LOQ (1.63) | | 1.47 | 1.63 | 0.618 | | | U |
| | PFNS | 68259-12-1 | P170925026 | <LOQ (1.69) | | 1.52 | 1.69 | 0.977 | | | U |
| | PFDS | 335-77-3 | P170925026 | <LOQ (1.69) | | 1.52 | 1.69 | 0.745 | | | U |
| | PFDoS | 79780-39-5 | P170925026 | <LOQ (1.70) | | 1.53 | 1.70 | 0.422 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925026 | <LOQ (6.58) | | 5.92 | 6.58 | 2.76 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925026 | <LOQ (6.67) | | 6.00 | 6.67 | 1.66 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925026 | <LOQ (6.74) | | 6.06 | 6.74 | 4.22 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.912 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.483 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 1.20 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925026 | <LOQ (17.5) | | 15.8 | 17.5 | 5.74 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925026 | <LOQ (17.5) | | 15.8 | 17.5 | 8.30 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925026 | <LOQ (7.02) | | 6.32 | 7.02 | 4.19 | | | U |
| | PFMBA | 863090-89-5 | P170925026 | <LOQ (3.51) | | 3.16 | 3.51 | 1.44 | | | U |
| | PFMPA | 377-73-1 | P170925026 | <LOQ (3.51) | | 3.16 | 3.51 | 0.659 | | | U |
| | NFDHA | 151772-58-6 | P170925026 | <LOQ (3.51) | | 3.16 | 3.51 | 1.77 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925026 | <LOQ (8.77) | | 7.90 | 8.77 | 3.03 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925026 | <LOQ (8.77) | | 7.90 | 8.77 | 2.56 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925026 | <LOQ (8.77) | | 7.90 | 8.77 | 3.81 | | | U |
| Other | ADONA | 919005-14-4 | P170925026 | <LOQ (6.63) | | 5.97 | 6.63 | 3.50 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925026 | <LOQ (6.56) | | 5.91 | 6.56 | 1.87 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.895 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925026 | <LOQ (6.63) | | 5.97 | 6.63 | 1.49 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925026 | <LOQ (1.75) | | 1.58 | 1.75 | 0.849 | | | U |
| | PFEESA | 113507-82-7 | P170925026 | <LOQ (3.12) | | 2.81 | 3.12 | 1.21 | | | U |
| ES | M4PFBA | | P170925026 | | MM2* | | | | 5-130% | 52.0% | |
| | M5PFPeA | | P170925026 | | MM2* | | | | 40-130% | 75.5% | |
| | M5PFHxA | | P170925026 | | bb | | | | 40-130% | 81.3% | |
| | M4PFHpA | | P170925026 | | bb | | | | 40-130% | 94.4% | |
| | M8PFOA | | P170925026 | | bb | | | | 40-130% | 84.5% | |
| | M9PFNA | | P170925026 | | bb | | | | 40-130% | 77.9% | |
| | M6PFDA | | P170925026 | | MM2* | | | | 40-130% | 77.9% | |
| | M7PFUdA | | P170925026 | | MM2* | | | | 30-130% | 71.8% | |
| | M2-PFDoA | | P170925026 | | MM2* | | | | 10-130% | 64.7% | |
| | 13C2-PFTeDA | | P170925026 | | bb | | | | 10-130% | 46.6% | |
| | M3PFBS | | P170925026 | | MM2* | | | | 40-135% | 81.6% | |
| | M3PFHxS | | P170925026 | | bb | | | | 40-130% | 84.8% | |
| | M8PFOS | | P170925026 | | MM2* | | | | 40-130% | 77.9% | |
| | M2-4:2 FTS | | P170925026 | | bb | | | | 40-200% | 105% | |
| | M2-6:2 FTS | | P170925026 | | bb | | | | 40-200% | 81.7% | |
| | M2-8:2 FTS | | P170925026 | | bb | | | | 40-300% | 82.8% | |
| | M8PFOSA | | P170925026 | | MM2* | | | | 40-130% | 74.2% | |
| | d3-N-MeFOSA | | P170925026 | | bb | | | | 10-130% | 59.1% | |
| | d5-N-EtFOSA | | P170925026 | | bb | | | | 10-130% | 54.8% | |
| | d3-N-MeFOSAA | | P170925026 | | MM2* | | | | 40-170% | 70.5% | |
| | d5-N-EtFOSAA | | P170925026 | | MM2* | | | | 25-135% | 74.9% | |
| | d7-N-MeFOSE | | P170925026 | | bb | | | | 10-130% | 88.1% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-CH | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-014-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:42 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 569.87 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 21:37 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925026 | | bb | | | | 10-130% | 77.1% | |
| | M3HFPO-DA | | P170925026 | | bb | | | | 40-130% | 71.9% | |
| JS | M3PFBA | | P170925026 | | bb | | | | 50-200% | 72.9% | |
| | M2-PFHxA | | P170925026 | | MM2* | | | | 50-200% | 83.0% | |
| | M4-PFOA | | P170925026 | | bb | | | | 50-200% | 86.5% | |
| | M5-PFNA | | P170925026 | | bb | | | | 50-200% | 92.8% | |
| | M2-PFDA | | P170925026 | | bb | | | | 50-200% | 93.2% | |
| | 18O2PFHxS | | P170925026 | | bb | | | | 50-200% | 98.9% | |
| | M4-PFOS | | P170925026 | | MM2* | | | | 50-200% | 100% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
bb1* bb;C JWS 09/22/25
MM2* MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-FW | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-015-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:45 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 562.85 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 22:00 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925027 | <LOQ (7.11) | MM1* | 6.40 | 7.11 | 1.67 | | | U |
| | PFPeA | 2706-90-3 | P170925027 | <LOQ (3.55) | MM1* | 3.20 | 3.55 | 1.23 | | | U |
| | PFHxA | 307-24-4 | P170925027 | <LOQ (1.78) | MM1* | 1.60 | 1.78 | 0.586 | | | U |
| | PFHpA | 375-85-9 | P170925027 | <LOQ (1.78) | bb | 1.60 | 1.78 | 0.536 | | | U |
| | PFOA | 335-67-1 | P170925027 | <LOQ (1.78) | MM1* | 1.60 | 1.78 | 1.04 | | | U |
| | PFNA | 375-95-1 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.340 | | | U |
| | PFDA | 335-76-2 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.388 | | | U |
| | PFUnDA | 2058-94-8 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.601 | | | U |
| | PFDoA | 307-55-1 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.601 | | | U |
| | PFTrDA | 72629-94-8 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.611 | | | U |
| | PFTeDA | 376-06-7 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.457 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925027 | <LOQ (1.58) | | 1.42 | 1.58 | 0.801 | | | U |
| | PFPeS | 2706-91-4 | P170925027 | <LOQ (1.67) | | 1.50 | 1.67 | 0.991 | | | U |
| | PFHxS | 355-46-4 | P170925027 | <LOQ (1.62) | | 1.46 | 1.62 | 0.687 | | | U |
| | PFHpS | 375-92-8 | P170925027 | <LOQ (1.69) | | 1.52 | 1.69 | 0.586 | | | U |
| | PFOS | 1763-23-1 | P170925027 | <LOQ (1.65) | | 1.48 | 1.65 | 0.625 | | | U |
| | PFNS | 68259-12-1 | P170925027 | <LOQ (1.71) | | 1.54 | 1.71 | 0.989 | | | U |
| | PFDS | 335-77-3 | P170925027 | <LOQ (1.71) | | 1.54 | 1.71 | 0.754 | | | U |
| | PFDoS | 79780-39-5 | P170925027 | <LOQ (1.72) | | 1.55 | 1.72 | 0.427 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925027 | <LOQ (6.66) | | 6.00 | 6.66 | 2.79 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925027 | <LOQ (6.75) | | 6.08 | 6.75 | 1.68 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925027 | <LOQ (6.82) | | 6.14 | 6.82 | 4.27 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.924 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.489 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 1.22 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925027 | <LOQ (17.8) | | 16.0 | 17.8 | 5.81 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925027 | <LOQ (17.8) | | 16.0 | 17.8 | 8.40 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925027 | <LOQ (7.11) | MM2* | 6.40 | 7.11 | 4.24 | | | U |
| | PFMBA | 863090-89-5 | P170925027 | <LOQ (3.55) | | 3.20 | 3.55 | 1.45 | | | U |
| | PFMPA | 377-73-1 | P170925027 | <LOQ (3.55) | | 3.20 | 3.55 | 0.667 | | | U |
| | NFDHA | 151772-58-6 | P170925027 | <LOQ (3.55) | | 3.20 | 3.55 | 1.79 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925027 | <LOQ (8.88) | | 8.00 | 8.88 | 3.07 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925027 | <LOQ (8.88) | | 8.00 | 8.88 | 2.59 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925027 | <LOQ (8.88) | | 8.00 | 8.88 | 3.85 | | | U |
| Other | ADONA | 919005-14-4 | P170925027 | <LOQ (6.72) | | 6.04 | 6.72 | 3.55 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925027 | <LOQ (6.64) | | 5.98 | 6.64 | 1.89 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.906 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925027 | <LOQ (6.72) | | 6.04 | 6.72 | 1.51 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925027 | <LOQ (1.78) | | 1.60 | 1.78 | 0.860 | | | U |
| | PFEESA | 113507-82-7 | P170925027 | <LOQ (3.16) | | 2.85 | 3.16 | 1.23 | | | U |
| ES | M4PFBA | | P170925027 | | MM3* | | | | 5-130% | 64.4% | |
| | M5PFPeA | | P170925027 | | MM3* | | | | 40-130% | 71.3% | |
| | M5PFHxA | | P170925027 | | MM3* | | | | 40-130% | 81.0% | |
| | M4PFHpA | | P170925027 | | bb | | | | 40-130% | 86.0% | |
| | M8PFOA | | P170925027 | | bb | | | | 40-130% | 87.2% | |
| | M9PFNA | | P170925027 | | bb | | | | 40-130% | 80.8% | |
| | M6PFDA | | P170925027 | | MM3* | | | | 40-130% | 79.0% | |
| | M7PFUdA | | P170925027 | | MM3* | | | | 30-130% | 81.7% | |
| | M2-PFDoA | | P170925027 | | bb | | | | 10-130% | 66.8% | |
| | 13C2-PFTeDA | | P170925027 | | bb | | | | 10-130% | 51.6% | |
| | M3PFBS | | P170925027 | | MM3* | | | | 40-135% | 89.1% | |
| | M3PFHxS | | P170925027 | | bb | | | | 40-130% | 91.6% | |
| | M8PFOS | | P170925027 | | MM3* | | | | 40-130% | 76.2% | |
| | M2-4:2 FTS | | P170925027 | | MM3* | | | | 40-200% | 120% | |
| | M2-6:2 FTS | | P170925027 | | bb | | | | 40-200% | 75.8% | |
| | M2-8:2 FTS | | P170925027 | | MM3* | | | | 40-300% | 76.8% | |
| | M8PFOSA | | P170925027 | | MM3* | | | | 40-130% | 73.2% | |
| | d3-N-MeFOSA | | P170925027 | | bb | | | | 10-130% | 57.0% | |
| | d5-N-EtFOSA | | P170925027 | | bb | | | | 10-130% | 52.7% | |
| | d3-N-MeFOSAA | | P170925027 | | bb | | | | 40-170% | 70.4% | |
| | d5-N-EtFOSAA | | P170925027 | | MM3* | | | | 25-135% | 69.6% | |
| | d7-N-MeFOSE | | P170925027 | | bb | | | | 10-130% | 84.1% | |

# Enthalpy Analytical

Job No.: 0925-783-1  DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC  1920  211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | 091125-FW | | |
| Sampling Site | | | |
| Enthalpy ID | 0925-783-015-1A | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | 2025-09-11 13:45 | Instrument | Pippin |
| Received Date | 2025-09-11 | Sample Vol mL | 562.85 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 22:00 | Split Factor | N/A |
| SampleType | Sample | Method Code | Eu-062 |
| Bottle ID | A | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925027 | | bb | | | | 10-130% | 77.4% | |
| | M3HFPO-DA | | P170925027 | | MM3* | | | | 40-130% | 65.4% | |
| JS | M3PFBA | | P170925027 | | bb | | | | 50-200% | 71.5% | |
| | M2-PFHxA | | P170925027 | | MM3* | | | | 50-200% | 86.2% | |
| | M4-PFOA | | P170925027 | | bb | | | | 50-200% | 83.0% | |
| | M5-PFNA | | P170925027 | | bb | | | | 50-200% | 91.6% | |
| | M2-PFDA | | P170925027 | | bb | | | | 50-200% | 90.0% | |
| | 18O2PFHxS | | P170925027 | | bb | | | | 50-200% | 90.8% | |
| | M4-PFOS | | P170925027 | | bb | | | | 50-200% | 100% | |

Peak Flags
MM1*  MM-;R JWS 09/22/25
MM2*  MM;C JWS 09/22/25
MM3*  MM;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# QC Data

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | MB_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | MB_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 14:48 | Split Factor | N/A |
| SampleType | Blank | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925008 | <LOQ (8.00) | | 7.20 | 8.00 | 1.88 | | | U |
| | PFPeA | 2706-90-3 | P170925008 | <LOQ (4.00) | | 3.60 | 4.00 | 1.39 | | | U |
| | PFHxA | 307-24-4 | P170925008 | <LOQ (2.00) | MM1* | 1.80 | 2.00 | 0.660 | | | U |
| | PFHpA | 375-85-9 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.603 | | | U |
| | PFOA | 335-67-1 | P170925008 | <LOQ (2.00) | MM1* | 1.80 | 2.00 | 1.17 | | | U |
| | PFNA | 375-95-1 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.383 | | | U |
| | PFDA | 335-76-2 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.437 | | | U |
| | PFUnDA | 2058-94-8 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.676 | | | U |
| | PFDoA | 307-55-1 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.676 | | | U |
| | PFTrDA | 72629-94-8 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.688 | | | U |
| | PFTeDA | 376-06-7 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.515 | | | U |
| Sulfonates | PFBS | 375-73-5 | P170925008 | <LOQ (1.77) | | 1.60 | 1.77 | 0.902 | | | U |
| | PFPeS | 2706-91-4 | P170925008 | <LOQ (1.88) | | 1.69 | 1.88 | 1.12 | | | U |
| | PFHxS | 355-46-4 | P170925008 | <LOQ (1.83) | | 1.65 | 1.83 | 0.773 | | | U |
| | PFHpS | 375-92-8 | P170925008 | <LOQ (1.91) | | 1.72 | 1.91 | 0.660 | | | U |
| | PFOS | 1763-23-1 | P170925008 | <LOQ (1.86) | | 1.67 | 1.86 | 0.704 | | | U |
| | PFNS | 68259-12-1 | P170925008 | <LOQ (1.92) | | 1.73 | 1.92 | 1.11 | | | U |
| | PFDS | 335-77-3 | P170925008 | <LOQ (1.93) | | 1.74 | 1.93 | 0.849 | | | U |
| | PFDoS | 79780-39-5 | P170925008 | <LOQ (1.94) | | 1.75 | 1.94 | 0.481 | | | U |
| | 4:2 FTS | 757124-72-4 | P170925008 | <LOQ (7.50) | | 6.75 | 7.50 | 3.14 | | | U |
| | 6:2 FTS | 27619-97-2 | P170925008 | <LOQ (7.60) | | 6.84 | 7.60 | 1.89 | | | U |
| | 8:2 FTS | 39108-34-4 | P170925008 | <LOQ (7.68) | | 6.91 | 7.68 | 4.81 | | | U |
| Sulfonmides | PFOSA | 754-91-6 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 1.04 | | | U |
| | N-MeFOSA | 31506-32-8 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.550 | | | U |
| | N-EtFOSA | 4151-50-2 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 1.37 | | | U |
| | N-MeFOSE | 24448-09-7 | P170925008 | <LOQ (20.0) | | 18.0 | 20.0 | 6.54 | | | U |
| | N-EtFOSE | 1691-99-2 | P170925008 | <LOQ (20.0) | | 18.0 | 20.0 | 9.46 | | | U |
| PFECAs | HFPO-DA | 13252-13-6 | P170925008 | <LOQ (8.00) | | 7.20 | 8.00 | 4.78 | | | U |
| | PFMBA | 863090-89-5 | P170925008 | <LOQ (4.00) | | 3.60 | 4.00 | 1.64 | | | U |
| | PFMPA | 377-73-1 | P170925008 | <LOQ (4.00) | | 3.60 | 4.00 | 0.751 | | | U |
| | NFDHA | 151772-58-6 | P170925008 | <LOQ (4.00) | | 3.60 | 4.00 | 2.02 | | | U |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925008 | <LOQ (10.0) | | 9.00 | 10.0 | 3.46 | | | U |
| | 5:3 FTCA | 914637-49-3 | P170925008 | <LOQ (10.0) | | 9.00 | 10.0 | 2.92 | | | U |
| | 7:3 FTCA | 812-70-4 | P170925008 | <LOQ (10.0) | | 9.00 | 10.0 | 4.34 | | | U |
| Other | ADONA | 919005-14-4 | P170925008 | <LOQ (7.56) | | 6.80 | 7.56 | 3.99 | | | U |
| | 9Cl-PF3ONS | 756426-58-1 | P170925008 | <LOQ (7.48) | | 6.73 | 7.48 | 2.13 | | | U |
| | N-MeFOSAA | 2355-31-9 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 1.02 | | | U |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925008 | <LOQ (7.56) | | 6.80 | 7.56 | 1.70 | | | U |
| | N-EtFOSAA | 2991-50-6 | P170925008 | <LOQ (2.00) | | 1.80 | 2.00 | 0.968 | | | U |
| | PFEESA | 113507-82-7 | P170925008 | <LOQ (3.56) | | 3.20 | 3.56 | 1.38 | | | U |
| ES | M4PFBA | | P170925008 | | bb | | | | 5-130% | 87.6% | |
| | M5PFPeA | | P170925008 | | MM2* | | | | 40-130% | 84.0% | |
| | M5PFHxA | | P170925008 | | MM2* | | | | 40-130% | 87.5% | |
| | M4PFHpA | | P170925008 | | bb | | | | 40-130% | 87.2% | |
| | M8PFOA | | P170925008 | | bb | | | | 40-130% | 89.6% | |
| | M9PFNA | | P170925008 | | bb | | | | 40-130% | 88.9% | |
| | M6PFDA | | P170925008 | | MM2* | | | | 40-130% | 85.8% | |
| | M7PFUdA | | P170925008 | | bb | | | | 30-130% | 80.0% | |
| | M2-PFDoA | | P170925008 | | MM2* | | | | 10-130% | 75.6% | |
| | 13C2-PFTeDA | | P170925008 | | bb | | | | 10-130% | 75.4% | |
| | M3PFBS | | P170925008 | | MM2* | | | | 40-135% | 80.6% | |
| | M3PFHxS | | P170925008 | | MM2* | | | | 40-130% | 85.6% | |
| | M8PFOS | | P170925008 | | bb | | | | 40-130% | 86.5% | |
| | M2-4:2 FTS | | P170925008 | | MM2* | | | | 40-200% | 82.5% | |
| | M2-6:2 FTS | | P170925008 | | bb | | | | 40-200% | 76.2% | |
| | M2-8:2 FTS | | P170925008 | | db | | | | 40-300% | 81.0% | |
| | M8PFOSA | | P170925008 | | MM2* | | | | 40-130% | 80.8% | |
| | d3-N-MeFOSA | | P170925008 | | bb | | | | 10-130% | 55.2% | |
| | d5-N-EtFOSA | | P170925008 | | bb | | | | 10-130% | 58.5% | |
| | d3-N-MeFOSAA | | P170925008 | | MM2* | | | | 40-170% | 83.2% | |
| | d5-N-EtFOSAA | | P170925008 | | MM3* | | | | 25-135% | 85.1% | |
| | d7-N-MeFOSE | | P170925008 | | bb | | | | 10-130% | 103% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | MB_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | MB_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 14:48 | Split Factor | N/A |
| SampleType | Blank | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925008 | | bb | | | | 10-130% | 103% | |
| | M3HFPO-DA | | P170925008 | | bb | | | | 40-130% | 70.2% | |
| JS | M3PFBA | | P170925008 | | MM2* | | | | 50-200% | 87.4% | |
| | M2-PFHxA | | P170925008 | | MM2* | | | | 50-200% | 89.5% | |
| | M4-PFOA | | P170925008 | | bb | | | | 50-200% | 89.1% | |
| | M5-PFNA | | P170925008 | | bb | | | | 50-200% | 94.1% | |
| | M2-PFDA | | P170925008 | | bb | | | | 50-200% | 94.4% | |
| | 18O2PFHxS | | P170925008 | | bb | | | | 50-200% | 96.9% | |
| | M4-PFOS | | P170925008 | | MM3* | | | | 50-200% | 99.4% | |

Peak Flags
MM1* MM-;R JWS 09/22/25
MM2* MM;C JWS 09/25/25
MM3* MM;C JWS 09/22/25

Primary Code
b: Peak starts or ends on the baseline
d: Peak starts or ends on a drop line
v: peak starts or ends on a valley
s: Peak is a shoulder on another peak
!: Flagged peak
l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
t: Peak starts or ends at the start or end of the trace
M: The peak start or end point was manually altered
-: The peak was manually deleted
X: Point manually excluded from the calibration curve

Secondary Code
n: Peak was not integrated by the software
c: Peak was integrated incorrectly by the software
r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | LLOPR_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | LLOPR_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:10 | Split Factor | N/A |
| SampleType | Control | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925009 | 17.3 | bb | 7.20 | 8.00 | 1.88 | 70-140% | 108% | |
| | PFPeA | 2706-90-3 | P170925009 | 8.90 | bb1* | 3.60 | 4.00 | 1.39 | 65-135% | 111% | |
| | PFHxA | 307-24-4 | P170925009 | 4.39 | MM1* | 1.80 | 2.00 | 0.660 | 70-145% | 110% | |
| | PFHpA | 375-85-9 | P170925009 | 4.25 | bb2* | 1.80 | 2.00 | 0.603 | 70-150% | 106% | |
| | PFOA | 335-67-1 | P170925009 | 4.40 | bb | 1.80 | 2.00 | 1.17 | 70-150% | 110% | |
| | PFNA | 375-95-1 | P170925009 | 4.48 | bb | 1.80 | 2.00 | 0.383 | 70-150% | 112% | |
| | PFDA | 335-76-2 | P170925009 | 4.52 | MM1* | 1.80 | 2.00 | 0.437 | 70-140% | 113% | |
| | PFUnDA | 2058-94-8 | P170925009 | 4.67 | bb | 1.80 | 2.00 | 0.676 | 70-145% | 117% | |
| | PFDoA | 307-55-1 | P170925009 | 4.22 | MM1* | 1.80 | 2.00 | 0.676 | 70-140% | 105% | |
| | PFTrDA | 72629-94-8 | P170925009 | 3.93 | bb | 1.80 | 2.00 | 0.688 | 65-140% | 98.3% | |
| | PFTeDA | 376-06-7 | P170925009 | 3.84 | bb | 1.80 | 2.00 | 0.515 | 60-140% | 96.0% | |
| Sulfonates | PFBS | 375-73-5 | P170925009 | 3.88 | bb2* | 1.60 | 1.77 | 0.902 | 60-145% | 109% | |
| | PFPeS | 2706-91-4 | P170925009 | 4.48 | MM1* | 1.69 | 1.88 | 1.12 | 65-140% | 119% | |
| | PFHxS | 355-46-4 | P170925009 | 4.08 | MM1* | 1.65 | 1.83 | 0.773 | 65-145% | 112% | |
| | PFHpS | 375-92-8 | P170925009 | 4.13 | MM1* | 1.72 | 1.91 | 0.660 | 70-150% | 108% | |
| | PFOS | 1763-23-1 | P170925009 | 3.91 | MM1* | 1.67 | 1.86 | 0.704 | 55-150% | 105% | |
| | PFNS | 68259-12-1 | P170925009 | 4.01 | MM2* | 1.73 | 1.92 | 1.11 | 65-145% | 104% | |
| | PFDS | 335-77-3 | P170925009 | 3.55 | bb | 1.74 | 1.93 | 0.849 | 60-145% | 91.9% | |
| | PFDoS | 79780-39-5 | P170925009 | 3.22 | bb | 1.75 | 1.94 | 0.481 | 50-145% | 83.0% | |
| | 4:2 FTS | 757124-72-4 | P170925009 | 17.4 | bb | 6.75 | 7.50 | 3.14 | 70-145% | 116% | |
| | 6:2 FTS | 27619-97-2 | P170925009 | 16.0 | bb | 6.84 | 7.60 | 1.89 | 65-155% | 105% | |
| | 8:2 FTS | 39108-34-4 | P170925009 | 18.4 | bb2* | 6.91 | 7.68 | 4.81 | 60-150% | 120% | |
| Sulfonmides | PFOSA | 754-91-6 | P170925009 | 4.39 | MM1* | 1.80 | 2.00 | 1.04 | 70-145% | 110% | |
| | N-MeFOSA | 31506-32-8 | P170925009 | 4.54 | bb3* | 1.80 | 2.00 | 0.550 | 60-150% | 113% | |
| | N-EtFOSA | 4151-50-2 | P170925009 | 4.30 | bb | 1.80 | 2.00 | 1.37 | 65-145% | 107% | |
| | N-MeFOSE | 24448-09-7 | P170925009 | 39.6 | bb | 18.0 | 20.0 | 6.54 | 70-145% | 99.1% | |
| | N-EtFOSE | 1691-99-2 | P170925009 | 41.4 | bb | 18.0 | 20.0 | 9.46 | 70-135% | 103% | |
| PFECAs | HFPO-DA | 13252-13-6 | P170925009 | 18.2 | bb | 7.20 | 8.00 | 4.78 | 70-140% | 114% | |
| | PFMBA | 863090-89-5 | P170925009 | 8.49 | MM2* | 3.60 | 4.00 | 1.64 | 60-150% | 106% | |
| | PFMPA | 377-73-1 | P170925009 | 8.41 | bb | 3.60 | 4.00 | 0.751 | 55-140% | 105% | |
| | NFDHA | 151772-58-6 | P170925009 | 8.01 | MM1* | 3.60 | 4.00 | 2.02 | 50-150% | 100% | |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925009 | 24.3 | bb | 9.00 | 10.0 | 3.46 | 65-130% | 121% | |
| | 5:3 FTCA | 914637-49-3 | P170925009 | 23.7 | bb | 9.00 | 10.0 | 2.92 | 70-135% | 119% | |
| | 7:3 FTCA | 812-70-4 | P170925009 | 22.3 | bb | 9.00 | 10.0 | 4.34 | 50-145% | 111% | |
| Other | ADONA | 919005-14-4 | P170925009 | 21.0 | bb2* | 6.80 | 7.56 | 3.99 | 65-145% | 139% | |
| | 9Cl-PF3ONS | 756426-58-1 | P170925009 | 15.0 | bb | 6.73 | 7.48 | 2.13 | 70-155% | 101% | |
| | N-MeFOSAA | 2355-31-9 | P170925009 | 4.53 | MM1* | 1.80 | 2.00 | 1.02 | 50-140% | 113% | |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925009 | 14.0 | MM1* | 6.80 | 7.56 | 1.70 | 55-160% | 92.6% | |
| | N-EtFOSAA | 2991-50-6 | P170925009 | 4.39 | MM1* | 1.80 | 2.00 | 0.968 | 70-145% | 110% | |
| | PFEESA | 113507-82-7 | P170925009 | 8.17 | MM1* | 3.20 | 3.56 | 1.38 | 70-140% | 115% | |
| ES | M4PFBA | | P170925009 | | bb | | | | 5-130% | 88.0% | |
| | M5PFPeA | | P170925009 | | MM1* | | | | 40-130% | 85.5% | |
| | M5PFHxA | | P170925009 | | MM1* | | | | 40-130% | 90.3% | |
| | M4PFHpA | | P170925009 | | MM1* | | | | 40-130% | 92.2% | |
| | M8PFOA | | P170925009 | | bb | | | | 40-130% | 86.8% | |
| | M9PFNA | | P170925009 | | bb | | | | 40-130% | 84.7% | |
| | M6PFDA | | P170925009 | | bb | | | | 40-130% | 83.4% | |
| | M7PFUdA | | P170925009 | | bb | | | | 30-130% | 77.0% | |
| | M2-PFDoA | | P170925009 | | MM1* | | | | 10-130% | 75.4% | |
| | 13C2-PFTeDA | | P170925009 | | bb | | | | 10-130% | 74.7% | |
| | M3PFBS | | P170925009 | | MM1* | | | | 40-135% | 84.7% | |
| | M3PFHxS | | P170925009 | | MM1* | | | | 40-130% | 88.1% | |
| | M8PFOS | | P170925009 | | bb | | | | 40-130% | 81.2% | |
| | M2-4:2 FTS | | P170925009 | | MM1* | | | | 40-200% | 82.4% | |
| | M2-6:2 FTS | | P170925009 | | bb | | | | 40-200% | 80.6% | |
| | M2-8:2 FTS | | P170925009 | | MM1* | | | | 40-300% | 77.7% | |
| | M8PFOSA | | P170925009 | | MM1* | | | | 40-130% | 75.4% | |
| | d3-N-MeFOSA | | P170925009 | | bb | | | | 10-130% | 55.0% | |
| | d5-N-EtFOSA | | P170925009 | | bb | | | | 10-130% | 55.0% | |
| | d3-N-MeFOSAA | | P170925009 | | bs | | | | 40-170% | 80.1% | |
| | d5-N-EtFOSAA | | P170925009 | | MM1* | | | | 25-135% | 85.5% | |
| | d7-N-MeFOSE | | P170925009 | | bb | | | | 10-130% | 100% | |

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | LLOPR_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | LLOPR_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:10 | Split Factor | N/A |
| SampleType | Control | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925009 | | bb | | | | 10-130% | 98.2% | |
| | M3HFPO-DA | | P170925009 | | MM1* | | | | 40-130% | 69.2% | |
| JS | M3PFBA | | P170925009 | | bb | | | | 50-200% | 83.5% | |
| | M2-PFHxA | | P170925009 | | bb | | | | 50-200% | 85.1% | |
| | M4-PFOA | | P170925009 | | bb | | | | 50-200% | 85.9% | |
| | M5-PFNA | | P170925009 | | bb | | | | 50-200% | 91.4% | |
| | M2-PFDA | | P170925009 | | bb | | | | 50-200% | 95.5% | |
| | 18O2PFHxS | | P170925009 | | MM1* | | | | 50-200% | 92.8% | |
| | M4-PFOS | | P170925009 | | bb | | | | 50-200% | 101% | |

Peak Flags
bb1* bb;N JWS 09/22/25
MM1* MM;C JWS 09/25/25
bb2* bb;C JWS 09/25/25
MM2* MM;C JWS 09/22/25
bb3* bb;C JWS 09/22/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve
- !: Flagged peak
- l: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Enthalpy Analytical

Job No.: 0925-783-1 DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC 1920 211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | OPR_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | OPR_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:33 | Split Factor | N/A |
| SampleType | Control | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acids | PFBA | 375-22-4 | P170925010 | 99.2 | MM1* | 7.20 | 8.00 | 1.88 | 70-140% | 99.2% | |
| | PFPeA | 2706-90-3 | P170925010 | 50.3 | MM2* | 3.60 | 4.00 | 1.39 | 65-135% | 101% | |
| | PFHxA | 307-24-4 | P170925010 | 24.4 | bb | 1.80 | 2.00 | 0.660 | 70-145% | 97.7% | |
| | PFHpA | 375-85-9 | P170925010 | 26.1 | bb | 1.80 | 2.00 | 0.603 | 70-150% | 104% | |
| | PFOA | 335-67-1 | P170925010 | 24.7 | bb | 1.80 | 2.00 | 1.17 | 70-150% | 98.9% | |
| | PFNA | 375-95-1 | P170925010 | 23.5 | bb | 1.80 | 2.00 | 0.383 | 70-150% | 94.1% | |
| | PFDA | 335-76-2 | P170925010 | 23.6 | bb | 1.80 | 2.00 | 0.437 | 70-140% | 94.4% | |
| | PFUnDA | 2058-94-8 | P170925010 | 25.3 | MM3* | 1.80 | 2.00 | 0.676 | 70-145% | 101% | |
| | PFDoA | 307-55-1 | P170925010 | 24.2 | MM3* | 1.80 | 2.00 | 0.676 | 70-140% | 97.0% | |
| | PFTrDA | 72629-94-8 | P170925010 | 23.5 | bs | 1.80 | 2.00 | 0.688 | 65-140% | 94.0% | |
| | PFTeDA | 376-06-7 | P170925010 | 21.8 | bb | 1.80 | 2.00 | 0.515 | 60-140% | 87.2% | |
| Sulfonates | PFBS | 375-73-5 | P170925010 | 23.6 | MM3* | 1.60 | 1.77 | 0.902 | 60-145% | 106% | |
| | PFPeS | 2706-91-4 | P170925010 | 27.0 | bb | 1.69 | 1.88 | 1.12 | 65-140% | 115% | |
| | PFHxS | 355-46-4 | P170925010 | 21.1 | MM3* | 1.65 | 1.83 | 0.773 | 65-145% | 92.5% | |
| | PFHpS | 375-92-8 | P170925010 | 23.7 | bb | 1.72 | 1.91 | 0.660 | 70-150% | 99.5% | |
| | PFOS | 1763-23-1 | P170925010 | 22.2 | MM3* | 1.67 | 1.86 | 0.704 | 55-150% | 95.7% | |
| | PFNS | 68259-12-1 | P170925010 | 22.3 | MM3* | 1.73 | 1.92 | 1.11 | 65-145% | 92.9% | |
| | PFDS | 335-77-3 | P170925010 | 20.6 | bb | 1.74 | 1.93 | 0.849 | 60-145% | 85.3% | |
| | PFDoS | 79780-39-5 | P170925010 | 19.1 | bb | 1.75 | 1.94 | 0.481 | 50-145% | 78.8% | |
| | 4:2 FTS | 757124-72-4 | P170925010 | 95.7 | bb1* | 6.75 | 7.50 | 3.14 | 70-145% | 102% | |
| | 6:2 FTS | 27619-97-2 | P170925010 | 96.5 | bb | 6.84 | 7.60 | 1.89 | 65-155% | 102% | |
| | 8:2 FTS | 39108-34-4 | P170925010 | 90.6 | MM3* | 6.91 | 7.68 | 4.81 | 60-150% | 94.3% | |
| Sulfonmides | PFOSA | 754-91-6 | P170925010 | 26.0 | MM3* | 1.80 | 2.00 | 1.04 | 70-145% | 104% | |
| | N-MeFOSA | 31506-32-8 | P170925010 | 24.6 | bb | 1.80 | 2.00 | 0.550 | 60-150% | 98.5% | |
| | N-EtFOSA | 4151-50-2 | P170925010 | 24.4 | bb | 1.80 | 2.00 | 1.37 | 65-145% | 97.5% | |
| | N-MeFOSE | 24448-09-7 | P170925010 | 230 | bb | 18.0 | 20.0 | 6.54 | 70-145% | 91.9% | |
| | N-EtFOSE | 1691-99-2 | P170925010 | 239 | bb | 18.0 | 20.0 | 9.46 | 70-135% | 95.5% | |
| PFECAs | HFPO-DA | 13252-13-6 | P170925010 | 102 | bb1* | 7.20 | 8.00 | 4.78 | 70-140% | 102% | |
| | PFMBA | 863090-89-5 | P170925010 | 47.9 | MM3* | 3.60 | 4.00 | 1.64 | 60-150% | 95.8% | |
| | PFMPA | 377-73-1 | P170925010 | 48.1 | bb | 3.60 | 4.00 | 0.751 | 55-140% | 96.1% | |
| | NFDHA | 151772-58-6 | P170925010 | 47.5 | MM3* | 3.60 | 4.00 | 2.02 | 50-150% | 95.0% | |
| FTCAs | 3:3 FTCA | 356-02-5 | P170925010 | 134 | bb | 9.00 | 10.0 | 3.46 | 65-130% | 107% | |
| | 5:3 FTCA | 914637-49-3 | P170925010 | 138 | bb | 9.00 | 10.0 | 2.92 | 70-135% | 110% | |
| | 7:3 FTCA | 812-70-4 | P170925010 | 136 | MM3* | 9.00 | 10.0 | 4.34 | 50-145% | 109% | |
| Other | ADONA | 919005-14-4 | P170925010 | 120 | bb | 6.80 | 7.56 | 3.99 | 65-145% | 127% | |
| | 9Cl-PF3ONS | 756426-58-1 | P170925010 | 86.6 | MM1* | 6.73 | 7.48 | 2.13 | 70-155% | 92.6% | |
| | N-MeFOSAA | 2355-31-9 | P170925010 | 26.3 | MM3* | 1.80 | 2.00 | 1.02 | 50-140% | 105% | |
| | 11Cl-PF3OUdS | 763051-92-9 | P170925010 | 80.8 | bb | 6.80 | 7.56 | 1.70 | 55-160% | 85.5% | |
| | N-EtFOSAA | 2991-50-6 | P170925010 | 26.8 | MM3* | 1.80 | 2.00 | 0.968 | 70-145% | 107% | |
| | PFEESA | 113507-82-7 | P170925010 | 46.0 | MM3* | 3.20 | 3.56 | 1.38 | 70-140% | 103% | |
| ES | M4PFBA | | P170925010 | | MM3* | | | | 5-130% | 88.4% | |
| | M5PFPeA | | P170925010 | | MM3* | | | | 40-130% | 84.1% | |
| | M5PFHxA | | P170925010 | | MM3* | | | | 40-130% | 88.1% | |
| | M4PFHpA | | P170925010 | | bb | | | | 40-130% | 86.3% | |
| | M8PFOA | | P170925010 | | bb | | | | 40-130% | 88.9% | |
| | M9PFNA | | P170925010 | | bb | | | | 40-130% | 91.0% | |
| | M6PFDA | | P170925010 | | bb | | | | 40-130% | 95.3% | |
| | M7PFUdA | | P170925010 | | MM3* | | | | 30-130% | 84.8% | |
| | M2-PFDoA | | P170925010 | | MM3* | | | | 10-130% | 79.2% | |
| | 13C2-PFTeDA | | P170925010 | | bb | | | | 10-130% | 82.4% | |
| | M3PFBS | | P170925010 | | MM3* | | | | 40-135% | 80.3% | |
| | M3PFHxS | | P170925010 | | bb | | | | 40-130% | 90.0% | |
| | M8PFOS | | P170925010 | | MM3* | | | | 40-130% | 79.1% | |
| | M2-4:2 FTS | | P170925010 | | MM3* | | | | 40-200% | 86.8% | |
| | M2-6:2 FTS | | P170925010 | | bb | | | | 40-200% | 78.4% | |
| | M2-8:2 FTS | | P170925010 | | bb | | | | 40-300% | 93.0% | |
| | M8PFOSA | | P170925010 | | MM3* | | | | 40-130% | 69.1% | |
| | d3-N-MeFOSA | | P170925010 | | bb | | | | 10-130% | 54.0% | |
| | d5-N-EtFOSA | | P170925010 | | bb | | | | 10-130% | 51.5% | |
| | d3-N-MeFOSAA | | P170925010 | | MM3* | | | | 40-170% | 78.1% | |
| | d5-N-EtFOSAA | | P170925010 | | MM3* | | | | 25-135% | 77.7% | |
| | d7-N-MeFOSE | | P170925010 | | bb | | | | 10-130% | 99.0% | |

# Enthalpy Analytical

Job No.: 0925-783-1  DOD QSM Table B-24 (EPA 1633) - non-potable water

Brunswick County Public Utilities - NC  1920  211 WTP

## Details

| | | | |
|---|---|---|---|
| Sample Name | OPR_118834_PFAS | | |
| Sampling Site | | | |
| Enthalpy ID | OPR_118834_PFAS | Prep Batch | EU118834 |
| Matrix | Aqueous | Analyst | jonathansamuel |
| Sampling Date | | Instrument | Pippin |
| Received Date | | Sample Vol mL | 500 |
| Prep Date | 2025-09-16 06:45 | Extract Vol mL | 5 |
| AnalysisDate | 2025-09-17 15:33 | Split Factor | N/A |
| SampleType | Control | Method Code | Eu-062 |
| Bottle ID | - | | |

| | Compound | CAS | Injection File Name | Sample Concentration ng/L | Peak Flags | LOD ng/L | LOQ ng/L | DL ng/L | Recovery Limits | Recovery | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | d9-N-EtFOSE | | P170925010 | | bb | | | | 10-130% | 95.8% | |
| | M3HFPO-DA | | P170925010 | | bb | | | | 40-130% | 69.4% | |
| JS | M3PFBA | | P170925010 | | MM3* | | | | 50-200% | 83.2% | |
| | M2-PFHxA | | P170925010 | | bb | | | | 50-200% | 84.0% | |
| | M4-PFOA | | P170925010 | | bb | | | | 50-200% | 85.4% | |
| | M5-PFNA | | P170925010 | | bb | | | | 50-200% | 89.1% | |
| | M2-PFDA | | P170925010 | | bb | | | | 50-200% | 85.4% | |
| | 18O2PFHxS | | P170925010 | | bb | | | | 50-200% | 88.6% | |
| | M4-PFOS | | P170925010 | | bb | | | | 50-200% | 99.9% | |

Peak Flags
- MM1*  MM;C JWS 09/22/25
- MM2*  MM;N JWS 09/22/25
- MM3*  MM;C JWS 09/25/25
- bb1*  bb;C JWS 09/25/25

Primary Code
- b: Peak starts or ends on the baseline
- d: Peak starts or ends on a drop line
- v: peak starts or ends on a valley
- s: Peak is a shoulder on another peak
- !: Flagged peak
- I: The response would either give a negative concentration or the calibration equation is not solvable for the given response (indeterminate flag)
- t: Peak starts or ends at the start or end of the trace
- M: The peak start or end point was manually altered
- -: The peak was manually deleted
- X: Point manually excluded from the calibration curve

Secondary Code
- n: Peak was not integrated by the software
- c: Peak was integrated incorrectly by the software
- r: The wrong peak was integrated by the software creating a false positive result based on retention time, qualifier ratios, or other criteria

# Sample Custody

ENTHALPY
ANALYTICAL

# 0925-783 Chain of Custody Record

ENTHALPY ANALYTICAL

Enthalpy Ultratrace Job#: 1920 COC Page 1 of 2

**Special Handling:**
~~☐~~ ☑ Standard Turn Around Time
☐ Rush Turn Around Time -- Date Needed_____
• All Fast TATs Subject to Approval by Enthalpy Analytical, LLC
• All Samples Disposed of After 45 days 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.

Client Name: Brunswick County, 211
Project Manager: Jeremy Sexton
Report To: Jeremy Sexton

Project Number: 1920
Site Name: 211 WTP
Origin State: NC

PO#: PT6113
Telephone#: 910-477-0918
Email: jeremy.sexton@brunswickcountync.gov

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

**SAMPLED BY:** Bryan Morris

**Analyte list selections for PFAS by Isotope Dilution**
**PF** = PFOA/PFOS
**L24** = Legacy 24 + GenX
**P49** = PFAS 49 List
**CL** = custom list attached

| Sample ID | Date | Time | Sample Volume | Type | Matrix | Sample Containers: # of Bottles | # of Jars | # of Bags | # Other | Analyses: PFAS by Isotope Dilution method | Drinking water EPA 533 | Drinking water EPA 537.1 | PFAS by Isotope Dilution 1633 list | PFAS by DoD Draft 1633 Method | Total Oxidizable Precursor (TOP) | Dioxins/Furans Method 8290A | Dioxins/Furans Method 1613B | Samples to hold | Analyte List and Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 091125-W03 | 9/11/25 | 10:33A | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W01 | 9/11/25 | 10:48A | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W02 | 9/11/25 | 10:59A | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W16 | 9/11/25 | 11:10A | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W17 | 9/11/25 | 11:22A | | G | GW | 3 | | | | | | | X | | | | | | |
| ~~091125-W18~~ | ~~9/11/25~~ | ~~11:35A~~ | | G | GW | 3 | | | | | | | X | | | | | | well Failed |
| 091125-W19 | 9/11/25 | 11:45A | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W15 | 9/11/25 | 12:23P | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W08 | 9/11/25 | 12:33P | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W12A | 9/11/25 | 12:53P | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W12 | 9/11/25 | 13:00 | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W11 | 9/11/25 | 13:11 | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-W05 | 9/11/25 | 1325 | | G | GW | 3 | | | | | | | X | | | | | | |

| Relinquished By: | Date: | Received By: | Date: | Time: | Sample Temperature Upon Receipt: |
|---|---|---|---|---|---|
| | 9/11/25 | | 9/11/25 | 15:38 | ☑ Iced ☐ Ambient °C 6.0 |
| | | | | | ☐ Iced ☐ Ambient °C |
| | | | | | ☐ Iced ☐ Ambient °C |

**Ship samples to:** 2712A Exchange Drive • Wilmington, NC 28405 **Office:** 2714 Exchange Drive • Wilmington, NC 28405 • (910) 212-5858 • www.enthalpy.com

ENTHALPY ANALYTICAL

0925-783

# Chain of Custody Record

Enthalpy Ultratrace Job#: 1920 COC Page 2 of 2

**Special Handling:**
- ☐ Standard Turn Around Time
- ☐ Rush Turn Around Time -- Date Needed
- All Fast TATs Subject to Approval by Enthalpy Analytical, LLC
- All Samples Disposed of After 45 days 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.

Client Name: Brunswick County, 211
Project Manager: Jeremy Sexton
Report To: Jeremy Sexton

Project Number: 1920
Site Name: 211 WTP
Origin State: NC

PO#: PT6113
Telephone#: 910-477-0918
Email: jeremy.sexton@brunswickcountync.gov

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

SAMPLED BY: Bryan Morris

| Sample ID | Date | Time | Sample Volume | Type | Matrix | Sample Containers: # of Bottles | # of Jars | # of Bags | # Other | Analyses: PFAS by Isotope Dilution method | Drinking water EPA 533 | Drinking water EPA 537.1 | PFAS by Isotope Dilution 1633 list | PFAS by DoD Draft 1633 Method | Total Oxidizable Precursor (TOP) | Dioxins/Furans Method 8290A | Dioxins/Furans Method 1613B | Samples to hold | Analyte List and Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 091125-W6A | 9/11/25 | 1335 | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-CH | 9/11/25 | 1342 | | G | GW | 3 | | | | | | | X | | | | | | |
| 091125-FW | 9/11/25 | 1345 | | G | GW | 3 | | | | | | | X | | | | | | |

Analyte list selections for PFAS by Isotope Dilution
- PF = PFOA/PFOS
- L24 = Legacy 24 + GenX
- P49 = PFAS 49 List
- CL = custom list attached

| Relinquished By: | Date: | Received By: | Date: | Time: | Sample Temperature Upon Receipt: |
|---|---|---|---|---|---|
| | 9/11/25 | | 9/11/25 | 15:38 | ☐ Iced ☐ Ambient °C 6.0 |
| | | | | | ☐ Iced ☐ Ambient °C |
| | | | | | ☐ Iced ☐ Ambient °C |

Ship samples to: 2712A Exchange Drive • Wilmington, NC 28405

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

5 TE SBS 9/11/25

JOB ID: _____ Date / Time: 9/11/25 18:38 Initials: SBS

OR

Client: Brunswick County

Cooler 1 of 2

Temp °C: 5.9 Thermometer ID: T16

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

| Check one | | Check one | | | Yes | No |
|---|---|---|---|---|---|---|
| On ice: | ☑ | in a Box: | ☐ | Cooler seals: | ☐ | ☑ |
| Melted ice: | ☐ | in a Cooler: | ☑ | Sample seals: | ☐ | ☑ |
| Ambient: | ☐ | Cooler in Box: | ☐ | Good condition: | ☑ | ☐ |

Comment:

Cooler 2 of 2

Temp °C: 6.0 Thermometer ID: T16

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

| Check one | | Check one | | | Yes | No |
|---|---|---|---|---|---|---|
| On ice: | ☑ | in a Box: | ☐ | Cooler seals: | ☐ | ☑ |
| Melted ice: | ☐ | in a Cooler: | ☑ | Sample seals: | ☐ | ☑ |
| Ambient: | ☐ | Cooler in Box: | ☐ | Good condition: | ☑ | ☐ |

Comment:

Cooler ____ of ____

Temp °C: ____ Thermometer ID: ____

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

| Check one | | Check one | | | Yes | No |
|---|---|---|---|---|---|---|
| On ice: | ☐ | in a Box: | ☐ | Cooler seals: | ☐ | ☐ |
| Melted ice: | ☐ | in a Cooler: | ☐ | Sample seals: | ☐ | ☐ |
| Ambient: | ☐ | Cooler in Box: | ☐ | Good condition: | ☐ | ☐ |

Comment: