

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-47218-1
Client Project/Site: CB PFAS Oyster
Revision: 1

For:
Town of Chesapeake
8400 Bayside Road
Chesapeake Beach, Maryland 20732

Attn: Holly Wahle



Authorized for release by:
8/11/2021 11:13:04 AM

Dana Kauffman, Project Manager
(717)656-2300
Dana.Kauffman@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

A handwritten signature in cursive script, appearing to read "Dana Kauffman".

Dana Kauffman
Project Manager
8/11/2021 11:13:04 AM



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Isotope Dilution Summary	14
QC Sample Results	16
QC Association Summary	25
Lab Chronicle	26
Certification Summary	27
Method Summary	31
Sample Summary	32
Chain of Custody	33
Receipt Checklists	36

Definitions/Glossary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Qualifiers

LCMS

Qualifier	Qualifier Description
*5+	Isotope dilution analyte is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Case Narrative

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Job ID: 410-47218-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-47218-1**

REVISION

The report being provided is a revision of the original report sent on 8/4/2021. The report (revision 0) is being revised due to .

Receipt

The samples were received on 7/15/2021 9:16 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.3°C

PFAS

Method PFC_IDA: The recovery for the labeled isotope(s) in the following sample: Oyster knife rinse (410-47218-5) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported.

Method PFC_IDA: Target analyte(s) were detected in the method blank associated with the following sample: Oysters 2 (410-47218-2). Sufficient sample was not available to re-extract this sample.

Method PFC_IDA: The recovery for the labeled isotopes(s) in the following samples: Oysters 1 (410-47218-1) and Oysters 2 (410-47218-2) is outside the QC acceptance limits. Since the recovery is high and the native analyte is not detected in the sample, the data is reported. The LCS/LCSD labeled isotope(s) recovery associated with samples: Oysters 1 (410-47218-1) and Oysters 2 (410-47218-2) is outside the QC acceptance limits. Since the recovery for target analytes is within the limits, the data is reported.

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



Detection Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oysters 1

Lab Sample ID: 410-47218-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid	0.50	J	0.56	0.19	ng/g	1		537 IDA	Total/NA
Perfluorooctanesulfonamide	0.34	J	0.56	0.19	ng/g	1		537 IDA	Total/NA

Client Sample ID: Oysters 2

Lab Sample ID: 410-47218-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid	0.18	J B	0.55	0.18	ng/g	1		537 IDA	Total/NA
Perfluorooctanesulfonic acid	0.47	J	0.55	0.18	ng/g	1		537 IDA	Total/NA
Perfluorooctanesulfonamide	0.41	J	0.55	0.18	ng/g	1		537 IDA	Total/NA

Client Sample ID: Field

Lab Sample ID: 410-47218-3

No Detections.

Client Sample ID: Trip

Lab Sample ID: 410-47218-4

No Detections.

Client Sample ID: Oyster knife rinse

Lab Sample ID: 410-47218-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oysters 1

Lab Sample ID: 410-47218-1

Date Collected: 07/14/21 10:07

Matrix: Solid

Date Received: 07/15/21 09:16

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluoroheptanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorooctanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorononanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorodecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorotridecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorotetradecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorobutanesulfonic acid	ND		1.9	0.37	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorohexanesulfonic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorooctanesulfonic acid	0.50	J	0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
NEtFOSAA	ND		1.9	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
NMeFOSAA	ND		1.9	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
10:2 FTS	ND		1.9	0.56	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluoropentanesulfonic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluoroheptanesulfonic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorononanesulfonic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorodecanesulfonic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.9	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorooctanesulfonamide	0.34	J	0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorohexadecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorooctadecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorobutanoic acid	ND		1.9	0.74	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluoropentanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
NMeFOSE	ND		1.9	0.46	ng/g		07/21/21 06:48	07/29/21 04:44	1
NMeFOSA	ND		1.9	0.46	ng/g		07/21/21 06:48	07/29/21 04:44	1
NEtFOSE	ND		1.9	0.46	ng/g		07/21/21 06:48	07/29/21 04:44	1
NEtFOSA	ND		1.9	0.46	ng/g		07/21/21 06:48	07/29/21 04:44	1
HFPODA	ND		1.9	0.37	ng/g		07/21/21 06:48	07/29/21 04:44	1
DONA	ND		2.8	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
9Cl-PF3ONS	ND		1.9	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
11Cl-PF3OUdS	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluorododecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
4:2 Fluorotelomer sulfonic acid	ND		1.9	0.56	ng/g		07/21/21 06:48	07/29/21 04:44	1
Perfluoroundecanoic acid	ND		0.56	0.19	ng/g		07/21/21 06:48	07/29/21 04:44	1
6:2 Fluorotelomer sulfonic acid	ND		1.9	0.56	ng/g		07/21/21 06:48	07/29/21 04:44	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.56	ng/g		07/21/21 06:48	07/29/21 04:44	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	141		10 - 169				07/21/21 06:48	07/29/21 04:44	1
M2-8:2 FTS	193	*5+	10 - 178				07/21/21 06:48	07/29/21 04:44	1
M2-6:2 FTS	174		10 - 182				07/21/21 06:48	07/29/21 04:44	1
13C5 PFHxA	61		11 - 138				07/21/21 06:48	07/29/21 04:44	1
13C4 PFHpA	70		15 - 139				07/21/21 06:48	07/29/21 04:44	1
13C8 PFOA	74		21 - 133				07/21/21 06:48	07/29/21 04:44	1
13C9 PFNA	87		15 - 145				07/21/21 06:48	07/29/21 04:44	1
13C6 PFDA	85		21 - 134				07/21/21 06:48	07/29/21 04:44	1
13C7 PFUnA	84		15 - 138				07/21/21 06:48	07/29/21 04:44	1
13C2-PFDoDA	75		28 - 126				07/21/21 06:48	07/29/21 04:44	1
13C2 PFTeDA	21		10 - 138				07/21/21 06:48	07/29/21 04:44	1

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oysters 1

Date Collected: 07/14/21 10:07

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-1

Matrix: Solid

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	73		23 - 130	07/21/21 06:48	07/29/21 04:44	1
13C3 PFHxS	60		24 - 136	07/21/21 06:48	07/29/21 04:44	1
13C8 PFOS	72		31 - 130	07/21/21 06:48	07/29/21 04:44	1
d3-NMeFOSAA	57		10 - 172	07/21/21 06:48	07/29/21 04:44	1
d5-NEtFOSAA	73		10 - 176	07/21/21 06:48	07/29/21 04:44	1
13C8 FOSA	80		25 - 135	07/21/21 06:48	07/29/21 04:44	1
13C4 PFBA	18		12 - 137	07/21/21 06:48	07/29/21 04:44	1
13C5 PFPeA	65		12 - 135	07/21/21 06:48	07/29/21 04:44	1
d7-N-MeFOSE-M	51		10 - 152	07/21/21 06:48	07/29/21 04:44	1
d3-NMePFOSA	49		10 - 148	07/21/21 06:48	07/29/21 04:44	1
d9-N-EtFOSE-M	14		10 - 157	07/21/21 06:48	07/29/21 04:44	1
d5-NEtPFOSA	30		10 - 151	07/21/21 06:48	07/29/21 04:44	1
13C3 HFPO-DA	46		10 - 152	07/21/21 06:48	07/29/21 04:44	1

Client Sample ID: Oysters 2

Date Collected: 07/14/21 10:07

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-2

Matrix: Solid

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluoroheptanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorooctanoic acid	0.18	J B	0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorononanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorodecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorotridecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorotetradecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorobutanesulfonic acid	ND		1.8	0.37	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorohexanesulfonic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorooctanesulfonic acid	0.47	J	0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
NEtFOSAA	ND		1.8	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
NMeFOSAA	ND		1.8	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
10:2 FTS	ND		1.8	0.55	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluoropentanesulfonic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluoroheptanesulfonic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorononanesulfonic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorodecanesulfonic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorododecanesulfonic acid (PFDoS)	ND		1.8	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorooctanesulfonamide	0.41	J	0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorohexadecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorooctadecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorobutanoic acid	ND		1.8	0.73	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluoropentanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
NMeFOSE	ND		1.8	0.46	ng/g		07/21/21 06:48	07/29/21 04:55	1
NMeFOSA	ND		1.8	0.46	ng/g		07/21/21 06:48	07/29/21 04:55	1
NEtFOSE	ND		1.8	0.46	ng/g		07/21/21 06:48	07/29/21 04:55	1
NEtFOSA	ND		1.8	0.46	ng/g		07/21/21 06:48	07/29/21 04:55	1
HFPODA	ND		1.8	0.37	ng/g		07/21/21 06:48	07/29/21 04:55	1
DONA	ND		2.8	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1

Euofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oysters 2

Lab Sample ID: 410-47218-2

Date Collected: 07/14/21 10:07

Matrix: Solid

Date Received: 07/15/21 09:16

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9CI-PF3ONS	ND		1.8	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
11CI-PF3OUdS	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluorododecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
4:2 Fluorotelomer sulfonic acid	ND		1.8	0.55	ng/g		07/21/21 06:48	07/29/21 04:55	1
Perfluoroundecanoic acid	ND		0.55	0.18	ng/g		07/21/21 06:48	07/29/21 04:55	1
6:2 Fluorotelomer sulfonic acid	ND		1.8	0.55	ng/g		07/21/21 06:48	07/29/21 04:55	1
8:2 Fluorotelomer sulfonic acid	ND		2.8	0.55	ng/g		07/21/21 06:48	07/29/21 04:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	167		10 - 169	07/21/21 06:48	07/29/21 04:55	1
M2-8:2 FTS	228	*5+	10 - 178	07/21/21 06:48	07/29/21 04:55	1
M2-6:2 FTS	223	*5+	10 - 182	07/21/21 06:48	07/29/21 04:55	1
13C5 PFHxA	72		11 - 138	07/21/21 06:48	07/29/21 04:55	1
13C4 PFHpA	87		15 - 139	07/21/21 06:48	07/29/21 04:55	1
13C8 PFOA	90		21 - 133	07/21/21 06:48	07/29/21 04:55	1
13C9 PFNA	103		15 - 145	07/21/21 06:48	07/29/21 04:55	1
13C6 PFDA	99		21 - 134	07/21/21 06:48	07/29/21 04:55	1
13C7 PFUnA	86		15 - 138	07/21/21 06:48	07/29/21 04:55	1
13C2-PFDoDA	86		28 - 126	07/21/21 06:48	07/29/21 04:55	1
13C2 PFTeDA	20		10 - 138	07/21/21 06:48	07/29/21 04:55	1
13C3 PFBS	84		23 - 130	07/21/21 06:48	07/29/21 04:55	1
13C3 PFHxS	79		24 - 136	07/21/21 06:48	07/29/21 04:55	1
13C8 PFOS	88		31 - 130	07/21/21 06:48	07/29/21 04:55	1
d3-NMeFOSAA	65		10 - 172	07/21/21 06:48	07/29/21 04:55	1
d5-NEtFOSAA	76		10 - 176	07/21/21 06:48	07/29/21 04:55	1
13C8 FOSA	84		25 - 135	07/21/21 06:48	07/29/21 04:55	1
13C4 PFBA	26		12 - 137	07/21/21 06:48	07/29/21 04:55	1
13C5 PFPeA	79		12 - 135	07/21/21 06:48	07/29/21 04:55	1
d7-N-MeFOSE-M	53		10 - 152	07/21/21 06:48	07/29/21 04:55	1
d3-NMePFOSA	52		10 - 148	07/21/21 06:48	07/29/21 04:55	1
d9-N-EtFOSE-M	13		10 - 157	07/21/21 06:48	07/29/21 04:55	1
d5-NEtPFOSA	32		10 - 151	07/21/21 06:48	07/29/21 04:55	1
13C3 HFPO-DA	58		10 - 152	07/21/21 06:48	07/29/21 04:55	1

Client Sample ID: Field

Lab Sample ID: 410-47218-3

Date Collected: 07/14/21 10:35

Matrix: Water

Date Received: 07/15/21 09:16

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluoroheptanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorooctanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorononanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorodecanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorotridecanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorotetradecanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorobutanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorohexanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorooctanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
NEtFOSAA	ND		2.6	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Field

Lab Sample ID: 410-47218-3

Date Collected: 07/14/21 10:35

Matrix: Water

Date Received: 07/15/21 09:16

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
NMeFOSAA	ND		1.7	0.52	ng/L		07/16/21 08:02	07/19/21 22:05	1
10:2 FTS	ND		4.3	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluoropentanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluoroheptanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorononanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorodecanesulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.6	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorooctanesulfonamide	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorohexadecanoic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorooctadecanoic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorobutanoic acid	ND		4.3	1.7	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluoropentanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
NMeFOSE	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
NMeFOSA	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
NEtFOSE	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
NEtFOSA	ND		4.3	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1
HFPODA	ND		2.6	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
DONA	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
9Cl-PF3ONS	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
11Cl-PF3OUdS	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluorododecanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
Perfluoroundecanoic acid	ND		1.7	0.43	ng/L		07/16/21 08:02	07/19/21 22:05	1
6:2 Fluorotelomer sulfonic acid	ND		4.3	1.7	ng/L		07/16/21 08:02	07/19/21 22:05	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	127		20 - 187	07/16/21 08:02	07/19/21 22:05	1
M2-8:2 FTS	123		34 - 182	07/16/21 08:02	07/19/21 22:05	1
M2-6:2 FTS	123		29 - 189	07/16/21 08:02	07/19/21 22:05	1
13C5 PFHxA	119		31 - 142	07/16/21 08:02	07/19/21 22:05	1
13C4 PFHpA	113		30 - 144	07/16/21 08:02	07/19/21 22:05	1
13C8 PFOA	114		49 - 127	07/16/21 08:02	07/19/21 22:05	1
13C9 PFNA	107		47 - 136	07/16/21 08:02	07/19/21 22:05	1
13C6 PFDA	114		47 - 128	07/16/21 08:02	07/19/21 22:05	1
13C7 PFUnA	115		40 - 135	07/16/21 08:02	07/19/21 22:05	1
13C2-PFDoDA	108		28 - 136	07/16/21 08:02	07/19/21 22:05	1
13C2 PFTeDA	104		10 - 144	07/16/21 08:02	07/19/21 22:05	1
13C3 PFBS	110		19 - 178	07/16/21 08:02	07/19/21 22:05	1
13C3 PFHxS	111		32 - 145	07/16/21 08:02	07/19/21 22:05	1
13C8 PFOS	107		49 - 126	07/16/21 08:02	07/19/21 22:05	1
d3-NMeFOSAA	102		32 - 151	07/16/21 08:02	07/19/21 22:05	1
d5-NEtFOSAA	112		37 - 164	07/16/21 08:02	07/19/21 22:05	1
13C8 FOSA	96		10 - 143	07/16/21 08:02	07/19/21 22:05	1
13C4 PFBA	112		41 - 132	07/16/21 08:02	07/19/21 22:05	1
13C5 PFPeA	111		33 - 155	07/16/21 08:02	07/19/21 22:05	1
d7-N-MeFOSE-M	88		10 - 143	07/16/21 08:02	07/19/21 22:05	1
d3-NMePFOSA	50		10 - 107	07/16/21 08:02	07/19/21 22:05	1
d9-N-EtFOSE-M	84		10 - 142	07/16/21 08:02	07/19/21 22:05	1

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Field

Date Collected: 07/14/21 10:35

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-3

Matrix: Water

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtPFOSA	53		10 - 108	07/16/21 08:02	07/19/21 22:05	1
13C3 HFPO-DA	114		20 - 153	07/16/21 08:02	07/19/21 22:05	1

Client Sample ID: Trip

Date Collected: 07/14/21 09:08

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-4

Matrix: Water

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluoroheptanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorooctanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorononanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorodecanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorotridecanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorotetradecanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorobutanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorohexanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorooctanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
NEtFOSAA	ND		2.9	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
NMeFOSAA	ND		2.0	0.59	ng/L		07/16/21 08:02	07/19/21 22:16	1
10:2 FTS	ND		4.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluoropentanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluoroheptanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorononanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorodecanesulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.9	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorooctanesulfonamide	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorohexadecanoic acid	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorooctadecanoic acid	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorobutanoic acid	ND		4.9	2.0	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluoropentanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
NMeFOSE	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
NMeFOSA	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
NEtFOSE	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
NEtFOSA	ND		4.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
HFPODA	ND		2.9	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
DONA	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
9CI-PF3ONS	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
11CI-PF3OUdS	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluorododecanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
Perfluoroundecanoic acid	ND		2.0	0.49	ng/L		07/16/21 08:02	07/19/21 22:16	1
6:2 Fluorotelomer sulfonic acid	ND		4.9	2.0	ng/L		07/16/21 08:02	07/19/21 22:16	1
8:2 Fluorotelomer sulfonic acid	ND		2.9	0.98	ng/L		07/16/21 08:02	07/19/21 22:16	1
Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
M2-4:2 FTS	131		20 - 187	07/16/21 08:02	07/19/21 22:16	1			
M2-8:2 FTS	114		34 - 182	07/16/21 08:02	07/19/21 22:16	1			
M2-6:2 FTS	131		29 - 189	07/16/21 08:02	07/19/21 22:16	1			

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Trip
Date Collected: 07/14/21 09:08
Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-4
Matrix: Water

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	118		31 - 142	07/16/21 08:02	07/19/21 22:16	1
13C4 PFHpA	119		30 - 144	07/16/21 08:02	07/19/21 22:16	1
13C8 PFOA	116		49 - 127	07/16/21 08:02	07/19/21 22:16	1
13C9 PFNA	117		47 - 136	07/16/21 08:02	07/19/21 22:16	1
13C6 PFDA	117		47 - 128	07/16/21 08:02	07/19/21 22:16	1
13C7 PFUnA	117		40 - 135	07/16/21 08:02	07/19/21 22:16	1
13C2-PFDoDA	114		28 - 136	07/16/21 08:02	07/19/21 22:16	1
13C2 PFTeDA	104		10 - 144	07/16/21 08:02	07/19/21 22:16	1
13C3 PFBS	115		19 - 178	07/16/21 08:02	07/19/21 22:16	1
13C3 PFHxS	117		32 - 145	07/16/21 08:02	07/19/21 22:16	1
13C8 PFOS	118		49 - 126	07/16/21 08:02	07/19/21 22:16	1
d3-NMeFOSAA	105		32 - 151	07/16/21 08:02	07/19/21 22:16	1
d5-NEtFOSAA	105		37 - 164	07/16/21 08:02	07/19/21 22:16	1
13C8 FOSA	97		10 - 143	07/16/21 08:02	07/19/21 22:16	1
13C4 PFBA	117		41 - 132	07/16/21 08:02	07/19/21 22:16	1
13C5 PFPeA	114		33 - 155	07/16/21 08:02	07/19/21 22:16	1
d7-N-MeFOSE-M	90		10 - 143	07/16/21 08:02	07/19/21 22:16	1
d3-NMePFOSA	50		10 - 107	07/16/21 08:02	07/19/21 22:16	1
d9-N-EtFOSE-M	90		10 - 142	07/16/21 08:02	07/19/21 22:16	1
d5-NEtPFOSA	53		10 - 108	07/16/21 08:02	07/19/21 22:16	1
13C3 HFPO-DA	105		20 - 153	07/16/21 08:02	07/19/21 22:16	1

Client Sample ID: Oyster knife rinse
Date Collected: 07/14/21 11:15
Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-5
Matrix: Water

Method: 537 IDA - EPA 537 Isotope Dilution

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluoroheptanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorooctanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorononanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorodecanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorotridecanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorotetradecanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorobutanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorohexanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorooctanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
NEtFOSAA	ND		2.6	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
NMeFOSAA	ND		1.7	0.52	ng/L		07/16/21 08:02	07/19/21 22:27	1
10:2 FTS	ND		4.4	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluoropentanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluoroheptanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorononanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorodecanesulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.6	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorooctanesulfonamide	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorohexadecanoic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorooctadecanoic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oyster knife rinse

Lab Sample ID: 410-47218-5

Date Collected: 07/14/21 11:15

Matrix: Water

Date Received: 07/15/21 09:16

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid	ND		4.4	1.7	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluoropentanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
NMeFOSE	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
NMeFOSA	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
NEtFOSE	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
NEtFOSA	ND		4.4	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
HFPODA	ND		2.6	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
DONA	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
9CI-PF3ONS	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
11CI-PF3OUdS	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluorododecanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
4:2 Fluorotelomer sulfonic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
Perfluoroundecanoic acid	ND		1.7	0.44	ng/L		07/16/21 08:02	07/19/21 22:27	1
6:2 Fluorotelomer sulfonic acid	ND		4.4	1.7	ng/L		07/16/21 08:02	07/19/21 22:27	1
8:2 Fluorotelomer sulfonic acid	ND		2.6	0.87	ng/L		07/16/21 08:02	07/19/21 22:27	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
M2-4:2 FTS	145		20 - 187				07/16/21 08:02	07/19/21 22:27	1
M2-8:2 FTS	125		34 - 182				07/16/21 08:02	07/19/21 22:27	1
M2-6:2 FTS	144		29 - 189				07/16/21 08:02	07/19/21 22:27	1
13C5 PFHxA	133		31 - 142				07/16/21 08:02	07/19/21 22:27	1
13C4 PFHpA	130		30 - 144				07/16/21 08:02	07/19/21 22:27	1
13C8 PFOA	132	*5+	49 - 127				07/16/21 08:02	07/19/21 22:27	1
13C9 PFNA	137	*5+	47 - 136				07/16/21 08:02	07/19/21 22:27	1
13C6 PFDA	126		47 - 128				07/16/21 08:02	07/19/21 22:27	1
13C7 PFUnA	125		40 - 135				07/16/21 08:02	07/19/21 22:27	1
13C2-PFDoDA	116		28 - 136				07/16/21 08:02	07/19/21 22:27	1
13C2 PFTeDA	111		10 - 144				07/16/21 08:02	07/19/21 22:27	1
13C3 PFBS	131		19 - 178				07/16/21 08:02	07/19/21 22:27	1
13C3 PFHxS	128		32 - 145				07/16/21 08:02	07/19/21 22:27	1
13C8 PFOS	127	*5+	49 - 126				07/16/21 08:02	07/19/21 22:27	1
d3-NMeFOSAA	110		32 - 151				07/16/21 08:02	07/19/21 22:27	1
d5-NEtFOSAA	122		37 - 164				07/16/21 08:02	07/19/21 22:27	1
13C8 FOSA	101		10 - 143				07/16/21 08:02	07/19/21 22:27	1
13C4 PFBA	130		41 - 132				07/16/21 08:02	07/19/21 22:27	1
13C5 PFPeA	129		33 - 155				07/16/21 08:02	07/19/21 22:27	1
d7-N-MeFOSE-M	102		10 - 143				07/16/21 08:02	07/19/21 22:27	1
d3-NMePFOSA	69		10 - 107				07/16/21 08:02	07/19/21 22:27	1
d9-N-EtFOSE-M	99		10 - 142				07/16/21 08:02	07/19/21 22:27	1
d5-NEtPFOSA	75		10 - 108				07/16/21 08:02	07/19/21 22:27	1
13C3 HFPO-DA	121		20 - 153				07/16/21 08:02	07/19/21 22:27	1

Isotope Dilution Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (10-169)	M282FTS (10-178)	M262FTS (10-182)	13C5PHA (11-138)	C4PFHA (15-139)	C8PFOA (21-133)	C9PFNA (15-145)	C6PFDA (21-134)
410-47218-1	Oysters 1	141	193 *5+	174	61	70	74	87	85
410-47218-2	Oysters 2	167	228 *5+	223 *5+	72	87	90	103	99
LCS 410-150866/2-B	Lab Control Sample	138	147	156	71	80	81	100	89
LCSD 410-150866/3-B	Lab Control Sample Dup	183 *5+	204 *5+	219 *5+	94	106	101	125	114
MB 410-150866/1-B	Method Blank	142	145	166	76	84	84	101	93

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13C7PUA (15-138)	PFDODA (28-126)	PFTDA (10-138)	C3PFBS (23-130)	C3PFHS (24-136)	C8PFOS (31-130)	d3NMFOS (10-172)	d5NEFOS (10-176)
410-47218-1	Oysters 1	84	75	21	73	60	72	57	73
410-47218-2	Oysters 2	86	86	20	84	79	88	65	76
LCS 410-150866/2-B	Lab Control Sample	99	92	79	83	70	84	84	131
LCSD 410-150866/3-B	Lab Control Sample Dup	122	120	101	105	94	103	112	176
MB 410-150866/1-B	Method Blank	104	92	84	89	75	89	81	123

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFOSA (25-135)	PFBA (12-137)	PFPeA (12-135)	NMFM (10-152)	d3NMFSA (10-148)	NEFM (10-157)	d5NPFSA (10-151)	HFPODA (10-152)
410-47218-1	Oysters 1	80	18	65	51	49	14	30	46
410-47218-2	Oysters 2	84	26	79	53	52	13	32	58
LCS 410-150866/2-B	Lab Control Sample	98	53	87	56	74	52	84	59
LCSD 410-150866/3-B	Lab Control Sample Dup	122	71	109	73	88	65	102	81
MB 410-150866/1-B	Method Blank	88	61	91	66	78	61	91	79

Surrogate Legend

- M242FTS = M2-4:2 FTS
- M282FTS = M2-8:2 FTS
- M262FTS = M2-6:2 FTS
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- C6PFDA = 13C6 PFDA
- 13C7PUA = 13C7 PFUnA
- PFDODA = 13C2-PFDODA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- PFOSA = 13C8 FOSA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- NMFM = d7-N-MeFOSE-M
- d3NMFSA = d3-NMePFOSA
- NEFM = d9-N-EtFOSE-M
- d5NPFSA = d5-NEtPFOSA
- HFPODA = 13C3 HFPO-DA

Isotope Dilution Summary

Client: Town of Chesapeake
 Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M242FTS (20-187)	M282FTS (34-182)	M262FTS (29-189)	13C5PHA (31-142)	C4PFHA (30-144)	C8PFOA (49-127)	C9PFNA (47-136)	C6PFDA (47-128)
410-47218-3	Field	127	123	123	119	113	114	107	114
410-47218-4	Trip	131	114	131	118	119	116	117	117
410-47218-5	Oyster knife rinse	145	125	144	133	130	132 *5+	137 *5+	126
LCS 410-149294/2-A	Lab Control Sample	129	121	123	118	119	114	114	115
LCSD 410-149294/3-A	Lab Control Sample Dup	125	122	131	119	118	119	120	118
MB 410-149294/1-A	Method Blank	124	110	126	114	118	117	110	112

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13C7PUA (40-135)	PFDODA (28-136)	PFTDA (10-144)	C3PFBS (19-178)	C3PFHS (32-145)	C8PFOS (49-126)	d3NMFOS (32-151)	d5NEFOS (37-164)
410-47218-3	Field	115	108	104	110	111	107	102	112
410-47218-4	Trip	117	114	104	115	117	118	105	105
410-47218-5	Oyster knife rinse	125	116	111	131	128	127 *5+	110	122
LCS 410-149294/2-A	Lab Control Sample	112	109	108	115	116	112	104	108
LCSD 410-149294/3-A	Lab Control Sample Dup	121	115	113	120	119	117	111	115
MB 410-149294/1-A	Method Blank	112	107	101	114	114	110	101	104

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFOSA (10-143)	PFBA (41-132)	PFPeA (33-155)	NMFM (10-143)	d3NMFSA (10-107)	NEFM (10-142)	d5NPFSA (10-108)	HFPODA (20-153)
410-47218-3	Field	96	112	111	88	50	84	53	114
410-47218-4	Trip	97	117	114	90	50	90	53	105
410-47218-5	Oyster knife rinse	101	130	129	102	69	99	75	121
LCS 410-149294/2-A	Lab Control Sample	96	116	117	92	47	91	49	117
LCSD 410-149294/3-A	Lab Control Sample Dup	102	120	120	101	57	98	57	120
MB 410-149294/1-A	Method Blank	94	114	114	90	59	87	59	130

Surrogate Legend

- M242FTS = M2-4:2 FTS
- M282FTS = M2-8:2 FTS
- M262FTS = M2-6:2 FTS
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- C6PFDA = 13C6 PFDA
- 13C7PUA = 13C7 PFUnA
- PFDODA = 13C2-PFDODA
- PFTDA = 13C2 PFTeDA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- PFOSA = 13C8 FOSA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- NMFM = d7-N-MeFOSE-M
- d3NMFSA = d3-NMePFOSA
- NEFM = d9-N-EtFOSE-M
- d5NPFSA = d5-NEtPFOSA
- HFPODA = 13C3 HFPO-DA

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution

Lab Sample ID: MB 410-149294/1-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 149294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluoroheptanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorooctanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorononanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorodecanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorotridecanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorotetradecanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorobutanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorohexanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorooctanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
NEtFOSAA	ND		3.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
NMeFOSAA	ND		2.0	0.60	ng/L		07/16/21 08:02	07/19/21 19:19	1
10:2 FTS	ND		5.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluoropentanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluoroheptanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorononanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorodecanesulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorododecanesulfonic acid (PFDoS)	ND		3.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorooctanesulfonamide	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorohexadecanoic acid	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorooctadecanoic acid	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorobutanoic acid	ND		5.0	2.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluoropentanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
NMeFOSE	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
NMeFOSA	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
NEtFOSE	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
NEtFOSA	ND		5.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
HFPODA	ND		3.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
DONA	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
9CI-PF3ONS	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
11CI-PF3OUdS	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluorododecanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
Perfluoroundecanoic acid	ND		2.0	0.50	ng/L		07/16/21 08:02	07/19/21 19:19	1
6:2 Fluorotelomer sulfonic acid	ND		5.0	2.0	ng/L		07/16/21 08:02	07/19/21 19:19	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	1.0	ng/L		07/16/21 08:02	07/19/21 19:19	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-4:2 FTS	124		20 - 187	07/16/21 08:02	07/19/21 19:19	1
M2-8:2 FTS	110		34 - 182	07/16/21 08:02	07/19/21 19:19	1
M2-6:2 FTS	126		29 - 189	07/16/21 08:02	07/19/21 19:19	1
13C5 PFHxA	114		31 - 142	07/16/21 08:02	07/19/21 19:19	1
13C4 PFHpA	118		30 - 144	07/16/21 08:02	07/19/21 19:19	1
13C8 PFOA	117		49 - 127	07/16/21 08:02	07/19/21 19:19	1
13C9 PFNA	110		47 - 136	07/16/21 08:02	07/19/21 19:19	1
13C6 PFDA	112		47 - 128	07/16/21 08:02	07/19/21 19:19	1
13C7 PFUnA	112		40 - 135	07/16/21 08:02	07/19/21 19:19	1
13C2-PFDoDA	107		28 - 136	07/16/21 08:02	07/19/21 19:19	1

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: MB 410-149294/1-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 149294

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFTeDA	101		10 - 144	07/16/21 08:02	07/19/21 19:19	1
13C3 PFBS	114		19 - 178	07/16/21 08:02	07/19/21 19:19	1
13C3 PFHxS	114		32 - 145	07/16/21 08:02	07/19/21 19:19	1
13C8 PFOS	110		49 - 126	07/16/21 08:02	07/19/21 19:19	1
d3-NMeFOSAA	101		32 - 151	07/16/21 08:02	07/19/21 19:19	1
d5-NEtFOSAA	104		37 - 164	07/16/21 08:02	07/19/21 19:19	1
13C8 FOSA	94		10 - 143	07/16/21 08:02	07/19/21 19:19	1
13C4 PFBA	114		41 - 132	07/16/21 08:02	07/19/21 19:19	1
13C5 PFPeA	114		33 - 155	07/16/21 08:02	07/19/21 19:19	1
d7-N-MeFOSE-M	90		10 - 143	07/16/21 08:02	07/19/21 19:19	1
d3-NMePFOSA	59		10 - 107	07/16/21 08:02	07/19/21 19:19	1
d9-N-EtFOSE-M	87		10 - 142	07/16/21 08:02	07/19/21 19:19	1
d5-NEtPFOSA	59		10 - 108	07/16/21 08:02	07/19/21 19:19	1
13C3 HFPO-DA	130		20 - 153	07/16/21 08:02	07/19/21 19:19	1

Lab Sample ID: LCS 410-149294/2-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 149294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanoic acid	25.6	21.3		ng/L		83	66 - 141
Perfluorooctanoic acid	25.6	21.6		ng/L		84	65 - 136
Perfluorononanoic acid	25.6	22.3		ng/L		87	65 - 140
Perfluorodecanoic acid	25.6	22.0		ng/L		86	63 - 137
Perfluorotridecanoic acid	25.6	21.2		ng/L		83	58 - 146
Perfluorotetradecanoic acid	25.6	22.5		ng/L		88	64 - 141
Perfluorobutanesulfonic acid	22.7	19.1		ng/L		84	65 - 132
Perfluorohexanesulfonic acid	23.3	19.8		ng/L		85	60 - 128
Perfluorooctanesulfonic acid	23.7	20.6		ng/L		87	51 - 126
NEtFOSAA	25.6	20.3		ng/L		79	54 - 134
NMeFOSAA	25.6	22.5		ng/L		88	58 - 143
10:2 FTS	24.7	18.4		ng/L		74	44 - 141
Perfluoropentanesulfonic acid	24.0	21.3		ng/L		89	71 - 136
Perfluoroheptanesulfonic acid	24.4	20.1		ng/L		82	67 - 135
Perfluorononanesulfonic acid	24.6	21.5		ng/L		88	67 - 137
Perfluorodecanesulfonic acid	24.7	19.8		ng/L		80	61 - 134
Perfluorododecanesulfonic acid (PFDoS)	24.8	19.9		ng/L		80	54 - 136
Perfluorooctanesulfonamide	25.6	23.4		ng/L		91	55 - 130
Perfluorohexadecanoic acid	25.6	22.6		ng/L		88	52 - 149
Perfluorooctadecanoic acid	25.6	22.4		ng/L		87	32 - 167
Perfluorobutanoic acid	25.6	21.1		ng/L		82	62 - 156
Perfluoropentanoic acid	25.6	21.9		ng/L		86	72 - 139
NMeFOSE	25.6	21.4		ng/L		84	52 - 131
NMeFOSA	25.6	22.4		ng/L		87	49 - 141
NEtFOSE	25.6	21.9		ng/L		85	49 - 128
NEtFOSA	25.6	20.4		ng/L		80	50 - 136
HFPODA	25.6	20.9		ng/L		81	37 - 147

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-149294/2-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 149294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DONA	24.2	19.2		ng/L		79	49 - 158
9CI-PF3ONS	23.8	20.2		ng/L		85	52 - 135
11CI-PF3OUdS	23.8	19.4		ng/L		82	45 - 134
Perfluorododecanoic acid	25.6	23.0		ng/L		90	63 - 140
4:2 Fluorotelomer sulfonic acid	23.9	18.7		ng/L		78	59 - 130
Perfluoroundecanoic acid	25.6	21.8		ng/L		85	62 - 138
6:2 Fluorotelomer sulfonic acid	24.3	20.6		ng/L		85	57 - 137
8:2 Fluorotelomer sulfonic acid	24.5	21.0		ng/L		86	56 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-4:2 FTS	129		20 - 187
M2-8:2 FTS	121		34 - 182
M2-6:2 FTS	123		29 - 189
13C5 PFHxA	118		31 - 142
13C4 PFHpA	119		30 - 144
13C8 PFOA	114		49 - 127
13C9 PFNA	114		47 - 136
13C6 PFDA	115		47 - 128
13C7 PFUnA	112		40 - 135
13C2-PFDoDA	109		28 - 136
13C2 PFTeDA	108		10 - 144
13C3 PFBS	115		19 - 178
13C3 PFHxS	116		32 - 145
13C8 PFOS	112		49 - 126
d3-NMeFOSAA	104		32 - 151
d5-NEtFOSAA	108		37 - 164
13C8 FOSA	96		10 - 143
13C4 PFBA	116		41 - 132
13C5 PFPeA	117		33 - 155
d7-N-MeFOSE-M	92		10 - 143
d3-NMePFOSA	47		10 - 107
d9-N-EtFOSE-M	91		10 - 142
d5-NEtPFOSA	49		10 - 108
13C3 HFPO-DA	117		20 - 153

Lab Sample ID: LCSD 410-149294/3-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 149294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Perfluorohexanoic acid	25.6	21.1		ng/L		82	66 - 137	3	30
Perfluoroheptanoic acid	25.6	21.4		ng/L		83	66 - 141	0	30
Perfluorooctanoic acid	25.6	20.5		ng/L		80	65 - 136	5	30
Perfluorononanoic acid	25.6	21.3		ng/L		83	65 - 140	5	30
Perfluorodecanoic acid	25.6	21.5		ng/L		84	63 - 137	2	30
Perfluorotridecanoic acid	25.6	21.3		ng/L		83	58 - 146	1	30
Perfluorotetradecanoic acid	25.6	22.1		ng/L		86	64 - 141	2	30
Perfluorobutanesulfonic acid	22.7	18.5		ng/L		81	65 - 132	3	30
Perfluorohexanesulfonic acid	23.3	19.1		ng/L		82	60 - 128	3	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-149294/3-A

Matrix: Water

Analysis Batch: 150156

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 149294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid	23.7	20.4		ng/L		86	51 - 126	1	30
NEtFOSAA	25.6	20.8		ng/L		81	54 - 134	3	30
NMeFOSAA	25.6	22.1		ng/L		87	58 - 143	2	30
10:2 FTS	24.7	19.1		ng/L		77	44 - 141	4	30
Perfluoropentanesulfonic acid	24.0	20.6		ng/L		86	71 - 136	3	30
Perfluoroheptanesulfonic acid	24.4	19.1		ng/L		78	67 - 135	5	30
Perfluorononanesulfonic acid	24.6	21.0		ng/L		86	67 - 137	2	30
Perfluorodecanesulfonic acid	24.7	19.8		ng/L		80	61 - 134	0	30
Perfluorododecanesulfonic acid (PFDoS)	24.8	19.3		ng/L		78	54 - 136	3	30
Perfluorooctanesulfonamide	25.6	22.7		ng/L		89	55 - 130	3	30
Perfluorohexadecanoic acid	25.6	22.1		ng/L		86	52 - 149	2	30
Perfluorooctadecanoic acid	25.6	21.4		ng/L		84	32 - 167	4	30
Perfluorobutanoic acid	25.6	21.0		ng/L		82	62 - 156	1	30
Perfluoropentanoic acid	25.6	21.7		ng/L		85	72 - 139	1	30
NMeFOSE	25.6	21.2		ng/L		83	52 - 131	1	30
NMeFOSA	25.6	22.0		ng/L		86	49 - 141	2	30
NEtFOSE	25.6	21.4		ng/L		84	49 - 128	2	30
NEtFOSA	25.6	22.1		ng/L		86	50 - 136	8	30
HFPODA	25.6	18.7		ng/L		73	37 - 147	11	30
DONA	24.2	19.5		ng/L		81	49 - 158	2	30
9CI-PF3ONS	23.8	19.3		ng/L		81	52 - 135	4	30
11CI-PF3OUdS	23.8	19.3		ng/L		81	45 - 134	1	30
Perfluorododecanoic acid	25.6	22.0		ng/L		86	63 - 140	4	30
4:2 Fluorotelomer sulfonic acid	23.9	20.2		ng/L		84	59 - 130	8	30
Perfluoroundecanoic acid	25.6	21.4		ng/L		84	62 - 138	2	30
6:2 Fluorotelomer sulfonic acid	24.3	18.8		ng/L		77	57 - 137	9	30
8:2 Fluorotelomer sulfonic acid	24.5	21.2		ng/L		87	56 - 140	1	30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	125		20 - 187
M2-8:2 FTS	122		34 - 182
M2-6:2 FTS	131		29 - 189
13C5 PFHxA	119		31 - 142
13C4 PFHpA	118		30 - 144
13C8 PFOA	119		49 - 127
13C9 PFNA	120		47 - 136
13C6 PFDA	118		47 - 128
13C7 PFUnA	121		40 - 135
13C2-PFDoDA	115		28 - 136
13C2 PFTeDA	113		10 - 144
13C3 PFBS	120		19 - 178
13C3 PFHxS	119		32 - 145
13C8 PFOS	117		49 - 126
d3-NMeFOSAA	111		32 - 151
d5-NEtFOSAA	115		37 - 164
13C8 FOSA	102		10 - 143
13C4 PFBA	120		41 - 132
13C5 PFPeA	120		33 - 155

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-149294/3-A
Matrix: Water
Analysis Batch: 150156

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 149294

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>LCSD Qualifier</i>	<i>LCSD Limits</i>
<i>d7-N-MeFOSE-M</i>	101		10 - 143
<i>d3-NMePFOSA</i>	57		10 - 107
<i>d9-N-EtFOSE-M</i>	98		10 - 142
<i>d5-NEtPFOSA</i>	57		10 - 108
<i>13C3 HFPO-DA</i>	120		20 - 153

Lab Sample ID: MB 410-150866/1-B
Matrix: Solid
Analysis Batch: 155683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid	0.347	J	0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluoroheptanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorooctanoic acid	0.380	J	0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorononanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorodecanoic acid	0.310	J	0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorotridecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorotetradecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorobutanesulfonic acid	ND		2.0	0.40	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorohexanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorooctanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
NEtFOSAA	ND		2.0	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
NMeFOSAA	ND		2.0	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
10:2 FTS	ND		2.0	0.60	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluoropentanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluoroheptanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorononanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorodecanesulfonic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorododecanesulfonic acid (PFDoS)	ND		2.0	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorooctanesulfonamide	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorohexadecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorooctadecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorobutanoic acid	ND		2.0	0.80	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluoropentanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
NMeFOSE	ND		2.0	0.50	ng/g		07/21/21 06:48	08/03/21 09:16	1
NMeFOSA	ND		2.0	0.50	ng/g		07/21/21 06:48	08/03/21 09:16	1
NEtFOSE	ND		2.0	0.50	ng/g		07/21/21 06:48	08/03/21 09:16	1
NEtFOSA	ND		2.0	0.50	ng/g		07/21/21 06:48	08/03/21 09:16	1
HFPODA	ND		2.0	0.40	ng/g		07/21/21 06:48	08/03/21 09:16	1
DONA	ND		3.0	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
9Cl-PF3ONS	ND		2.0	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
11Cl-PF3OUdS	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluorododecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
4:2 Fluorotelomer sulfonic acid	ND		2.0	0.60	ng/g		07/21/21 06:48	08/03/21 09:16	1
Perfluoroundecanoic acid	ND		0.60	0.20	ng/g		07/21/21 06:48	08/03/21 09:16	1
6:2 Fluorotelomer sulfonic acid	ND		2.0	0.60	ng/g		07/21/21 06:48	08/03/21 09:16	1
8:2 Fluorotelomer sulfonic acid	ND		3.0	0.60	ng/g		07/21/21 06:48	08/03/21 09:16	1

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
M2-4:2 FTS	142		10 - 169	07/21/21 06:48	08/03/21 09:16	1
M2-8:2 FTS	145		10 - 178	07/21/21 06:48	08/03/21 09:16	1
M2-6:2 FTS	166		10 - 182	07/21/21 06:48	08/03/21 09:16	1
13C5 PFHxA	76		11 - 138	07/21/21 06:48	08/03/21 09:16	1
13C4 PFHpA	84		15 - 139	07/21/21 06:48	08/03/21 09:16	1
13C8 PFOA	84		21 - 133	07/21/21 06:48	08/03/21 09:16	1
13C9 PFNA	101		15 - 145	07/21/21 06:48	08/03/21 09:16	1
13C6 PFDA	93		21 - 134	07/21/21 06:48	08/03/21 09:16	1
13C7 PFUnA	104		15 - 138	07/21/21 06:48	08/03/21 09:16	1
13C2-PFDoDA	92		28 - 126	07/21/21 06:48	08/03/21 09:16	1
13C2 PFTeDA	84		10 - 138	07/21/21 06:48	08/03/21 09:16	1
13C3 PFBS	89		23 - 130	07/21/21 06:48	08/03/21 09:16	1
13C3 PFHxS	75		24 - 136	07/21/21 06:48	08/03/21 09:16	1
13C8 PFOS	89		31 - 130	07/21/21 06:48	08/03/21 09:16	1
d3-NMeFOSAA	81		10 - 172	07/21/21 06:48	08/03/21 09:16	1
d5-NEtFOSAA	123		10 - 176	07/21/21 06:48	08/03/21 09:16	1
13C8 FOSA	88		25 - 135	07/21/21 06:48	08/03/21 09:16	1
13C4 PFBA	61		12 - 137	07/21/21 06:48	08/03/21 09:16	1
13C5 PFPeA	91		12 - 135	07/21/21 06:48	08/03/21 09:16	1
d7-N-MeFOSE-M	66		10 - 152	07/21/21 06:48	08/03/21 09:16	1
d3-NMePFOSA	78		10 - 148	07/21/21 06:48	08/03/21 09:16	1
d9-N-EtFOSE-M	61		10 - 157	07/21/21 06:48	08/03/21 09:16	1
d5-NEtPFOSA	91		10 - 151	07/21/21 06:48	08/03/21 09:16	1
13C3 HFPO-DA	79		10 - 152	07/21/21 06:48	08/03/21 09:16	1

Lab Sample ID: LCS 410-150866/2-B
Matrix: Solid
Analysis Batch: 153760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluoroheptanoic acid	25.0	26.1		ng/g		104	61 - 151
Perfluorooctanoic acid	25.0	29.4		ng/g		117	62 - 144
Perfluorononanoic acid	25.0	28.0		ng/g		112	62 - 148
Perfluorodecanoic acid	25.0	26.3		ng/g		105	62 - 142
Perfluorotridecanoic acid	25.0	22.2		ng/g		89	57 - 152
Perfluorotetradecanoic acid	25.0	26.3		ng/g		105	60 - 147
Perfluorobutanesulfonic acid	22.1	22.5		ng/g		102	62 - 137
Perfluorohexanesulfonic acid	22.8	24.8		ng/g		109	57 - 135
Perfluorooctanesulfonic acid	23.1	22.9		ng/g		99	48 - 134
NEtFOSAA	25.0	22.0		ng/g		88	50 - 140
NMeFOSAA	25.0	25.0		ng/g		100	53 - 149
10:2 FTS	24.1	19.5		ng/g		81	42 - 142
Perfluoropentanesulfonic acid	23.5	25.9		ng/g		110	65 - 145
Perfluoroheptanesulfonic acid	23.8	27.4		ng/g		115	67 - 138
Perfluorononanesulfonic acid	24.0	26.4		ng/g		110	63 - 143
Perfluorodecanesulfonic acid	24.1	23.7		ng/g		98	60 - 142
Perfluorododecanesulfonic acid (PFDoS)	24.2	22.8		ng/g		94	52 - 145
Perfluorooctanesulfonamide	25.0	25.6		ng/g		102	52 - 132
Perfluorohexadecanoic acid	25.0	22.2		ng/g		89	44 - 161
Perfluorooctadecanoic acid	25.0	20.6		ng/g		82	16 - 175

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCS 410-150866/2-B
Matrix: Solid
Analysis Batch: 153760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid	25.0	26.5		ng/g		106	50 - 185
Perfluoropentanoic acid	25.0	25.4		ng/g		102	69 - 144
NMeFOSE	25.0	23.6		ng/g		95	47 - 138
NMeFOSA	25.0	26.2		ng/g		105	43 - 134
NEtFOSE	25.0	23.4		ng/g		94	46 - 134
NEtFOSA	25.0	22.7		ng/g		91	48 - 130
HFPODA	25.0	30.4		ng/g		121	29 - 162
DONA	23.6	23.7		ng/g		100	48 - 155
9CI-PF3ONS	23.3	24.9		ng/g		107	48 - 146
11CI-PF3OUdS	23.3	21.3		ng/g		92	45 - 145
Perfluorododecanoic acid	25.0	24.0		ng/g		96	60 - 147
4:2 Fluorotelomer sulfonic acid	23.4	21.7		ng/g		93	55 - 132
Perfluoroundecanoic acid	25.0	26.5		ng/g		106	62 - 144
6:2 Fluorotelomer sulfonic acid	23.7	22.6		ng/g		95	53 - 137
8:2 Fluorotelomer sulfonic acid	24.0	24.3		ng/g		101	50 - 147

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-4:2 FTS	138		10 - 169
M2-8:2 FTS	147		10 - 178
M2-6:2 FTS	156		10 - 182
13C5 PFHxA	71		11 - 138
13C4 PFHpA	80		15 - 139
13C8 PFOA	81		21 - 133
13C9 PFNA	100		15 - 145
13C6 PFDA	89		21 - 134
13C7 PFUnA	99		15 - 138
13C2-PFDoDA	92		28 - 126
13C2 PFTeDA	79		10 - 138
13C3 PFBS	83		23 - 130
13C3 PFHxS	70		24 - 136
13C8 PFOS	84		31 - 130
d3-NMeFOSAA	84		10 - 172
d5-NEtFOSAA	131		10 - 176
13C8 FOSA	98		25 - 135
13C4 PFBA	53		12 - 137
13C5 PFPeA	87		12 - 135
d7-N-MeFOSE-M	56		10 - 152
d3-NMePFOSA	74		10 - 148
d9-N-EtFOSE-M	52		10 - 157
d5-NEtPFOSA	84		10 - 151
13C3 HFPO-DA	59		10 - 152

Lab Sample ID: LCSD 410-150866/3-B
Matrix: Solid
Analysis Batch: 153760

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 150866

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorohexanoic acid	25.0	27.7		ng/g		111	61 - 147	0	30
Perfluoroheptanoic acid	25.0	25.9		ng/g		103	61 - 151	1	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-150866/3-B

Matrix: Solid

Analysis Batch: 153760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 150866

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid	25.0	31.2		ng/g		125	62 - 144	6	30
Perfluorononanoic acid	25.0	28.3		ng/g		113	62 - 148	1	30
Perfluorodecanoic acid	25.0	26.8		ng/g		107	62 - 142	2	30
Perfluorotridecanoic acid	25.0	22.0		ng/g		88	57 - 152	1	30
Perfluorotetradecanoic acid	25.0	26.1		ng/g		104	60 - 147	1	30
Perfluorobutanesulfonic acid	22.1	23.5		ng/g		106	62 - 137	4	30
Perfluorohexanesulfonic acid	22.8	25.1		ng/g		110	57 - 135	1	30
Perfluorooctanesulfonic acid	23.1	23.4		ng/g		101	48 - 134	2	30
NEtFOSAA	25.0	23.8		ng/g		95	50 - 140	8	30
NMeFOSAA	25.0	23.6		ng/g		95	53 - 149	6	30
10:2 FTS	24.1	18.5		ng/g		77	42 - 142	5	30
Perfluoropentanesulfonic acid	23.5	27.3		ng/g		116	65 - 145	5	30
Perfluoroheptanesulfonic acid	23.8	25.8		ng/g		109	67 - 138	6	30
Perfluorononanesulfonic acid	24.0	26.0		ng/g		108	63 - 143	2	30
Perfluorodecanesulfonic acid	24.1	24.9		ng/g		103	60 - 142	5	30
Perfluorododecanesulfonic acid (PFDoS)	24.2	23.9		ng/g		99	52 - 145	5	30
Perfluorooctanesulfonamide	25.0	25.4		ng/g		102	52 - 132	1	30
Perfluorohexadecanoic acid	25.0	22.9		ng/g		92	44 - 161	3	30
Perfluorooctadecanoic acid	25.0	22.1		ng/g		88	16 - 175	7	30
Perfluorobutanoic acid	25.0	27.5		ng/g		110	50 - 185	4	30
Perfluoropentanoic acid	25.0	26.8		ng/g		107	69 - 144	5	30
NMeFOSE	25.0	23.4		ng/g		94	47 - 138	1	30
NMeFOSA	25.0	26.5		ng/g		106	43 - 134	1	30
NEtFOSE	25.0	23.4		ng/g		94	46 - 134	0	30
NEtFOSA	25.0	23.4		ng/g		94	48 - 130	3	30
HFPODA	25.0	28.7		ng/g		115	29 - 162	6	30
DONA	23.6	22.7		ng/g		96	48 - 155	4	30
9Cl-PF3ONS	23.3	25.2		ng/g		109	48 - 146	1	30
11Cl-PF3OUdS	23.3	23.3		ng/g		100	45 - 145	9	30
Perfluorododecanoic acid	25.0	24.2		ng/g		97	60 - 147	1	30
4:2 Fluorotelomer sulfonic acid	23.4	21.9		ng/g		94	55 - 132	1	30
Perfluoroundecanoic acid	25.0	28.4		ng/g		114	62 - 144	7	30
6:2 Fluorotelomer sulfonic acid	23.7	22.2		ng/g		94	53 - 137	1	30
8:2 Fluorotelomer sulfonic acid	24.0	23.6		ng/g		99	50 - 147	3	30

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
M2-4:2 FTS	183	*5+	10 - 169
M2-8:2 FTS	204	*5+	10 - 178
M2-6:2 FTS	219	*5+	10 - 182
13C5 PFHxA	94		11 - 138
13C4 PFHpA	106		15 - 139
13C8 PFOA	101		21 - 133
13C9 PFNA	125		15 - 145
13C6 PFDA	114		21 - 134
13C7 PFUnA	122		15 - 138
13C2-PFDoDA	120		28 - 126
13C2 PFTeDA	101		10 - 138
13C3 PFBS	105		23 - 130

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method: 537 IDA - EPA 537 Isotope Dilution (Continued)

Lab Sample ID: LCSD 410-150866/3-B

Matrix: Solid

Analysis Batch: 153760

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 150866

<i>Isotope Dilution</i>	<i>LCSD LCSD</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C3 PFHxS	94		24 - 136
13C8 PFOS	103		31 - 130
d3-NMeFOSAA	112		10 - 172
d5-NEtFOSAA	176		10 - 176
13C8 FOSA	122		25 - 135
13C4 PFBA	71		12 - 137
13C5 PFPeA	109		12 - 135
d7-N-MeFOSE-M	73		10 - 152
d3-NMePFOSA	88		10 - 148
d9-N-EtFOSE-M	65		10 - 157
d5-NEtPFOSA	102		10 - 151
13C3 HFPO-DA	81		10 - 152

QC Association Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

LCMS

Prep Batch: 149294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-47218-3	Field	Total/NA	Water	537 IDA	
410-47218-4	Trip	Total/NA	Water	537 IDA	
410-47218-5	Oyster knife rinse	Total/NA	Water	537 IDA	
MB 410-149294/1-A	Method Blank	Total/NA	Water	537 IDA	
LCS 410-149294/2-A	Lab Control Sample	Total/NA	Water	537 IDA	
LCSD 410-149294/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	

Analysis Batch: 150156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-47218-3	Field	Total/NA	Water	537 IDA	149294
410-47218-4	Trip	Total/NA	Water	537 IDA	149294
410-47218-5	Oyster knife rinse	Total/NA	Water	537 IDA	149294
MB 410-149294/1-A	Method Blank	Total/NA	Water	537 IDA	149294
LCS 410-149294/2-A	Lab Control Sample	Total/NA	Water	537 IDA	149294
LCSD 410-149294/3-A	Lab Control Sample Dup	Total/NA	Water	537 IDA	149294

Prep Batch: 150866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-47218-1	Oysters 1	Total/NA	Solid	537 (mod)	
410-47218-2	Oysters 2	Total/NA	Solid	537 (mod)	
MB 410-150866/1-B	Method Blank	Total/NA	Solid	537 (mod)	
LCS 410-150866/2-B	Lab Control Sample	Total/NA	Solid	537 (mod)	
LCSD 410-150866/3-B	Lab Control Sample Dup	Total/NA	Solid	537 (mod)	

Cleanup Batch: 152068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-47218-1	Oysters 1	Total/NA	Solid	Extract Aliquot	150866
410-47218-2	Oysters 2	Total/NA	Solid	Extract Aliquot	150866
MB 410-150866/1-B	Method Blank	Total/NA	Solid	Extract Aliquot	150866
LCS 410-150866/2-B	Lab Control Sample	Total/NA	Solid	Extract Aliquot	150866
LCSD 410-150866/3-B	Lab Control Sample Dup	Total/NA	Solid	Extract Aliquot	150866

Analysis Batch: 153760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-47218-1	Oysters 1	Total/NA	Solid	537 IDA	152068
410-47218-2	Oysters 2	Total/NA	Solid	537 IDA	152068
LCS 410-150866/2-B	Lab Control Sample	Total/NA	Solid	537 IDA	152068
LCSD 410-150866/3-B	Lab Control Sample Dup	Total/NA	Solid	537 IDA	152068

Analysis Batch: 155683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-150866/1-B	Method Blank	Total/NA	Solid	537 IDA	152068

Lab Chronicle

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Client Sample ID: Oysters 1

Date Collected: 07/14/21 10:07

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 (mod)			150866	07/21/21 06:48	X4HV	ELLE
Total/NA	Cleanup	Extract Aliquot			152068	07/23/21 09:38	S7AC	ELLE
Total/NA	Analysis	537 IDA		1	153760	07/29/21 04:44	QD9Y	ELLE

Client Sample ID: Oysters 2

Date Collected: 07/14/21 10:07

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 (mod)			150866	07/21/21 06:48	X4HV	ELLE
Total/NA	Cleanup	Extract Aliquot			152068	07/23/21 09:38	S7AC	ELLE
Total/NA	Analysis	537 IDA		1	153760	07/29/21 04:55	QD9Y	ELLE

Client Sample ID: Field

Date Collected: 07/14/21 10:35

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			149294	07/16/21 08:02	S7AC	ELLE
Total/NA	Analysis	537 IDA		1	150156	07/19/21 22:05	UUV6	ELLE

Client Sample ID: Trip

Date Collected: 07/14/21 09:08

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			149294	07/16/21 08:02	S7AC	ELLE
Total/NA	Analysis	537 IDA		1	150156	07/19/21 22:16	UUV6	ELLE

Client Sample ID: Oyster knife rinse

Date Collected: 07/14/21 11:15

Date Received: 07/15/21 09:16

Lab Sample ID: 410-47218-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537 IDA			149294	07/16/21 08:02	S7AC	ELLE
Total/NA	Analysis	537 IDA		1	150156	07/19/21 22:27	UUV6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Town of Chesapeake
 Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 (mod)	Solid	10:2 FTS
537 IDA	537 (mod)	Solid	11CI-PF3OUdS
537 IDA	537 (mod)	Solid	4:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	6:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	8:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	9CI-PF3ONS
537 IDA	537 (mod)	Solid	DONA
537 IDA	537 (mod)	Solid	HFPODA
537 IDA	537 (mod)	Solid	NEtFOSA
537 IDA	537 (mod)	Solid	NEtFOSAA
537 IDA	537 (mod)	Solid	NEtFOSE
537 IDA	537 (mod)	Solid	NMeFOSA
537 IDA	537 (mod)	Solid	NMeFOSAA
537 IDA	537 (mod)	Solid	NMeFOSE
537 IDA	537 (mod)	Solid	Perfluorobutanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorobutanoic acid
537 IDA	537 (mod)	Solid	Perfluorodecanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorodecanoic acid
537 IDA	537 (mod)	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 (mod)	Solid	Perfluorododecanoic acid
537 IDA	537 (mod)	Solid	Perfluoroheptanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluoroheptanoic acid
537 IDA	537 (mod)	Solid	Perfluorohexadecanoic acid
537 IDA	537 (mod)	Solid	Perfluorohexanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorohexanoic acid
537 IDA	537 (mod)	Solid	Perfluorononanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorononanoic acid
537 IDA	537 (mod)	Solid	Perfluorooctadecanoic acid
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonamide
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorooctanoic acid
537 IDA	537 (mod)	Solid	Perfluoropentanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluoropentanoic acid
537 IDA	537 (mod)	Solid	Perfluorotetradecanoic acid
537 IDA	537 (mod)	Solid	Perfluorotridecanoic acid
537 IDA	537 (mod)	Solid	Perfluoroundecanoic acid
537 IDA	537 IDA	Water	10:2 FTS
537 IDA	537 IDA	Water	11CI-PF3OUdS
537 IDA	537 IDA	Water	4:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	6:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	8:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	9CI-PF3ONS
537 IDA	537 IDA	Water	DONA
537 IDA	537 IDA	Water	HFPODA
537 IDA	537 IDA	Water	NEtFOSA

Accreditation/Certification Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-22
537 IDA	537 IDA	Water	NEtFOSAA
537 IDA	537 IDA	Water	NEtFOSE
537 IDA	537 IDA	Water	NMeFOSA
537 IDA	537 IDA	Water	NMeFOSAA
537 IDA	537 IDA	Water	NMeFOSE
537 IDA	537 IDA	Water	Perfluorobutanesulfonic acid
537 IDA	537 IDA	Water	Perfluorobutanoic acid
537 IDA	537 IDA	Water	Perfluorodecanesulfonic acid
537 IDA	537 IDA	Water	Perfluorodecanoic acid
537 IDA	537 IDA	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 IDA	Water	Perfluorododecanoic acid
537 IDA	537 IDA	Water	Perfluoroheptanesulfonic acid
537 IDA	537 IDA	Water	Perfluoroheptanoic acid
537 IDA	537 IDA	Water	Perfluorohexadecanoic acid
537 IDA	537 IDA	Water	Perfluorohexanesulfonic acid
537 IDA	537 IDA	Water	Perfluorohexanoic acid
537 IDA	537 IDA	Water	Perfluorononanesulfonic acid
537 IDA	537 IDA	Water	Perfluorononanoic acid
537 IDA	537 IDA	Water	Perfluorooctadecanoic acid
537 IDA	537 IDA	Water	Perfluorooctanesulfonamide
537 IDA	537 IDA	Water	Perfluorooctanesulfonic acid
537 IDA	537 IDA	Water	Perfluorooctanoic acid
537 IDA	537 IDA	Water	Perfluoropentanesulfonic acid
537 IDA	537 IDA	Water	Perfluoropentanoic acid
537 IDA	537 IDA	Water	Perfluorotetradecanoic acid
537 IDA	537 IDA	Water	Perfluorotridecanoic acid
537 IDA	537 IDA	Water	Perfluoroundecanoic acid

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
537 IDA	537 (mod)	Solid	10:2 FTS
537 IDA	537 (mod)	Solid	11Cl-PF3OUdS
537 IDA	537 (mod)	Solid	4:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	6:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	8:2 Fluorotelomer sulfonic acid
537 IDA	537 (mod)	Solid	9Cl-PF3ONS
537 IDA	537 (mod)	Solid	DONA
537 IDA	537 (mod)	Solid	HFPODA
537 IDA	537 (mod)	Solid	NEtFOSA
537 IDA	537 (mod)	Solid	NEtFOSAA
537 IDA	537 (mod)	Solid	NEtFOSE
537 IDA	537 (mod)	Solid	NMeFOSA
537 IDA	537 (mod)	Solid	NMeFOSAA
537 IDA	537 (mod)	Solid	NMeFOSE
537 IDA	537 (mod)	Solid	Perfluorobutanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorobutanoic acid
537 IDA	537 (mod)	Solid	Perfluorodecanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorodecanoic acid

Accreditation/Certification Summary

Client: Town of Chesapeake
 Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-22
537 IDA	537 (mod)	Solid	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 (mod)	Solid	Perfluorododecanoic acid
537 IDA	537 (mod)	Solid	Perfluoroheptanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluoroheptanoic acid
537 IDA	537 (mod)	Solid	Perfluorohexadecanoic acid
537 IDA	537 (mod)	Solid	Perfluorohexanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorohexanoic acid
537 IDA	537 (mod)	Solid	Perfluorononanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorononanoic acid
537 IDA	537 (mod)	Solid	Perfluorooctadecanoic acid
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonamide
537 IDA	537 (mod)	Solid	Perfluorooctanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluorooctanoic acid
537 IDA	537 (mod)	Solid	Perfluoropentanesulfonic acid
537 IDA	537 (mod)	Solid	Perfluoropentanoic acid
537 IDA	537 (mod)	Solid	Perfluorotetradecanoic acid
537 IDA	537 (mod)	Solid	Perfluorotridecanoic acid
537 IDA	537 (mod)	Solid	Perfluoroundecanoic acid
537 IDA	537 IDA	Water	10:2 FTS
537 IDA	537 IDA	Water	11CI-PF3OUdS
537 IDA	537 IDA	Water	4:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	6:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	8:2 Fluorotelomer sulfonic acid
537 IDA	537 IDA	Water	9CI-PF3ONS
537 IDA	537 IDA	Water	DONA
537 IDA	537 IDA	Water	HFPODA
537 IDA	537 IDA	Water	NEtFOSA
537 IDA	537 IDA	Water	NEtFOSAA
537 IDA	537 IDA	Water	NEtFOSE
537 IDA	537 IDA	Water	NMeFOSA
537 IDA	537 IDA	Water	NMeFOSAA
537 IDA	537 IDA	Water	NMeFOSE
537 IDA	537 IDA	Water	Perfluorobutanesulfonic acid
537 IDA	537 IDA	Water	Perfluorobutanoic acid
537 IDA	537 IDA	Water	Perfluorodecanesulfonic acid
537 IDA	537 IDA	Water	Perfluorodecanoic acid
537 IDA	537 IDA	Water	Perfluorododecanesulfonic acid (PFDoS)
537 IDA	537 IDA	Water	Perfluorododecanoic acid
537 IDA	537 IDA	Water	Perfluoroheptanesulfonic acid
537 IDA	537 IDA	Water	Perfluoroheptanoic acid
537 IDA	537 IDA	Water	Perfluorohexadecanoic acid
537 IDA	537 IDA	Water	Perfluorohexanesulfonic acid
537 IDA	537 IDA	Water	Perfluorohexanoic acid
537 IDA	537 IDA	Water	Perfluorononanesulfonic acid
537 IDA	537 IDA	Water	Perfluorononanoic acid
537 IDA	537 IDA	Water	Perfluorooctadecanoic acid
537 IDA	537 IDA	Water	Perfluorooctanesulfonamide
537 IDA	537 IDA	Water	Perfluorooctanesulfonic acid
537 IDA	537 IDA	Water	Perfluorooctanoic acid

Accreditation/Certification Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-22
537 IDA	537 IDA	Water	Perfluoropentanesulfonic acid
537 IDA	537 IDA	Water	Perfluoropentanoic acid
537 IDA	537 IDA	Water	Perfluorotetradecanoic acid
537 IDA	537 IDA	Water	Perfluorotridecanoic acid
537 IDA	537 IDA	Water	Perfluoroundecanoic acid

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Method Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Method	Method Description	Protocol	Laboratory
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
537 (mod)	EPA 537 Isotope Dilution	EPA	ELLE
537 IDA	EPA 537 Isotope Dilution	EPA	ELLE
Extract Aliquot	Preparation, Extract Aliquot	None	ELLE

Protocol References:

EPA = US Environmental Protection Agency
None = None

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Sample Summary

Client: Town of Chesapeake
Project/Site: CB PFAS Oyster

Job ID: 410-47218-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-47218-1	Oysters 1	Solid	07/14/21 10:07	07/15/21 09:16
410-47218-2	Oysters 2	Solid	07/14/21 10:07	07/15/21 09:16
410-47218-3	Field	Water	07/14/21 10:35	07/15/21 09:16
410-47218-4	Trip	Water	07/14/21 09:08	07/15/21 09:16
410-47218-5	Oyster knife rinse	Water	07/14/21 11:15	07/15/21 09:16

1

2

3

4

5

6

7

8

9

10

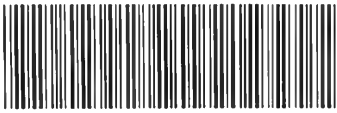
11

12

13

14

15



Chain of Custody Record

410-47218 Chain of Custody

Sampler Jay Berry	Lab PM Kauffman, Dana	Camera Tracking No(s)	COC No 410-25330-7480 1
Phone 443-624-8312	E-Mail Dana.Kauffman@eurofinset.com	State of Origin MD	Page Page 1 of 1

Holly Wahl

Company Town of Chesapeake Beach	PWSID	Analysis Requested												Job #			
Address 8200 Bayside Road	Due Date Requested:	Valid Filtered Sample (Yes or No) form MS18SD (Yes or No) PFC_IDA - Standard 32, plus 4 replacements PFAS	Analyzers													Preservation Codes:	
City Chesapeake Beach	TAT Requested (days):															A - HCL	M - Hexane
State, Zip MD 20732	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No															B - NaOH	N - None
Phone 410-257-2230	PO #															C - Zn Acetate	O - AsNaO2
Email hwahl@chesapeakebeachmd.gov	Purchase Order not required															D - Nitric Acid	P - Na2O4S
Project Name CB PFAS Oyster	WO #															E - NaHSO4	Q - Na2SO3
Site Oyster Reef Chesapeake Bay	Project # 41001955													F - MeOH	R - Na2S2O3		
	SSOW#:													G - Amchlor	S - H2SO4		
														H - Ascorbic Acid	T - TSP Dodecahydrate		
														I - Ice	U - Acetone		
														J - DI Water	V - MCAA		
														K - EDTA	W - pH 4.5		
														L - EDA	Z - other (specify)		
														Other:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Valid Filtered Sample (Yes or No)	Analyzers	Special Instructions/Note:
Oysters 1	7/14/2021	10:07	G	BT		X	
Oysters 2	7/14/2021	10:07	G	BT			
F.PID	7/14/2021	10:35	G	W			
Trip	7/14/2021	09:08	G	W			
Oyster knife rinse	7/14/2021	11:15	G	W			
Temperature	7/14/2021	12:40	G	W			

Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
--	--

Deliverable Requested: I, II, III, IV, Other (specify) _____ Special Instructions/QC Requirements _____

Empty Kit Relinquished by: _____	Date: _____	Time: _____	Method of Shipment: FedEx Express
Relinquished by: [Signature]	Date/Time: 5-21-21 12:00	Company: ELLE	Received by: _____
Relinquished by: _____	Date/Time: 6/11/21 142	Company: _____	Received by: _____
Relinquished by: _____	Date/Time: _____	Company: _____	Received by: [Signature]
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No _____	Cooling Temperature(s) °C and Other Remarks: 33	

TL





Chain of Custody Record

410-47218-01 Chain of Custody

Sampler Jay Berry	Lab PM Kauffman, Dana	Camera Tracking No(s)	COC No 410-25330-7480 1
Phone 443-624-8312	E-Mail Dana.Kauffman@eurofinset.com	State of Origin MD	Page Page 1 of 1

~~XXXXXX~~ **Holly Wahl**

Company Town of Chesapeake Beach	PWSID	Analysis Requested										Job #		
Address 19900 Chesapeake Blvd. 8200 Bayside Road	Due Date Requested:	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) PFC_IDA - Standard 32, plus 4 replacements PFAS	Total Number of Containers	Preservation Codes:										Other:
City Chesapeake Beach	TAT Requested (days):			A - HCL	M - Hexane									
State, Zip MD 20782	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No			B - NaOH	N - None									
Phone 410-257-2230	PO #			C - Zn Acetate	O - AsNaO2									
Email hwahl@chesapeakebeachmd.gov	Purchase Order not required			D - Nitric Acid	P - Na2O4S									
Project Name CB PFAS Oyster	WO #			E - NaHSO4	Q - Na2SO3									
Site Oyster Reef Chesapeake Bay	SSOW#	F - MeOH	R - Na2S2O3											
Project Name	Project # 41001955	G - Amchlor	S - H2SO4											
Site	SSOW#	H - Ascorbic Acid	T - TSP Dodecahydrate											
Project Name	Project #	I - Ice	U - Acetone											
Site	SSOW#	J - DI Water	V - MCAA											
Project Name	Project #	K - EDTA	W - pH 4-5											
Site	SSOW#	L - EDA	Z - other (specify)											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oils/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	PFC_IDA - Standard 32, plus 4 replacements	PFAS	Total Number of Containers	Special Instructions/Note:
Oysters 1	7/14/2021	10:07	G	BT	X	X	N	X		
Oysters 2	7/14/2021	10:07	G	BT						
F.I.D	7/14/2021	10:35	G	W						
Trip	7/14/2021	09:08	G	W						
Oyster knife rinse	7/14/2021	11:15	G	W						
Temperature	7/14/2021	12:40	G	W						

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)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx Express
Relinquished by: Ken Z. Link	Date/Time: 5-21-21 12:00	Company: ELLE	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Temperature(s) °C and Other Remarks: 33	Date/Time: 7/15/21 9:16 Company: ELLE

TL



Eurofins Lancaster Laboratories ENV, LLC

Please send Lab Results TO:

HOLLY WAHL

Town of Chesapeake Beach

8200 Bayside Rd.

Chesapeake Beach, MD 20732

E-mail: hwahl@chesapeakebeachmd.gov

Phone : 410-257-2230



410-47218-02 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Login Sample Receipt Checklist

Client: Town of Chesapeake

Job Number: 410-47218-1

Login Number: 47218

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Lugardo, Tamara

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	