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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

PFAS, Corpus Christi Texas Bay

JOB NUMBER

320-117127-1

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northern California, LLC Project Manager.

Authorization

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Definitions/Glossary

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 320-117127-1 — Eurofins Sacramento

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/19/2024 9:25 AM and 11/20/2024 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.2°C and 1.5°C.

Receipt Exceptions
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): Cla s, Clb s, Clc s (320-117127-1), Cld, Cle d, Clf d (320-117127-2), Clg DW, Clh DW, Cli DW (320-117127-3), Eld d, Ele d, Elf d (320-117127-4), E-la s, Elb s, Elc s (320-117127-5), Wla s, WlB s, Wlc s (320-117127-6), Wld d, Wle d, WlF d (320-117127-7), Fwla s, Fwlb s, Fwlc s (320-117127-8) and Fwld d, Fw1e d, Fw-lf d (320-117127-9). The sample container labels were missing collection dates and times. The samples were logged in and labeled per the COC.

One of the two sample coolers was delayed by FedEx. The following samples were received on 11/20/2024: Eld d, Ele d, Elf d (320-117127-4), Wla s, WlB s, Wlc s (320-117127-6), Fwla s, Fwlb s, Fwlc s (320-117127-8) and Fwld d, Fw1e d, Fw-lf d (320-117127-9). The samples were within temperature and holding time parameters.

PFAS
Method 1633_Final: The low level continuing calibration verification (CCVL) associated with batch 320-817414 recovered above the upper control limit for Nonafluoro-3,6-dioxaheptanoic acid (NFDHA). The samples and method blank (MB) associated with this CCVL were non-detect and the low level laboratory control sample, laboratory control sample, and laboratory control sample duplicate (LLCS/LCS/LCSD) were within control for the affected analyte; therefore, the data have been reported. Fwld d, Fw1e d, Fw-lf d (320-117127-9) and (CCVL 320-817414/3)

Method 1633_Final: The reference method requires samples to have a pH of 6.0-7.0. The following samples were received with a pH of 8.0: Cla s, Clb s, Clc s (320-117127-1), Cld, Cle d, Clf d (320-117127-2), Eld d, Ele d, Elf d (320-117127-4), E-la s, Elb s, Elc s (320-117127-5), Wla s, WlB s, Wlc s (320-117127-6), Wld d, Wle d, WlF d (320-117127-7) and Fwla s, Fwlb s, Fwlc s (320-117127-8). The samples were adjusted to the appropriate pH in the laboratory.

Method 1633_Final: The Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: E-la s, Elb s, Elc s (320-117127-5), Wla s, WlB s, Wlc s (320-117127-6) and Wld d, Wle d, WlF d (320-117127-7). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s).

Method 1633_Final: The low level continuing calibration verification (CCVL) associated with batch 320-818549 recovered above the upper control limit for 11Cl-PF3OUdS. The samples and method blank associated with this CCV were non-detects and the LLCS/LCS/LCSD were within control for the affected analytes; therefore, the data have been reported. Cla s, Clb s, Clc s (320-117127-1), Cld, Cle d, Clf d (320-117127-2), Eld d, Ele d, Elf d (320-117127-4), E-la s, Elb s, Elc s (320-117127-5), Wla s, WlB s, Wlc s (320-117127-6), Wld d, Wle d, WlF d (320-117127-7), Fwla s, Fwlb s, Fwlc s (320-117127-8), (CCVL 320-818549/2), (LCS 320-817915/3-A), (LCSD 320-817915/4-A), (LLCS 320-817915/2-A) and (MB 320-817915/1-A).

Method 1633_Final: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: due to an analyst error, the continuing calibration blank (CCB) was analyzed prior to the continuing calibration verification (CCV). There is no adverse impact to the data; therefore the data have been reported. Cla s, Clb s, Clc s (320-117127-1), Cld, Cle d, Clf d (320-117127-2), Eld d, Ele d, Elf d (320-117127-4), E-la s, Elb s, Elc s (320-117127-5), Wla s, WlB s, Wlc s (320-117127-6), Wld d, Wle d, WlF d (320-117127-7), Fwla s, Fwlb s, Fwlc s (320-117127-8), (CCB 320-818549/16), (CCB 320-818549/28), (CCB 320-818549/3), (CCV 320-818549/1), (CCV 320-818549/17), (CCV 320-818549/29), (CCV 320-818549/4), (CCVL 320-818549/2), (LCS 320-817915/3-A), (LCSD 320-817915/4-A), (LLCS 320-817915/2-A), (MB 320-817915/1-A) and (WDM 320-818549/9)

Job ID: 320-117127-1 (Continued) Eurofins Sacramento

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Cla s, Clb s, Clc s — Lab Sample ID: 320-117127-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.2		1.6		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		1.6		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.6		1.6		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		1.6		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.6		ng/L	1		1633	Total/NA

Client Sample ID: Cld, Cle d, Clf d — Lab Sample ID: 320-117127-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.1		1.6		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		1.6		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.6		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.6		ng/L	1		1633	Total/NA

Client Sample ID: Eld d, Ele d, Elf d — Lab Sample ID: 320-117127-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.6		1.6		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		1.6		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		1.6		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		1.6		ng/L	1		1633	Total/NA

Client Sample ID: E-la s, Elb s, Elc s — Lab Sample ID: 320-117127-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.0		1.5		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		1.5		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.2		1.5		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		1.5		ng/L	1		1633	Total/NA

Client Sample ID: Wla s, WIB s, Wlc s — Lab Sample ID: 320-117127-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	2.1		1.5		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.4		1.5		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.5		1.5		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.5		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.5		ng/L	1		1633	Total/NA

Client Sample ID: Wld d, Wle d, WIF d — Lab Sample ID: 320-117127-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanoic acid (PFHxA)	2.3		1.5		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.5		1.5		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		1.5		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		1.5		ng/L	1		1633	Total/NA

Client Sample ID: Fwla s, Fwlb s, Fwlc s — Lab Sample ID: 320-117127-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	3.0		3.0		ng/L	1		1633	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		1.5		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.2		1.5		ng/L	1		1633	Total/NA
Perfluorooctanoic acid (PFOA)	1.7		1.5		ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: Fwla s, Fwlb s, Fwlc s (Continued) — Lab Sample ID: 320-117127-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	3.1		1.5		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.5		1.5		ng/L	1		1633	Total/NA

Client Sample ID: Fwld d, Fw1e d, Fw-lf d — Lab Sample ID: 320-117127-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	3.2		1.6		ng/L	1		1633	Total/NA
Perfluorohexanoic acid (PFHxA)	2.6		1.6		ng/L	1		1633	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		1.6		ng/L	1		1633	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.2		1.6		ng/L	1		1633	Total/NA

This Detection Summary does not include radiochemical test results.

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Cla s, Clb s, Clc s

Date Collected: 11/18/24 09:20
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-1

Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluoropentanoic acid (PFPeA)	**2.2**		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorohexanoic acid (PFHxA)	**2.3**		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorooctanoic acid (PFOA)	**1.6**		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorohexanesulfonic acid (PFHxS)	**2.4**		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
4:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:06	1
6:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NMeFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NEtFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NMeFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NEtFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NMeFOSE	ND		7.9		ng/L		11/26/24 08:36	11/30/24 14:06	1
NEtFOSE	ND		7.9		ng/L		11/26/24 08:36	11/30/24 14:06	1
HFPO-DA (GenX)	ND		1.2		ng/L		11/26/24 08:36	11/30/24 14:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
PFMPA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
PFMBA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
NFDHA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
9Cl-PF3ONS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
11Cl-PF3OUdS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
PFEESA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:06	1
3:3 FTCA	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:06	1
5:3 FTCA	ND		7.9		ng/L		11/26/24 08:36	11/30/24 14:06	1
7:3 FTCA	ND		7.9		ng/L		11/26/24 08:36	11/30/24 14:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.1*		*5 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C5 PFPeA	*92.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C5 PFHxA	*94.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C4 PFHpA	*97.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C8 PFOA	*94.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*

Client Sample ID: Cla s, Clb s, Clc s

Date Collected: 11/18/24 09:20
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-1
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C9 PFNA	*88.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C6 PFDA	*90.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C7 PFUnA	*90.6*		*30 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C2 PFDoA	*76.1*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C2 PFTeDA	*65.1*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C3 PFBS	*110*		*40 - 135*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C3 PFHxS	*94.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C8 PFOS	*93.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C8 FOSA	*79.1*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d3-NMeFOSAA	*64.4*		*40 - 170*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d5-NEtFOSAA	*59.9*		*25 - 135*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C2 4:2 FTS	*52.4*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C2 6:2 FTS	*52.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
13C3 HFPO-DA	*79.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d7-N-MeFOSE-M	*72.3*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d9-N-EtFOSE-M	*70.9*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d5-NEtPFOSA	*72.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*
d3-NMePFOSA	*73.9*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:06*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.1		ng/L		11/26/24 08:36	12/05/24 01:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*73.2*		*40 - 300*	*11/26/24 08:36*	*12/05/24 01:44*	*1*

Client Sample ID: Cld, Cle d, Clf d

Date Collected: 11/18/24 09:25
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-2
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluoropentanoic acid (PFPeA)	**2.1**		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorohexanoic acid (PFHxA)	**2.1**		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1

Client Sample ID: Cld, Cle d, Clf d
Date Collected: 11/18/24 09:25
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-2
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
4:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:19	1
6:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:19	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NMeFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NEtFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NMeFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NEtFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NMeFOSE	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:19	1
NEtFOSE	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:19	1
HFPO-DA (GenX)	ND		1.2		ng/L		11/26/24 08:36	11/30/24 14:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
PFMPA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
PFMBA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
NFDHA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
9Cl-PF3ONS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
11Cl-PF3OUdS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
PFEESA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:19	1
3:3 FTCA	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:19	1
5:3 FTCA	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:19	1
7:3 FTCA	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*95.4*		*5 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C5 PFPeA	*96.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C5 PFHxA	*95.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C4 PFHpA	*94.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C8 PFOA	*101*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C9 PFNA	*88.5*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C6 PFDA	*88.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C7 PFUnA	*82.6*		*30 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C2 PFDoA	*74.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C2 PFTeDA	*61.3*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C3 PFBS	*111*		*40 - 135*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C3 PFHxS	*91.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C8 PFOS	*87.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C8 FOSA	*76.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d3-NMeFOSAA	*56.7*		*40 - 170*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d5-NEtFOSAA	*55.3*		*25 - 135*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C2 4:2 FTS	*50.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C2 6:2 FTS	*50.5*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
13C3 HFPO-DA	*77.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d7-N-MeFOSE-M	*66.0*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d9-N-EtFOSE-M	*64.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d5-NEtPFOSA	*63.7*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*
d3-NMePFOSA	*64.7*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:19*	*1*

Client Sample ID: Cld, Cle d, Clf d

Lab Sample ID: 320-117127-2

Date Collected: 11/18/24 09:25

Matrix: Water

Date Received: 11/19/24 09:25

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.1		ng/L		11/26/24 08:36	12/05/24 02:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*60.4*		*40 - 300*	*11/26/24 08:36*	*12/05/24 02:01*	*1*

Client Sample ID: Eld d, Ele d, Elf d

Lab Sample ID: 320-117127-4

Date Collected: 11/18/24 09:45

Matrix: Water

Date Received: 11/20/24 09:40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluoropentanoic acid (PFPeA)	**2.6**		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorohexanoic acid (PFHxA)	**2.6**		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorohexanesulfonic acid (PFHxS)	**2.9**		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorooctanesulfonic acid (PFOS)	**2.8**		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
4:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:32	1
6:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:32	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NMeFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NEtFOSA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NMeFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NEtFOSAA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NMeFOSE	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:32	1
NEtFOSE	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:32	1
HFPO-DA (GenX)	ND		1.2		ng/L		11/26/24 08:36	11/30/24 14:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
PFMPA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
PFMBA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
NFDHA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
9Cl-PF3ONS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
11Cl-PF3OUdS	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1

Client Sample ID: Eld d, Ele d, Elf d

Date Collected: 11/18/24 09:45
Date Received: 11/20/24 09:40

Lab Sample ID: 320-117127-4
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PFEESA	ND		1.6		ng/L		11/26/24 08:36	11/30/24 14:32	1
3:3 FTCA	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:32	1
5:3 FTCA	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:32	1
7:3 FTCA	ND		7.8		ng/L		11/26/24 08:36	11/30/24 14:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.9*		*5 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C5 PFPeA	*93.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C5 PFHxA	*93.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C4 PFHpA	*93.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C8 PFOA	*100*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C9 PFNA	*91.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C6 PFDA	*92.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C7 PFUnA	*87.9*		*30 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C2 PFDoA	*82.0*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C2 PFTeDA	*70.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C3 PFBS	*102*		*40 - 135*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C3 PFHxS	*92.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C8 PFOS	*97.1*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C8 FOSA	*82.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d3-NMeFOSAA	*62.7*		*40 - 170*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d5-NEtFOSAA	*58.9*		*25 - 135*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C2 4:2 FTS	*44.4*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C2 6:2 FTS	*45.1*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
13C3 HFPO-DA	*90.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d7-N-MeFOSE-M	*78.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d9-N-EtFOSE-M	*77.1*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d5-NEtPFOSA	*77.9*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*
d3-NMePFOSA	*78.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:32*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.1		ng/L		11/26/24 08:36	12/05/24 02:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*62.5*		*40 - 300*	*11/26/24 08:36*	*12/05/24 02:17*	*1*

Client Sample ID: E-la s, Elb s, Elc s

Date Collected: 11/18/24 09:45
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluoropentanoic acid (PFPeA)	**2.0**		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorohexanoic acid (PFHxA)	**2.0**		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorooctanoic acid (PFOA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: E-Ia s, Elb s, Elc s
Date Collected: 11/18/24 09:45
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-5
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTrDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorohexanesulfonic acid (PFHxS)	**2.2**		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorooctanesulfonic acid (PFOS)	**2.4**		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
4:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:45	1
6:2 FTS	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:45	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NMeFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NEtFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NMeFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NEtFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NMeFOSE	ND		7.7		ng/L		11/26/24 08:36	11/30/24 14:45	1
NEtFOSE	ND		7.7		ng/L		11/26/24 08:36	11/30/24 14:45	1
HFPO-DA (GenX)	ND		1.1		ng/L		11/26/24 08:36	11/30/24 14:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
PFMPA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
PFMBA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
NFDHA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
9Cl-PF3ONS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
11Cl-PF3OUdS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
PFEESA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:45	1
3:3 FTCA	ND		3.1		ng/L		11/26/24 08:36	11/30/24 14:45	1
5:3 FTCA	ND		7.7		ng/L		11/26/24 08:36	11/30/24 14:45	1
7:3 FTCA	ND		7.7		ng/L		11/26/24 08:36	11/30/24 14:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*94.6*		*5 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C5 PFPeA	*91.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C5 PFHxA	*92.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C4 PFHpA	*91.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C8 PFOA	*99.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C9 PFNA	*97.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C6 PFDA	*91.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C7 PFUnA	*86.8*		*30 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C2 PFDoA	*74.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C2 PFTeDA	*66.9*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C3 PFBS	*106*		*40 - 135*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C3 PFHxS	*92.5*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C8 PFOS	*95.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C8 FOSA	*80.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*

Client Sample ID: E-la s, Elb s, Elc s

Lab Sample ID: 320-117127-5
Matrix: Water
Date Collected: 11/18/24 09:45
Date Received: 11/19/24 09:25

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d3-NMeFOSAA	*58.7*		*40 - 170*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
d5-NEtFOSAA	*56.8*		*25 - 135*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C2 4:2 FTS	*50.7*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C2 6:2 FTS	*40.7*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
13C3 HFPO-DA	*87.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
d7-N-MeFOSE-M	*77.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
d9-N-EtFOSE-M	*73.3*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
d5-NEtPFOSA	*73.9*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*
d3-NMePFOSA	*74.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:45*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.1		ng/L		11/26/24 08:36	12/05/24 02:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*63.5*		*40 - 300*	*11/26/24 08:36*	*12/05/24 02:34*	*1*

Client Sample ID: Wla s, WIB s, Wlc s

Lab Sample ID: 320-117127-6
Matrix: Water
Date Collected: 11/18/24 10:00
Date Received: 11/20/24 09:40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluoropentanoic acid (PFPeA)	**2.1**		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorohexanoic acid (PFHxA)	**2.4**		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorooctanoic acid (PFOA)	**1.5**		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
4:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 14:58	1
6:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 14:58	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NMeFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NEtFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1

Client Sample ID: Wla s, WIB s, Wlc s
Date Collected: 11/18/24 10:00
Date Received: 11/20/24 09:40

Lab Sample ID: 320-117127-6
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NMeFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NEtFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NMeFOSE	ND		7.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NEtFOSE	ND		7.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
HFPO-DA (GenX)	ND		1.1		ng/L		11/26/24 08:36	11/30/24 14:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
PFMPA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
PFMBA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
NFDHA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
9Cl-PF3ONS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
11Cl-PF3OUdS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
PFEESA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
3:3 FTCA	ND		3.0		ng/L		11/26/24 08:36	11/30/24 14:58	1
5:3 FTCA	ND		7.5		ng/L		11/26/24 08:36	11/30/24 14:58	1
7:3 FTCA	ND		7.5		ng/L		11/26/24 08:36	11/30/24 14:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.1*		*5 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C5 PFPeA	*97.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C5 PFHxA	*88.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C4 PFHpA	*90.5*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C8 PFOA	*95.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C9 PFNA	*91.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C6 PFDA	*94.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C7 PFUnA	*87.7*		*30 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C2 PFDoA	*79.6*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C2 PFTeDA	*69.4*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C3 PFBS	*106*		*40 - 135*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C3 PFHxS	*93.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C8 PFOS	*95.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C8 FOSA	*81.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d3-NMeFOSAA	*58.2*		*40 - 170*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d5-NEtFOSAA	*56.7*		*25 - 135*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C2 4:2 FTS	*47.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C2 6:2 FTS	*40.5*		*40 - 200*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
13C3 HFPO-DA	*84.1*		*40 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d7-N-MeFOSE-M	*78.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d9-N-EtFOSE-M	*76.7*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d5-NEtPFOSA	*78.0*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*
d3-NMePFOSA	*77.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 14:58*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.0		ng/L		11/26/24 08:36	12/05/24 02:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*64.4*		*40 - 300*	*11/26/24 08:36*	*12/05/24 02:50*	*1*

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Wld d, Wle d, WlF d
Date Collected: 11/18/24 10:10
Date Received: 11/19/24 09:25

Lab Sample ID: 320-117127-7
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluoropentanoic acid (PFPeA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorohexanoic acid (PFHxA)	**2.3**		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorooctanoic acid (PFOA)	**1.5**		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorohexanesulfonic acid (PFHxS)	**2.4**		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorooctanesulfonic acid (PFOS)	**2.9**		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
4:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:11	1
6:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:11	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NMeFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NEtFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NMeFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NEtFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NMeFOSE	ND		7.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NEtFOSE	ND		7.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
HFPO-DA (GenX)	ND		1.1		ng/L		11/26/24 08:36	11/30/24 15:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
PFMPA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
PFMBA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
NFDHA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
9Cl-PF3ONS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
11Cl-PF3OUdS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
PFEESA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
3:3 FTCA	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:11	1
5:3 FTCA	ND		7.5		ng/L		11/26/24 08:36	11/30/24 15:11	1
7:3 FTCA	ND		7.5		ng/L		11/26/24 08:36	11/30/24 15:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.3*		*5 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C5 PFPeA	*90.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C5 PFHxA	*91.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C4 PFHpA	*89.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C8 PFOA	*102*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*

Client Sample ID: Wld d, Wle d, WlF d

Lab Sample ID: 320-117127-7

Date Collected: 11/18/24 10:10
Matrix: Water
Date Received: 11/19/24 09:25

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C9 PFNA	*95.1*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C6 PFDA	*94.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C7 PFUnA	*93.7*		*30 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C2 PFDoA	*77.4*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C2 PFTeDA	*70.6*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C3 PFBS	*122*		*40 - 135*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C3 PFHxS	*94.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C8 PFOS	*94.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C8 FOSA	*79.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d3-NMeFOSAA	*55.9*		*40 - 170*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d5-NEtFOSAA	*56.0*		*25 - 135*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C2 4:2 FTS	*51.8*		*40 - 200*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C2 6:2 FTS	*46.4*		*40 - 200*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
13C3 HFPO-DA	*84.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d7-N-MeFOSE-M	*75.1*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d9-N-EtFOSE-M	*74.3*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d5-NEtPFOSA	*76.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*
d3-NMePFOSA	*75.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:11*	*1*

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.0		ng/L		11/26/24 08:36	12/05/24 03:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*61.6*		*40 - 300*	*11/26/24 08:36*	*12/05/24 03:06*	*1*

Client Sample ID: Fwla s, Fwlb s, Fwlc s

Lab Sample ID: 320-117127-8

Date Collected: 11/18/24 10:15
Matrix: Water
Date Received: 11/20/24 09:40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**3.0**		3.0		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluoropentanoic acid (PFPeA)	**2.5**		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorohexanoic acid (PFHxA)	**2.2**		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluoroheptanoic acid (PFHpA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorooctanoic acid (PFOA)	**1.7**		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorononanoic acid (PFNA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorodecanoic acid (PFDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluoroundecanoic acid (PFUnA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorododecanoic acid (PFDoA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorohexanesulfonic acid (PFHxS)	**3.1**		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorooctanesulfonic acid (PFOS)	**5.5**		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Fwla s, Fwlb s, Fwlc s
Date Collected: 11/18/24 10:15
Date Received: 11/20/24 09:40

Lab Sample ID: 320-117127-8
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanesulfonic acid (PFNS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
4:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:50	1
6:2 FTS	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NMeFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NEtFOSA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NMeFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NEtFOSAA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NMeFOSE	ND		7.4		ng/L		11/26/24 08:36	11/30/24 15:50	1
NEtFOSE	ND		7.4		ng/L		11/26/24 08:36	11/30/24 15:50	1
HFPO-DA (GenX)	ND		1.1		ng/L		11/26/24 08:36	11/30/24 15:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
PFMPA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
PFMBA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
NFDHA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
9Cl-PF3ONS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
11Cl-PF3OUdS	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
PFEESA	ND		1.5		ng/L		11/26/24 08:36	11/30/24 15:50	1
3:3 FTCA	ND		3.0		ng/L		11/26/24 08:36	11/30/24 15:50	1
5:3 FTCA	ND		7.4		ng/L		11/26/24 08:36	11/30/24 15:50	1
7:3 FTCA	ND		7.4		ng/L		11/26/24 08:36	11/30/24 15:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*93.6*		*5 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C5 PFPeA	*89.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C5 PFHxA	*93.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C4 PFHpA	*91.3*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C8 PFOA	*90.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C9 PFNA	*85.6*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C6 PFDA	*91.4*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C7 PFUnA	*87.9*		*30 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C2 PFDoA	*79.2*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C2 PFTeDA	*69.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C3 PFBS	*104*		*40 - 135*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C3 PFHxS	*89.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C8 PFOS	*91.5*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C8 FOSA	*80.7*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d3-NMeFOSAA	*59.2*		*40 - 170*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d5-NEtFOSAA	*57.9*		*25 - 135*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C2 4:2 FTS	*56.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C2 6:2 FTS	*53.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
13C3 HFPO-DA	*84.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d7-N-MeFOSE-M	*75.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d9-N-EtFOSE-M	*76.3*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d5-NEtPFOSA	*79.6*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*
d3-NMePFOSA	*77.1*		*10 - 130*	*11/26/24 08:36*	*11/30/24 15:50*	*1*

Client Sample ID: Fwla s, Fwlb s, Fwlc s

Lab Sample ID: 320-117127-8

Date Collected: 11/18/24 10:15

Matrix: Water

Date Received: 11/20/24 09:40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS	ND		3.0		ng/L		11/26/24 08:36	12/05/24 03:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS	*73.4*		*40 - 300*	*11/26/24 08:36*	*12/05/24 03:56*	*1*

Client Sample ID: Fwld d, Fw1e d, Fw-lf d

Lab Sample ID: 320-117127-9

Date Collected: 11/18/24 10:20

Matrix: Water

Date Received: 11/20/24 09:40

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		3.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluoropentanoic acid (PFPeA)	**3.2**		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorohexanoic acid (PFHxA)	**2.6**		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorooctanoic acid (PFOA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorononanoic acid (PFNA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorodecanoic acid (PFDA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorododecanoic acid (PFDoA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorotridecanoic acid (PFTrDA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorotetradecanoic acid (PFTeDA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluoropentanesulfonic acid (PFPeS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorohexanesulfonic acid (PFHxS)	**2.5**		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorooctanesulfonic acid (PFOS)	**3.2**		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorononanesulfonic acid (PFNS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
4:2 FTS	ND		3.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
6:2 FTS	ND		3.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
8:2 FTS	ND		3.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
Perfluorooctanesulfonamide (PFOSA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NMeFOSA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NEtFOSA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NMeFOSAA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NEtFOSAA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NMeFOSE	ND		7.9		ng/L		11/21/24 07:30	11/23/24 13:25	1
NEtFOSE	ND		7.9		ng/L		11/21/24 07:30	11/23/24 13:25	1
HFPO-DA (GenX)	ND		1.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
PFMPA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
PFMBA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
NFDHA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
9Cl-PF3ONS	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Fwld d, Fw1e d, Fw-lf d
Date Collected: 11/18/24 10:20
Date Received: 11/20/24 09:40

Lab Sample ID: 320-117127-9
Matrix: Water

Method: EPA 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11Cl-PF3OUdS	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
PFEESA	ND		1.6		ng/L		11/21/24 07:30	11/23/24 13:25	1
3:3 FTCA	ND		3.2		ng/L		11/21/24 07:30	11/23/24 13:25	1
5:3 FTCA	ND		7.9		ng/L		11/21/24 07:30	11/23/24 13:25	1
7:3 FTCA	ND		7.9		ng/L		11/21/24 07:30	11/23/24 13:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*99.6*		*5 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C5 PFPeA	*94.1*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C5 PFHxA	*94.0*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C4 PFHpA	*92.5*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C8 PFOA	*98.8*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C9 PFNA	*100*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C6 PFDA	*99.7*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C7 PFUnA	*94.7*		*30 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C2 PFDoA	*82.1*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C2 PFTeDA	*73.3*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C3 PFBS	*105*		*40 - 135*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C3 PFHxS	*101*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C8 PFOS	*101*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C8 FOSA	*95.8*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d3-NMeFOSAA	*90.1*		*40 - 170*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d5-NEtFOSAA	*85.7*		*25 - 135*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C2 4:2 FTS	*160*		*40 - 200*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C2 6:2 FTS	*117*		*40 - 200*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C2 8:2 FTS	*88.8*		*40 - 300*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
13C3 HFPO-DA	*99.8*		*40 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d7-N-MeFOSE-M	*77.9*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d9-N-EtFOSE-M	*54.8*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d5-NEtPFOSA	*73.6*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*
d3-NMePFOSA	*79.8*		*10 - 130*	*11/21/24 07:30*	*11/23/24 13:25*	*1*

Isotope Dilution Summary

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (5-130)	PFPeA (40-130)	13C5PHA (40-130)	C4PFHA (40-130)	C8PFOA (40-130)	C9PFNA (40-130)	C6PFDA (40-130)	13C7PUA (30-130)
320-117127-1	Cla s, Clb s, Clc s	95.1	92.4	94.3	97.7	94.3	88.7	90.7	90.6
320-117127-1 - RA	Cla s, Clb s, Clc s								
320-117127-2	Cld, Cle d, Clf d	95.4	96.2	95.4	94.4	101	88.5	88.0	82.6
320-117127-2 - RA	Cld, Cle d, Clf d								
320-117127-4	Eld d, Ele d, Elf d	94.9	93.6	93.0	93.6	100	91.4	92.7	87.9
320-117127-4 - RA	Eld d, Ele d, Elf d								
320-117127-5	E-la s, Elb s, Elc s	94.6	91.6	92.8	91.7	99.7	97.0	91.7	86.8
320-117127-5 - RA	E-la s, Elb s, Elc s								
320-117127-6	Wla s, WlB s, Wlc s	93.1	97.8	88.2	90.5	95.9	91.2	94.4	87.7
320-117127-6 - RA	Wla s, WlB s, Wlc s								
320-117127-7	Wld d, Wle d, WlF d	93.3	90.8	91.0	89.9	102	95.1	94.6	93.7
320-117127-7 - RA	Wld d, Wle d, WlF d								
320-117127-8	Fwla s, Fwlb s, Fwlc s	93.6	89.8	93.7	91.3	90.8	85.6	91.4	87.9
320-117127-8 - RA	Fwla s, Fwlb s, Fwlc s								
320-117127-9	Fwld d, Fw1e d, Fw-lf d	99.6	94.1	94.0	92.5	98.8	100	99.7	94.7
LCS 320-816874/3-A	Lab Control Sample	101	92.7	96.5	98.7	97.8	106	98.6	101
LCS 320-817915/3-A	Lab Control Sample	94.4	91.8	89.4	87.4	99.9	88.9	91.6	94.3
LCS 320-817915/3-A - RA	Lab Control Sample								
LCSD 320-816874/4-A	Lab Control Sample Dup	109	90.7	93.9	92.7	98.1	99.0	97.6	96.6
LCSD 320-817915/4-A	Lab Control Sample Dup	95.9	91.1	91.7	87.7	95.0	80.8	84.2	82.5
LCSD 320-817915/4-A - RA	Lab Control Sample Dup								
LLCS 320-816874/2-A	Lab Control Sample	103	91.4	92.0	97.6	98.6	98.1	99.5	98.9
LLCS 320-817915/2-A	Lab Control Sample	92.9	92.4	84.4	88.6	89.2	81.4	79.9	87.0
LLCS 320-817915/2-A - RA	Lab Control Sample								
MB 320-816874/1-A	Method Blank	102	92.3	93.8	97.2	97.6	100	101	102
MB 320-817915/1-A	Method Blank	96.3	104	95.0	104	96.5	86.2	92.0	90.8
MB 320-817915/1-A - RA	Method Blank								

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (10-130)	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)
320-117127-1	Cla s, Clb s, Clc s	76.1	65.1	110	94.0	93.3	79.1	64.4	59.9
320-117127-1 - RA	Cla s, Clb s, Clc s								
320-117127-2	Cld, Cle d, Clf d	74.5	61.3	111	91.4	87.0	76.3	56.7	55.3
320-117127-2 - RA	Cld, Cle d, Clf d								
320-117127-4	Eld d, Ele d, Elf d	82.0	70.5	102	92.6	97.1	82.6	62.7	58.9
320-117127-4 - RA	Eld d, Ele d, Elf d								
320-117127-5	E-la s, Elb s, Elc s	74.2	66.9	106	92.5	95.3	80.9	58.7	56.8
320-117127-5 - RA	E-la s, Elb s, Elc s								
320-117127-6	Wla s, WlB s, Wlc s	79.6	69.4	106	93.7	95.7	81.7	58.2	56.7
320-117127-6 - RA	Wla s, WlB s, Wlc s								
320-117127-7	Wld d, Wle d, WlF d	77.4	70.6	122	94.6	94.2	79.6	55.9	56.0
320-117127-7 - RA	Wld d, Wle d, WlF d								
320-117127-8	Fwla s, Fwlb s, Fwlc s	79.2	69.8	104	89.9	91.5	80.7	59.2	57.9
320-117127-8 - RA	Fwla s, Fwlb s, Fwlc s								
320-117127-9	Fwld d, Fw1e d, Fw-lf d	82.1	73.3	105	101	101	95.8	90.1	85.7
LCS 320-816874/3-A	Lab Control Sample	96.5	89.6	110	103	103	92.6	102	100
LCS 320-817915/3-A	Lab Control Sample	86.5	73.6	104	92.6	90.1	81.9	70.7	72.9
LCS 320-817915/3-A - RA	Lab Control Sample								
LCSD 320-816874/4-A	Lab Control Sample Dup	93.6	86.1	105	101	96.6	90.7	98.5	95.4

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (10-130)	PFTDA (10-130)	C3PFBS (40-135)	C3PFHS (40-130)	C8PFOS (40-130)	PFOSA (40-130)	d3NMFOS (40-170)	d5NEFOS (25-135)
LCSD 320-817915/4-A	Lab Control Sample Dup	78.6	69.0	88.8	80.9	85.8	81.4	68.1	67.0
LCSD 320-817915/4-A - RA	Lab Control Sample Dup								
LLCS 320-816874/2-A	Lab Control Sample	91.8	87.5	108	104	105	92.2	96.9	95.3
LLCS 320-817915/2-A	Lab Control Sample	76.1	69.4	92.4	83.8	84.5	77.1	71.6	69.3
LLCS 320-817915/2-A - RA	Lab Control Sample								
MB 320-816874/1-A	Method Blank	95.9	92.9	105	104	105	92.7	95.8	97.3
MB 320-817915/1-A	Method Blank	85.8	76.8	95.9	93.2	93.9	84.2	78.8	75.8
MB 320-817915/1-A - RA	Method Blank								

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	M242FTS (40-200)	M262FTS (40-200)	M282FTS (40-300)	HFPODA (40-130)	NMFM (10-130)	NEFM (10-130)	d5NPFSA (10-130)	d3NMFSA (10-130)
320-117127-1	Cla s, Clb s, Clc s	52.4	52.3		79.7	72.3	70.9	72.2	73.9
320-117127-1 - RA	Cla s, Clb s, Clc s			73.2					
320-117127-2	Cld, Cle d, Clf d	50.3	50.5		77.0	66.0	64.8	63.7	64.7
320-117127-2 - RA	Cld, Cle d, Clf d			60.4					
320-117127-4	Eld d, Ele d, Elf d	44.4	45.1		90.8	78.2	77.1	77.9	78.2
320-117127-4 - RA	Eld d, Ele d, Elf d			62.5					
320-117127-5	E-la s, Elb s, Elc s	50.7	40.7		87.9	77.5	73.3	73.9	74.5
320-117127-5 - RA	E-la s, Elb s, Elc s			63.5					
320-117127-6	Wla s, WlB s, Wlc s	47.3	40.5		84.1	78.5	76.7	78.0	77.8
320-117127-6 - RA	Wla s, WlB s, Wlc s			64.4					
320-117127-7	Wld d, Wle d, WlF d	51.8	46.4		84.4	75.1	74.3	76.2	75.2
320-117127-7 - RA	Wld d, Wle d, WlF d			61.6					
320-117127-8	Fwla s, Fwlb s, Fwlc s	56.3	53.3		84.8	75.8	76.3	79.6	77.1
320-117127-8 - RA	Fwla s, Fwlb s, Fwlc s			73.4					
320-117127-9	Fwld d, Fw1e d, Fw-lf d	160	117	88.8	99.8	77.9	54.8	73.6	79.8
LCS 320-816874/3-A	Lab Control Sample	122	122	114	93.7	89.2	56.4	79.4	78.5
LCS 320-817915/3-A	Lab Control Sample	82.2	78.8		75.8	77.5	74.3	71.4	73.9
LCS 320-817915/3-A - RA	Lab Control Sample			96.2					
LCSD 320-816874/4-A	Lab Control Sample Dup	130	118	107	93.4	80.8	50.2	74.3	76.6
LCSD 320-817915/4-A	Lab Control Sample Dup	76.5	72.7		74.2	76.7	73.8	74.9	74.3
LCSD 320-817915/4-A - RA	Lab Control Sample Dup			91.3					
LLCS 320-816874/2-A	Lab Control Sample	127	121	105	91.8	81.4	50.2	72.9	71.1
LLCS 320-817915/2-A	Lab Control Sample	81.5	79.0		73.4	73.2	72.2	66.7	69.7
LLCS 320-817915/2-A - RA	Lab Control Sample			96.6					
MB 320-816874/1-A	Method Blank	132	120	113	95.7	83.9	53.6	70.5	73.5
MB 320-817915/1-A	Method Blank	84.0	86.3		85.8	76.6	76.7	70.5	72.5
MB 320-817915/1-A - RA	Method Blank			114					

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
C6PFDA = 13C6 PFDA
13C7PUA = 13C7 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA

Isotope Dilution Summary

Client: West Texas A&M University
Job ID: 320-117127-1
Project/Site: PFAS, Corpus Christi Texas Bay

C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
M242FTS = 13C2 4:2 FTS
M262FTS = 13C2 6:2 FTS
M282FTS = 13C2 8:2 FTS
HFPODA = 13C3 HFPO-DA
NMFM = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
d5NPFSA = d5-NEtPFOSA
d3NMFSA = d3-NMePFOSA

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS

Lab Sample ID: MB 320-816874/1-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 816874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
4:2 FTS	ND		4.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
6:2 FTS	ND		4.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
8:2 FTS	ND		4.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NMeFOSA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NEtFOSA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NMeFOSAA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NEtFOSAA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NMeFOSE	ND		10		ng/L		11/21/24 07:30	11/23/24 08:50	1
NEtFOSE	ND		10		ng/L		11/21/24 07:30	11/23/24 08:50	1
HFPO-DA (GenX)	ND		1.5		ng/L		11/21/24 07:30	11/23/24 08:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
PFMPA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
PFMBA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
NFDHA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
9Cl-PF3ONS	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
11Cl-PF3OUdS	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
PFEESA	ND		2.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
3:3 FTCA	ND		4.0		ng/L		11/21/24 07:30	11/23/24 08:50	1
5:3 FTCA	ND		10		ng/L		11/21/24 07:30	11/23/24 08:50	1
7:3 FTCA	ND		10		ng/L		11/21/24 07:30	11/23/24 08:50	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*102*		*5 - 130*	*11/21/24 07:30*	*11/23/24 08:50*	*1*
13C5 PFPeA	*92.3*		*40 - 130*	*11/21/24 07:30*	*11/23/24 08:50*	*1*
13C5 PFHxA	*93.8*		*40 - 130*	*11/21/24 07:30*	*11/23/24 08:50*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-816874/1-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 816874

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	97.2		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C8 PFOA	97.6		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C9 PFNA	100		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C6 PFDA	101		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C7 PFUnA	102		30 - 130	11/21/24 07:30	11/23/24 08:50	1
13C2 PFDoA	95.9		10 - 130	11/21/24 07:30	11/23/24 08:50	1
13C2 PFTeDA	92.9		10 - 130	11/21/24 07:30	11/23/24 08:50	1
13C3 PFBS	105		40 - 135	11/21/24 07:30	11/23/24 08:50	1
13C3 PFHxS	104		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C8 PFOS	105		40 - 130	11/21/24 07:30	11/23/24 08:50	1
13C8 FOSA	92.7		40 - 130	11/21/24 07:30	11/23/24 08:50	1
d3-NMeFOSAA	95.8		40 - 170	11/21/24 07:30	11/23/24 08:50	1
d5-NEtFOSAA	97.3		25 - 135	11/21/24 07:30	11/23/24 08:50	1
13C2 4:2 FTS	132		40 - 200	11/21/24 07:30	11/23/24 08:50	1
13C2 6:2 FTS	120		40 - 200	11/21/24 07:30	11/23/24 08:50	1
13C2 8:2 FTS	113		40 - 300	11/21/24 07:30	11/23/24 08:50	1
13C3 HFPO-DA	95.7		40 - 130	11/21/24 07:30	11/23/24 08:50	1
d7-N-MeFOSE-M	83.9		10 - 130	11/21/24 07:30	11/23/24 08:50	1
d9-N-EtFOSE-M	53.6		10 - 130	11/21/24 07:30	11/23/24 08:50	1
d5-NEtPFOSA	70.5		10 - 130	11/21/24 07:30	11/23/24 08:50	1
d3-NMePFOSA	73.5		10 - 130	11/21/24 07:30	11/23/24 08:50	1

Lab Sample ID: LCS 320-816874/3-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 816874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	75.9		ng/L		95	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	41.4		ng/L		104	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	36.2		ng/L		90	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	38.8		ng/L		97	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	37.8		ng/L		95	70 - 150
Perfluorononanoic acid (PFNA)	40.0	37.8		ng/L		94	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	40.1		ng/L		100	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	39.1		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	39.8		ng/L		100	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	42.0		ng/L		105	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	38.9		ng/L		97	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	34.5		ng/L		97	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	37.8		ng/L		101	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	32.7		ng/L		90	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	36.2		ng/L		95	70 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-816874/3-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 816874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	37.2	32.6		ng/L		88	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	35.0		ng/L		91	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	35.2		ng/L		91	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	32.1		ng/L		83	50 - 145
4:2 FTS	75.0	72.4		ng/L		97	70 - 145
6:2 FTS	76.2	69.9		ng/L		92	65 - 155
8:2 FTS	76.8	72.1		ng/L		94	60 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	38.0		ng/L		95	70 - 145
NMeFOSA	40.0	41.3		ng/L		103	60 - 150
NEtFOSA	40.0	38.9		ng/L		97	65 - 145
NMeFOSAA	40.0	40.4		ng/L		101	50 - 140
NEtFOSAA	40.0	36.3		ng/L		91	70 - 145
NMeFOSE	200	185		ng/L		93	70 - 145
NEtFOSE	200	237		ng/L		118	70 - 135
HFPO-DA (GenX)	30.0	29.9		ng/L		100	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	38.0		ng/L		100	65 - 145
PFMPA	40.0	45.6		ng/L		114	55 - 140
PFMBA	40.0	42.8		ng/L		107	60 - 150
NFDHA	40.0	40.2		ng/L		101	50 - 150
9Cl-PF3ONS	37.4	37.0		ng/L		99	70 - 155
11Cl-PF3OUdS	37.8	37.8		ng/L		100	55 - 160
PFEESA	35.7	34.2		ng/L		96	70 - 140
3:3 FTCA	80.0	91.5		ng/L		114	65 - 130
5:3 FTCA	200	181		ng/L		91	70 - 135
7:3 FTCA	200	173		ng/L		86	50 - 145

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*101*		*5 - 130*
13C5 PFPeA	*92.7*		*40 - 130*
13C5 PFHxA	*96.5*		*40 - 130*
13C4 PFHpA	*98.7*		*40 - 130*
13C8 PFOA	*97.8*		*40 - 130*
13C9 PFNA	*106*		*40 - 130*
13C6 PFDA	*98.6*		*40 - 130*
13C7 PFUnA	*101*		*30 - 130*
13C2 PFDoA	*96.5*		*10 - 130*
13C2 PFTeDA	*89.6*		*10 - 130*
13C3 PFBS	*110*		*40 - 135*
13C3 PFHxS	*103*		*40 - 130*
13C8 PFOS	*103*		*40 - 130*
13C8 FOSA	*92.6*		*40 - 130*
d3-NMeFOSAA	*102*		*40 - 170*
d5-NEtFOSAA	*100*		*25 - 135*
13C2 4:2 FTS	*122*		*40 - 200*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-816874/3-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 816874

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 6:2 FTS	*122*		*40 - 200*
13C2 8:2 FTS	*114*		*40 - 300*
13C3 HFPO-DA	*93.7*		*40 - 130*
d7-N-MeFOSE-M	*89.2*		*10 - 130*
d9-N-EtFOSE-M	*56.4*		*10 - 130*
d5-NEtPFOSA	*79.4*		*10 - 130*
d3-NMePFOSA	*78.5*		*10 - 130*

Lab Sample ID: LCSD 320-816874/4-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 816874

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	69.9		ng/L		87	70 - 140	8	30
Perfluoropentanoic acid (PFPeA)			40.0	39.1		ng/L		98	65 - 135	6	30
Perfluorohexanoic acid (PFHxA)			40.0	36.4		ng/L		91	70 - 145	1	30
Perfluoroheptanoic acid (PFHpA)			40.0	38.0		ng/L		95	70 - 150	2	30
Perfluorooctanoic acid (PFOA)			40.0	36.1		ng/L		90	70 - 150	5	30
Perfluorononanoic acid (PFNA)			40.0	37.9		ng/L		95	70 - 150	0	30
Perfluorodecanoic acid (PFDA)			40.0	38.6		ng/L		96	70 - 140	4	30
Perfluoroundecanoic acid (PFUnA)			40.0	40.1		ng/L		100	70 - 145	2	30
Perfluorododecanoic acid (PFDoA)			40.0	39.1		ng/L		98	70 - 140	2	30
Perfluorotridecanoic acid (PFTrDA)			40.0	40.5		ng/L		101	65 - 140	4	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	38.5		ng/L		96	60 - 140	1	30
Perfluorobutanesulfonic acid (PFBS)			35.5	33.5		ng/L		94	60 - 145	3	30
Perfluoropentanesulfonic acid (PFPeS)			37.6	35.2		ng/L		94	65 - 140	7	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	30.8		ng/L		84	65 - 145	6	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	36.7		ng/L		96	70 - 150	1	30
Perfluorooctanesulfonic acid (PFOS)			37.2	33.9		ng/L		91	55 - 150	4	30
Perfluorononanesulfonic acid (PFNS)			38.5	36.9		ng/L		96	65 - 145	5	30
Perfluorodecanesulfonic acid (PFDS)			38.6	37.2		ng/L		96	60 - 145	5	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	31.6		ng/L		81	50 - 145	1	30
4:2 FTS			75.0	69.4		ng/L		93	70 - 145	4	30
6:2 FTS			76.2	66.7		ng/L		88	65 - 155	5	30
8:2 FTS			76.8	70.0		ng/L		91	60 - 150	3	30
Perfluorooctanesulfonamide (PFOSA)			40.0	36.7		ng/L		92	70 - 145	3	30
NMeFOSA			40.0	39.7		ng/L		99	60 - 150	4	30
NEtFOSA			40.0	38.4		ng/L		96	65 - 145	1	30
NMeFOSAA			40.0	39.0		ng/L		98	50 - 140	3	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-816874/4-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 816874

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
NEtFOSAA			40.0	35.4		ng/L		89	70 - 145	2	30
NMeFOSE			200	191		ng/L		96	70 - 145	3	30
NEtFOSE			200	239		ng/L		119	70 - 135	1	30
HFPO-DA (GenX)			30.0	28.6		ng/L		95	70 - 140	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	33.5		ng/L		89	65 - 145	13	30
PFMPA			40.0	43.0		ng/L		107	55 - 140	6	30
PFMBA			40.0	38.7		ng/L		97	60 - 150	10	30
NFDHA			40.0	41.3		ng/L		103	50 - 150	3	30
9Cl-PF3ONS			37.4	33.7		ng/L		90	70 - 155	9	30
11Cl-PF3OUdS			37.8	32.8		ng/L		87	55 - 160	14	30
PFEESA			35.7	33.9		ng/L		95	70 - 140	1	30
3:3 FTCA			80.0	80.0		ng/L		100	65 - 130	13	30
5:3 FTCA			200	179		ng/L		89	70 - 135	1	30
7:3 FTCA			200	164		ng/L		82	50 - 145	5	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*109*		*5 - 130*
13C5 PFPeA	*90.7*		*40 - 130*
13C5 PFHxA	*93.9*		*40 - 130*
13C4 PFHpA	*92.7*		*40 - 130*
13C8 PFOA	*98.1*		*40 - 130*
13C9 PFNA	*99.0*		*40 - 130*
13C6 PFDA	*97.6*		*40 - 130*
13C7 PFUnA	*96.6*		*30 - 130*
13C2 PFDoA	*93.6*		*10 - 130*
13C2 PFTeDA	*86.1*		*10 - 130*
13C3 PFBS	*105*		*40 - 135*
13C3 PFHxS	*101*		*40 - 130*
13C8 PFOS	*96.6*		*40 - 130*
13C8 FOSA	*90.7*		*40 - 130*
d3-NMeFOSAA	*98.5*		*40 - 170*
d5-NEtFOSAA	*95.4*		*25 - 135*
13C2 4:2 FTS	*130*		*40 - 200*
13C2 6:2 FTS	*118*		*40 - 200*
13C2 8:2 FTS	*107*		*40 - 300*
13C3 HFPO-DA	*93.4*		*40 - 130*
d7-N-MeFOSE-M	*80.8*		*10 - 130*
d9-N-EtFOSE-M	*50.2*		*10 - 130*
d5-NEtPFOSA	*74.3*		*10 - 130*
d3-NMePFOSA	*76.6*		*10 - 130*

Lab Sample ID: LLCS 320-816874/2-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 816874

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)			8.00	7.44		ng/L		93	70 - 140
Perfluoropentanoic acid (PFPeA)			4.00	3.97		ng/L		99	65 - 135

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-816874/2-A
Matrix: Water
Analysis Batch: 817414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 816874

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanoic acid (PFHxA)	4.00	4.13		ng/L		103	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	3.79		ng/L		95	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	3.89		ng/L		97	70 - 150
Perfluorononanoic acid (PFNA)	4.00	3.83		ng/L		96	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	3.88		ng/L		97	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	3.91		ng/L		98	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.20		ng/L		105	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.29		ng/L		107	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.06		ng/L		101	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.37		ng/L		95	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	3.52		ng/L		94	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.23		ng/L		89	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	3.62		ng/L		95	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.38		ng/L		91	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.52		ng/L		91	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	3.43		ng/L		89	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	2.67		ng/L		69	50 - 145
4:2 FTS	7.50	6.75		ng/L		90	70 - 145
6:2 FTS	7.62	6.82		ng/L		90	65 - 155
8:2 FTS	7.68	7.50		ng/L		98	60 - 150
Perfluorooctanesulfonamide (PFOSA)	4.00	3.55		ng/L		89	70 - 145
NMeFOSA	4.00	3.90		ng/L		97	60 - 150
NEtFOSA	4.00	3.49		ng/L		87	65 - 145
NMeFOSAA	4.00	3.93		ng/L		98	50 - 140
NEtFOSAA	4.00	3.69		ng/L		92	70 - 145
NMeFOSE	20.0	18.2		ng/L		91	70 - 145
NEtFOSE	20.0	23.6		ng/L		118	70 - 135
HFPO-DA (GenX)	3.00	2.90		ng/L		97	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	3.58		ng/L		95	65 - 145
PFMPA	4.00	4.21		ng/L		105	55 - 140
PFMBA	4.00	4.02		ng/L		101	60 - 150
NFDHA	4.00	3.65		ng/L		91	50 - 150
9Cl-PF3ONS	3.74	3.69		ng/L		99	70 - 155
11Cl-PF3OUdS	3.78	3.74		ng/L		99	55 - 160
PFEESA	3.57	3.63		ng/L		102	70 - 140
3:3 FTCA	8.00	8.08		ng/L		101	65 - 130
5:3 FTCA	20.0	17.6		ng/L		88	70 - 135
7:3 FTCA	20.0	16.7		ng/L		83	50 - 145

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Isotope Dilution	LLCS %Recovery	LLCS Qualifier	Limits
13C4 PFBA	103		5 - 130
13C5 PFPeA	91.4		40 - 130
13C5 PFHxA	92.0		40 - 130
13C4 PFHpA	97.6		40 - 130
13C8 PFOA	98.6		40 - 130
13C9 PFNA	98.1		40 - 130
13C6 PFDA	99.5		40 - 130
13C7 PFUnA	98.9		30 - 130
13C2 PFDoA	91.8		10 - 130
13C2 PFTeDA	87.5		10 - 130
13C3 PFBS	108		40 - 135
13C3 PFHxS	104		40 - 130
13C8 PFOS	105		40 - 130
13C8 FOSA	92.2		40 - 130
d3-NMeFOSAA	96.9		40 - 170
d5-NEtFOSAA	95.3		25 - 135
13C2 4:2 FTS	127		40 - 200
13C2 6:2 FTS	121		40 - 200
13C2 8:2 FTS	105		40 - 300
13C3 HFPO-DA	91.8		40 - 130
d7-N-MeFOSE-M	81.4		10 - 130
d9-N-EtFOSE-M	50.2		10 - 130
d5-NEtPFOSA	72.9		10 - 130
d3-NMePFOSA	71.1		10 - 130

Lab Sample ID: MB 320-817915/1-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 817915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		4.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorotetradecanoic acid (PFTeDA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorononanesulfonic acid (PFNS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
4:2 FTS	ND		4.0		ng/L		11/26/24 08:36	11/30/24 13:01	1

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: MB 320-817915/1-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 817915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
6:2 FTS	ND		4.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
Perfluorooctanesulfonamide (PFOSA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NMeFOSA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NEtFOSA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NMeFOSAA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NEtFOSAA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NMeFOSE	ND		10		ng/L		11/26/24 08:36	11/30/24 13:01	1
NEtFOSE	ND		10		ng/L		11/26/24 08:36	11/30/24 13:01	1
HFPO-DA (GenX)	ND		1.5		ng/L		11/26/24 08:36	11/30/24 13:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
PFMPA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
PFMBA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
NFDHA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
9Cl-PF3ONS	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
11Cl-PF3OUdS	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
PFEESA	ND		2.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
3:3 FTCA	ND		4.0		ng/L		11/26/24 08:36	11/30/24 13:01	1
5:3 FTCA	ND		10		ng/L		11/26/24 08:36	11/30/24 13:01	1
7:3 FTCA	ND		10		ng/L		11/26/24 08:36	11/30/24 13:01	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFBA	*96.3*		*5 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C5 PFPeA	*104*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C5 PFHxA	*95.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C4 PFHpA	*104*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C8 PFOA	*96.5*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C9 PFNA	*86.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C6 PFDA	*92.0*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C7 PFUnA	*90.8*		*30 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C2 PFDoA	*85.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C2 PFTeDA	*76.8*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C3 PFBS	*95.9*		*40 - 135*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C3 PFHxS	*93.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C8 PFOS	*93.9*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C8 FOSA	*84.2*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d3-NMeFOSAA	*78.8*		*40 - 170*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d5-NEtFOSAA	*75.8*		*25 - 135*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C2 4:2 FTS	*84.0*		*40 - 200*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C2 6:2 FTS	*86.3*		*40 - 200*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
13C3 HFPO-DA	*85.8*		*40 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d7-N-MeFOSE-M	*76.6*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d9-N-EtFOSE-M	*76.7*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d5-NEtPFOSA	*70.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*
d3-NMePFOSA	*72.5*		*10 - 130*	*11/26/24 08:36*	*11/30/24 13:01*	*1*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-817915/3-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	80.0	74.8		ng/L		94	70 - 140
Perfluoropentanoic acid (PFPeA)	40.0	41.3		ng/L		103	65 - 135
Perfluorohexanoic acid (PFHxA)	40.0	40.9		ng/L		102	70 - 145
Perfluoroheptanoic acid (PFHpA)	40.0	37.7		ng/L		94	70 - 150
Perfluorooctanoic acid (PFOA)	40.0	40.0		ng/L		100	70 - 150
Perfluorononanoic acid (PFNA)	40.0	41.8		ng/L		104	70 - 150
Perfluorodecanoic acid (PFDA)	40.0	41.0		ng/L		102	70 - 140
Perfluoroundecanoic acid (PFUnA)	40.0	38.4		ng/L		96	70 - 145
Perfluorododecanoic acid (PFDoA)	40.0	43.6		ng/L		109	70 - 140
Perfluorotridecanoic acid (PFTrDA)	40.0	43.9		ng/L		110	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	40.0	39.9		ng/L		100	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.5	34.7		ng/L		98	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	37.6	38.2		ng/L		102	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	36.5	33.6		ng/L		92	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	38.2	39.7		ng/L		104	70 - 150
Perfluorooctanesulfonic acid (PFOS)	37.2	37.4		ng/L		101	55 - 150
Perfluorononanesulfonic acid (PFNS)	38.5	37.8		ng/L		98	65 - 145
Perfluorodecanesulfonic acid (PFDS)	38.6	39.6		ng/L		103	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	38.8	35.5		ng/L		92	50 - 145
4:2 FTS	75.0	78.2		ng/L		104	70 - 145
6:2 FTS	76.2	71.6		ng/L		94	65 - 155
Perfluorooctanesulfonamide (PFOSA)	40.0	37.6		ng/L		94	70 - 145
NMeFOSA	40.0	42.6		ng/L		106	60 - 150
NEtFOSA	40.0	41.3		ng/L		103	65 - 145
NMeFOSAA	40.0	45.3		ng/L		113	50 - 140
NEtFOSAA	40.0	41.1		ng/L		103	70 - 145
NMeFOSE	200	197		ng/L		99	70 - 145
NEtFOSE	200	201		ng/L		101	70 - 135
HFPO-DA (GenX)	30.0	30.9		ng/L		103	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	37.8	44.2		ng/L		117	65 - 145
PFMPA	40.0	38.7		ng/L		97	55 - 140
PFMBA	40.0	38.8		ng/L		97	60 - 150
NFDHA	40.0	37.2		ng/L		93	50 - 150
9Cl-PF3ONS	37.4	38.1		ng/L		102	70 - 155
11Cl-PF3OUdS	37.8	41.7		ng/L		110	55 - 160
PFEESA	35.7	35.0		ng/L		98	70 - 140
3:3 FTCA	80.0	68.2		ng/L		85	65 - 130
5:3 FTCA	200	169		ng/L		84	70 - 135

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCS 320-817915/3-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
7:3 FTCA			200	150		ng/L		75	50 - 145		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFBA	*94.4*		*5 - 130*
13C5 PFPeA	*91.8*		*40 - 130*
13C5 PFHxA	*89.4*		*40 - 130*
13C4 PFHpA	*87.4*		*40 - 130*
13C8 PFOA	*99.9*		*40 - 130*
13C9 PFNA	*88.9*		*40 - 130*
13C6 PFDA	*91.6*		*40 - 130*
13C7 PFUnA	*94.3*		*30 - 130*
13C2 PFDoA	*86.5*		*10 - 130*
13C2 PFTeDA	*73.6*		*10 - 130*
13C3 PFBS	*104*		*40 - 135*
13C3 PFHxS	*92.6*		*40 - 130*
13C8 PFOS	*90.1*		*40 - 130*
13C8 FOSA	*81.9*		*40 - 130*
d3-NMeFOSAA	*70.7*		*40 - 170*
d5-NEtFOSAA	*72.9*		*25 - 135*
13C2 4:2 FTS	*82.2*		*40 - 200*
13C2 6:2 FTS	*78.8*		*40 - 200*
13C3 HFPO-DA	*75.8*		*40 - 130*
d7-N-MeFOSE-M	*77.5*		*10 - 130*
d9-N-EtFOSE-M	*74.3*		*10 - 130*
d5-NEtPFOSA	*71.4*		*10 - 130*
d3-NMePFOSA	*73.9*		*10 - 130*

Lab Sample ID: LCSD 320-817915/4-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)			80.0	73.1		ng/L		91	70 - 140	2	30
Perfluoropentanoic acid (PFPeA)			40.0	40.0		ng/L		100	65 - 135	3	30
Perfluorohexanoic acid (PFHxA)			40.0	39.5		ng/L		99	70 - 145	4	30
Perfluoroheptanoic acid (PFHpA)			40.0	40.0		ng/L		100	70 - 150	6	30
Perfluorooctanoic acid (PFOA)			40.0	38.8		ng/L		97	70 - 150	3	30
Perfluorononanoic acid (PFNA)			40.0	41.2		ng/L		103	70 - 150	1	30
Perfluorodecanoic acid (PFDA)			40.0	39.5		ng/L		99	70 - 140	4	30
Perfluoroundecanoic acid (PFUnA)			40.0	42.0		ng/L		105	70 - 145	9	30
Perfluorododecanoic acid (PFDoA)			40.0	42.4		ng/L		106	70 - 140	3	30
Perfluorotridecanoic acid (PFTrDA)			40.0	41.1		ng/L		103	65 - 140	6	30
Perfluorotetradecanoic acid (PFTeDA)			40.0	40.5		ng/L		101	60 - 140	1	30
Perfluorobutanesulfonic acid (PFBS)			35.5	33.3		ng/L		94	60 - 145	4	30

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-817915/4-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoropentanesulfonic acid (PFPeS)			37.6	39.1		ng/L		104	65 - 140	2	30
Perfluorohexanesulfonic acid (PFHxS)			36.5	34.9		ng/L		96	65 - 145	4	30
Perfluoroheptanesulfonic acid (PFHpS)			38.2	37.9		ng/L		99	70 - 150	5	30
Perfluorooctanesulfonic acid (PFOS)			37.2	35.5		ng/L		95	55 - 150	5	30
Perfluorononanesulfonic acid (PFNS)			38.5	37.8		ng/L		98	65 - 145	0	30
Perfluorodecanesulfonic acid (PFDS)			38.6	39.3		ng/L		102	60 - 145	1	30
Perfluorododecanesulfonic acid (PFDoS)			38.8	35.6		ng/L		92	50 - 145	0	30
4:2 FTS			75.0	70.1		ng/L		93	70 - 145	11	30
6:2 FTS			76.2	66.5		ng/L		87	65 - 155	7	30
Perfluorooctanesulfonamide (PFOSA)			40.0	36.6		ng/L		91	70 - 145	3	30
NMeFOSA			40.0	43.1		ng/L		108	60 - 150	1	30
NEtFOSA			40.0	40.3		ng/L		101	65 - 145	2	30
NMeFOSAA			40.0	42.3		ng/L		106	50 - 140	7	30
NEtFOSAA			40.0	41.5		ng/L		104	70 - 145	1	30
NMeFOSE			200	195		ng/L		97	70 - 145	1	30
NEtFOSE			200	197		ng/L		98	70 - 135	2	30
HFPO-DA (GenX)			30.0	31.5		ng/L		105	70 - 140	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			37.8	43.2		ng/L		114	65 - 145	2	30
PFMPA			40.0	36.7		ng/L		92	55 - 140	5	30
PFMBA			40.0	40.6		ng/L		101	60 - 150	4	30
NFDHA			40.0	32.9		ng/L		82	50 - 150	12	30
9Cl-PF3ONS			37.4	37.9		ng/L		101	70 - 155	0	30
11Cl-PF3OUdS			37.8	40.9		ng/L		108	55 - 160	2	30
PFEESA			35.7	32.2		ng/L		90	70 - 140	8	30
3:3 FTCA			80.0	66.0		ng/L		83	65 - 130	3	30
5:3 FTCA			200	169		ng/L		84	70 - 135	0	30
7:3 FTCA			200	143		ng/L		72	50 - 145	4	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFBA	*95.9*		*5 - 130*
13C5 PFPeA	*91.1*		*40 - 130*
13C5 PFHxA	*91.7*		*40 - 130*
13C4 PFHpA	*87.7*		*40 - 130*
13C8 PFOA	*95.0*		*40 - 130*
13C9 PFNA	*80.8*		*40 - 130*
13C6 PFDA	*84.2*		*40 - 130*
13C7 PFUnA	*82.5*		*30 - 130*
13C2 PFDoA	*78.6*		*10 - 130*
13C2 PFTeDA	*69.0*		*10 - 130*
13C3 PFBS	*88.8*		*40 - 135*
13C3 PFHxS	*80.9*		*40 - 130*
13C8 PFOS	*85.8*		*40 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LCSD 320-817915/4-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 817915

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C8 FOSA	*81.4*		*40 - 130*
d3-NMeFOSAA	*68.1*		*40 - 170*
d5-NEtFOSAA	*67.0*		*25 - 135*
13C2 4:2 FTS	*76.5*		*40 - 200*
13C2 6:2 FTS	*72.7*		*40 - 200*
13C3 HFPO-DA	*74.2*		*40 - 130*
d7-N-MeFOSE-M	*76.7*		*10 - 130*
d9-N-EtFOSE-M	*73.8*		*10 - 130*
d5-NEtPFOSA	*74.9*		*10 - 130*
d3-NMePFOSA	*74.3*		*10 - 130*

Lab Sample ID: LLCS 320-817915/2-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	8.00	7.83		ng/L		98	70 - 140
Perfluoropentanoic acid (PFPeA)	4.00	4.79		ng/L		120	65 - 135
Perfluorohexanoic acid (PFHxA)	4.00	4.28		ng/L		107	70 - 145
Perfluoroheptanoic acid (PFHpA)	4.00	4.36		ng/L		109	70 - 150
Perfluorooctanoic acid (PFOA)	4.00	4.54		ng/L		113	70 - 150
Perfluorononanoic acid (PFNA)	4.00	4.12		ng/L		103	70 - 150
Perfluorodecanoic acid (PFDA)	4.00	4.48		ng/L		112	70 - 140
Perfluoroundecanoic acid (PFUnA)	4.00	4.29		ng/L		107	70 - 145
Perfluorododecanoic acid (PFDoA)	4.00	4.61		ng/L		115	70 - 140
Perfluorotridecanoic acid (PFTrDA)	4.00	4.35		ng/L		109	65 - 140
Perfluorotetradecanoic acid (PFTeDA)	4.00	4.15		ng/L		104	60 - 140
Perfluorobutanesulfonic acid (PFBS)	3.55	3.68		ng/L		104	60 - 145
Perfluoropentanesulfonic acid (PFPeS)	3.76	4.31		ng/L		115	65 - 140
Perfluorohexanesulfonic acid (PFHxS)	3.65	3.59		ng/L		98	65 - 145
Perfluoroheptanesulfonic acid (PFHpS)	3.82	4.06		ng/L		106	70 - 150
Perfluorooctanesulfonic acid (PFOS)	3.72	3.96		ng/L		106	55 - 150
Perfluorononanesulfonic acid (PFNS)	3.85	3.95		ng/L		103	65 - 145
Perfluorodecanesulfonic acid (PFDS)	3.86	4.04		ng/L		105	60 - 145
Perfluorododecanesulfonic acid (PFDoS)	3.88	3.56		ng/L		92	50 - 145
4:2 FTS	7.50	7.94		ng/L		106	70 - 145
6:2 FTS	7.62	7.10		ng/L		93	65 - 155
Perfluorooctanesulfonamide (PFOSA)	4.00	4.06		ng/L		101	70 - 145
NMeFOSA	4.00	4.31		ng/L		108	60 - 150

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS (Continued)

Lab Sample ID: LLCS 320-817915/2-A
Matrix: Water
Analysis Batch: 818549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
NEtFOSA	4.00	4.46		ng/L		111	65 - 145
NMeFOSAA	4.00	4.53		ng/L		113	50 - 140
NEtFOSAA	4.00	4.56		ng/L		114	70 - 145
NMeFOSE	20.0	20.6		ng/L		103	70 - 145
NEtFOSE	20.0	20.7		ng/L		104	70 - 135
HFPO-DA (GenX)	3.00	3.09		ng/L		103	70 - 140
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	3.78	4.61		ng/L		122	65 - 145
PFMPA	4.00	4.21		ng/L		105	55 - 140
PFMBA	4.00	4.07		ng/L		102	60 - 150
NFDHA	4.00	4.34		ng/L		108	50 - 150
9Cl-PF3ONS	3.74	3.92		ng/L		105	70 - 155
11Cl-PF3OUdS	3.78	4.50		ng/L		119	55 - 160
PFEESA	3.57	3.80		ng/L		106	70 - 140
3:3 FTCA	8.00	7.32		ng/L		91	65 - 130
5:3 FTCA	20.0	19.7		ng/L		99	70 - 135
7:3 FTCA	20.0	16.5		ng/L		83	50 - 145

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C4 PFBA	*92.9*		*5 - 130*
13C5 PFPeA	*92.4*		*40 - 130*
13C5 PFHxA	*84.4*		*40 - 130*
13C4 PFHpA	*88.6*		*40 - 130*
13C8 PFOA	*89.2*		*40 - 130*
13C9 PFNA	*81.4*		*40 - 130*
13C6 PFDA	*79.9*		*40 - 130*
13C7 PFUnA	*87.0*		*30 - 130*
13C2 PFDoA	*76.1*		*10 - 130*
13C2 PFTeDA	*69.4*		*10 - 130*
13C3 PFBS	*92.4*		*40 - 135*
13C3 PFHxS	*83.8*		*40 - 130*
13C8 PFOS	*84.5*		*40 - 130*
13C8 FOSA	*77.1*		*40 - 130*
d3-NMeFOSAA	*71.6*		*40 - 170*
d5-NEtFOSAA	*69.3*		*25 - 135*
13C2 4:2 FTS	*81.5*		*40 - 200*
13C2 6:2 FTS	*79.0*		*40 - 200*
13C3 HFPO-DA	*73.4*		*40 - 130*
d7-N-MeFOSE-M	*73.2*		*10 - 130*
d9-N-EtFOSE-M	*72.2*		*10 - 130*
d5-NEtPFOSA	*66.7*		*10 - 130*
d3-NMePFOSA	*69.7*		*10 - 130*

Method: 1633 - Per- and Polyfluoroalkyl Substances by LC/MS/MS - RA

Lab Sample ID: MB 320-817915/1-A
Matrix: Water
Analysis Batch: 819507

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 817915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
8:2 FTS - RA	ND		4.0		ng/L		11/26/24 08:36	12/05/24 00:39	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 8:2 FTS - RA	*114*		*40 - 300*	*11/26/24 08:36*	*12/05/24 00:39*	*1*

Lab Sample ID: LCS 320-817915/3-A
Matrix: Water
Analysis Batch: 819507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
8:2 FTS - RA			76.8	80.3		ng/L		105	60 - 150		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 8:2 FTS - RA	*96.2*		*40 - 300*

Lab Sample ID: LCSD 320-817915/4-A
Matrix: Water
Analysis Batch: 819507

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
8:2 FTS - RA			76.8	73.9		ng/L		96	60 - 150	8	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 8:2 FTS - RA	*91.3*		*40 - 300*

Lab Sample ID: LLCS 320-817915/2-A
Matrix: Water
Analysis Batch: 819507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 817915

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
8:2 FTS - RA			7.68	8.18		ng/L		106	60 - 150		

Isotope Dilution	*LLCS %Recovery*	*LLCS Qualifier*	*Limits*
13C2 8:2 FTS - RA	*96.6*		*40 - 300*

LCMS

Prep Batch: 816874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117127-9	Fwld d, Fw1e d, Fw-lf d	Total/NA	Water	1633	
MB 320-816874/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-816874/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-816874/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-816874/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 817414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117127-9	Fwld d, Fw1e d, Fw-lf d	Total/NA	Water	1633	816874
MB 320-816874/1-A	Method Blank	Total/NA	Water	1633	816874
LCS 320-816874/3-A	Lab Control Sample	Total/NA	Water	1633	816874
LCSD 320-816874/4-A	Lab Control Sample Dup	Total/NA	Water	1633	816874
LLCS 320-816874/2-A	Lab Control Sample	Total/NA	Water	1633	816874

Prep Batch: 817915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117127-1 - RA	Cla s, Clb s, Clc s	Total/NA	Water	1633	
320-117127-1	Cla s, Clb s, Clc s	Total/NA	Water	1633	
320-117127-2 - RA	Cld, Cle d, Clf d	Total/NA	Water	1633	
320-117127-2	Cld, Cle d, Clf d	Total/NA	Water	1633	
320-117127-4 - RA	Eld d, Ele d, Elf d	Total/NA	Water	1633	
320-117127-4	Eld d, Ele d, Elf d	Total/NA	Water	1633	
320-117127-5 - RA	E-la s, Elb s, Elc s	Total/NA	Water	1633	
320-117127-5	E-la s, Elb s, Elc s	Total/NA	Water	1633	
320-117127-6 - RA	Wla s, WlB s, Wlc s	Total/NA	Water	1633	
320-117127-6	Wla s, WlB s, Wlc s	Total/NA	Water	1633	
320-117127-7 - RA	Wld d, Wle d, WlF d	Total/NA	Water	1633	
320-117127-7	Wld d, Wle d, WlF d	Total/NA	Water	1633	
320-117127-8 - RA	Fwla s, Fwlb s, Fwlc s	Total/NA	Water	1633	
320-117127-8	Fwla s, Fwlb s, Fwlc s	Total/NA	Water	1633	
MB 320-817915/1-A - RA	Method Blank	Total/NA	Water	1633	
MB 320-817915/1-A	Method Blank	Total/NA	Water	1633	
LCS 320-817915/3-A - RA	Lab Control Sample	Total/NA	Water	1633	
LCS 320-817915/3-A	Lab Control Sample	Total/NA	Water	1633	
LCSD 320-817915/4-A - RA	Lab Control Sample Dup	Total/NA	Water	1633	
LCSD 320-817915/4-A	Lab Control Sample Dup	Total/NA	Water	1633	
LLCS 320-817915/2-A - RA	Lab Control Sample	Total/NA	Water	1633	
LLCS 320-817915/2-A	Lab Control Sample	Total/NA	Water	1633	

Analysis Batch: 818549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117127-1	Cla s, Clb s, Clc s	Total/NA	Water	1633	817915
320-117127-2	Cld, Cle d, Clf d	Total/NA	Water	1633	817915
320-117127-4	Eld d, Ele d, Elf d	Total/NA	Water	1633	817915
320-117127-5	E-la s, Elb s, Elc s	Total/NA	Water	1633	817915
320-117127-6	Wla s, WlB s, Wlc s	Total/NA	Water	1633	817915
320-117127-7	Wld d, Wle d, WlF d	Total/NA	Water	1633	817915
320-117127-8	Fwla s, Fwlb s, Fwlc s	Total/NA	Water	1633	817915
MB 320-817915/1-A	Method Blank	Total/NA	Water	1633	817915
LCS 320-817915/3-A	Lab Control Sample	Total/NA	Water	1633	817915
LCSD 320-817915/4-A	Lab Control Sample Dup	Total/NA	Water	1633	817915

LCMS (Continued)

Analysis Batch: 818549 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 320-817915/2-A	Lab Control Sample	Total/NA	Water	1633	817915

Analysis Batch: 819507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-117127-1 - RA	Cla s, Clb s, Clc s	Total/NA	Water	1633	817915
320-117127-2 - RA	Cld, Cle d, Clf d	Total/NA	Water	1633	817915
320-117127-4 - RA	Eld d, Ele d, Elf d	Total/NA	Water	1633	817915
320-117127-5 - RA	E-la s, Elb s, Elc s	Total/NA	Water	1633	817915
320-117127-6 - RA	Wla s, WIB s, Wlc s	Total/NA	Water	1633	817915
320-117127-7 - RA	Wld d, Wle d, WIF d	Total/NA	Water	1633	817915
320-117127-8 - RA	Fwla s, Fwlb s, Fwlc s	Total/NA	Water	1633	817915
MB 320-817915/1-A - RA	Method Blank	Total/NA	Water	1633	817915
LCS 320-817915/3-A - RA	Lab Control Sample	Total/NA	Water	1633	817915
LCSD 320-817915/4-A - RA	Lab Control Sample Dup	Total/NA	Water	1633	817915
LLCS 320-817915/2-A - RA	Lab Control Sample	Total/NA	Water	1633	817915

Client Sample ID: Cla s, Clb s, Clc s

Lab Sample ID: 320-117127-1

Date Collected: 11/18/24 09:20

Matrix: Water

Date Received: 11/19/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		159.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 01:44	K1S	EET SAC
Total/NA	Prep	1633			159.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 14:06	P1P	EET SAC

Client Sample ID: Cld, Cle d, Clf d

Lab Sample ID: 320-117127-2

Date Collected: 11/18/24 09:25

Matrix: Water

Date Received: 11/19/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		159.3 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 02:01	K1S	EET SAC
Total/NA	Prep	1633			159.3 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 14:19	P1P	EET SAC

Client Sample ID: Eld d, Ele d, Elf d

Lab Sample ID: 320-117127-4

Date Collected: 11/18/24 09:45

Matrix: Water

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		159.9 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 02:17	K1S	EET SAC
Total/NA	Prep	1633			159.9 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 14:32	P1P	EET SAC

Client Sample ID: E-la s, Elb s, Elc s

Lab Sample ID: 320-117127-5

Date Collected: 11/18/24 09:45

Matrix: Water

Date Received: 11/19/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		163.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 02:34	K1S	EET SAC
Total/NA	Prep	1633			163.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 14:45	P1P	EET SAC

Client Sample ID: Wla s, WIB s, Wlc s

Lab Sample ID: 320-117127-6

Date Collected: 11/18/24 10:00

Matrix: Water

Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		166.5 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 02:50	K1S	EET SAC
Total/NA	Prep	1633			166.5 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 14:58	P1P	EET SAC

Lab Chronicle

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Client Sample ID: Wld d, Wle d, WlF d

Lab Sample ID: 320-117127-7

Date Collected: 11/18/24 10:10
Matrix: Water
Date Received: 11/19/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		166.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 03:06	K1S	EET SAC
Total/NA	Prep	1633			166.1 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 15:11	P1P	EET SAC

Client Sample ID: Fwla s, Fwlb s, Fwlc s

Lab Sample ID: 320-117127-8

Date Collected: 11/18/24 10:15
Matrix: Water
Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633	RA		168.3 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633	RA	1			819507	12/05/24 03:56	K1S	EET SAC
Total/NA	Prep	1633			168.3 mL	5.0 mL	817915	11/26/24 08:36	CGL	EET SAC
Total/NA	Analysis	1633		1			818549	11/30/24 15:50	P1P	EET SAC

Client Sample ID: Fwld d, Fw1e d, Fw-lf d

Lab Sample ID: 320-117127-9

Date Collected: 11/18/24 10:20
Matrix: Water
Date Received: 11/20/24 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1633			158.1 mL	5.0 mL	816874	11/21/24 07:30	CGL	EET SAC
Total/NA	Analysis	1633		1			817414	11/23/24 13:25	C1P	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: West Texas A&M University
Job ID: 320-117127-1
Project/Site: PFAS, Corpus Christi Texas Bay

Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-27
ANAB	Dept. of Defense ELAP	L2468	01-20-27
ANAB	Dept. of Energy	L2468.01	01-20-27
ANAB	ISO/IEC 17025	L2468	01-20-27
Arizona	State	AZ0708	08-11-25
Arkansas DEQ	State	88-0691	05-18-25
California	State	2897	01-31-26
Colorado	State	CA00044	08-31-25
Florida	NELAP	E87570	06-30-25
Georgia	State	4040	01-29-25
Hawaii	State	Eurofins Sacramento	01-29-25
Illinois	NELAP	200060	03-31-25
Kansas	NELAP	E-10375	10-31-25
Louisiana	NELAP	01944	06-30-25
Louisiana (All)	NELAP	01944	06-30-25
Maine	State	CA00004	04-14-26
Michigan	State	9947	01-29-25
Minnesota	NELAP	2749448	12-31-25
Nevada	State	CA00044	07-31-25
New Hampshire	NELAP	2997	04-19-25
New Jersey	NELAP	CA005	06-30-25
New York	NELAP	11666	04-01-25
Ohio	State	41252	01-29-25
Oregon	NELAP	4040	01-29-25
Texas	NELAP	T104704399-23-17	05-31-25
US Fish & Wildlife	US Federal Programs	A22139	04-30-25
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442023-16	02-28-25
Virginia	NELAP	460278	03-14-25
Washington	State	C581	05-05-25
West Virginia (DW)	State	9930C	01-31-25
Wisconsin	State	998204680	08-31-25
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Method	Method Description	Protocol	Laboratory
1633	Per- and Polyfluoroalkyl Substances by LC/MS/MS	EPA	EET SAC
1633	Solid-Phase Extraction (SPE)	EPA	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: West Texas A&M University
Project/Site: PFAS, Corpus Christi Texas Bay

Job ID: 320-117127-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-117127-1	Cla s, Clb s, Clc s	Water	11/18/24 09:20	11/19/24 09:25
320-117127-2	Cld, Cle d, Clf d	Water	11/18/24 09:25	11/19/24 09:25
320-117127-4	Eld d, Ele d, Elf d	Water	11/18/24 09:45	11/20/24 09:40
320-117127-5	E-la s, Elb s, Elc s	Water	11/18/24 09:45	11/19/24 09:25
320-117127-6	Wla s, WlB s, Wlc s	Water	11/18/24 10:00	11/20/24 09:40
320-117127-7	Wld d, Wle d, WlF d	Water	11/18/24 10:10	11/19/24 09:25
320-117127-8	Fwla s, Fwlb s, Fwlc s	Water	11/18/24 10:15	11/20/24 09:40
320-117127-9	Fwld d, Fw1e d, Fw-lf d	Water	11/18/24 10:20	11/20/24 09:40

Eurofins Sacramento
880 Riverside Parkway
West Sacramento CA 95605
Phone (916) 373-5600

A Note Samples in 2 coolers A

Chain of Custody Record

eurofins Environment Testing

Client Information: Mintz	Sampler: William J. Rogers	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: William J. Rogers	Phone:	E-Mail:	State of Origin:	Page: Page ___ of ___
Company: Omega Environ Solutions	PWSID:			Job #:
Address:	Due Date Requested: Standard TAT			
City:	TAT Requested (days):			
State, Zip:	Compliance Project: Δ Yes Δ No (circled)			
Phone:	PO #: NA			
Email: jrogers@utamu.edu	WO #: NA			
Project Name: Corpus Christi	Project #: Corpus Christi			
Site: Scmy	SSOW#:			

Analysis Requested: PFAS/PFOA (1633/Lab); PFAS/PFOA Drinking water

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice (circled), J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFAS/PFOA (1633/Lab)	PFAS/PFOA Drinking water	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
C/as, C/bs, C/cs	11/18/24	9:20A	6	W	N	N	✓			
C/dCled, C/fd	11/18/24	9:25	6	W	N	N	✓			
C/gDW, C/hDW, C/iDW	11/18/24	9:30	6	W	N	N		✓		
G/dd, G/ed, G/fd	11/18/24	9:45	6	W	N	N	✓			
E-las, E/bs, E/cs	11/18/24	9:45	6	W	N	N	✓			
W/as, W/bs, W/cs	11/18/24	10:00A	6	W	N	N	✓			
W/dd, W/ed, W/fd	11/18/24	10:10A	6	W	N	N	✓			
FW/as, FW/bs, FW/cs	11/18/24	10:15A	6	W	N	N	✓			
FW/dd, FW/ed, FW/fd	11/18/24	10:20A	6	W	N	N	✓			
Temp blank	11/18/24	11:15A	Grab	W	N	N	NA			

320-117127 Chain of Custody

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months

Deliverable Requested I II, III, IV Other (specify): Standard TAT

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
William J. Rogers	11/18/24 11:51A	Omega	Fed Ex	11:51 A	
			[illegible]	11/19/24 925	EETSAC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.5 / 1.2

Ver 01/16/2019

eurofins | Environment Testing

Sacramento Sample Receiving Notes (SSRN)

Loc: 320
117127

Tracking # 2819 3919 0016

Job ________ ________________

SO / (PO) / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSL / OnTrac / Goldstreak / USPS / Other____________

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations
File in the job folder with the COC

Therm ID: L 09 Corr Factor: (+ / -) ______°C

Ice ✓ Wet ✓ Gel ______ Other ______

Cooler Custody Seal: 2501783

Cooler ID: WFL

Temp Observed 1.5 °C Corrected: 1.5 °C

From Temp Blank ☑ Sandwich ☐ Sidewall ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☑	☐
Cooler Temperature is acceptable?	☑	☐	☐
Frozen samples show signs of thaw?	☐	☐	☑

Initials FSH Date 11/19/24

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☑	☐	☐
Samples compromised/tampered with?	☐	☑	☐
COC is complete w/o discrepancies	☑	☐	☐
Sample custody seal?	☐	☐	☑
Sample containers have legible labels?	☑	☐	☐
Sample date/times are provided?	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Is the Field Sampler's name on COC?	☑	☐	☐
Samples w/o discrepancies? SJ 11/20/24	~~☑~~	☑	☐
Zero headspace?*	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐

**Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")*

Initials DM Date: 11/19/24

Notes: NO time/date (1)-(9)
~~(1)-(9)~~
105 3 10 per line, 1 per container

Trizma Lot #(s): ____________

Ammonium Acetate Lot #(s): ____________

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☑	☐	☐
NCM Filed?	☑	☐	☐
Samples received within hold time?	☑	☐	☐
Log Release checked in TALS?	☑	☐	☐

Initials SJ Date 11/20/24

eurofins | Environment Testing

Sacramento Sample Receiving Notes (SSRN)

Tracking # 2519 39139 0027 Shown

Job 320-117127

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSL / OnTrac / Goldstreak / USPS / Other_____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations
File in the job folder with the COC

Therm ID 604 Corr Factor (+/-) N/A °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal 2501782

Cooler ID 2062

Temp Observed 1.2 °C Corrected 1.2 °C

From Temp Blank ☒ Sandwich ☐ Sidewall ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☒	☐
Cooler Temperature is acceptable?	☒	☐	☐
Frozen samples show signs of thaw?	☐	☐	☒

Initials SO Date 11/20/24

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☒	☐	☐
Samples compromised/tampered with?	☐	☒	☐
COC is complete w/o discrepancies	☒	☐	☐
Sample custody seal?	☐	☐	☒
Sample containers have legible labels?	☒	☐	☐
Sample date/times are provided?	☒	☐	☐
Appropriate containers are used?	☒	☐	☐
Sample bottles are completely filled?	☒	☐	☐
Sample preservatives verified?	☐	☐	☒
Is the Field Sampler's name on COC?	☒	☐	☐
Samples w/o discrepancies?	☐	☒	☐
Zero headspace?*	☐	☐	☒
Alkalinity has no headspace?	☐	☐	☒
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☒
Multiphasic samples are not present?	☒	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials SO Date 11/20/24

Notes.

4, 6, 8, 9

Trizma Lot #(s) _____

_____

_____

Ammonium

Acetate Lot #(s) _____

_____

_____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☒	☐	☐
NCM Filed?	☒	☐	☐
Samples received within hold time?	☒	☐	☐
Log Release checked in TALS?	☒	☐	☐

Initials G Date 11/20/24